Final
Area of Investigation 14
Engineering Evaluation/Cost Analysis

National Aeronautics and Space Administration
Ames Research Center
Moffett Field, CA

September 2015

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Engineering Evaluation/Cost Analysis

Prepared for:

National Aeronautics and Space Administration
Ames Research Center
Moffett Field, CA

September 2015

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ACRONYMS AND ABBREVIATIONS

22 CCR	California Code of Regulations Title 22
µg/L	Microgram per liter
§	Section
AECOM	AECOM Technology Corporation
AOI	Area of Investigation
ARAR	Applicable or relevant and appropriate requirement
BAAQMD	Bay Area Air Quality Management District
bgs	Below ground surface
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWSAP	Center-wide Sampling and Analysis Program
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethene
DDT	Dichlorodiphenyltrichloroethane
DTSC	Department of Toxic Substances Control
EE/CA	Engineering Evaluation/Cost Analysis
EKI	Erler and Kalinowski, Inc.
EPA	U.S. Environmental Protection Agency
ERT	Earth Resource Technology Corporation, Inc.
ESL	Environmental screening level
FFA	Federal Facility Agreement
FSFA	Former soil fill area
GSR	Green and sustainable remediation
IC	Institutional control
ICAM	Interim corrective action measure
IR	Installation Restoration
ISSi	Integrated Science Solutions, Inc.
LUC	Land use control
MCL	Maximum contaminant level

ACRONYMS AND ABBREVIATIONS (CONTINUED)

MEW	Middlefield-Ellis-Whisman
mg/kg	Milligram per kilogram
MOU	Memorandum of Understanding
MROSD	Midpeninsula Regional Open Space District
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NASA Ames	NASA Ames Research Center
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NPL	National Priorities List
PAI	PAI Corporation
PCB	Polychlorinated biphenyl
RACER	Remedial Action Cost Engineering and Requirements System
RAO	Removal action objective
RCRA	Resource Conservation and Recovery Act
SVOC	Semivolatile organic compound
SWRCB	State Water Resources Control Board
TCE	Trichloroethene
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile organic compound
Water Board	California Regional Water Quality Control Board, San Francisco Bay Region

EXECUTIVE SUMMARY

This Engineering Evaluation/Cost Analysis (EE/CA) evaluates technologies and alternatives for conducting a non-time-critical removal action at Area of Investigation (AOI) 14. AOI 14 is located at the National Aeronautics and Space Administration (NASA) Ames Research Center (NASA Ames) at Moffett Field, California. AOI 14 includes three separate areas in close proximity to each other: (1) the former soil fill area (FSFA), (2) the N217 area, and (3) the N217A fill area. AOI 14 is bordered by the Navy's Installation Restoration (IR) Site 25 and the NASA Ames North Perimeter Road. Navy IR Site 25 is composed of the Eastern Diked Marsh (including the stormwater settling basin) and the stormwater retention pond. The stormwater retention pond is divided into the western portion (owned by the Midpeninsula Regional Open Space District) and the central and northeastern basins (managed by NASA). The FSFA is not actively used, and access to this area is restricted by the NASA Ames security fence to the south and by Navy IR Site 25 on all other sides. There are two buildings on the N217 and N217A areas that are currently used for research, development, and testing of magnetic field equipment.

In 2013, the U. S. Environmental Protection Agency (EPA) issued a Resource Conservation and Recovery Act (RCRA) 7003(a) Unilateral Administrative Order (RCRA Order) (RCRA-7003-09-2013-0002) requiring NASA to conduct immediate and long-term response actions for AOI 14. The stated purpose of the RCRA Order was to stabilize and address soil contaminated with polychlorinated biphenyls (PCB), pesticides, and metals that threatened to discharge pollutants into the surrounding Navy IR Site 25, which includes the stormwater retention pond that serves as actual and potential habitat for several ecological receptors, including special status species. The Navy completed remedial actions at IR Site 25 in December 2012, consisting of sediment excavation, and continues habitat restoration. In December 2013, NASA implemented an Interim Corrective Action Measure (ICAM) by installing a silt fence barrier around the perimeter of the FSFA peninsula to prevent potential soil erosion from the peninsula into the stormwater retention pond (NASA 2013c). The silt fence barrier was not placed around the N217 and N217A areas because of the depth and limited extent of contamination in these areas. NASA continues monthly inspections of the ICAM and annual sediment sampling surrounding the ICAM and submits quarterly inspection reports to EPA and the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

In November 2013, NASA submitted a draft Current Conditions Report for AOI 14 under the RCRA Order (NASA 2013a). Pending execution of NASA's Federal Facility Agreement (FFA) with EPA and the Water Board, NASA requested and received approval from EPA to incorporate the data from the Current Conditions Report and responses to agency comments on the draft report into this EE/CA. EPA terminated the RCRA Order on the effective date of the FFA, March 11, 2015. Remedial activities for AOI 14 are now being implemented by NASA as the lead agency under the FFA in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 into adjacent Navy IR Site 25. However, NASA intends this removal action to be the

final action at AOI 14; therefore, risks to all potential human and ecological receptors were evaluated.

The source of the contamination at AOI 14 is contaminated fill material that was placed on native soil. There are no known records indicating the source of the fill material, but it is believed to be from construction projects at NASA Ames. Soil is the only exposure medium for the site; groundwater, surface water, and soil gas were not identified as potential exposure media.

Potential human receptors were identified as current and future industrial workers and hypothetical future residents. Future residential use of the site is not anticipated, but the residential scenario is included for consideration of unrestricted future use of the site. Concentrations of lead, pesticides, and PCBs exceeded screening criteria and may pose a potential risk to industrial workers and residents through incidental ingestion of soil, dermal exposure to soil, and inhalation of soil.

Potential ecological receptors include terrestrial plants, soil invertebrates, amphibians, reptiles, birds, and mammals that may be exposed to contaminated soil at AOI 14. If contaminated soil is transported off site to Navy IR Site 25, ecological receptors that may be exposed in the surrounding wetland habitat include wetland plants, benthic invertebrates, birds, and mammals. Exposure routes, or the points of entry of a chemical into a receptor, include root uptake and leaf sorption for plants and dermal contact and ingestion of contaminated soil and food for animals. The transport of contaminated soil from AOI 14 to Navy IR Site 25 could cause concentrations of lead, pesticides (represented as total dichlorodiphenyltrichloroethane [DDT]), and total PCBs to exceed levels protective of wetland receptors.

The following removal action objectives are identified for AOI 14:

- Prevent erosion of soil where concentrations of lead, total DDT, and total PCBs exceed remediation goals for adjacent Navy IR Site 25 to protect wetland receptors.
- Prevent exposure to surface and subsurface soil containing concentrations of lead, total DDT, and total PCBs above levels that are protective of terrestrial ecological receptors.
- Prevent exposure to surface and subsurface soil containing concentrations of Aroclor-1260 and 4,4-DDT above levels that are protective of industrial workers.

Numeric cleanup goals were established in this EE/CA to be protective of human and ecological receptors. These cleanup goals were set equal to the do-not-exceed remediation goals identified for Navy IR Site 25, which were developed for the protection of wetland receptors. These goals were determined to be protective of other potential receptors because the cleanup goals were less than the human health screening levels. Furthermore, all samples with contaminant concentrations exceeding human health and ecological

screening criteria were collocated with the samples that had contaminant concentrations exceeding Navy IR Site 25 do-not-exceed remediation goals.

The area subject to the removal action was identified as the imported fill material in the northern portion of the FSFA. The N217 area and the N217A fill area do not require remediation due to the depth and limited extent of contaminants in these areas.

The following removal action alternatives were developed and evaluated to address the soil contamination at the FSFA:

- Alternative 1: No Action;
- Alternative 2: Soil Cover and Institutional Controls; and
- Alternative 3: Excavation and Off-site Disposal.

Under Alternative 1, no action would be taken at AOI 14 to reduce, control, or prevent exposure to contamination in soil. This alternative is retained throughout the evaluation process as required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to provide a baseline for comparison with other alternatives.

Alternative 2 includes: (1) construction of a soil cover over contaminated soil on the northern portion of the FSFA; (2) institutional controls to prohibit residential use of the site and require maintenance of the cover; (3) ecological restoration of sensitive habitat disturbed during construction of the cover; and (4) long-term monitoring to ensure the effectiveness of the remedy.

Alternative 3 includes excavation and off-site disposal of contaminated soil in the northern portion of the FSFA, where concentrations of contaminants exceed cleanup goals, and restoration of the excavation area to appropriate ecological habitat. After excavation and ecological restoration, the site would be available for unrestricted use.

The alternatives were evaluated and compared with each other using the nine NCP evaluation criteria and NASA's Green and Sustainable Remediation Evaluation process. Alternative 3 was chosen as the preferred alternative because it would result in overall protection of human health and the environment and comply with identified potential applicable or relevant and appropriate requirements (ARARs) while providing the best long-term effectiveness, habitat for special status species, and anticipated state and community acceptance. Alternative 3 would not rely on long-term monitoring or institutional controls, and the site would be available for unrestricted use after the removal action is complete.

The selected removal action will be documented in an Action Memorandum. The removal action may be modified based on community and state input. After the Action Memorandum is signed, NASA will prepare a removal action work plan and implement the non-time-critical removal action for AOI 14.

1.0 INTRODUCTION

This Engineering Evaluation/Cost Analysis (EE/CA) evaluates technologies and alternatives for conducting a non-time-critical removal action at Area of Investigation (AOI) 14. Tetra Tech, Inc., prepared this EE/CA under contract to the National Aeronautics and Space Administration (NASA). Site-specific investigations have not identified an urgent threat that must be addressed to prevent significant human or ecological exposure to contamination at AOI 14. Therefore, a planning period of at least 6 months exists for NASA to evaluate an appropriate removal action and identify the appropriate extent of the removal action. This evaluation is being completed in this EE/CA. The primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 into adjacent wetlands. However, NASA intends this removal action to be the final action at AOI 14; therefore, risks to all potential human and ecological receptors were evaluated.

AOI 14 is located at the NASA Ames Research Center (NASA Ames) at Moffett Field, California. NASA Ames is located in Santa Clara County, California, approximately 35 miles southeast of San Francisco and 10 miles northwest of San Jose (Figure 1).

Figure 1. NASA Ames Location Map

AOI 14 is located at the northern end of NASA Ames (Figure 2) and includes the former soil fill area (FSFA), N217 area, and N217A fill area. AOI 14 is bordered by Navy Installation

Restoration (IR) Site 25 and the NASA Ames North Perimeter Road. Figure 3 shows the location of AOI 14 surrounded by Navy IR Site 25 and property owned by the Midpeninsula Regional Open Space District (MROSD). Navy IR Site 25 includes the Eastern Diked Marsh (including the stormwater settling basin) and stormwater retention pond, which is divided into the western portion (owned by MROSD) and the central and northeastern basins (both managed by NASA). Navy IR Site 25 is discussed in Section 2.1.3.

Figure 2. Composition of NASA Ames

Figure 3. Aerial View of AOI 14

Note: The darker polygons are areas remediated by the Navy in IR Site 25. (NASA photograph #1-7525 date 2012) (NASA 2013a)

In 2013, the U.S. Environmental Protection Agency (EPA) issued a Resource Conservation and Recovery Act (RCRA) 7003(a) Unilateral Administrative Order (RCRA Order) (RCRA-7003-09-2013-0002) to NASA Ames. In the RCRA Order, EPA required NASA to conduct immediate and long-term response actions at AOI 14 to stabilize and address soil contamination to mitigate the potential imminent and substantial endangerment to the environment and the threat to the neighboring Navy IR Site 25 cleanup. In response, NASA implemented an Interim Corrective Action Measure (ICAM) in December 2013 by installing a silt fence barrier around the perimeter of the FSFA peninsula to prevent potential soil erosion from the peninsula into the stormwater retention pond (NASA 2013c). The silt fence barrier was not placed around the N217 and N217A areas because of the depth and limited extent of contamination in these areas. NASA continues monthly inspections of the

ICAM and annual sediment sampling and submits quarterly reports to EPA and the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

In November 2013, NASA submitted a draft Current Conditions Report for AOI 14 under the RCRA Order. EPA and the Water Board provided comments on the draft Current Conditions Report in February 2014. Since the RCRA Order, NASA, EPA, and the Water Board have entered into a Federal Facility Agreement (FFA). EPA terminated the RCRA Order on the effective date of the FFA on March 11, 2015. The remaining actions at AOI 14 are being conducted under the FFA in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). NASA requested and received approval from EPA to incorporate the data from the Current Conditions Report and the responses to agency comments into the EE/CA. This EE/CA addresses comments received on the draft Current Conditions Report and incorporates that information into this document. This EE/CA also addresses all remaining long-term response actions necessary for AOI 14.

2.0 SITE CHARACTERIZATION

This section describes NASA Ames and AOI 14 and the source, nature, and extent of contamination at the site. This section also discusses the potential risks to human and ecological receptors from contamination in soil at AOI 14 and presents a conceptual site model for the site.

2.1 SITE DESCRIPTION AND BACKGROUND

This section describes Moffett Field, NASA Ames, and AOI 14. The history and remedial actions at Navy IR Site 25 are also summarized in this section because the site is adjacent to AOI 14 and directly affects the removal actions evaluated in this EE/CA.

2.1.1 Facility History

NASA Ames was established in 1939 as the Ames Aeronautical Laboratory of the National Advisory Committee for Aeronautics. The Ames Aeronautical Laboratory was located on land adjacent to Naval Air Station (NAS) Moffett Field and consisted of wind tunnels, hangars, aircraft operations, and other research facilities. In 1958, NASA was established under the Space Act, and Ames Aeronautical Laboratory became Ames Research Center. Although NASA Ames was founded primarily to engage in wind tunnel research on the aerodynamics of propeller-driven aircraft, its role has expanded to encompass spaceflight and information technology. NASA Ames currently supports NASA's missions in astrobiology; small satellites; robotic lunar exploration; the search for habitable planets; supercomputing; intelligent/adaptive systems; advanced thermal protection; and airborne astronomy.

The NAS Moffett Field Superfund site was listed on the National Priorities List (NPL) in July 1987. The Navy has been addressing contamination at the site pursuant to the Navy's 1990 Moffett FFA, as amended in 1994. In 1991, the Base Closure and Realignment Commission identified NAS Moffett Field for closure. In 1994, a majority of former NAS Moffett Field was transferred from the Navy to NASA, excluding the military housing at Orion Park and Wescoat Housing, which was transferred initially to the U.S. Air Force, and then to the U.S. Army. The Navy and NASA entered into a Memorandum of Understanding (MOU) that established roles for environmental restoration and ongoing environmental compliance at Moffett Field. The Navy continues to address contamination at former NAS Moffett Field in accordance with the Navy's FFA and MOU.

In the early 1990s, NASA Ames implemented the Center-wide Sampling and Analysis Program (CWSAP) to create "a systematic, formal program to conduct an overall site evaluation of potential soil and groundwater issues at NASA Ames" (Erler and Kalinowski, Inc. [EKI] 1994). As part of this plan and subsequent investigations, NASA Ames was divided into 17 AOIs. These AOIs are in various stages of characterization or cleanup or have been closed.

Operations at NASA Ames have used various hazardous materials, including metals, solvents, fuels, oils, polychlorinated biphenyls (PCBs), acids, bases, and radioactive materials. Previous investigations have indicated that some of these hazardous materials have been released to the environment. These investigations are described in Section 2.2.

In addition to releases from NASA Ames operations, groundwater contamination has resulted from operations at former NAS Moffett Field and from off-site, upgradient sources. Groundwater contamination is present in the western portion of NASA Ames, west of the airfield from the Middlefield-Ellis-Whisman (MEW) Superfund site and from operations at former NAS Moffett Field. This comingled groundwater contamination in the western portion of NASA Ames is referred to as the "Regional Plume." The Regional Plume does not extend to AOI 14.

Groundwater contamination in the eastern portion of NASA Ames, east of the airfield is present from operations at former NAS Moffett Field and is being addressed by the Navy (Navy Operable Unit 5).

NASA is the lead federal agency responsible for conducting response actions at AOI 14 under NASA Ames' FFA, with regulatory oversight by EPA and the Water Board.

2.1.2 Area of Investigation 14

AOI 14 consists of three peninsulas that extend into the Navy IR Site 25 stormwater retention pond (Figure 3). The FSFA and N217A peninsulas were constructed by depositing fill material on the existing surface of the stormwater retention pond. Visual observations of the surface of the peninsulas show that the fill material consists of soil and construction debris, including concrete, rebar, and metal piping. Historical aerial photographs indicate that the N217 peninsula consists of native soil.

The FSFA is approximately 8 acres, and ground surface varies from approximately 2 to 4 feet above the surrounding stormwater retention pond at the southern end of the peninsula to 8 to 16 feet above the pond at the northern end. Groundcover varies across the site and includes tall grasses and low-lying brush. The FSFA is not currently used, and access to the peninsula is restricted by the NASA Ames security fence to the south and the stormwater retention pond on all other sides. There are public trails on the northern and western sides of Navy IR Site 25 and the MROSD property (Figure 2).

The purpose behind construction of the FSFA is not known to current NASA personnel. The exact dates of construction of the fill areas are unknown, and no records of the sources of the fill material have been located. However, an approximate chronology was established through review of historical photographs. The FSFA does not appear in available historical aerial photographs prior to 1968. Deposition of fill materials appears to have ceased by 1987. Most of the soil is likely from construction projects at NASA Ames. Some of the soil may have originated from construction for the National Full-scale Aerodynamic Complex 80- by 120-foot wind tunnel test section (Building N221B), located approximately 1 mile south of AOI 14 in the center of the NASA Ames campus. An electrical substation was removed to construct the test section. Soil from this substation site may have contained PCBs from leaks in the electrical equipment, which may have been deposited at the FSFA. In addition, soil materials from other sources were added to the FSFA over time.

Figure 4 shows fill being deposited on the FSFA as well as eight small structures within a rectangular area. The purpose of these structures and dates of construction and removal

are not known. Figure 5 shows the structures from a different viewpoint. The structures were removed some time before 1987 based on review of available historical aerial photographs.

Figure 4. 1977 Aerial View of FSFA
(NASA photograph A77-0864-12, 1977)

Figure 5. 1973 Oblique View of FSFA
(NASA photograph A73-1566, 3/23/1973)

Building N217 was constructed in 1969. Review of aerial photographs indicates that Building N217 was not built on fill, but appears to have been built on native soil. The N217 area was isolated by flooding during periods of high water levels in the stormwater retention pond (Figure 5). To mitigate this problem, a levee was constructed around Building N217. There are no known records of the source of the material used to build the levee.

The N217A fill area does not appear in historical photographs prior to 1969. Fill materials were deposited on the existing surface of the stormwater retention pond to create the N217A fill area. The surface of the fill varies from 8 to 12 feet above the surrounding area. Figure 6 shows the N217A fill area in 1970. The original purpose of the N217A fill area is not known.

Figure 7 shows the construction sequence of the N217A area with the original fill indicated by the solid line, and the dashed line indicating fill emplaced for the N217A area. Building N217A was completed on May 8, 1972. The historical photograph shows a small building and other structures within a fenced area. The purpose of these structures is unknown.

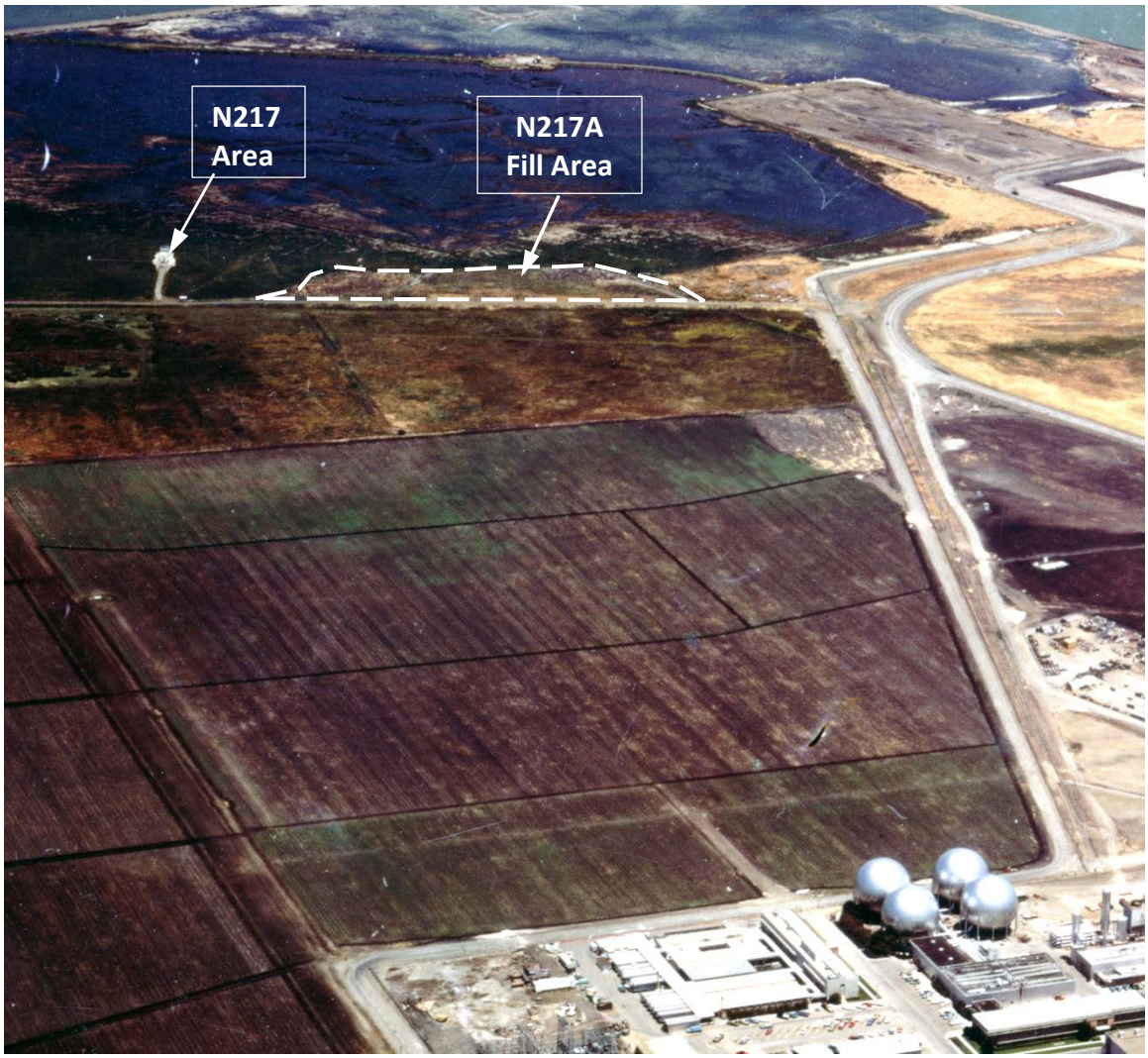

Figure 6. N217A Fill Area in 1970
(NASA photograph A-70-2767, dated 5/21/1970)

Buildings N217 and N217A were specially constructed for magnetic field measurements. The buildings were constructed to minimize magnetic material that would distort the earth's magnetic field and interfere with measurements – that is, they were constructed without steel reinforcing bars and with aluminum nails, conduits, and power panels. The buildings are currently used by NASA Ames for various research and development projects and by tenants to design, build, and test sensitive magnetometers. Public access to the N217 and N217A areas is restricted by the NASA security fence to the south and the Navy IR Site 25 stormwater retention pond on all other sides. There are no records of the storage or use of hazardous materials at the buildings.

Groundcover for the N217A original fill area consisted of tall grasses and low-lying brush. The Navy removed the surface vegetation during the remedial action for IR Site 25, when the area was used as a staging area. The Navy restored the site with hydroseeding after the remedial action was completed in 2012 (ITSI Gilbane 2013).

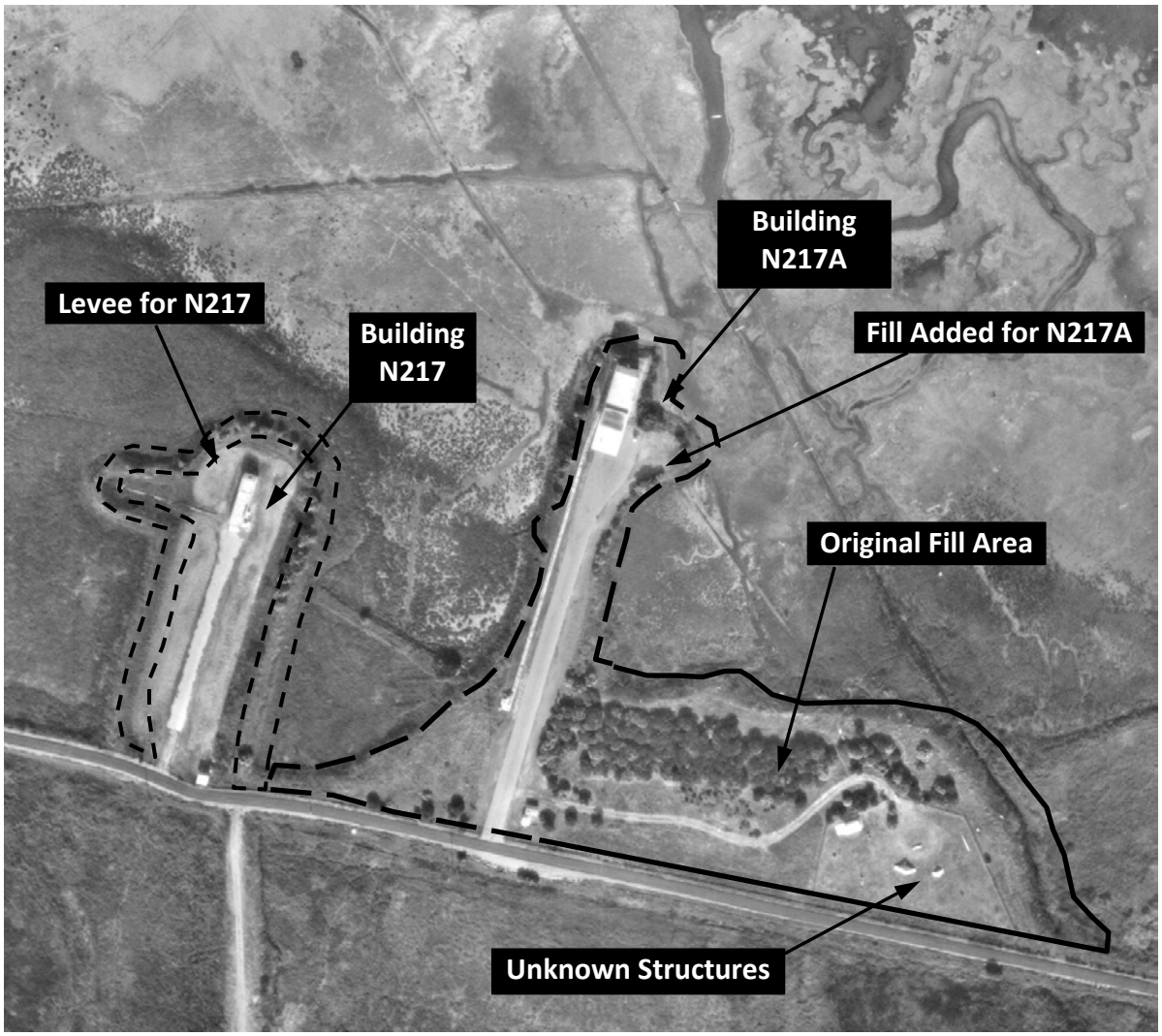

Figure 7. Aerial Photograph of N217/N217A Area
(U.S. Navy photograph, 1987)

As discussed in Section 1.0, NASA completed an ICAM at AOI 14 in response to the RCRA Order. The purpose of the ICAM was to prevent risks to the environment by controlling and monitoring potential soil erosion from the FSFA into the surrounding Navy IR Site 25 stormwater retention pond. NASA installed an erosion control barrier along the base of the northern portion of the FSFA (Figure 8). Silt fencing was not installed around the N217 and N217A areas because contaminants present at depth in these areas do not present a risk to Navy IR Site 25 through the erosion of surface soil (Earth Resource Technology Corporation, Inc. [ERT] 2014a). The ICAM was completed in consultation with the U.S. Fish and Wildlife Service (USFWS) to monitor the potential impacts to natural resources. After the barrier was constructed, 15 sediment samples were collected within 5 feet of the exterior of the barrier to provide baseline concentrations of contaminants on Navy IR Site 25. NASA continues monthly inspections of the ICAM and annual sediment sampling, and submits quarterly reports to EPA and the Water Board. These activities will continue until the removal action is implemented.

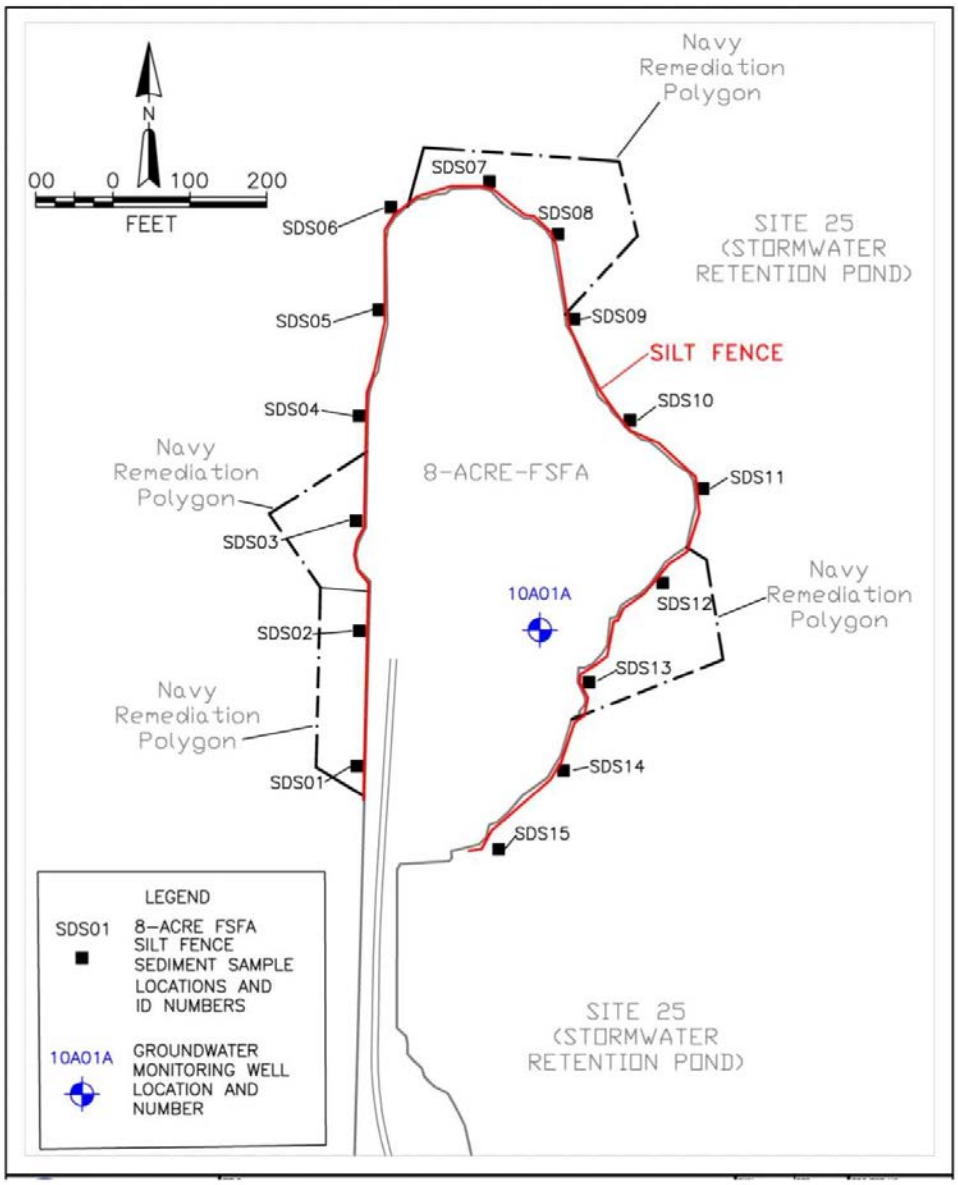

Figure 8. Location of Silt Fence and Sediment Samples at FSFA
(NASA 2013a)

2.1.3 Navy Installation Restoration Site 25

AOI 14 is adjacent to Navy IR Site 25 (Figure 9). Navy IR Site 25 is approximately 230 acres and encompasses NASA's stormwater retention pond and Eastern Diked Marsh, which contains NASA's stormwater settling basin. The stormwater retention pond consists of the Northeast and Central Basins within NASA Ames' property boundary and a western parcel of approximately 54 acres owned by MROSD. Levees adjacent to and enclosing the stormwater retention pond are owned by USFWS, San Francisco Bay National Wildlife Refuge.

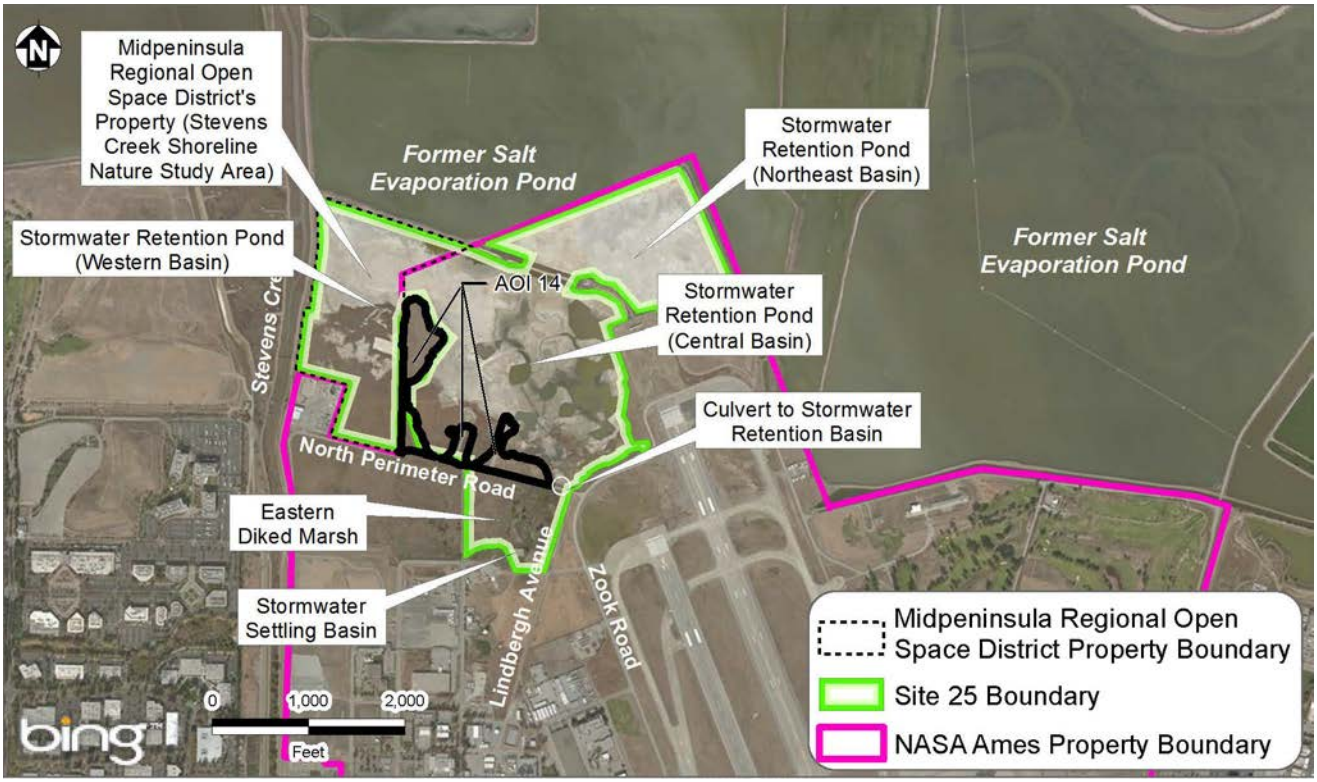

Figure 9. Features of Navy IR Site 25

The Eastern Diked Marsh and stormwater retention pond have been part of the stormwater management system for the western portion of NAS Moffett Field since 1953. From that time until approximately 1992, runoff from the western portion of NAS Moffett Field was directed through the former Lindbergh Avenue Storm Drainage Channel located along Lindbergh Avenue (see Figure 9). Stormwater runoff from the drainage channel was directed through culverts into the Eastern Diked Marsh and then into the stormwater retention pond. The channel was closed in 1993 with the installation of a new storm drain system. This system collects stormwater from NASA Ames and the western areas of former NAS Moffett Field and discharges it to the settling basin. The former Lindbergh Avenue Storm Drainage Channel, designated as AOI 6, was remediated by NASA in 2000. The contaminants at AOI 6 included PCBs, lead, and petroleum constituents.

The settling basin also receives effluent consisting of treated groundwater from the West-side Aquifer Treatment System, a contaminated-groundwater treatment system currently operated by the Navy. The settling basin outfall discharges effluent into the Eastern Diked Marsh. Solids that settle at the settling basin are characterized and removed by NASA annually, typically in August or September. Analysis of the sediment removed from the settling basin has indicated the presence of PCBs (Aroclor-1260 and Aroclor-1268) and metals (mercury, cadmium, chromium, copper, lead, nickel, and zinc). NASA also collects annual soil samples from the surface of the Eastern Diked Marsh at the settling basin outfall and overflow locations. The samples are analyzed for PCBs, total dichlorodiphenyl-trichloroethane (DDTs), lead, and zinc. The most recent sampling event was conducted in August 2014; laboratory results from this event are included in Attachment 1. Lead and

zinc were detected in the surface soil samples at concentrations less than Site 25 remediation goals; DDTs and PCBs were not detected above laboratory reporting limits.

Water flows northward from the Eastern Diked Marsh under the North Perimeter Road to the stormwater retention pond. Typically, portions of the stormwater retention pond are flooded with 1 to 5 feet of standing water during the wet winter and early spring months, but are partially dry during summer and fall.

The Navy has conducted environmental investigations at IR Site 25 that indicated PCBs, DDT, lead, and zinc were present in sediment at concentrations presenting a potential risk to ecological receptors. Total DDT concentrations were calculated by summing the detected concentrations of 4,4-DDT, 4,4-dichlorodiphenyldichloroethane (DDD), and 4,4-dichlorodiphenyldichloroethene (DDE). The Navy identified potential upland sources of the contamination at IR Site 25, including the runway landfill, the engine test stand area, a sump and oil/water separator, Hangar 1, horizontal conduits including stormwater pipes that may have carried chemically contaminated groundwater, historical use of pesticides, and various soil areas contaminated with PCBs (including AOI 14). These upland source areas were addressed by the Navy or NASA under separate remedial actions.

The Navy conducted a remedial action at IR Site 25 in 2012. The remedy included excavation and off-site disposal of contaminated sediment, focused restoration of wetland excavation areas, and ecological monitoring. The Navy identified remediation goals for each chemical of ecological concern that would be protective of the most sensitive ecological receptors if the site contains tidal marsh habitat in the future. Remediation goals were developed based on a comparison of risk-based concentrations and background concentrations for total PCBs, total DDT, lead, and zinc. The remediation goals for each chemical were listed in the Record of Decision for Navy IR Site 25 (Navy 2009) and consisted of a site-wide average (also referred to as the "area-weighted average" in Navy IR Site 25 documents) and a do-not-exceed remediation goal; both goals are listed in Table 1.

Table 1: Remediation Goals for Sediment at Navy IR Site 25

Type of Remediation Goal	Remediation Goal (mg/kg)			
	Lead	Zinc	Total DDT	Total PCBs
Site-Wide Average Remediation Goal[a]	33	180	0.016	0.200
Do-Not-Exceed Remediation Goal[b]	93.8	314	0.109	0.210

Notes:

a The site-wide average goal was based on the background concentration; however, a background concentration could not be developed for total PCBs. The site-wide average goal for PCBs was identified based on a risk management decision between the Navy and regulatory agencies at a meeting in September 2005.

b The do-not-exceed remediation goal was based on the risk-based concentration.

DDT Dichlorodiphenyltrichloroethane

IR Installation Restoration

mg/kg Milligram per kilogram

PCB Polychlorinated biphenyl

Based on sampling locations, Navy IR Site 25 was divided into polygons to identify areas that would require remediation. The polygons were created so that each side of the polygon was halfway between each sampling location. Chemical concentrations in each polygon were compared with the do-not-exceed remediation goal, and any polygon where the goal was exceeded was identified for remediation. The site-wide average concentration was calculated and compared with the site-wide average goal for the remaining polygons where remediation was not identified. If the site-wide average goal was exceeded, additional polygons were identified for remediation until the site-wide average was less than the remediation goal.

The Navy completed remedial activities at IR Site 25 in December 2012. The Navy concluded in the Final Remedial Action Completion Report that IR Site 25, "presents no hazard to human health or the environment and is available for unrestricted use" (ITSI Gilbane 2013). NASA installed a silt fence around the FSFA as part of an ICAM in December 2013, as described in Section 2.1.2. This ICAM temporarily prevents contaminated surface soil from eroding into Navy IR Site 25 until the AOI 14 removal action can be completed.

2.2 PREVIOUS INVESTIGATIONS AND ANALYTICAL DATA

Several investigations have been conducted at AOI 14 and the surrounding area. The major investigations and their reference documents are listed in Table 2. The details of these sampling events, including the purpose, number of samples collected, laboratory analyses, and findings, are presented in Appendix A.

Table 2: Previous Investigations at AOI 14

Investigation	Reference Document
1992 Listing Site Inspection	EKI 1992
2004 PCBs in Site Soils Phase I	PAI 2004
2005 PCBs in Site Soils Phase II	ISSi 2005a
2005 FSFA Soil Investigation	ISSi 2005b
Groundwater Sampling	ISSi 2006
2006 and 2007 AOI 14 Phase II Soil Investigation	ISSi 2007
2013 N217 ICAM Data Gap Soil Sampling	NASA 2013b
2013 ICAM Baseline Sediment Sampling	ERT 2014a
2014 ICAM Annual Sediment Sampling	ERT 2014b

Notes:

EKI	Erler and Kalinowski, Inc.	ISSi	Integrated Science Solutions, Inc.
ERT	Earth Resource Technology Corporation, Inc.	NASA	National Aeronautics and Space Administration
FSFA	Former Soil Fill Area	PAI	PAI Corporation
ICAM	Interim corrective action measure	PCB	Polychlorinated biphenyl

During the 1992 listing site inspection, soil samples collected at the FSFA and N217A fill area were analyzed for the full suite of analytes (volatile organic compounds [VOC], semivolatile organic compounds [SVOC], metals, pesticides, and PCBs). VOCs, SVOCs, and

several metals were not detected in any of the 11 soil samples collected within AOI 14. Based on these results and concerns regarding potential surface soil erosion from AOI 14 into Navy IR Site 25, future AOI 14 investigations focused on PCBs, pesticides (total DDT), and priority pollutant metals, specifically lead and zinc.

Since the ICAM silt fence was completed, sediment samples are collected annually approximately 5 feet outside of the silt fence to evaluate the effectiveness of the erosion control measure. Sediment samples are analyzed for PCBs, pesticides, and priority pollutant metals.

One monitoring well (10A01A) is located at AOI 14 on the FSFA (see Plate 1). Monitoring well 10A01A is an A1-aquifer well and was sampled semiannually from 1991 to 1995, annually from 1996 to 2000, and once in 2004. All groundwater samples were analyzed for VOCs, and the sample collected in 2004 was also analyzed for PCBs.

2.3 SOURCE, NATURE, AND EXTENT OF CONTAMINATION

This section includes a discussion of the source, nature, and extent of contamination at AOI 14.

2.3.1 Source of Contamination

The source of contamination at AOI 14 is contaminated fill material that was deposited at the site. There are no known records of the sources of the material used to build the FSFA, the levee at the N217 area, or the N217A fill area. Most of the fill material is likely from construction projects at NASA Ames. Based on visual observation of the fill material at the surface, the fill material appears to be primarily soil with construction debris, such as concrete blocks, rebar, and various metal scraps or piping. As discussed in Section 2.1.2, some of the soil may have originated from construction of the 80- by 120-foot wind tunnel test section located approximately 1 mile south of AOI 14. An electrical substation was removed to construct the test section, and soil from the substation site may have been contaminated with PCBs from leaks in the electrical equipment and potentially deposited at the FSFA.

There is no evidence that suggests that the historical or current use of AOI 14 has contributed to site contamination. As described in Section 2.3.3 and Appendix A, soil contamination at AOI 14 is heterogeneous across the northern portion of the FSFA, both vertically and horizontally, and is not concentrated near the location of current or former structures. In addition, soil samples at the N217 and N217A areas do not indicate a release of contamination associated with the historical or current use of the peninsulas.

2.3.2 Data Evaluated

The data used to identify the nature and extent of contamination were obtained during the previous investigations at AOI 14, listed on Table 2. Overall, 409 soil samples have been collected from AOI 14, including duplicate and step-out samples. The locations of the soil and groundwater samples collected on the FSFA are shown on Plate 1. The soil samples collected from the N217 and N217A fill areas are shown on Plate 2. The sample depths and

analytes are summarized in Table 3 below. Appendix A contains more details regarding the sampling data collected at AOI 14.

Table 3: Number of Soil Samples Collected at AOI 14

Sample Depth (feet bgs)	Total Samples	Analyte Group							
		Chromium VI[(a)]	Metals	PCBs	Pesticides	SVOCs	VOCs	TPH-EXT	TPH-PRG
0	3	4	3	3	3	0	0	0	0
0 to 0.5	60	0	54	60	54	4	4	0	0
0.5	7	2	2	1	7	0	0	0	0
0 to 1	70	0	46	67	49	0	0	1	0
1 to 1.5	2	0	2	2	2	1	1	0	0
1.5 to 2	4	0	4	4	4	3	3	0	0
2	52	0	44	51	45	0	2	3	2
4	43	0	40	40	43	0	3	4	3
6	40	0	37	37	40	0	2	4	2
8	36	0	32	32	36	0	1	1	1
10	39	0	32	34	37	0	2	2	2
12	36	0	27	32	32	0	1	1	1
14	14	0	9	12	12	0	0	0	0
16	3	0	3	3	3	0	0	0	0
Total	409	6	335	378	367	8	19	16	11

Notes:

a These samples were analyzed specifically for chromium VI; samples analyzed for metals include all common chromium congeners, including chromium VI.

bgs Below ground surface
PCB Polychlorinated biphenyl
SVOC Semivolatile organic compounds
TPH-EXT Total petroleum hydrocarbon-extractable
TPH-PRG Total petroleum hydrocarbon--purgable
VOC Volatile organic compounds

Soil data from adjacent Navy IR Site 25 were not used, except data collected immediately outside the ICAM silt fence. These data are considered representative of sediment at Navy IR Site 25 that may have been affected by soil that eroded from AOI 14 and are used to evaluate the transport of contaminated soil from the site.

Monitoring well 10A01A was sampled 19 times from 1991 through 2004. The samples were analyzed only for VOCs, except the sample collected in September 2004, which was also analyzed for PCBs.

2.3.3 Soil

This section summarizes the analytical results of soil investigations that include samples collected within AOI 14. Data collected during these investigations were used to delineate the extent of contamination and evaluate potential risks to human and ecological receptors. Laboratory analytical results for soil and sediment samples collected during all investigations are included in Appendix A, Attachment A1. Available boring logs are included in Appendix A, Attachment A2. A letter report describing the results of the data

validation summary and all laboratory data reports are included in Appendix A, Attachment A3. The native soil under the fill material is primarily clay. The fill material is a heterogeneous mixture of gravel, sand, silt, clay, and miscellaneous construction debris.

Table 4 presents the minimum and maximum concentrations and detection frequencies for detected chemicals in soil at AOI 14. VOCs and SVOCs were not detected in initial investigations and were therefore eliminated from evaluation in subsequent investigations.

Table 4: Summary of Detected Chemicals in Soil

Analyte Group	Analyte	Minimum Concentration[a]	Maximum Concentration[a]	Detection Frequency
Metal	Antimony	2.9	9.9	3 / 52
Metal	Arsenic	1.2	16	44 / 52
Metal	Beryllium	0.27	0.72	17 / 52
Metal	Cadmium	0.18	15	15 / 52
Metal	Chromium	7.9	110	54 / 54
Metal	Copper	1.9	57	52 / 52
Metal	Lead	2.5	280	233 / 314
Metal	Mercury	0.018	0.32	36 / 59
Metal	Nickel	17	120	52 / 52
Metal	Silver	0.53	2.1	7 / 52
Metal	Zinc	18	300	303 / 307
PCB	Aroclor-1254	0.021	0.71	7 / 358
PCB	Aroclor-1260	0.0074	180	157 / 358
PCB	Aroclor-1268	0.022	0.26	14 / 347
PCB	Total PCBs	0.0074	180	164 / 358
Pesticides	4,4'-DDD	0.0092	0.01	2 / 347
Pesticides	4,4'-DDE	0.0039	0.027	6 / 347
Pesticides	4,4'-DDT	0.078	35	17 / 347
Pesticides	Total DDT	0.0039	35	25 / 347
TPH-ext	Motor Oil Range Organics	10	400	10 / 16

Notes:

a All concentrations shown are in milligrams per kilogram.

DDD Dichlorodiphenyldichloroethane
DDE Dichlorodiphenyldichloroethene
DDT Dichlorodiphenyltrichloroethane
PCB Polychlorinated biphenyl
TPH-ext Total petroleum hydrocarbon-extractable

PCBs, pesticides, and metals have been detected sporadically across the FSFA and sporadically across each of the 2-foot sampling depth intervals from the ground surface to 10 feet below ground surface (bgs) (see Appendix A, AOI 14 Phase II Investigation). This lack of a detection pattern illustrates the heterogeneity of fill material and does not indicate a surface source.

Concentrations of metals in site soil were compared to a background soil data set generated from data collected in northern Santa Clara County, California, within a 2-mile

radius of the intersection of California State Highways 101 and 237 (Scott 1995). A larger data set from the nine-county San Francisco Bay area was used for arsenic (Duverge 2011).

Because the full data sets were not available for either soil background study, the comparison of site soil and background soil data used three statistical parameters provided by the authors of the background studies. First, the average concentration for the site soil data set was compared with the average concentration for the background soil data set. Second, the average concentration plus one standard deviation was calculated for the site soil data set and compared with the same quantity reported for the background soil data sets. Finally, the maximum site soil concentration was compared with the maximum background soil concentration.

These comparisons are shown in Table 5. If two of the three parameters were greater for site concentrations than for background concentrations for a specific metal, the metal was tentatively identified as "above background" in the table. If only one of the three was appreciably greater for site concentrations than for background concentrations, or if the average concentration was not calculated in Scott (1995), the metal was identified as "inconclusive." If no measure was greater for the site than for background, the metal was tentatively identified as "not above background."

Concentrations of lead in site soils were identified as being above the background concentrations because all three measures were greater for the AOI 14 soil data set than the background soil data set. The background soil comparisons for antimony, mercury, and silver were identified as inconclusive because no averages or standard deviations were calculated for the background soil data set, even though the site maxima for these metals were below the background maxima. The background comparison for cadmium was also identified as inconclusive because no averages or standard deviations were calculated for the background data set, and the site maximum slightly exceeded the background maximum. The background comparison for zinc was identified as inconclusive; although the maximum and average plus one standard deviation exceeded the background, the average concentration was significantly lower and the average plus one standard deviation only slightly exceeded background.

At least two of the three statistical measures for all other metals (arsenic, beryllium, chromium, copper, and nickel) are below the corresponding measure of the background data set, and these metals were all identified as below background. Metals identified as "inconclusive" were treated the same as "above background" and further evaluated in this EE/CA. In addition, all metals were considered in the risk evaluation, regardless of these conclusions, to provide a conservative evaluation. The comparison of metals concentrations in site soil with background soil concentrations was used in combination with the risk evaluation to identify chemicals to be addressed by the removal action.

Table 5: Comparison of Concentrations of Metals in AOI 14 Soils to Background Soil Concentrations

Metal	AOI 14				Background[a]				Above Background?[b]
	Detection Frequency	Average Conc.	Average Conc. + 1 Standard Deviation	Max Conc.	Detection Frequency	Average Conc.	Average Conc. + 1 Standard Deviation	Max Conc.	
Antimony	3 / 52	**6.93**	**10.6**	9.9	50 / 104	NC	NC	22	**Inconclusive**
Arsenic	44 / 52	4.59	**7.58**	16	1454 / 1454	4.61	6.97	21	No[c]
Beryllium	17 / 52	0.489	0.624	0.72	94 / 108	0.880	1.4	3.2	No
Cadmium	15 / 52	**1.83**	**5.98**	**15**	51 / 158	NC	NC	14	**Inconclusive**
Chromium	54 / 54	44.4	65.9	110	51 / 158	51.3	72	170	No
Copper	52 / 52	21.0	34.3	57	136 / 136	35.6	47.5	67	No
Lead	233 / 314	**17.7**	**44.4**	**280**	135 / 158	11.4	16.1	54	**Yes**
Mercury	36 / 59	**0.135**	**0.204**	0.32	29 / 127	NC	NC	1.3	**Inconclusive**
Nickel	52 / 52	43.8	63.7	120	136 / 136	73.5	101	145	No
Silver	7 / 52	**1.07**	**1.62**	2.1	18 / 129	NC	NC	4.8	**Inconclusive**
Zinc	303 / 307	56.6	**86.2**	**300**	136 / 136	65.3	82.8	120	**Inconclusive**

Note: All concentrations shown are in milligrams per kilogram.

a Background soil concentrations for all metals except arsenic are from Scott (1995). Background concentrations for arsenic are from Duverge (2011).

b Background soil comparisons are based on comparisons of average concentrations, average concentrations plus one standard deviation, and maximum concentrations between the site soil and background soil data sets. The metal was identified as inconclusive if the average concentration, average concentration plus one standard deviation, or maximum concentration was appreciably greater for the site than for background, or if the average concentration was not calculated in Scott (1995). Metals with "inconclusive" designations based on background comparisons are treated the same as metals with "yes" conclusions in the EE/CA. In addition, all metals were evaluated for human health and ecological risk, regardless of their background comparison conclusions to provide a conservative evaluation of risk. See the text for full discussion.

c The average concentration plus one standard deviation for arsenic at AOI 14 soil slightly exceeds that for background soil; however, all three measures of the distribution are extremely similar, and professional judgment was used to conclude that site arsenic concentrations do not exceed background concentrations.

Conc. Concentration
NC Not calculated

2.3.4 Groundwater

Most NASA Ames groundwater monitoring wells are screened in the A1-aquifer zone, which typically extends from approximately 5 to 25 feet bgs. Groundwater is not encountered within the AOI 14 fill areas because the soil fill was placed on top of the original ground surface. The surrounding stormwater retention pond is typically dry during most of the year; standing water in the ponds during portions of the year is a result of stormwater discharges from Moffett Field. The imported soils at AOI 14 are located above the groundwater at both the FSFA and the N217/N217A locations. Monitoring well 10A01A was installed on the FSFA in 1991 (Plate 1). The depth to water at well 10A01A was approximately 13 feet bgs and the boring log for the monitoring well shows that native clay was encountered at approximately 10 feet bgs. The native clay under the fill material likely acts as a hydraulic barrier, limiting the downward migration of contamination from the FSFA into groundwater under the site.

Samples were collected from monitoring well 10A01A semi-annually from 1991 to 1995, annually from 1996 to 2000, and once in 2004 and analyzed for VOCs. No VOCs were detected in any of the samples collected at monitoring well 10A01A except for one detection of trichloroethene (TCE) (0.61 microgram per liter [µg/L]) in the sample collected on July 6, 1995. This concentration is less than the federal and California maximum contaminant level (MCL) for TCE (5 µg/L). The groundwater sample collected from monitoring well 10A01A in September 2004 was also analyzed for PCBs. No PCBs were detected in the sample.

Groundwater is not a medium of concern at AOI 14 because fill material is not in contact with groundwater and because sampling results indicate that contamination is not impacting groundwater. The contaminants detected in soil (metals, PCBs, and pesticides) generally sorb strongly to soil particles and therefore their potential for migration to groundwater is low.

2.3.5 Other Media of Interest

There is no surface water at AOI 14; however, the Navy IR Site 25 stormwater retention pond borders the site to the north, east, and west. The stormwater retention pond is partially dry during summer and fall, but can contain 1 to 5 feet of standing water during the wet months up to the toe of the AOI 14 peninsulas. The Navy evaluated contaminants in surface water at IR Site 25 before the remedial action was implemented. The Navy concluded that the risks to ecological receptors from concentrations of chemicals in surface water were expected to be similar to risks associated with ambient bay water and, therefore, surface water was not identified as a medium of concern for Navy IR Site 25 (SulTech 2007). This conclusion was made considering the condition of AOI 14 at that time, before the silt fence was erected around the FSFA to prevent erosion of contaminated soil into adjacent Navy IR Site 25. Thus, the migration of contaminants in soil at AOI 14 into surface water in Navy IR Site 25 is not considered a significant migration pathway and surface water is not a medium of concern for the removal action at AOI 14.

None of the contaminants detected in soil at AOI 14 is volatile. With the exception of one low-level detection of TCE in groundwater in 1995, VOCs have not been detected in groundwater samples collected from AOI 14. Therefore, soil gas is not a medium of concern for AOI 14.

2.4 STREAMLINED RISK EVALUATION

This section includes risk evaluations to determine whether contamination at AOI 14 poses an acceptable or unacceptable risk to human health and the environment.

2.4.1 Streamlined Human Health Risk Evaluation

This section presents the streamlined human health risk evaluation for AOI 14, including a description of the current use of the site, potential future receptors and exposure pathways, and characterization of site risk.

2.4.1.1 Current Site Use

The FSFA is not actively used, and access is restricted by the NASA Ames security fence to the south and by Navy IR Site 25 on all other sides. There are public trails on the northern and western sides of Navy IR Site 25 and the MROSD property. Although unlikely, the public can access AOI 14 from those public trails by crossing the stormwater retention pond, particularly in the dry season when there is no standing water in the pond. There are two buildings on the site, Buildings N217 and N217A. These buildings are currently used for research, development, and testing of magnetic field equipment.

2.4.1.2 Human Health Receptors and Exposure Pathways

To be conservative, both industrial and residential screening levels were used for comparison with site chemicals. Residential use of the site is not anticipated, but the residential scenario is included for consideration of unrestricted future use.

Only soil was considered as an exposure medium for the site. Groundwater, surface water, and indoor air exposure are not considered media of concern (see Section 2.3.5).

Potential exposure pathways for soil include incidental ingestion of soil, dermal exposure to soil, and inhalation of soil. All three of these exposure pathways are included in the calculations of EPA regional screening levels and California Department of Toxic Substances Control (DTSC) screening levels (EPA 2014; DTSC 2014).

2.4.1.3 Characterization of Site Risk

There may be current risk posed to human receptors in areas of AOI 14 where concentrations of chemicals exceed background concentrations and industrial screening levels. For a conservative risk characterization, all data were grouped together for all three areas (FSFA, N217, and N217A) and all sample depths (maximum depth is 16 feet bgs). Table 6 lists each chemical, detected concentrations, the industrial and residential screening levels, and whether the detected concentrations exceeded background (metals only) and screening levels. The screening level was identified as the more conservative value of either the DTSC screening levels (DTSC 2014) or EPA's regional screening levels (EPA 2014). The source used for the screening level is indicated on Table 6. The sample locations with contaminants above the screening levels and background concentrations are shown on Plates 3 and 4.

Table 6: Comparison of Chemicals Detected in Soil with Human Health Screening Levels

Chemical	Detected Concentrations		Screening Level				Screening Level Exceeded?		Above Background? [h]
			Industrial		Residential		Industrial	Residential	
	Min	Max	Value	Source	Value	Source			
Antimony [a]	2.9	9.9	470	EPA 2014	31	EPA 2014	No	No	**Inconclusive**
Arsenic [b]	2.1	16	0.25	DTSC 2014	0.062	DTSC 2014	**Yes**	**Yes**	No
Beryllium	0.27	0.72	183	DTSC 2014	15.2	DTSC 2014	No	No	No
Cadmium	0.18	15	6.37	DTSC 2014	4.58	DTSC 2014	**Yes**	**Yes**	**Inconclusive**
Chromium [c]	7.9	110	1,800,000	EPA 2014	120,000	EPA 2014	No	No	No
Copper	1.9	57	47,000	EPA 2014	3,100	EPA 2014	No	No	No
Lead	2.5	280	320	DTSC 2014	80	DTSC 2014	No	**Yes**	**Yes**
Mercury [d]	0.018	0.32	350	EPA 2014	23	EPA 2014	No	No	**Inconclusive**
Nickel [e]	17	120	22,000	EPA 2014	1,500	EPA 2014	No	No	No
Silver	0.53	2.1	5,800	EPA 2014	390	EPA 2014	No	No	**Inconclusive**
Zinc	18	300	350,000	EPA 2014	23,000	EPA 2014	No	No	**Inconclusive**
Aroclor-1254	0.021	0.71	1	EPA 2014	0.24	EPA 2014	No	**Yes**	**--**
Aroclor-1260	0.0074	180	1	EPA 2014	0.24	EPA 2014	**Yes**	**Yes**	--
Aroclor-1268 [f]	0.022	0.26	1	EPA 2014	0.24	EPA 2014	No	**Yes**	--
4,4'-DDD	0.0092	0.01	9.6	EPA 2014	2.2	EPA 2014	No	No	--
4,4'-DDE	0.0039	0.027	6.8	EPA 2014	1.6	EPA 2014	No	No	--
4,4'-DDT	0.078	35	8.6	EPA 2014	1.9	EPA 2014	**Yes**	**Yes**	--
Motor Oil Range Organics [g]	10	400	3,500,000	EPA 2014	230,000	EPA 2014	No	No	--

Note: All concentrations shown are in milligrams per kilogram.

a Antimony (metallic) used for antimony
b Arsenic, inorganic used for arsenic
c Chromium (III), insoluble salts used for chromium
d Mercuric chloride (and other mercury salts) used for mercury
e Nickel soluble salts used for nickel
f Screening level not available; PCBs (high risk) used as a surrogate
g Screening level not available; total petroleum hydrocarbons (aliphatic high) used as surrogate
h Background comparisons are tentative conclusions based on comparisons of the average concentration, average concentration plus one standard deviation, and maximum concentration of the site and background data sets (see Section 2.3.3). The metal was identified as inconclusive if the average concentration, average concentration plus one standard deviation, or maximum concentration was appreciably greater for the site than for background, or if the average concentration was not calculated in Scott (1995). Metals with "inconclusive" designations based on the background comparisons are treated the same as metals with "yes" conclusions in the EE/CA. In addition, all metals were evaluated for human health and ecological risk, regardless of their background comparison conclusion to provide a conservative evaluation of risk.

-- Not Applicable
DDD Dichlorodiphenyldichloroethane
DDE Dichlorodiphenyldichloroethene
DDT Dichlorodiphenyltrichloroethane
DTSC California Department of Toxic Substances Control
EPA U.S. Environmental Protection Agency

The background comparison for cadmium was inconclusive, and one sample exceeded the industrial and residential screening levels. This sample location (PEN-09) contained 15 milligrams per kilogram (mg/kg) of cadmium and was located in the FSFA at 10 feet bgs. The background comparisons for cadmium were identified as inconclusive because no averages or standard deviations were calculated for the background data set, and the site maximum slightly exceeded the background maximum. However, concentrations of cadmium at AOI 14 are likely within typical background concentrations for Santa Clara County. Only the sample collected at PEN-09 exceeded the screening level for cadmium; the next highest concentration of cadmium was 0.89 mg/kg, detected in sample FSFA-SDS03. The high detection of cadmium at PEN-09 likely is an outlier and does not represent wide-spread cadmium contamination at the FSFA. In addition, the depth of the sample (10 feet bgs) is at the bottom of the anticipated exposure range for intrusive development of soil (surface to 10 feet bgs). Typical exposure activities for an industrial worker or resident are unlikely to expose the cadmium detected at this depth. Therefore, cadmium was not carried forward in this EE/CA based on the nature and extent of the contaminant. However, other compounds, such as 4,4-DDT, exceed screening criteria at and around this sample location, so this high detection of cadmium will be incidentally addressed by the removal action.

Lead concentrations exceed both the background and residential screening level in four samples, all at depths of 6 feet bgs or greater. Two of the samples that exceeded the residential screening level are in the N217A area (N217-6 and N217-06S), and the other two are in the FSFA (PEN-29 and PEN-35). The detections of lead at the N217A area were at 8 and 10 feet bgs. Human receptors would be exposed to these concentrations only if intrusive development of the area brings the soil at those depths to the surface. In addition, lead was detected above the residential screening criterion in only two out of 60 samples collected at the N217A area. Based on the nature and extent of lead contamination at the N217A area, lead was not carried forward in this EE/CA for the N217A area. However, lead at the FSFA will be addressed by the removal action.

4,4'-DDT concentrations exceed both the industrial and residential screening level in two samples. Both these samples are located in the FSFA area, at depths of 4 feet bgs (PEN-09 and PEN-26).

Aroclor-1254 concentrations exceed the residential screening level in two samples (FSDA-H001 and FSDA-H003). Both these samples are located in the FSFA area and were collected at or near the ground surface (sample depths of 0 to 0.5 foot and 1.5 to 2 feet bgs).

Aroclor-1260 concentrations exceed the residential screening level in 47 samples and the industrial screening level in 16 samples. All but one of these samples is in the FSFA area; the other sample is in the N217A area at 8 feet bgs (N217-6), and the concentration at that location exceeds only the residential screening level. Aroclor-1260 was detected above screening levels in only one of 60 samples collected at the N217 and N217A areas. Because of its low detection frequency and depth of the sample, Arcolor-1260 at the N217A area will not be addressed by the removal action at AOI 14.

Aroclor-1268 concentrations exceed the residential screening level in three samples, all in the FSFA area at depths ranging from 4 to 10 feet bgs (two samples at PEN-33 and one at PEN-35).

2.4.1.4 Streamlined Human Health Risk Evaluation Conclusions

AOI 14 poses potential current and future risk to human health in some areas from exposure to site soil with chemical concentrations greater than background concentrations and EPA or DTSC screening levels (Plates 3 and 4).

The removal action at AOI 14 should be designed to address both current and future risks to human health. The removal action should address lead, 4,4'-DDT, Aroclor-1254, Aroclor-1260, and Aroclor-1268 in the northern portion of the FSFA. The few results that exceed screening levels for lead and Aroclor-1260 in the N217A area were not retained for removal action based on the depths of the samples and the low detection frequencies.

2.4.2 Streamlined Ecological Risk Evaluation

This section presents the streamlined ecological risk evaluation for AOI 14, including a description of the ecological setting of the site, potential receptors and exposure pathways, and characterization of site risk. Although the primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 into adjacent Navy IR Site 25, the streamlined ecological risk evaluation considered potential exposure of both wetland and terrestrial receptors to contaminated soil from AOI 14.

2.4.2.1 Ecological Setting

The three peninsulas that make up AOI 14 provide mainly terrestrial habitat within and adjacent to the wetland habitat of Navy IR Site 25, which serves as a stormwater retention pond and supports wetland species. Wetland vegetation, including pickleweed (*Salicornia virginica*), extends onto the lower portions of the slopes of the peninsulas, before transitioning to upland species (Alderete 2013). Information presented below regarding the ecology of the site, including flora and fauna at AOI 14, was gathered from previous ecological surveys (Alderete 2013), a search of the California Natural Diversity Database (California Department of Fish and Wildlife [CDFW] 2014), and a site visit conducted on October 9, 2014.

In 2013, NASA requested an emergency formal consultation with USFWS so that a silt fence could be installed around the FSFA to protect the surrounding area from potential erosion of contaminated soil into the stormwater settling basin. The silt fence was installed in response to a RCRA Order from EPA indicating the unfenced condition of the site posed an "imminent and substantial endangerment to the environment" (NASA 2013b). NASA surveyed the site in November 2013 before the silt fence was installed for the presence of California seablite (*Sueda californica*) and burrowing owls (*Athene cunicularia*), and did not find any evidence of either species (Alderete 2013). However, during the surveys, a small mouse was observed within the pickleweed at the toe of the peninsula that may have been a salt marsh harvest mouse (*Reithrodontomys raviventris*), although a positive identification could not be made.

Vegetation at the FSFA varies substantially from the toe of the slope to the top of the peninsula (Alderete 2013). At the toe of the slope adjacent to Navy IR Site 25, pickleweed is present for up to several feet upward from the surface of the retention pond. Moving farther up the toe of the slope on the peninsula, there are a number of species present typical of upper levels of coastal salt marsh habitat such as pickleweed, saltgrass (*Distichlis spicata*), alkali heath (*Frankenia salina*), spearscale (*Atriplex triangularis*), Italian thistle (*Carduus pycnocephalus*), and mule fat (*Baccharis salicofolia*). The vegetation at the top of the slope of the peninsula consists of upland grassland species common around NASA Ames, including wild oat (*Avena* spp.), teasel (*Dispacus* spp.), fennel (*Foeniculum vulgare*), bristly ox-tongue (*Picris echioides*), salt heliotrope (*Heliotropium curassavicum*), and pepperweed (*Lepitidium latifolium*). The Navy removed surface vegetation within the N217A area as part of the remediation for Navy IR Site 25, which the Navy restored with hydroseeding (ITSI Gilbane 2013).

Special status species that may occur at AOI 14 or in the adjacent wetland habitat, including those federally or state-listed as threatened or endangered, state species of special concern, and state fully protected species, include the following:

- California least tern (*Sternula antillarum browni*) (federally endangered; state endangered; state fully protected)
- Ridgway's rail (formerly California clapper rail) (*Rallus longirostris obsoletus*) (federally endangered; state endangered; state fully protected)
- Salt marsh harvest mouse (federally endangered; state endangered; state fully protected)
- Western snowy plover (*Charadrius alexandrius nivosus*) (federally threatened; state species of special concern)
- California black rail (*Laterallus jamaicensis coturniculus*) (state threatened; state fully protected)
- Swainson's hawk (*Buteo swainsoni*) (state threatened)
- Alameda song sparrow (*Melospiza melodia pusillula*) (state species of special concern)
- California burrowing owl (state species of special concern)
- Northern harrier (*Circus cyaneus*) (state species of special concern)
- Pallid bat (*Antrozous pallidus*) (state species of special concern)
- Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*) (state species of special concern)
- Salt marsh wandering shrew (*Sorex vagrans halicoetes*) (state species of special concern)

- Townsend's big-eared bat (*Corynorhinus townsendii*) (state species of special concern)

2.4.2.2 Ecological Receptors and Exposure Pathways

As described in Section 2.4.2.1, the site currently provides terrestrial habitat suitable for ecological receptors such as terrestrial plants, soil invertebrates, amphibians and reptiles, birds, and mammals that may be exposed to contaminated soil. If contaminated soil is transported off site, ecological receptors that may be exposed in the surrounding wetland habitat include wetland plants, benthic invertebrates, birds, and mammals.

Soil is the only exposure medium of concern for AOI 14. Exposure routes (the point of entry of a chemical into a receptor) include root uptake and leaf sorption for plants and dermal contact and ingestion of contaminated soil and food for animals. Plants exposed to chemicals in soil may accumulate concentrations in tissues that cause adverse effects on growth, reproduction, or survival. Independent of direct effects on the plant, chemicals in plant tissues may be transferred to herbivores, omnivores, and detritivores, which in turn may be consumed by omnivores and carnivores. This food-chain transfer and associated bioaccumulation could result in high doses of chemicals to higher trophic-level consumers. Terrestrial birds and mammals may ingest soil directly while they feed, groom, and burrow (Beyer, Connor, and Gerould 1994). Soil on or in the bodies of prey may also be consumed with the prey.

Potential pathways for chemical mobilization and transport within the site or other off-site locations include: (1) erosion and transport of dissolved chemicals or chemicals adsorbed to suspended particles, and (2) biotic transport of chemicals in plant and animal tissue from one area of the site to another or to off-site locations. Biotic transfer of contaminants at AOI 14 occurs through the movement and activities of animals. Contaminants in the tissues of mobile receptors, such as insects and migratory birds, may be carried off site and deposited at other locations in feces and corpses. In addition, chemicals may be transferred through the food web by incidental ingestion of contaminated soil or through ingestion of contaminated food items such as plants or prey.

There is both current and potential future exposure of ecological receptors to contaminated soils at AOI 14. There is a potentially complete current exposure pathway to contaminated soil for those terrestrial receptors that are exposed to site soil via dermal contact, direct uptake (plants), ingestion of contaminated prey, or incidental ingestion while foraging. The potential for future exposure of wetland receptors to contaminated soil from AOI 14 is based on erosion and off-site transport of soil into Navy IR Site 25, which has already been remediated for the protection of wetland receptors (ITSI Gilbane 2013). The transport of contaminated soil from AOI 14 to Navy IR Site 25 could result in concentrations of lead, zinc, total DDT, and total PCBs that exceed the Navy IR Site 25 do-not-exceed remediation goals (Table 1), which have already been achieved and are protective of wetland receptors.

2.4.2.3 Characterization of Site Risk

To evaluate potential risk posed to ecological receptors at AOI 14 in this streamlined ecological risk evaluation, site soil concentrations were compared with:

1. Navy IR Site 25 do-not-exceed remediation goals (shown on Table 1) to protect receptors in the wetland from erosion of soil from AOI 14 with contaminant concentrations that exceed the remedial goals because the primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 into adjacent Navy IR Site 25;

2. Tier 1 environmental screening levels (ESLs) from the table titled "Tier 1 ESLs (screening levels resulting from default settings)" in Water Board 2013, which are conservative screening levels protective of the environment (terrestrial biota) to consider the potential need for action to protect terrestrial receptors based on current concentrations in soil (Tier 1 ESLs were developed to address both human health and terrestrial biota and are intended to focus on significant site contamination to streamline the investigation and cleanup process [Water Board 2013], which is consistent with the goals and scope of the EE/CA for AOI 14); and

3. Background soil data (Scott 1995; Duvergé 2011) because chemicals detected at concentrations within the range of background concentrations do not warrant a removal action, and the site will not be cleaned up to levels less than background concentrations.

The ESLs and Navy IR Site 25 remediation goals are presented in Table 7, along with the results of the background comparison.

There may be current risk posed to terrestrial ecological receptors in areas of AOI 14 where concentrations of chemicals in soil exceed background concentrations and Tier 1 ESLs for cadmium, lead, total DDT, total PCBs, and TPH–motor oil range organics. The majority of the sample locations where ESLs and background concentrations are exceeded are located in the northern portion of the FSFA; there are no elevated results within the southern portion of the FSFA where the fill supports the roadway (Plate 5 and Appendix A, Attachment A5). The ESLs are not exceeded in the N217 and N217A areas, with the exception of two sample locations where detected concentrations of lead (N217-6 and N217-06S) and PCBs (N217-6) exceeded their criteria. However, ecological receptors are not exposed to these lead and PCB concentrations because they are at depths of 8 and 10 feet bgs (Plate 6). Therefore, only the northern portion of the FSFA contains contaminants that pose a current risk to ecological receptors at AOI 14.

Table 7: Ecological Screening Levels and Background Comparison				
Chemical	**Detected Concentration (Min/Max)**	**Tier 1 ESL**	**Navy IR Site 25 RG**	**Above Background?**
Antimony	2.9 / 9.9	20	--	Inconclusive
Arsenic	2.1 / 16	0.369	--	No
Beryllium	0.27 / 0.72	4	--	No
Cadmium	0.18 / 15	**12**	--	**Inconclusive**
Chromium	7.9 / 110	750	--	No
Copper	1.9 / 57	230	--	No
Lead	2.5 / 280	**80**	**93.8**	**Yes**
Mercury	0.018 / 0.32	6.7	--	Inconclusive
Nickel	17 / 120	150	--	No
Silver	0.53 / 2.1	20	--	Inconclusive
Zinc	18 / 300	600	314	Inconclusive
Total DDT	0.0039 / 35	**1.7**	**0.109**	--
Total PCBs	0.02 / 180	**0.22**	**0.210**	--
TPH – Motor Oil Range Organics	10 / 400	**100**	--	--

Notes: All values shown are in milligrams per kilogram. Metals with "inconclusive" designations based on the background comparisons are treated the same as metals with "yes" conclusions in the EE/CA. In addition, all metals were evaluated for human health and ecological risk, regardless of their background comparison conclusion, to provide a conservative evaluation of risk.

Bold: Concentrations of chemicals in soil exceed screening levels or background concentrations

--	Not Applicable	Min/Max	Minimum/Maximum
DDT	Dichlorodiphenyltrichloroethane	PCB	Polychlorinated biphenyl
ESL	Environmental screening level	RG	Remediation goal
IR	Installation Restoration	TPH	Total petroleum hydrocarbons

Concentrations of TPH-motor oil range organics exceeded the Tier I ESL in only one sample (PEN-30) at 10 feet bgs. Similarly, concentrations of cadmium exceeded the Tier I ESL in only one sample (PEN-09), also at 10 feet bgs. With the exception of this detection, all other detections of cadmium were within the range of detected background concentrations. As discussed in Section 2.4.1.3, the high detection of cadmium at PEN -09 likely is an outlier and does not represent wide-spread cadmium contamination at AOI 14. In addition, the depth of the sample (10 feet bgs) is below the depth of concern for ecological receptors (6 feet bgs). Therefore, ecological receptors would not be exposed to these concentrations. TPH-motor oil range organics and cadmium will not be addressed by the removal action because they do not pose a risk to ecological receptors at AOI 14.

There may be risk posed to wetland receptors from areas of AOI 14 where concentrations of chemicals exceed the do-not-exceed remediation goals for Navy IR Site 25. If soil were to erode from those areas, the soil concentrations of lead, total DDT, and total PCBs may exceed Navy IR Site 25 goals in the remediated wetland, which could pose a risk to wetland receptors. No samples at AOI 14 contained concentrations of zinc that exceeded the Navy IR Site 25 remediation goal. The concentrations in soil within the northern portion of the FSFA exceed the Navy IR Site 25 do-not-exceed goals. The soil does not exceed the remediation goals in the N217 and N217A areas or in the southern portion of the FSFA, where the fill supports the roadway (Plates 5 and 6, Attachment A5 of Appendix A).

Therefore, only soil in the northern portion of the FSFA poses a potential future risk to wetland receptors adjacent to AOI 14.

2.4.2.4 Streamlined Ecological Risk Evaluation Conclusions

AOI 14 poses potential current and future risks to ecological receptors in the northern portion of the FSFA (Plate 5):

1. Current potential risk is posed to terrestrial receptors from soil in the northern portion of the FSFA with concentrations of lead, total DDT, and total PCBs, greater than background concentrations and Water Board ESLs.
2. Future potential risk is posed to wetland receptors from soil in the northern portion of the FSFA with concentrations of lead, total DDT, and total PCBs greater than Navy IR Site 25 do-not-exceed remediation goals.

The removal action at AOI 14 should address both current and future risks to ecological receptors.

2.5 CONCEPTUAL SITE MODEL

The source of contamination at AOI 14 is contaminated fill material placed on the native soil sometime between 1968 and 1987, although most of the fill appears to have been placed prior to 1977, based on aerial photographs. There are no known records indicating the sources of the fill material, but it is likely from construction projects at NASA Ames. A visual inspection of the surface of the FSFA indicates that the fill material contains a significant amount of construction debris including concrete, rebar, and other miscellaneous piping and metal scraps.

The FSFA is not actively used, and access to this area is restricted by the NASA Ames security fence to the south and by the stormwater retention pond on all other sides. The public can potentially access AOI 14 from the walking trails north and west of Navy IR Site 25 by crossing the stormwater retention pond; however, this has not been known to occur and access to the FSFA is not allowed by NASA. There are two buildings on AOI 14, Buildings N217 and N217A, which are currently used for research, development, and testing of magnetic field equipment. Human receptors include industrial workers and hypothetical future residents. Residential use is not NASA's current or planned use of the site and is not anticipated, but the residential scenario is included for consideration of unrestricted future use because the removal action is expected to be the final action for AOI 14.

The FSFA currently provides terrestrial habitat suitable for ecological receptors such as terrestrial plants, soil invertebrates, amphibians and reptiles, birds, and mammals that may be exposed to contaminated soil. If contaminated soil is transported off site, ecological receptors that could be exposed in the surrounding wetland habitat include wetland plants, benthic invertebrates, birds, and mammals. Exposure routes include root uptake and leaf sorption for plants and dermal contact and ingestion of contaminated soil and food for animals.

Only soil was considered as an exposure medium for the site. Groundwater is not a medium of concern because fill material is not in contact with groundwater, and sampling results indicate that contamination is not impacting groundwater. There is no surface water at AOI 14 and there is no surface water in adjacent Navy IR Site 25 during the dry season. During the wet season, rising water levels in the stormwater retention pond can inundate the sides of AOI 14 and carry soil into surrounding Navy IR Site 25. This pathway is currently controlled by the ICAM silt fence. In addition, this transport of soil is not considered a significant exposure pathway based on the conclusions of the Navy IR Site 25 risk assessment (SulTech 2007). Therefore, surface water is not a medium of concern for the removal action at AOI 14. None of the contaminants detected in soil or groundwater at AOI 14 are volatile, except one low-level detection of TCE in groundwater in 1995. Therefore, soil gas is not a medium of concern for AOI 14.

Metals, PCBs, and pesticides have been detected in the fill material. Concentrations of lead, total PCBs, and total DDT exceed background concentrations and screening criteria for industrial workers, hypothetical residents, or ecological receptors (both terrestrial receptors and wetland receptors in the adjacent Navy IR Site 25 stormwater retention pond). The sample locations where concentrations of contaminants exceed the screening criteria are limited to the northern portion of the FSFA, as shown on Plates 3 through 6. These contaminants are distributed throughout the fill material in this area, both vertically and horizontally. The apparently random distribution of contaminants suggests that the source of the contaminants is not an on-site source, but rather a source from the original location of the soil.

Potential human exposure pathways for soil include incidental ingestion of soil, dermal exposure to soil, and inhalation of soil. All three of these exposure pathways are included in the calculations of EPA regional screening levels and DTSC screening levels (EPA 2014; DTSC 2014). AOI 14 poses potential current and future risk to human health in the northern portion of the FSFA from exposure to site soil with chemical concentrations greater than background concentrations and EPA or DTSC screening levels (Plates 3 and 4).

There is both current and potential future exposure of ecological receptors to contaminated soil at the northern portion of the FSFA. The transport of contaminated soil from AOI 14 to Navy IR Site 25 could result in concentrations of lead, total DDT, and total PCBs that exceed the Navy IR Site 25 do-not-exceed remediation goals (Table 1), which have already been achieved and are protective of wetland receptors. Also, there is current exposure to contaminated fill material for terrestrial receptors present at the site and exposed to site soil via dermal contact, direct uptake (plants), ingestion of contaminated prey, or incidental ingestion while foraging.

Depending on conditions such as pH and redox potential, lead could dissolve into stormwater. However, under typical conditions, the primary fate of lead is to remain sorbed to soil particles. Therefore, the main transport mechanism for lead is expected to be soil erosion from AOI 14 onto adjacent properties.

Pesticides and PCBs have strong affinities for sorption to soil and do not readily partition into water, so small volumes of these chemicals have low mobilities. The most likely

potential for migration of pesticides and PCBs would be transport via soil erosion from AOI 14 to Navy IR Site 25. The major fate of pesticides and PCBs in soil is degradation and transformation by microbial metabolism. Fate and transport of PCBs in soil is affected by the degree of chlorination of the Aroclor compound. More highly chlorinated compounds, such as Aroclor-1254, Aroclor-1260, and Aroclor-1268, persist longer in the environment, often for decades (SulTech 2007).

3.0 IDENTIFICATION OF REMOVAL ACTION OBJECTIVES

The principal threat to the environment at AOI 14 is the release of contaminants to the surrounding environment by erosion. AOI 14 is bordered by Navy IR Site 25, which includes the Eastern Diked Marsh, stormwater settling basin, and stormwater retention pond. The Navy completed remediation of Navy IR Site 25 in 2012 and is currently monitoring the ecological restoration. Erosion from AOI 14 could re-contaminate Navy IR Site 25 if no action is completed for AOI 14. NASA Ames installed a silt fence barrier around the FSFA as an ICAM in December 2013 to prevent future releases of contaminated soil to Navy IR Site 25 by erosion until a permanent action is completed.

The primary objective of the non-time-critical removal action at AOI 14 is to prevent the erosion of contaminated soil from AOI 14 to Navy IR Site 25. However, this removal action is anticipated to be the final action at the site. Therefore, the potential risks to human and terrestrial ecological receptors also were evaluated to ensure that all potential risks presented by AOI 14 are addressed by this removal action.

This section identifies potential federal and state applicable or relevant and appropriate requirements (ARAR) and defines the scope of the removal action with removal action objectives (RAO) and cleanup goals.

3.1 POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

CERCLA § 121(d) requires remedial actions on CERCLA sites to attain (or waive) any federal or more stringent state environmental standards, requirements, criteria, or limitations that are determined to be legally applicable or relevant and appropriate. Although CERCLA § 121(d) does not apply to removal actions, EPA has promulgated a requirement in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at 40 Code of Federal Regulations (CFR) § 300.415(j) that "removal actions ... shall to the extent practicable considering the exigencies of the situation, attain applicable or relevant and appropriate requirements under federal environmental or state environmental or facility siting laws." The lead agency should consider appropriate factors for determining whether compliance with ARARs is practicable, including the urgency of the situation and the scope of the removal action. There is an adequate planning period for this removal action, so NASA has evaluated all potential ARARs, including state ARARs, and has not identified any potential ARARs that the removal action will not meet based on the exigencies of the situation.

The identification of ARARs is an iterative process. Potential ARARs are identified in the EE/CA, and the final determination of ARARs (no longer “potential” ARARs) will be made in the Action Memorandum as part of the removal action selection process.

3.1.1 ARARs Overview

Identification of ARARs is a site-specific determination and involves a two-part analysis: first, a determination of whether a given requirement is applicable; then, if it is not applicable, a determination of whether it is relevant and appropriate. A requirement is deemed applicable if the law or regulation directly addresses the circumstances at a site.

An applicable federal requirement is an ARAR. An applicable state requirement is an ARAR only if it is more stringent than the federal ARAR.

If the requirement is not legally applicable, the requirement is evaluated to determine whether it is relevant and appropriate. A requirement must be determined to be both relevant and appropriate to be considered an ARAR. The criteria for determining relevance and appropriateness are listed in 40 CFR §300.400(g)(2) and include the following:

- The purpose of both the requirement and the CERCLA action
- The medium regulated or affected by the requirement and the medium contaminated or affected at the CERCLA site
- The substances regulated by the requirement and the substances found at the CERCLA site
- The actions or activities regulated by the requirement and the response action contemplated at the CERCLA site
- Any variances, waivers, or exemptions of the requirement and their availability for the circumstances at the CERCLA site
- The type of place regulated and the type of place affected by the release or CERCLA action
- Any consideration of use or potential use of affected resources in the requirement and the use or potential use of the affected resources at the CERCLA site

A requirement must be substantive to be an ARAR. Procedural or administrative requirements such as permits and reporting requirements are not considered ARARs. CERCLA § 121(e)(1) states, "No Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely on-site, where such remedial action is selected and carried out in compliance with this section." The term *on-site* is defined for this ARAR discussion as the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the removal action.

Nonpromulgated advisories or guidance issued by the federal or state governments are not legally binding and do not have the status of ARARs. Such requirements may be useful and are to-be-considered. However to-be-considered requirements are not applied as cleanup standards because they are neither promulgated nor enforceable, so they do not have the same status under CERCLA as do ARARs.

ARARs are generally divided into three categories pursuant to EPA guidance (EPA 1988): chemical-, location-, and action-specific requirements. This classification was developed to aid in identifying ARARs; however, ARARs may not fall precisely into one group or another.

As the lead agency, NASA has identified federal ARARs for AOI 14. NASA requested potential state ARARs from the Water Board on September 22, 2014. The Water Board provided potential state ARARs on October 27, 2014. NASA requested potential state ARARs from CDFW on November 3, 2014. CDFW provided potential state ARARs on November 18, 2014. DTSC provided potential ARARs on November 24, 2014. Potential state ARARs accepted by NASA are included in this EE/CA. In addition, NASA provided responses to the potential state ARARs in Appendix B.

Potential chemical-specific and location-specific ARARs are listed in the following sections. Tables describing the chemical- and location-specific ARARs in more detail are included in Appendix B. Action-specific ARARs are presented in Section 4.2.1 and Appendix B for each of the alternatives evaluated.

3.1.2 Potential Chemical-Specific ARARs

Chemical-specific ARARs are numerical values promulgated for a specific environmental medium. If available, chemical-specific ARARs can be used as the basis for establishing a cleanup level. The environmental medium of concern at AOI 14 is soil. Groundwater, surface water, and air are not media of concern for this site.

No potential chemical-specific ARARs were identified for the contaminants at AOI 14 that present a numerical cleanup goal or were used to develop RAOs.

Potential chemical-specific ARARs are identified for Alternative 3, which would generate waste for off-site disposal. The generated waste must be characterized to dispose of the waste at an appropriate facility. The federal RCRA requirements at 40 CFR Part 261 do not apply in California because the state RCRA program has been authorized by the EPA. As a result, the authorized state RCRA requirements are potential federal ARARs. NASA has not found any information indicating the waste at AOI 14 is RCRA listed waste, primarily because the fill at AOI 14 was placed in the late 1970s, before the Hazardous and Solid Waste Amendments to RCRA were enacted. Therefore, the waste would be analyzed to determine if it is RCRA characteristic waste prior to off-site disposal. The potential federal ARARs for characterizing the waste are:

- California Code of Regulations Title 22 (22 CCR), § 66261.21 – defining the RCRA characteristic of ignitability;
- 22CCR § 66261.22 – defining the RCRA characteristic of corrosivity;
- 22 CCR § 66261.23 – defining the RCRA characteristic of reactivity;
- 22 CCR § 66261.24(a)(1) – defining the RCRA characteristic of toxicity; and
- 22 CCR § 66261.100 – defining a RCRA hazardous waste.

NASA has also accepted the following potential state ARARs for determining if the waste is state-regulated hazardous waste:

- 22 CCR §§ 66261.22(a)(3) and (4), 66261.24(a)(2) through (8), and 66261.101 – defining state-regulated hazardous waste.

If concentrations of contaminants cause the waste to meet the definitions of RCRA characteristic waste, then it must be managed and disposed of as hazardous waste.

If the waste does not meet the definition of RCRA hazardous waste, it must still be characterized according to potential state requirements to determine if it must be disposed of at a classified facility. The potential state ARARs are:

- 27 CCR § 20210, 20220, and 20230 – defining a designated waste, nonhazardous solid waste, and inert waste.

3.1.3 Potential Location-Specific ARARs

Location-specific ARARs are identified based on certain site-specific characteristics or protected resources present at the site. Biological resources are the protected resources present or potentially present at the site. There are no cultural or protected archaeological resources present, and there are no other protected or regulated resources at the site. AOI 14 is surrounded by jurisdictional wetlands; however, none of the alternatives evaluates the discharge of dredge and fill material into the wetlands.

The biological resources present or potentially present at AOI 14 include the federal and state endangered salt marsh harvest mouse, Ridgway's rail (formerly known as the California clapper rail), and California least tern. In addition, the following special status species are present or potentially present: Western snowy plover (a federal threatened species), California black rail (a state endangered and state fully protected species), and Swainson's hawk (a state threatened species).

NASA has identified the following potential federal location-specific ARARs for the protection of biological resources:

- Endangered Species Act of 1973 at 16 United States Code (U.S.C.) §§ 1536(a) and (h)(1)(B) – which prohibits federal agencies from jeopardizing the continued existence or the critical habitat of federal threatened or endangered species present or potentially present at the site including the salt marsh harvest mouse, Ridgway's rail, California least tern, and the Western snowy plover; and

- Migratory Bird Treaty Act at 16 U.S.C. § 703 – which protects migratory birds (listed at 50 CFR § 10.13) from unregulated takings.

This removal action is designed to protect potential ecological receptors from exposure to contamination in fill at AOI 14 and at adjacent Navy IR Site 25. In addition, NASA has been working with USFWS to mitigate the effects of the installation of the silt fence on the pickleweed habitat around and near the site. NASA will continue to work with USFWS and

CDFW to develop appropriate avoidance actions in the removal action design and has included ecological restoration and monitoring as a component of each alternative evaluated, except the no action alternative.

NASA has accepted the following potential state location-specific ARARs for the protection of biological resources:

- California Fish and Game Code § 1908 – which prohibits the taking of endangered or rare native plants;
- California Endangered Species Act at California Fish and Game Code § 2080 – which prohibits the taking, possessing, purchasing, or selling of any state threatened or endangered species including the salt marsh harvest mouse, Ridgway rail, California least tern, California black rail, and Swainson's hawk;
- California Fish and Game Code § 3511 - which prohibits the taking of fully protected birds including the Ridgway's rail, California black rail, and California least tern;
- California Fish and Game Code § 4700 – which prohibits the taking of fully protected mammals or their parts including the salt marsh harvest mouse; and
- California Fish and Game Code § 5650 – which prohibits the deposition or placing of material deleterious to plant, fish, or bird life where it can pass into waters of the state.

NASA has also identified the following potential federal location-specific ARARs for the protection of the jurisdictional wetland that is adjacent to AOI 14:

- Clean Water Act § 404 – prohibiting a discharge of dredge and fill material into the waters of the United States without a permit (pursuant to 33 CFR § 323.2(d)(2)(iii) the discharge of dredge and fill material does not include incidental fallback of material)
- Executive Order 11990 – requiring federal agencies to avoid new construction in wetlands unless (1) there is no practicable alternative to such construction; and (2) the proposed action includes all practicable measures to minimize harm to wetlands.

3.1.4 Potential Action-Specific ARARs

The potential action-specific ARARs are discussed with the alternatives in Section 4.2.1.

3.2 REMOVAL ACTION SCOPE

The main purpose of the non-time-critical removal action at AOI 14 is to prevent erosion of contaminated soil from AOI 14 to adjacent Navy IR Site 25, which was remediated by the Navy in 2012 for the protection of wetland receptors (ITSI Gilbane 2013). In addition, evaluation of potential risks to human and terrestrial receptors was conducted

(Section 2.4) because the removal action is intended to be the final action at AOI 14. The RAOs for AOI 14 are:

- Prevent erosion of soil where concentrations of lead, total DDT, and total PCBs exceed remediation goals for adjacent Navy IR Site 25 to protect wetland receptors.
- Prevent exposure to surface and subsurface soil containing concentrations of lead, total DDT, and total PCBs above levels that are protective of terrestrial ecological receptors.
- Prevent exposure to surface and subsurface soil containing concentrations of Aroclor-1260 and 4,4-DDT above levels that are protective of industrial workers.

The numeric cleanup goals are set to equal the Navy IR Site 25 do-not-exceed remediation goals, shown in Table 1 and described in Section 2.1.3, because the primary objective of the removal action is to address potential contaminant migration to Navy IR Site 25. These goals were found to be protective of wetland receptors at adjacent Navy IR Site 25. The Navy IR Site 25 goals included cleanup goals for total DDT, which was defined as the sum of the detected concentrations of 4,4-DDT, 4,4-DDD, and 4,4-DDE. The sum of the detections of 4,4-DDT, 4,4-DDD, and 4,4-DDE at each sampling location at AOI 14 will be compared with the cleanup goal for total DDT. Similarly, the cleanup goal for total PCBs was the sum of the detected concentrations of all Aroclor congeners detected at Navy IR Site 25. Only Aroclor-1254, Aroclor-1260, and Aroclor-1268 were detected at AOI 14. The concentrations of these three congeners will be summed at each sample location, and then compared with the cleanup goal for total PCBs to identify areas to be addressed by the removal action.

The Navy IR Site 25 do-not-exceed remediation goals for lead, total PCBs, and total DDT are more conservative than the human health screening levels for industrial workers and hypothetical residents, identified in Section 2.4.1. In addition, the sampling locations where concentrations of lead, 4,4-DDT, and total PCBs exceed the human health screening levels are contained within the areas where concentrations of lead, total DDT, and total PCBs exceed the Navy IR Site 25 remediation goals (Plates 3 and 7). Therefore, the removal action will also address the potential risks to industrial workers and hypothetical residents by addressing the areas at AOI 14 with concentrations of contaminants above the Navy IR Site 25 remediation goals.

As discussed in Section 2.4.2, a streamlined evaluation of potential risks to terrestrial receptors was conducted. Detected concentrations of chemicals in soil were compared with the Water Board Tier 1 ESLs. The sampling locations where concentrations of lead, total DDT, and total PCBs exceed the ESLs and pose a potential risk to ecological receptors are in the same areas where concentrations of these chemicals exceed the Navy IR Site 25 remediation goals — that is, in the northern portion of the FSFA (Plate 6). Therefore, the removal action will also address all areas that pose a potential risk to terrestrial receptors.

The cleanup goals for the non-time-critical removal action at AOI 14 are shown in Table 8. The areas at AOI 14 where concentrations of lead, total DDT, and total PCBs exceed these goals are indicated on Plates 7 and 8. The northern portion of the FSFA, as indicated on Plate 7, will be addressed by the removal action. Soil at the N217 and N217A areas do not require mitigation and will not be addressed by the removal action.

Concentrations of total PCBs exceeded the cleanup goal in one sediment sample collected for the ICAM annual sampling. Sediment sample FSFA-SDS08 was collected in September 2014 outside of the ICAM silt fence and contained 0.61 mg/kg of Aroclor-1260. Additional samples were collected in October 2014 around FSFA-SDS08 to delineate the area of high concentrations of PCBs. Two of the five additional sediment samples also contained concentrations of total PCBs above the cleanup goal. Based on visual observation, this area contains potential fill material from AOI 14 and was not excavated as part of the Navy's remedial action at Navy IR Site 25. Therefore, the area around sample FSFA-SDS08 will also be addressed by the removal action.

Table 8: Cleanup Goals for AOI 14

Chemical	Goal (mg/kg)
Lead	93.8
Total DDT[a]	0.109
Total PCBs[b]	0.210

Notes:

a Total DDT concentrations were calculated by summing the detected concentrations of 4,4-DDT, 4,4-dichlorodiphenyldichloroethane, and 4,4-dichlorodiphenyldichloroethene.

b Total PCBs was calculated by summing the detected concentrations of Aroclor congeners. Aroclor-1254, Aroclor-1260, and Aroclor-1268 were detected at AOI 14.

DDT Dichlorodiphenyltrichloroethane

mg/kg Milligrams per kilogram

PCB Polychlorinated biphenyls

In addition to the cleanup goals, site-wide (or area-weighted) average remediation goals developed for the Navy IR Site 25 remedial action will be used in conjunction with the AOI 14 cleanup goals (Table 1). Although these goals are not cleanup goals for AOI 14, the site-wide average remediation goals will be used to ensure that residual concentrations of these chemicals at AOI 14 will be protective of wetland receptors. After the removal action is complete, the residual site-wide average concentrations will be calculated for AOI 14, using the results of the post-action confirmation samples. If the site-wide average concentration exceeds the Navy IR Site 25 site-wide average remediation goal, additional soil at AOI 14 may be addressed to reduce the residual site-wide average concentration.

3.3 DETERMINATION OF REMOVAL SCHEDULE

NASA intends to finalize the EE/CA and Action Memorandum and complete the removal action while maintaining the ICAM silt fence. The schedule for implementation of the selected remedy will be included in the Action Memorandum, and will be incorporated into the FFA Site Management Plan schedule.

After this EE/CA is complete, NASA will prepare an Action Memorandum that selects the removal action for AOI 14. Once the Action Memorandum is signed, a removal design will be prepared. Construction activities are expected to require approximately 6 to 12 months to complete and will be scheduled to avoid or minimize disturbance to special status species and habitat, particularly during breeding season.

4.0 IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES

This section identifies removal technologies and develops removal alternatives to address the RAOs for AOI 14. The removal alternatives are evaluated using the nine NCP criteria.

4.1 IDENTIFICATION OF REMOVAL TECHNOLOGIES

This section describes general response actions and removal technologies that could be used to achieve the RAOs. In addition, CERCLA requires that the no-action alternative be included among the general response actions. The no-action alternative serves as a baseline for comparison with other alternatives.

General response actions and removal technologies for AOI 14 are presented in Table 9. The following general response actions were identified to meet the RAOs for contaminants in soil.

- No Action: The no-action alternative serves as a baseline for comparison with other alternatives.
- Land Use Controls (LUC): LUCs include engineering controls and institutional controls (IC) such as administrative or legal controls. LUCs can minimize or prevent human exposure to contaminants. They also can limit changes to site conditions that alter exposure mechanisms.
- Containment: Containment includes covers over contaminated soil to prevent direct exposure of receptors through dermal contact and ingestion exposure pathways and transport of contaminated soil off site.
- Removal: Removal technologies include excavation and off-site disposal of contaminants in surface or subsurface soil. Contaminants are physically removed and transported to another location designed to handle them.
- Treatment: Treatment processes actively or passively reduce the toxicity, mobility, or volume of contaminants. Treatment processes include biological (including monitored natural attenuation), physical/chemical, or thermal technologies.

The technologies identified under each general response action were evaluated for effectiveness, implementability, and cost. This evaluation is summarized on Table 9. The rationales for eliminating technologies from further evaluation in this EE/CA are presented on the table; these technologies are not discussed further.

Table 9: Evaluation of Removal Technologies					
General Response Action	**Technology Description**	**Effectiveness**	**Implementability**	**Cost**	**Screening Status**
No Action	**No Action:** No action would be taken to reduce concentrations of or prohibit exposure to contaminants in soil at AOI 14.	Not Applicable	Not Applicable	Low	Retained; required by NCP
Land Use Controls	**Engineering Controls**: Fencing, barriers, and posted signs to restrict land use where there is exposure to potentially contaminated soil.	Effective for preventing exposure of human receptors; may not be effective at preventing exposure of ecological receptors	Easily Implemented	Low	Retained for use only in combination with other removal technologies; not retained as a stand-alone technology
	Institutional Controls: Legal or administrative actions to prohibit activities not specified for the designated land use.	Effective for preventing exposure of human receptors; may not be effective at preventing exposure of ecological receptors	Easily Implemented	Low	Retained for use only in combination with other removal technologies; not retained as a stand-alone technology
Containment	**Cover:** Placement of asphalt or clean soil over contaminated soil to eliminate direct exposure pathways and transport via erosion. Cover may include barriers to prevent terrestrial receptors from burrowing into contaminated soil and armor on side slopes to reduce potential for erosion.	Effective for minimizing direct contact with contamination in soil; requires long-term maintenance and monitoring to maintain effectiveness	Easily implemented; however, some reconfiguration of soil may be necessary to meet requirements for habitat restoration if sensitive habitats are disturbed; transportation of cover material to site may cause damage to infrastructure and negatively affect the surrounding community	Medium to high; area of contaminated soil is large and a biotic barrier and side-slope erosion control may be required, which would increase the cost of the cover	Retained

Table 9: Evaluation of Removal Technologies					
General Response Action	**Technology Description**	**Effectiveness**	**Implementability**	**Cost**	**Screening Status**
Removal	**Excavation and Off-Site Disposal:** Contaminated soil would be excavated and transported off site to an appropriate disposal facility	Effective; permanently removes contaminated soil and material from the site	Moderate difficulty in implementing; excavation would be easily implemented using common equipment and methods because contaminated soil is above the grade of the surrounding area; however, a large volume of soil would be excavated, sampled, and transported off site, which may negatively affect the surrounding community and pose transportation issues because NASA Ames is an active facility with sensitive populations and aged infrastructure.	High; because of the large volume of soil to be removed, transported, and disposed of	Retained
	Excavation and On-Site Disposal: Contaminated soil would be excavated, consolidated on site within the AOI 14 footprint, and covered to prevent exposure of human and ecological receptors to contaminated material.	Effective; consolidation unit would limit human and ecological receptors from exposure to contaminated material; long-term maintenance and monitoring would be required to maintain effectiveness	Difficult to implement because on-site area for consolidation is limited and may affect sensitive habitats in and around AOI 14; construction of a consolidation unit may require a liner and cover system; a large volume of soil would be excavated, transported, and placed, consolidation unit would require long-term maintenance and monitoring.	High; because of the large volume of soil to be removed and transported and the construction and maintenance of the consolidation unit.	Eliminated
Treatment	**Vitrification:** An electrical current is used to melt the contaminated soil, resulting in a chemically stable, leach-resistant glass or crystalline material	Effective; however, treated material may not support ecological habitat	Difficult to implement because of heterogeneity of soil and debris, and size and depth of treatment area	High	Eliminated

Table 9: Evaluation of Removal Technologies					
General Response Action	**Technology Description**	**Effectiveness**	**Implementability**	**Cost**	**Screening Status**
Treatment	**Bioremediation:** Concentrations of organic chemicals (DDT and PCBs) would be reduced through manipulation of physical, chemical, and biological conditions to accelerate biodegradation of chemicals; may include mixing microbes and nutrients into soil	Potentially effective for DDT and PCBs; effectiveness not proven for all congeners; not effective for metals; extensive bench and pilot testing would likely be required to determine bioremediation conditions, biodegradation rates, and effectiveness	Moderately to highly difficult to implement because it may be necessary to mix nutrients or microbes into the heterogeneous soil and debris; complete degradation of DDT and PCBs may be difficult to achieve within a reasonable time frame.	Moderate; would mostly involve monitoring contaminant concentrations over time but soil amendments may be necessary.	Eliminated; not effective for metals
	Soil Stabilization: A chemical reagent is mixed with contaminated soil to reduce the mobility of chemicals in soil by converting the chemicals to a more chemically-stable form or by encapsulating contaminated soil particles or reducing soil permeability.	Effective for reducing the potential for chemicals to leach into surface or groundwater; may not be effective at reducing bioavailability of contaminants to protect ecological receptors	Difficult to implement in situ because the reagent would need to be physically mixed into a large volume of heterogeneous fill and debris material; moderately difficult to implement ex situ	High for in situ application; however may decrease disposal costs if used in conjunction with excavation and off-site disposal to allow soil to be disposed of as nonhazardous waste instead of hazardous waste.	Eliminated; soil data indicate that fill material is likely suitable for disposal as nonhazardous waste so stabilization would not be cost-effective
	Thermal Treatment: Contaminants in soil would be destroyed or volatilized with ex situ incineration or thermal desorpton.	Effective for organic compounds but not effective for metals	Difficult to implement as a result of permitting restrictions and air quality regulations, and large volume of soil that would be excavated and then treated.	High	Eliminated

Notes:

DDT Dichlorodiphenyltrichloroethane
NCP National Oil and Hazardous Substances Pollution Contingency Plan
PCB Polychlorinated biphenyls

4.2 IDENTIFICATION AND EVALUATION OF REMOVAL ACTION ALTERNATIVES

This section summarizes the development and evaluation of removal alternatives. Combinations of the retained technologies listed on Table 9 were developed into removal alternatives that address the RAOs. These alternatives were then evaluated with the nine NCP evaluation criteria and compared with each other with respect to the nine NCP criteria.

4.2.1 Description of Removal Alternatives

This section describes the three removal alternatives developed for AOI 14 and describes the potential action-specific ARARs for each. The action-specific ARARs are also listed in the ARARs tables in Appendix B.

The following removal alternatives were developed to meet the RAOs for AOI 14:

- Alternative 1: No Action
- Alternative 2: Soil Cover and ICs
- Alternative 3: Excavation and Off-site Disposal

These alternatives represent a practical set of options that can be readily implemented at AOI 14 and are in accordance with the NCP, including: (1) a no action alternative (Alternative 1); (2) one or more alternatives that protect human health and the environment by preventing or controlling exposure (Alternative 2); and (3) an alternative that eliminates the need for long-term monitoring (that is, an "unrestricted use" alternative) (Alternative 3).

Long-term monitoring is required under CERCLA to ensure the RAOs are being met and to verify the effectiveness of the remedy when contamination is left in place at concentrations above the cleanup goals. Long-term monitoring may include chemical, biological, or physical monitoring. Ecological monitoring may be necessary to measure the performance of activities conducted to restore ecological habitat present at the site before the removal actions. Ecological monitoring typically includes measuring the density or percent cover of vegetation and survival of vegetation planted at the site.

4.2.1.1 Alternative 1: No Action

The no action alternative is required by the NCP (40 CFR § 300.430[e][6]). The no action alternative is the baseline alternative used to judge the effectiveness of all other removal action alternatives. Under this alternative, no action would be conducted at AOI 14. Contaminated soil that may pose a potential risk to human and ecological receptors would not be treated, removed, or contained. No attempt would be made to monitor or control exposure to contaminant in soil.

Potential action-specific ARARs are not identified for the no action alternative because pursuant to CERCLA § 121(e) ARARs apply to removal or remedial actions conducted entirely on site.

4.2.1.2 Alternative 2: Soil Cover and Institutional Controls

Alternative 2 includes the following components:

- Excavation of fill material at the FSFA that extends over the property line into the MROSD property (Plate 7) and near sediment sample FSFA-SDS08 where concentrations of total PCBs exceed cleanup goals;
- Installation of a temporary barrier to prevent special status species from entering work areas during removal action activities;
- Installation of a soil cover over the areas of AOI 14 where concentrations of contaminants exceed the cleanup goals, including a biotic barrier to prevent ecological receptors at AOI 14 from contacting the contaminated soil and possibly side-slope armoring that would support a vegetative layer to prevent erosion of underlying soil into Navy IR Site 25;
- Implementation of ICs to prohibit the future residential use of AOI 14 and to require long-term maintenance of the cover;
- Ecological mitigation and monitoring of areas where sensitive habitat was disturbed during removal action activities; and
- Long-term monitoring and maintenance of the soil cover.

Soil containing concentrations of contaminants above the cleanup goals is limited to the northern portion of the FSFA, as shown on Plate 7. This area will be covered to prevent exposure of ecological receptors to the contaminated soil. The performance objectives of the cover are: (1) to prevent the erosion of contaminated soil from AOI 14 into Navy IR Site 25; and (2) to prevent the exposure of human and terrestrial ecological receptors at AOI 14 to contaminated soil.

The FSFA is adjacent to Navy IR Site 25, a portion of which is owned by MROSD. The land surrounding the peninsula provides habitat that may support special status species. Under Alternative 2, the current FSFA will be reconfigured to excavate fill material that extends over the property line onto MROSD property. The overlapping area of the FSFA and the MROSD property is shown on Plate 7. In addition, fill material that exceeds site cleanup goals near sediment sample FSFA-SDS08 will be removed. The FSFA may also be reconfigured to minimize the area of the cover necessary or to maintain slope requirements without expanding the current site boundaries. Excavated material may be transported off site for disposal or placed on the existing surface of the FSFA, which will be covered by the soil cover. The cost estimate in Appendix C assumes the soil will be placed on the FSFA and covered.

The surface of the FSFA will be cleared of existing vegetation. The existing surface will be compacted and scarified as a base foundation layer for the soil cover and to remove any construction debris at the surface. Then, a biotic barrier will be placed on top of the contaminated soil to prevent exposure of plants and burrowing animals. A soil cover consisting of clean fill material will be placed on top of the biotic barrier, graded to

promote surface water drainage off of the cover, and revegetated with native and local plant stock when feasible. The side slopes of the cover will be maintained and may be armored with structural material, such as open cell articulated concrete blocks that will support a vegetative layer, to reduce erosion of underlying soil into Navy IR Site 25 and to protect against tidal action if Navy IR Site 25 is restored to a tidal marsh.

Construction details, including the type of biotic barrier, borrow source for the clean fill material, type and size of structural material, slope of the sides, and species and sources of selected vegetation, will be specified in the removal action design. These design specifications were assumed in this EE/CA for evaluation of the removal alternatives, particularly for the cost analysis in Appendix C. General assumptions of the scope of the alternative are described in the following paragraphs. More detailed assumptions were made in Appendix C for cost estimating purposes. Actual quantities and materials used may vary from this estimate.

The soil cover will be approximately 270,000 square feet, as shown on Plate 7. Approximately 11,000 cubic yards (bank) of soil will be reconfigured to remove contaminated fill material from the edges of the site, near the boundaries of Navy IR Site 25 (around sample FSFA-SDS08) and where fill material extends over the property line onto property owned by MROSD, and to reduce the size of the cover. Excavated fill material from the MROSD property or near sediment sample FSFA-SDS08 will be placed on top of the existing ground surface near the center of the northern portion of the FSFA. Plate 9 shows a typical cross-section of the reconfigured FSFA, including the soil cover.

The biotic barrier will be approximately 1.5 feet thick, consisting of a mixture of natural materials (gravel and cobbles). Natural materials were assumed instead of synthetic biotic barriers, because gravel and cobbles are readily available from local sources, a natural cover could be easily repaired and maintained and allow infiltration and drainage of stormwater, and may provide a better deterrent to burrowing animals.

The soil cover will be approximately 2 feet thick and consist of approximately 18,500 cubic yards of clean soil from an off-site borrow source placed on top of the biotic barrier. The soil cover will include topsoil suitable for revegetation. The cover will be a minimum 3 percent grade to swales with a minimum of 1 percent slope to promote stormwater drainage. Maximum soil cover slopes will be 4 horizontal to 1 vertical to avoid excessive soil erosion and allow maintenance. A gravel access road will be constructed on the soil cover to extend the existing access road and provide vehicle access to the site for maintenance and monitoring.

The side slopes of the cover will be graded to a 3 horizontal to 1 vertical slope and contain the same foundation layer and biotic barrier as the soil cover. The side slopes may be armored with structural material, such as articulated concrete blocks or turf-reinforcing mattresses, and backfilled with sand, marsh soils, topsoil, and vegetation. The structural material would extend to approximately 8 to 12.5 feet above mean sea level to protect the slope that may be exposed to surface water in the stormwater retention pond, plus 3 feet of freeboard to allow for wave runup and wind shear and approximately 16 to 55 inches to allow for sea level rise (The Bay Institute, no date). Approximately 75,000 square feet of

structural material and 11,000 cubic yards of soil would be transported to the site and placed on the slopes of the FSFA.

NASA would establish and implement land use restrictions for AOI 14 to maintain the integrity of the cap and require maintenance of the cap and to prohibit residential use. These requirements would include prohibiting the construction of any buildings or structures on the cap. NASA Ames' relevant documents that incorporate land use restrictions include NASA Ames Master Plan and Environmental Resources Document, which implement NASA Ames' Final Programmatic Environmental Impact Statement, Mitigated Alternative 5 Land Use Plan. General land use control provisions are incorporated into current NASA Ames procedural requirements and processes and would be incorporated into all applicable current and prospective lease agreements for parcels including or adjacent to the site. NASA Ames' National Environmental Policy Act (NEPA) and construction permit processes include review of LUC provisions for all development and construction actions at NASA Ames. In the event of property transfer to a non-federal entity, a restrictive covenant would be placed in the deed for conveyance of the property with land use controls. NASA intends to incorporate all applicable land use restrictions within 9 months after the final removal action design is completed.

A LUC design will be prepared that describes the specific IC implementation actions, including the requirements for CERCLA 5-year remedy reviews; frequency and requirements for periodic monitoring or visual inspection; notification procedures to the regulatory agencies for planned property conveyance; corrective action requirements or responses to actions inconsistent with the ICs; a list of ICs with expected duration; and maps identifying where ICs are to be implemented.

Construction at soil sample location FSFA-SDS08 will occur in a jurisdictional wetland delineated by the U.S. Army Corps of Engineers in 1989; however, the removal activities in this area would affect less than 1/10 of an acre of the jurisdictional wetland. Ecological habitat within the wetland areas would be restored. Details of the habitat restoration will be presented in a mitigation plan developed as part of the removal design. A qualified biologist will monitor implementation of the removal action to minimize the impact of site activities on the ecological habitat at AOI 14 and the surrounding areas. A qualified biologist will create guidelines for construction procedures and identify the appropriate hours during the day and months of the year to conduct construction to avoid or minimize disturbances to ecological receptors where feasible. NASA will work with USFWS and CDFW to develop these guidelines. Construction will be limited to avoid excessive noise near dawn and dusk. Buffer zones and other restrictions may be necessary if construction extends into the breeding season. A temporary barrier will be installed around the construction area and any animals within the barrier will be excluded before sampling and excavation begin to protect special status species. The barrier will be constructed outside of the area to be disturbed, as shown on Plate 9. The barrier will be made of plastic sheeting, will be approximately 4 feet high, and will be trenched into the ground to prevent animals from moving underneath the barrier.

In addition, NASA will work with USFWS and CDFW to mitigate habitat disturbed to carry out the removal action. Habitat includes pickleweed immediately surrounding and on the

existing slopes of the FSFA and upland habitat that covers the remaining surface of the FSFA. The specific mitigation actions to be conducted will be detailed in subsequent site removal action documents; however, based on discussions between NASA and USFWS, the assumptions used for the alternatives evaluation include mitigation of approximately 1 acre of pickleweed and approximately 5 acres of upland habitat. Habitat will be mitigated at a ratio of 1:1 on site based on the assumption that the removal action will result in a temporary effect. Habitat restoration will be supplemented by pepperweed management. Assumptions included in this EE/CA provide for up to 5 years of pepperweed management in the stormwater pond surrounding the FSFA and south of the FSFA within the Western and Eastern Dike Marshes. Recent surveys by NASA's qualified biologist indicate the presence of pepperweed over approximately 40 acres of these areas.

Maintenance and monitoring will be required to maintain the effectiveness of this alternative. The soil cover and side-slope protection will be inspected and repaired as necessary to meet the performance objectives of the cover. The habitat mitigation or management will be monitored by a biologist to evaluate their effectiveness. In addition, the effectiveness of the ICs will be monitored periodically. These maintenance and monitoring activities will be documented in a CERCLA 5-year review.

It is assumed that the remedy would be inspected quarterly for the first 2 years and then annually thereafter. Approximately 1 percent of the soil cover and side slope will require maintenance every 5 years. CERCLA 5-year reviews will continue indefinitely as long as contaminated material remains at AOI 14.

The following potential federal action-specific ARARs are identified for Alternative 2:

Clean Water Act

- Clean Water Act (CWA) § 402(p) and its implementing regulations at 40 CFR § 122.44(k)(2) and (4) –these provisions require the use of best management practices to control stormwater discharges from construction activities that disturb at least 1 acre. Construction of the cover will affect more than 1 acre. NASA will develop appropriate stormwater control practices in the removal action design.

Clean Air Act

- Bay Area Air Quality Management District (BAAQMD) Rule 6-1-305 –this provision requires control of emissions of visible particles. Construction of the cover will generate dust. NASA will develop appropriate dust control practices in the removal action design.

Toxic Substances Control Act

- Toxic Substances Control Act (TSCA) at 40 CFR § 761.61(c) – this provision allows for risk-based disposal of PCB remediation waste. This risk-based disposal is predicated on EPA approval. EPA is involved in the review and approval of this EE/CA, Action Memorandum, and the removal action design documents. EPA's approval of the EE/CA, Action Memorandum, and removal

action design documents would constitute a determination that the removal action at the site is protective of human health and the environment under TSCA.

The following potential state action-specific ARARs are accepted for Alternative 2:

Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste

- Solid Waste at 27 CCR § 20090(d) – this provision exempts public agency cleanup actions from complying with State Water Resources Control Board (SWRCB)-promulgated requirements, provided the public agency complies with SWRCB-promulgated requirements to the extent feasible.
- Solid Waste at 27 CCR § 21090(a) – this provision requires the final cover to (1) have slopes no steeper than a horizontal to vertical ratio of 1.75:1; (2) have a minimum of one 15-foot-wide bench for every 50 feet of vertical height; and (3) comply with prescriptive standards unless an alternative cover design is approved by the Water Board. NASA would construct an alternative cover to prevent human and ecological exposure to contamination.
- Solid Waste at 27 CCR § 21090(a)(4) – this provision requires final covers to be designed and constructed to function with the minimum maintenance possible and requires periodic identification of problem areas, cover repair, and vegetation maintenance.
- Solid Waste at 27 CCR § 21090(b)(1)(A) – this provision requires the final cover be designed, graded, and maintained to prevent ponding and soil erosion caused by high run off velocities.
- Solid Waste at 27 CCR § 21090(b)(1)(B) – this provision allows portions of the final cover to be built with slopes of less than 3 percent if there is an effective system for diverting surface drainage from laterally adjacent areas and preventing ponding in the flatter portion.
- Solid Waste at 27 CCR § 21090(b)(2) – this provision requires areas with slopes greater than 10 percent, areas having surface drainage courses, and areas subject to erosion by water or wind to be protected.
- Solid Waste at 27 CCR § 21090(c)(1), (4), and (5) – these provisions require the discharger to maintain the final cover throughout the post-closure period.
- Solid Waste at 27 CCR § 21090(e)(3) – this provision requires the production of a map that allows for early identification of differential settlement and allows the Water Board to approve the use of any alternative (other than an aerial photograph) to produce such a map.

Clean Water Act

- SWRCB Order 2009-0009-DWQ, as amended by SWRCB Orders 2010-014 and 2012-000 – this order is the Water Board's permit for controlling stormwater discharges from construction activities that affect at least 1 acre. Construction of

the cover will affect at least 1 acre and NASA has identified CWA § 402(p) and its implementing regulations at 40 CFR § 122.44(k)(2) and (4) as potential federal ARARs. NASA would comply with the substantive requirements of this construction activity stormwater permit as a means of complying with the potential CWA ARARs.

Hazardous Waste Property and Land Use Restrictions

- Hazardous waste property at 22 CCR § 67391.1(e)(2) – this provision allows LUCs to be placed by mechanisms other than a land use covenant when it is not feasible to record a land use covenant. NASA would place land use restrictions on AOI 14 to require maintenance of the cover and to prohibit residential use in the facility master plan. AOI 14 is part of a federal facility owned by the federal government and managed by NASA. There are no plans to transfer AOI 14 out of federal government ownership or NASA management. It is not feasible for NASA or the federal government to enter a land use covenant because there are no plans to transfer AOI 14.

4.2.1.3 Alternative 3: Excavation and Off-site Disposal

Alternative 3 includes the following components:

- Excavation of all fill material in the northern portion of the FSFA where contaminant concentrations exceed cleanup goals (Plate 7) and transportation off site to an appropriate disposal facility.
- Ecological mitigation and monitoring of areas where sensitive habitat was disturbed during removal action activities.
- Installation of a temporary barrier to prevent special status species from entering work areas during removal action activities.
- Grading of disturbed areas for stormwater drainage.

The fill material containing concentrations of lead, total PCBs, and total DDT above cleanup goals will be excavated and transported off-site for disposal. The estimated maximum horizontal extent of the excavation within the removal action boundary is shown on Plate 7. The excavation area includes fill material near sediment sample FSFA-SDS08 where concentrations of total PCBs exceed the cleanup goal and fill material in the FSFA that extends over the property line into MROSD property. The excavation will extend until clean fill material is encountered (based on the results of previous investigations and post-excavation confirmation sampling) or until native soil beneath the fill (based on visual inspection) is encountered. Construction debris encountered during excavation will be segregated and disposed of as solid waste. Excavated material (including material excavated near FSFA-SDS08 and from the MROSD property) with concentrations of contaminants below cleanup goals will be segregated and used to grade the site after the contaminated material is removed. A typical cross-section of the excavation and grading for Alternative 3 is shown on Plate 10. The side slopes of the remaining, uncontaminated

fill material at the FSFA will be sloped to drain and minimize erosion of the material into the stormwater retention pond.

It was assumed that approximately 90 percent of the contaminated fill material will meet the requirements for disposal at a nonhazardous waste landfill, 5 percent will meet the requirements for disposal at a hazardous waste landfill, and 5 percent will be disposed of as construction debris. This assumption was made because: (1) concentrations of lead detected at AOI 14 do not exceed the disposal criterion for Altamont Landfill, a local nonhazardous waste landfill, and (2) concentrations of total DDT and PCBs exceed the disposal criteria in only three of almost 300 samples collected at AOI 14. Waste characterization samples will be collected to ensure proper disposal of the excavated fill material.

Confirmation samples will be collected from the clean fill and native soil after excavation is complete to evaluate the residual concentrations of contamination at the FSFA. If the results of the confirmation samples exceed the cleanup goals, additional excavation or evaluation may be required. As discussed in Section 3.2, the results of the confirmation samples will be used to calculate site-wide average concentrations, and that concentration will be compared with the site-wide average remediation goals developed for Navy IR Site 25. If the AOI 14 site-wide average concentrations exceed the Navy IR Site 25 goals, additional soil may be excavated until the site-wide average concentrations are below the goal.

The design parameters, such as the volume of material to be excavated, sampling requirements, habitat mitigation, and species and sources of selected vegetation, will be specified in the removal action design and detailed mitigation plan; however, these parameters are estimated in this EE/CA for remedy evaluation and cost analysis. The volume of material to be excavated may vary from approximately 41,000 (bank) cubic yards (based on the distribution of contamination interpreted from sampling data) up to 100,000 (bank) cubic yards (all fill material within the removal action area shown on Plate 7). For cost analysis of this Alternative, it is assumed that the total volume of material to be excavated will be 71,000 (bank) cubic yards, which is based on the previous soil data collected at the FSFA and assuming that the excavation areas would extend to sample locations with contaminant concentrations below the cleanup goals. Approximately 12,000 (bank) cubic yards of clean overburden would be segregated, sampled, and placed back on the FSFA to be used for grading, assuming the sampling results confirm that contaminant concentrations are below the cleanup goals. Approximately 53,000 (bank) cubic yards would be excavated, sampled, and disposed of at a nonhazardous waste landfill, and approximately 3,000 (bank) cubic yards was assumed to require disposal at a hazardous waste landfill. Approximately 3,000 (bank) cubic yards of construction debris will be transported and disposed of as solid waste at either a California Class II landfill or as construction debris. The assumed amount of debris was estimated based on a visual inspection of the surface material and may vary significantly because the waste is heterogeneous.

As described in Section 4.2.1.2 for Alternative 2, NASA will work with USFWS and CDFW to restore the ecological habitat of the former FSFA area. Habitat includes pickleweed

immediately surrounding and on the existing slopes of the FSFA and upland habitat that covers the remaining surface of the FSFA. The specific mitigation criteria and actions to be conducted will be detailed in subsequent site removal action documents; however, based on discussions between NASA and USFWS, the assumptions used for the alternatives evaluation include mitigation of up to 1 acre of pickleweed and up to 5 acres of upland habitat. Habitat will be mitigated at a ratio of 1:1 on site based on the assumption that the removal action will result in a temporary effect. Habitat restoration will be supplemented by pepperweed management. Assumptions included in this EE/CA also provide for pepperweed management through initial eradication and periodic removal for up to 5 years in up to 40 acres immediately surrounding the FSFA and south of the FSFA within the Western and Eastern Dike Marshes where pepperweed is currently known to be present.

As described in Section 4.2.1.2, a temporary barrier will be constructed to prevent special status species from entering the construction area and a biologist will monitor the construction and provide guidelines to minimize the impact of the remedy on the surrounding habitat. The mitigation area will be monitored annually for up to 5 years to ensure the effectiveness of the mitigation.

After the ecological mitigation is complete, no further maintenance or monitoring will be required for AOI 14 because no contamination exceeding the cleanup goals will be left in place. However, one CERCLA 5-year review will be necessary because the ecological mitigation monitoring will continue for up to 5 years after excavation is complete.

The following potential federal action-specific ARARs are identified for Alternative 3:

Resource Conservation and Recovery Act

- RCRA at 22 CCR §§ 66262.10(a) and 66262.11 – these provisions require generators of waste to determine if the waste is RCRA hazardous. Contaminated soil excavated for off-site disposal would be considered waste. NASA would characterize the waste at the time it is generated for appropriate off-site disposal.
- RCRA at 22 CCR § 66264.13(a) and (b) – these provisions present requirements for analyzing waste to determine if it is RCRA hazardous. NASA would characterize the waste (excavated soil) at the time it is generated for appropriate off-site disposal.
- RCRA at 40 CFR § 264.554 – this regulation is part of the RCRA corrective action management unit regulations and allows generators to accumulate remediation waste in a staging pile for storage without triggering land disposal restrictions. NASA would construct a temporary staging pile to hold excavated soil prior to off-site disposal.
- RCRA at 22 CCR § 66264.111(a) and (b) – if constructed during the removal action, the temporary staging pile would be closed in a way that minimizes or eliminates the need for further maintenance and controls.

- RCRA at 22 CCR § 66264.258(a) and (b) – these provisions require that all contaminated staging pile components, equipment, and contaminated subsoil be removed at closure of the staging pile (if constructed during the removal action).
- RCRA at 22 CCR §§ 66268.7 and 66268.9(a) – these provisions require the generator of waste to determine each EPA hazardous waste code and to determine if the waste is subject to land disposal restrictions and, if so, the applicable land disposal treatment standards. NASA would make this determination when it generates the waste.

Toxic Substances Control Act

- TSCA at 40 CFR § 761.61(c) – this provision allows for risk-based disposal of PCB remediation waste. This risk-based disposal is predicated on EPA approval. EPA is involved in review and approval of this EE/CA, Action Memorandum, and removal action design documents, which would include the confirmation sampling design to demonstrate that the cleanup goal for PCBs is met. EPA's approval of the EE/CA, Action Memorandum, and removal action design documents would constitute a determination that the removal action at the site is protective of human health and the environment under TSCA.

Clean Water Act

- CWA § 402(p) and its implementing regulations at 40 CFR § 122.44(k)(2) and (4) – these provisions require the use of best management practices to control stormwater discharges from construction activities that disturb at least 1 acre. The excavation would affect more than 1 acre. NASA will develop appropriate stormwater control practices in the removal action design.

Clean Air Act

- BAAQMD Rule 6-1-305 – this provision requires control of the emission of visible particles. Excavation will generate dust. NASA will develop appropriate dust control practices in the removal action design.

The following potential state action-specific ARARs are accepted for Alternative 3:

Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste

- Solid Waste at 27CCR § 20090(d) – this provision exempts public agency cleanup actions from complying with SWRCB-promulgated requirements, provided that the public agency complies with SWRCB-promulgated requirements that wastes, pollutants, or contaminated materials removed from the immediate place of release must be discharged according to the SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1.
- Solid Waste at 27CCR §§ 20210 and 20220(b), (c), and (d) – these provisions require generators of waste to characterize the waste for appropriate disposal at a classified waste management unit.

Clean Water Act

- SWRCB Order 2009-0009-DWQ, as amended by SWRCB Orders 2010-014 and 2012-000 – this order is the Water Board's permit for controlling stormwater discharges from construction activities that affect at least 1 acre. The excavation will affect at least 1 acre, and NASA has identified CWA § 402(p) and its implementing regulations at 40 CFR § 122.44(k)(2) and (4) as potential federal ARARs. NASA would comply with the substantive requirements of this construction activity stormwater permit as a means of complying with the potential CWA ARARs.

4.2.2 Evaluation Criteria

EPA guidance (EPA 1993) for conducting non-time-critical removal actions states that removal actions should be evaluated against three main criteria: effectiveness, implementability, and cost. However, the alternatives were evaluated against all nine NCP criteria so the removal action can be selected as the final action for AOI 14 because NASA intends for this to be the final remedy at the site.

The NCP criteria were used to select the preferred alternative from the three removal alternatives. Figure 10 summarizes the nine NCP evaluation criteria. These criteria are categorized into three groups: (1) threshold criteria, (2) balancing criteria, and (3) modifying criteria. The two threshold criteria – overall protection of human health and the environment, and compliance with ARARs – must be satisfied for an alternative to be eligible for selection. The ARARs are discussed in Section 3.1. The five balancing criteria – (1) long-term effectiveness, (2) reduction of toxicity, mobility, or volume through treatment, (3) short-term effectiveness, (4) implementability, and (5) cost – are used to weigh major tradeoffs among alternatives. The two modifying criteria (state and community acceptance) are taken into account after public comments are received on the EE/CA or Action Memorandum and reviewed with state regulatory agencies to decide whether the preferred alternative remains the most appropriate action for the site.

Cost assumptions and the capital, maintenance and monitoring, and present value costs for each alternative are included in Appendix C. The cost estimates were based on costs derived from the Remedial Action Cost Engineering and Requirements System (RACER) (AECOM Technology Corporation [AECOM] 2010). Present value costs are analyzed to evaluate expenditures that occur over different periods of time. Real discount rates were used for the present value analysis because NASA Ames is a federal facility. The real discount rates used for this project are listed in Appendix C of the Office of Management and Budget Circular A-94 (Office of Management and Budget 2013). The accuracy of the cost estimate for each alternative is intended to be within the range of plus 50 percent to minus 30 percent of actual costs (EPA 1988). The level of detail in developing these estimates is considered appropriate for making choices among alternatives, but the cost estimates are not intended for use in detailed budgetary planning. The cost estimate also includes a sensitivity analysis, which attempts to quantify the uncertainties inherent with cost assumptions and the nature of the site contaminants and media (contaminated fill).

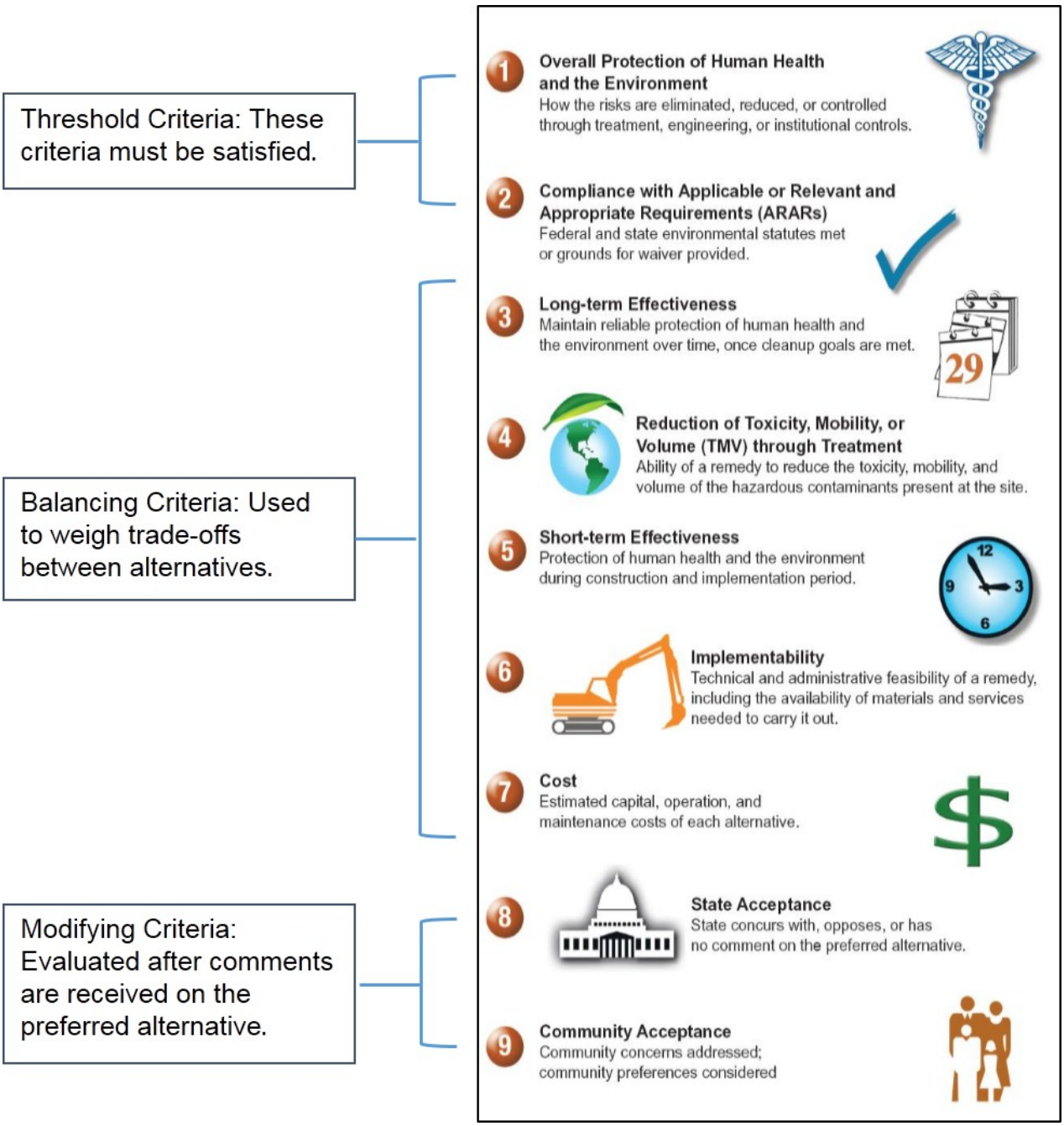

Figure 10. NCP Evaluation Criteria

The short-term effectiveness criterion evaluates the exposure of community, workers, and the environment during implementation and time required to complete the remedy. In addition, the environmental sustainability metrics of the alternatives were evaluated. These metrics were evaluated using the SiteWise, Version 2.0, software, which was developed jointly by the Navy, U.S. Army Corps of Engineers, and Battelle to evaluate green and sustainable remediation (GSR) metrics. The metrics evaluated by the SiteWise software include energy consumption; greenhouse gas emissions; air emissions of criteria pollutants; water impacts; ecological impacts; resource consumption (such as land use

restrictions, landfill space, or volume of top soil used for backfill); worker safety; and community impacts. The GSR evaluation is discussed in Appendix D and summarized in the evaluation of short-term effectiveness for each alternative in Section 4.2.3.

4.2.3 Evaluation of Removal Alternatives

This section presents the individual evaluation of each removal alternative with respect to the nine NCP criteria.

4.2.3.1 Alternative 1: No Action

Under this alternative, no action will be taken at AOI 14 to reduce, control, or prevent exposure to contamination in soil. This alternative is retained throughout the evaluation process as required by the NCP to provide a baseline for comparison with other alternatives.

Overall Protection of Human Health and the Environment

Chemicals in soil exceed the cleanup goals in the northern portion of the FSFA and pose a potential risk to human and ecological receptors. This alternative would not reduce, eliminate, or control the potential risk; therefore, Alternative 1 is not protective of human health and the environment.

Compliance with ARARs

There is no need to identify ARARs for the no-action alternative because ARARs apply to "any removal or remedial action conducted entirely on-site" and "no action" is not a removal or remedial action. CERCLA § 121 (42 U.S.C. § 9621) cleanup standards for selection of a Superfund remedy, including the requirements to meet ARARs, are not triggered by the no-action alternative (EPA 1991). Therefore, a discussion of compliance with ARARs is not appropriate for this alternative.

Long-term Effectiveness and Permanence

Under the no-action alternative, contaminants in soil that exceed cleanup goals for ecological and human receptors would not be addressed. No controls to prevent exposure or long-term management measures, such as ICs, would be implemented. Therefore, Alternative 1 would not provide a long-term effective or permanent solution for protection of human health or the environment.

Reduction in Toxicity, Mobility, and Volume through Treatment

Alternative 1 does not reduce the toxicity, mobility, or volume of hazardous substances at AOI 14 because no action would be taken at the site.

Short-term Effectiveness

This alternative would not expose the on-site community, workers, or the environment to additional risk from contaminated soil because no action would occur. The potential risks to human and ecological receptors would remain as presented in this document. The off-site community would be protected because the contaminated soil would not be disturbed.

In addition, the no-action alternative is assumed to have no or negligible environmental footprint and thus, was not evaluated in the GSR evaluation in Appendix D.

Implementability

No action, including the implementation of ICs, would be required to implement this alternative. Therefore, Alternative 1 would be easily implemented.

Cost

No capital, maintenance, or periodic costs are associated with this alternative.

State Acceptance

This criterion will be evaluated after all comments have been received from the state and regulatory agencies on the EE/CA and Action Memorandum.

Community Acceptance

This criterion will be evaluated after comments have been received from the community on the EE/CA and Action Memorandum. Community comments and concerns will be considered before final decisions are made on the removal action for AOI 14.

4.2.3.2 Alternative 2: Soil Cover and Institutional Controls

Alternative 2 includes the construction of a soil cover over contaminated soil on the northern portion of the FSFA, ICs, ecological mitigation, and long-term maintenance and monitoring to ensure the effectiveness of the remedy.

Overall Protection of Human Health and the Environment

Alternative 2 would provide overall protection of human health and the environment because soil containing concentrations of contaminants above the cleanup goals would be covered and use of AOI 14 would be restricted. The soil cover and side-slope armoring would prevent the erosion and migration of contaminated soil into Navy IR Site 25, protecting ecological receptors. The cover would also include a biotic barrier and clean soil to prevent the exposure of human and ecological receptors on the FSFA. ICs would be implemented to prohibit the residential use of the site and prevent exposure of industrial workers to the contaminated soil. Ecological mitigation and long-term maintenance and monitoring would be conducted to ensure the overall protectiveness of the alternative.

Compliance with ARARs

Alternative 2 would comply with all potential chemical-, location-, and action-specific ARARs identified in Sections 3.1 and 4.2.1 of this EE/CA.

Long-term Effectiveness and Permanence

The long-term effectiveness and permanence of this alternative would be achieved by long-term maintenance and monitoring of the cover and ICs. This long-term maintenance and monitoring would be documented in CERCLA 5-year reviews. The soil cover and side-slope armoring would be inspected and repaired if necessary to meet the performance objectives

of the cover. The site would also be inspected to verify the effectiveness of the ICs that would prevent exposure of human receptors to the contaminated material.

Reduction in Toxicity, Mobility, and Volume through Treatment

Alternative 2 does not include treatment that would reduce the toxicity, mobility, or volume of contamination at AOI 14.

Short-term Effectiveness

On-site workers, the community, and the environment could be exposed to contaminated soil during implementation of Alternative 2 because the contaminated soil will be reconfigured to remove soil that extends over the property line onto the MROSD property and sensitive habitat around AOI 14. The contaminated soil may also be reconfigured to minimize the area of the soil cover and allow for ecological mitigation activities. Therefore, the on-site community and environment will be exposed to contaminated soil. This exposure can be mitigated through best management practices, access control, and the use of personal protective equipment.

The on-site and off-site community also could be exposed to pollutants during transportation of construction debris from AOI 14 and transportation of clean fill and structural material, gravel, and cobbles from an off-site borrow source. For example, the exhaust from dump trucks may impact the community and environment, the trucks may damage roads at NASA Ames, and the roads may need periodic cleaning to remove any accumulated debris from the trucks. Assuming the use of trucks with capacities of 20 cubic yards, approximately 2,500 loads will be hauled through NASA Ames, Moffett Field, and the surrounding community. The transportation of the soil and cover material will add incremental burden to the roads at NASA Ames and the surrounding community, potentially damaging the infrastructure of the facility and necessitating repairs or replacement.

The GSR metrics for Alternative 2 are discussed in Appendix D. Activities associated with the construction of the soil cover will result in the greatest environmental impacts of all activities for Alternative 2. The transportation of the soil, structural material, gravel, and cobbles used to construct the cover will account for the most emissions of greenhouse gases and total energy used, while operation of the equipment during construction will result in the most emissions of air pollutants and the highest risk of injury and fatality of the Alternative 2 activities. In addition, this alternative will result in significant consumption of topsoil. The environmental footprint of Alternative 2 could be reduced by manufacturing topsoil by mixing compost or other amendments into normal soil.

Alternative 2 will be completed within a reasonable timeframe. Construction is estimated to require less than 6 months to complete. This timeframe was estimated based on the following assumptions: (1) site preparation would require approximately 1 month; (2) construction of the cover would require approximately 4 months; and (3) initial efforts for habitat mitigation and site revegetation would require approximately 1 month. The remedy would meet the RAOs after construction of the cover is complete and ICs are in

place. However, long-term maintenance and monitoring would be required to maintain the effectiveness of the remedy.

Implementability

Alternative 2 would be easy to moderately difficult to implement. ICs would be easily implemented through administrative actions. In addition, the reconfiguration of the soil and construction of a cover over the northern portion of the FSFA would use conventional equipment and methods. However, the size of the cover and the volume of clean fill required may pose staging and transportation issues. Approximately 50,000 cubic yards of clean soil, gravel, and cobbles would be transported on roads through NASA Ames. In addition, NASA would monitor construction of the cover to minimize impacts on sensitive ecological habitat surrounding AOI 14.

Long-term maintenance of the cover and monitoring of the ICs, ecological mitigation, and effectiveness of the cover would be required to maintain the protectiveness of the remedy. This maintenance and monitoring would continue as long as CERCLA 5-year reviews were required for AOI 14. These activities would include conventional activities and would be easily implemented individually, but may be difficult to continue and fund over a long timeframe.

Cost

The total capital, maintenance and monitoring, and periodic costs for Alternative 2 are described in Appendix C. The present value cost of the alternative is estimated to be $7,876,000. The majority of the costs for Alternative 2 are capital costs associated with the construction of the soil cover (approximately $6,129,000); however, the operation and maintenance costs for this alternative are also significant (approximately $1,747,000, present value) because the soil cover would need to be inspected regularly and repaired periodically.

The costs for Alternative 2 are based on the assumptions listed in Section 4.2.1.2 and Appendix C, including the assumptions made for the volume of construction debris to be removed, and the maintenance and monitoring requirements of the soil cover and ecological habitat mitigation. The actual costs of Alternative 2 may vary significantly if these assumptions are changed. The sensitivity analysis included in Appendix C and summarized in Table 10, illustrates the potential impacts of some of the major cost assumptions. Costs for Alternative 2 could vary from $7,295,000 (baseline scenario with increase of discount rate) to $10,406,000 (baseline scenario plus increases in inspection frequency and area of repair, and cost to maintain cover in perpetuity).

Table 10: Summary of Sensitivity Analysis for Alternative 2

Scenario	Total Present Value with Scenario	Difference in Total Present Value Compared to Baseline	Percent Change in Cost Compared to Baseline
Baseline cost estimate as presented in Appendix C	$7,876,000	--	--

Table 10: Summary of Sensitivity Analysis for Alternative 2			
Scenario	**Total Present Value with Scenario**	**Difference in Total Present Value Compared to Baseline**	**Percent Change in Cost Compared to Baseline**
Inspection frequency increased from annual inspections for 30 years to quarterly inspections for 30 years	$8,656,000	$780,000	10%
Area of cover repaired every 5 years increased from 1% of the total over to 5%	$8,902,000	$1,026,000	13%
Increase of Discount Rate from 1.9% to 7% over 30 years	$7,295,000	-$581,000	-7%
Cost to maintain the cover in perpetuity instead of 30 years, using baseline assumptions	$8,600,000	$724,000	9%

Note:
-- Not applicable

State Acceptance

NASA received comments from EPA, the Water Board, and CDFW on the draft EE/CA. These comments and NASA's responses are in Appendix E and are reflected in this Final EE/CA. NASA will consider further comments from EPA, the Water Board and CDFW on the Action Memorandum.

Community Acceptance

This criterion will be evaluated after comments have been received from the community on this EE/CA. Community comments and concerns will be considered before final decisions are made on the removal action for AOI 14, which will be addressed in the Action Memorandum.

4.2.3.3 Alternative 3: Excavation and Off-site Disposal

Alternative 3 includes excavation and off-site disposal of contaminated soil in the northern portion of the FSFA, where concentrations of contaminants exceed the cleanup goals. The excavation area will be restored to appropriate ecological habitat. After the excavation and ecological mitigation are complete, the site will be available for unrestricted use.

Overall Protection of Human Health and the Environment

Alternative 3 would result in overall protection of human health and the environment because all soil that contains contamination above the cleanup goals would be removed from the site. After the components of the remedy are complete, AOI 14 would no longer pose a potential risk to human health or the environment.

Compliance with ARARs

Alternative 3 would comply with all potential chemical-, location-, and action-specific ARARs identified in Sections 3.1 and 4.2.1 of this EE/CA.

Long-term Effectiveness and Permanence

Under Alternative 3, contaminated soil that poses a potential risk to human and ecological receptors would be permanently removed from AOI 14 and disposed of at an appropriate off-site facility. No long-term maintenance and monitoring would be necessary to maintain the effectiveness of the remedy.

Reduction in Toxicity, Mobility, and Volume through Treatment

The excavation and off-site disposal of contaminated soil would not reduce the toxicity, mobility, or volume of contamination through treatment. Therefore, Alternative 3 would not meet this criterion.

Short-term Effectiveness

On-site workers, the on-site and off-site community, and the environment will be exposed to contamination, noise, dust, and emissions during implementation of Alternative 3. Approximately 41,000 to 100,000 cubic yards (bank) of soil would be excavated, staged on site, and sampled for waste characterization. Approximately 32,000 to 100,000 cubic yards (bank) of contaminated soil would be loaded into trucks, and transported through the community to an off-site disposal facility. Best management practices, such as dust suppression, stormwater management controls, personal protective equipment, and covering the load during transportation, will be implemented to minimize the potential risk during implementation.

Assuming the use of trucks with capacities of 20 cubic yards and a bulking factor of 40 percent, 2,240 to 7,000 loads will be hauled through NASA Ames, Moffett Field, and the surrounding community. The transportation of the contaminated soil will add incremental burden to the roads at NASA Ames and the surrounding community, potentially damaging the infrastructure of the facility and necessitating repairs or replacement.

The evaluation of GSR metrics for Alternative 3 is in Appendix D. Alternative 3 will result in a significant environmental footprint. Activities associated with the excavation and transportation of the contaminated fill material will result in the greatest environmental impacts of all activities under this alternative. The transportation and disposal of fill material will account for the most emissions of greenhouse gases and other air pollutants and total energy used. Transportation of the contaminated fill material and equipment use during excavation will result in the highest accident risk (injury and fatality) of the Alternative 3 activities. In addition, this alternative will consume a significant volume of landfill space.

Alternative 3 will be completed within a reasonable timeframe. It is assumed that construction will require less than 12 months to complete. This timeframe was estimated based on the following assumptions: (1) site preparation would require approximately 1 month; (2) excavation and off-site disposal would require approximately 10 months; and (3) initial efforts for habitat mitigation and site revegetation would require approximately 1 month. The remedy will meet the RAOs after excavation is complete; however, ecological mitigation may require monitoring for several years.

Implementability

Alternative 3 will be moderately difficult to implement. The excavation, transportation, and disposal of the contaminated soil will use conventional methods and equipment. Because the fill material was placed on top of native soil to create a peninsula, the excavation will not extend significantly below the grade of the surrounding stormwater retention pond and will not encounter groundwater. However, excavation will have to be scheduled for the dry season when the pond does not contain stormwater near AOI 14 and to minimize impacts to special status species.

Alternative 3 includes excavation of 41,000 to 100,000 cubic yards of soil and disposal of 32,000 to 100,000 cubic yards (bank) of contaminated material. The staging, sampling, and transportation of this volume of contaminated material may increase the difficulty in implementing the alternative. Hauling routes from AOI 14 to the disposal facility may need to be coordinated and approved with other entities at Moffett Field or the surrounding community. Potential hauling routes are shown on Plate 11. On site roads may be damaged from the number of dump trucks transporting the contaminated soil and may need to be repaired or replaced.

A qualified biologist would need to oversee the excavation to minimize the impact on special status species and ecological habitat on adjacent properties. Excavation may be limited to particular hours of the day and months of the year to avoid affecting the nesting habits of surrounding animals.

Cost

The costs and assumptions used to estimate the costs of Alternative 3 are described in Appendix C. The actual costs of Alternative 3 may vary significantly from this estimate. A sensitivity analysis is included in Appendix C, which describes the variability of costs due to some of the cost assumptions.

The present value cost of the alternative is approximately $10,803,000 based on the assumption that 71,000 cubic yards of fill material would be excavated and 59,000 cubic yards (bank) of fill material would be disposed of off site. This baseline scenario assumes that 53,000 cubic yards (bank) of the contaminated material would be disposed of as nonhazardous waste (90 percent), 3,000 cubic yards (bank) would be disposed of as hazardous waste (5 percent), and 3,000 cubic yards (bank) would be disposed of as construction debris (5 percent). Almost all of the costs for Alternative 3 are capital costs for the excavation and off-site disposal of the fill material. The only maintenance and monitoring costs associated with this alternative are for the mitigation of ecological habitat for up to five years and a five-year review of the removal action at the end of mitigation (approximately $324,000).

The most significant assumptions made for cost estimating purposes were (1) the volume of fill material excavated and disposed of off site, and (2) the percentage of fill material disposed of as nonhazardous waste or hazardous waste. The volume of fill material excavated was estimated to be 71,000 cubic yards (bank), with approximately 59,000 cubic yards (bank) of contaminated fill material transported off site for disposal (assuming 90

percent of the material would be disposed of as nonhazardous waste; 5 percent would be disposed of as hazardous wastes; and 5 percent would be disposed of as construction debris). This scenario is considered the "baseline scenario" and was based on the previous soil data collected at the FSFA and assuming that the excavation areas would extend to sample locations with contaminant concentrations below the cleanup goals. However, the volume of contaminated material may vary from approximately 32,000 (bank) cubic yards (the "best case" scenario, based on the distribution of contamination interpreted from sampling data) up to 100,000 (bank) cubic yards (the "worst case" scenario; that is, all fill material within the removal action area shown on Plate 7). In addition, the percentage of the contaminated fill material that meets the disposal requirements for nonhazardous waste or hazardous waste may vary. Hazardous waste transportation and disposal costs are significantly more than nonhazardous waste disposal. Therefore, changes in either the volume of soil disposed of off site, or the percentage of waste disposed of as either nonhazardous waste or hazardous waste, could significantly affect the cost of Alternative 3.

The sensitivity analysis included in Appendix C and summarized in Table 11 illustrates the potential impacts of some of the major cost assumptions. Costs for Alternative 3 could vary from $7,152,000 (best case scenario) to $19,559,000 (worst case scenario).

Table 11: Summary of Sensitivity Analysis for Alternative 3

Scenario	Total Present Value with Scenario	Difference in Total Present Value Compared to Baseline	Percent Change in Cost Compared to Baseline
Baseline cost estimate as presented in Appendix C	$10,803,000	--	--
Best Case Volume: Excavation of 41,000 cubic yards, with off-site disposal of 32,000 cubic yards (2,000 cy of construction debris, 2,000 cy of hazardous waste and 28,000 cy of nonhazardous waste)	$7,152,000	-$3,651,000	-34%%
Worst Case Volume: Excavation and off-site disposal of 100,000 cubic yards (10% hazardous to Grassy Mountain in Utah, and 90% nonhazardous waste)	$19,559,000	$8,756,000	81%

Note:
-- Not applicable

State Acceptance

NASA received comments from EPA, the Water Board, and CDFW on the draft EE/CA. These comments and NASA's responses are in Appendix E, and are reflected in this Final EE/CA. NASA will consider further comments from EPA, the Water Board and CDFW on the Action Memorandum.

Community Acceptance

This criterion will be evaluated after comments have been received from the community on this EE/CA. Community comments and concerns will be considered before final decisions

are made on the removal action for AOI 14, which will be addressed in the Action Memorandum.

4.3 COMPARATIVE ANALYSIS OF ALTERNATIVES

This section compares Alternatives 2 and 3 with respect to the NCP criteria. Both Alternatives 2 and 3 meet the threshold criteria of overall protection of human health and the environment and compliance with ARARs. Alternative 1 does not meet the threshold criterion of overall protection of human health and the environment; therefore, Alternative 1 cannot be chosen as the removal alternative and is not discussed in the comparative analysis of alternatives. The comparison of alternatives with respect to seven of the nine evaluation criteria is shown graphically on Table 12.

Alternative 3 ranks higher than Alternative 2 with respect to long-term effectiveness and permanence because soil containing contamination above the cleanup goals would be permanently removed from AOI 14. After Alternative 3 is complete, the site would be available for unrestricted use. In addition, Alternative 3 would allow for a larger and higher quality habitat for special status species because the contaminated fill material would be removed and the area of wetland habitat may be increased. With the exception of habitat restoration, maintenance and monitoring would not be necessary for Alternative 3. Under Alternative 2, exposure to the contaminated soil would be prevented with a soil cover, biotic barrier, side-slope armoring, and ICs. However, long-term maintenance and monitoring would be required to maintain the effectiveness of Alternative 2.

Neither Alternative 2 nor Alternative 3 would reduce the toxicity, mobility, or volume of contaminants through treatment. Treatment of the contamination is not considered under either alternative.

Alternative 2 ranks higher than Alternative 3 with respect to short-term effectiveness. Alterative 3 would have a significantly greater impact on on-and off-site receptors, the community, and the environment than Alternative 2 because a large volume of contaminated soil would be excavated and transported to an off-site disposal facility. The excavation, loading, and transportation of the contaminated material could expose the community to air emissions, noise, dust, and odors, and contaminated soil, and may damage infrastructure at NASA Ames and the surrounding area. In addition, Alternative 3 ranks significantly lower than Alternative 2 with respect to GSR metrics.

Alternative 2 ranks higher than Alternative 3 with respect to implementability. Both alternatives would use conventional methods and equipment and would temporarily disturb the sensitive ecological habitat around AOI 14. The construction schedules for both alternatives would consider potential impacts to protected species. However, Alternative 3 would require excavation, sampling, grading, and transportation of a larger volume of contaminated material. Transportation of a large volume of contaminated soil from AOI 14 to an off-site disposal facility may require coordination with on- and off-site communities and may affect aged roads or infrastructure on and off of NASA Ames.

Alternative 3 costs more than Alternative 2. The present value costs of Alternatives 2 and 3 are shown on Table 12 for baseline cost scenarios. The cost details and assumptions used to estimate the costs are included in Appendix C. Alternative 3 costs approximately 37 percent more than Alternative 2. However, the costs for Alternatives 2 and 3 may vary significantly depending on the factors listed in the sensitivity analysis in Appendix C and Sections 4.2.3.2 and 4.2.3.3. The present value for Alternative 2 may range from $7,295,000 to $10,406,000, and the present value for Alternative 3 may vary from $7,152,000 to $19,559,000, depending on key cost assumptions.

Table 12: Comparison of Removal Alternatives

NCP Criterion[1]	Alternative 1 No Action	Alternative 2 Soil Cover and ICs	Alternative 3 Excavation and Off-Site Disposal
Threshold Criteria[2]			
Overall Protection of Human Health and the Environment	No	Yes	Yes
Compliance with ARARs	Not Applicable[3]	Yes	Yes
Balancing Criteria			
Long-term Effectiveness and Permanence	○	◐	●
Reduction in Toxicity, Mobility, and Volume through Treatment	○	○	○
Short-term Effectiveness	●	◐	○
Implementability	●	◐	◐
Cost[4]	$0	$7,876,000	$10,803,000

Notes:

1 Evaluation criteria do not include modifying criteria. State and community acceptance will be evaluated after comments are received from the regulatory agencies and public.

2 The remedial alternative must meet the threshold criteria to be selected as the preferred alternative.

3 There is no need to identify ARARs for the no-action alternative because ARARs apply to "any removal or remedial action conducted entirely on site" and "no action" is not a removal or remedial action.

4 Cost shown is the baseline total present value cost for the alternative. These costs may vary based on assumptions listed in the sensitivity analysis, as discussed in Appendix C and Sections 4.2.3.2 and 4.2.3.3.

● Excellent

◐ Very Good

◐ Good

○ Poor or Does Not Meet the Criterion

ARAR Applicable or relevant and appropriate requirement

IC Institutional controls

NCP National Oil and Hazardous Substances Pollution Contingency Plan

5.0 RECOMMENDED REMOVAL ACTION ALTERNATIVE

Alternative 3 (excavation and off-site disposal) is the recommended removal action alternative to address potential risks to human health and the environment from contamination in soil at AOI 14. Alternative 3 meets the two threshold criteria of overall protection of human health and the environment and compliance with ARARs and provides the best balance of long-term protectiveness, short-term exposure, implementability, and cost. In addition, Alternative 3 allows for additional wetland habitat restoration and is anticipated to be the preferred alternative of the regulatory agencies and surrounding community.

The primary purpose of the removal action is to prevent contaminated soil at AOI 14 from entering Navy IR Site 25 through erosion. Under Alternative 3, fill material with contaminant concentrations exceeding the cleanup goals would be permanently removed from the site and disposed of off site. This alternative would allow for a larger and higher quality of habitat for special status species than Alternative 2.

In addition, the potential exposure of terrestrial ecological receptors and future industrial workers and residents to site contaminants was evaluated in this EE/CA because this removal action is expected to be the final action at AOI 14. These potential risks to ecological and human receptors would be mitigated under Alternative 3 through excavation and off-site disposal of fill material containing concentrations of contaminants above the cleanup goals. No long-term monitoring or ICs would be necessary to maintain the effectiveness of Alternative 3 because contaminated soil would not remain on AOI 14. After the removal action is complete, the site would be available for unrestricted use.

Community acceptance will be evaluated based on comments received on this EE/CA during the public comment period. The removal action may be modified based on community input.. The selected removal action will be documented in an Action Memorandum, which will address public comments. After the Action Memorandum is signed, NASA will prepare a removal action work plan and implement the non-time-critical removal action.

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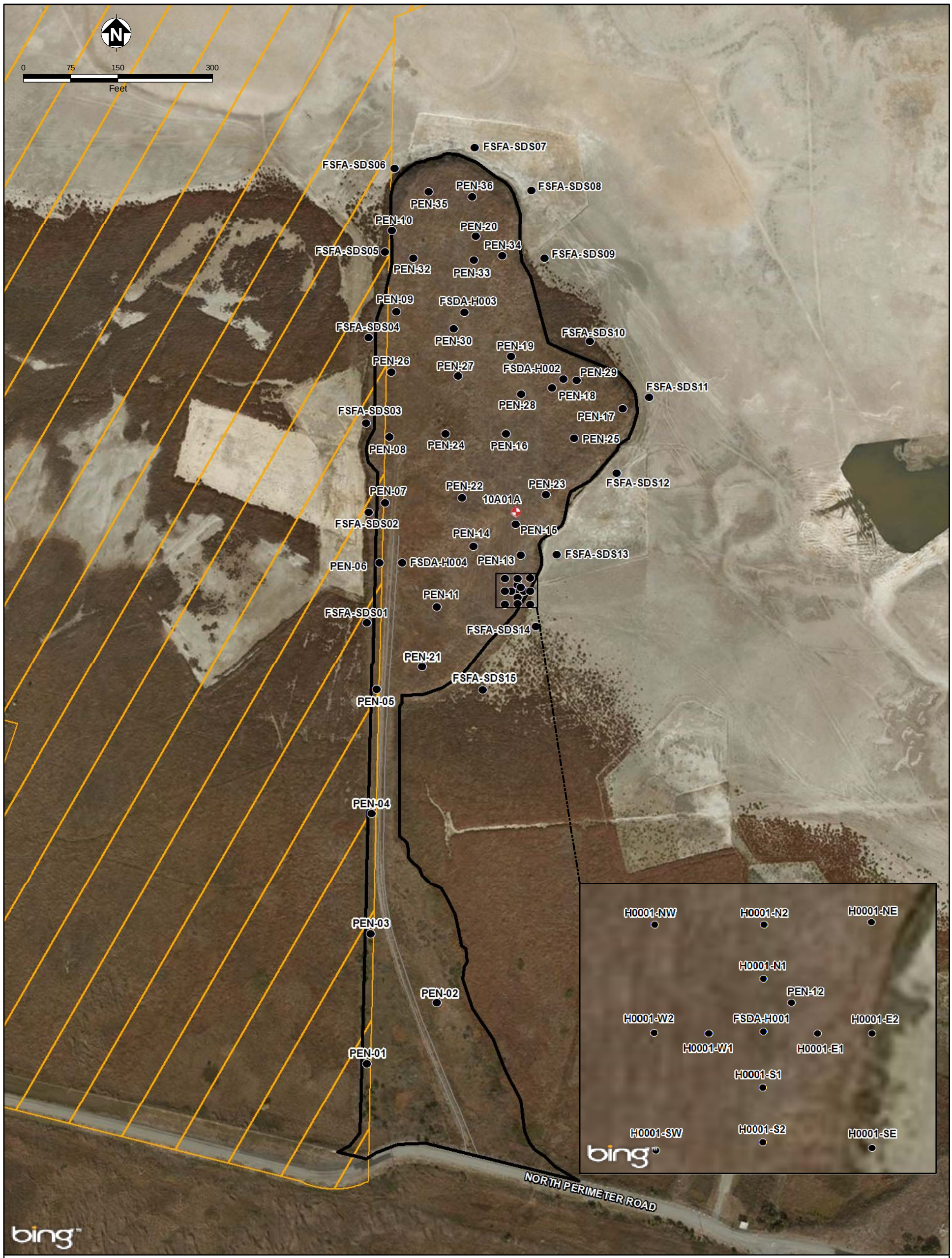
PLATES



Groundwater Sample Location

Soil Sample Location

Former Soil Fill Area Boundary

Midpeninsula Regional Open Space District Preserve

IR Installation Restoration

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 1
SAMPLING LOCATIONS AT THE FORMER SOIL FILL AREA

TETRA TECH

● Soil Sample Location

N217 and N217A Area Boundaries

NASA Ames Research Center
Moffett Field, California

PLATE 2
SAMPLING LOCATIONS AT THE N217 AND N217A AREAS

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

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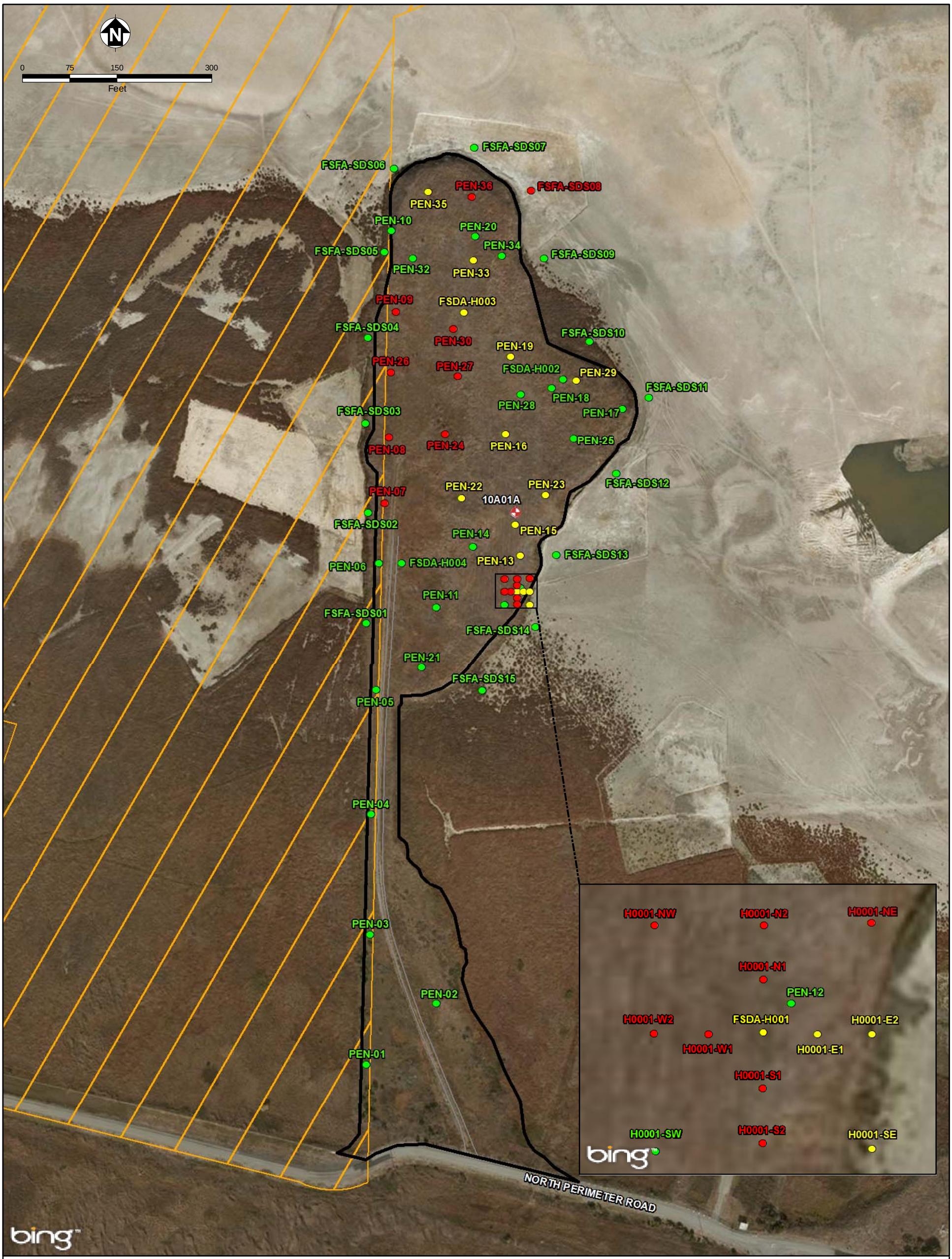

Groundwater Sample Location

Soil Sample Location
(No chemical exceeded the residential screening level
and background for any sample at any depth at this location.)

Soil Sample Location
(One or more chemicals exceeded the residential screening level
and background for at least one sample at this location.)

Soil Sample Location
(One or more chemicals exceeded the residential screening level,
industrial screening level, and background for at least one sample at this location)

Former Soil Fill Area Boundary

Midpeninsula Regional Open Space District Preserve

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 3
LOCATIONS WHERE CHEMICALS EXCEED HUMAN HEALTH SCREENING CRITERIA, FORMER SOIL FILL AREA

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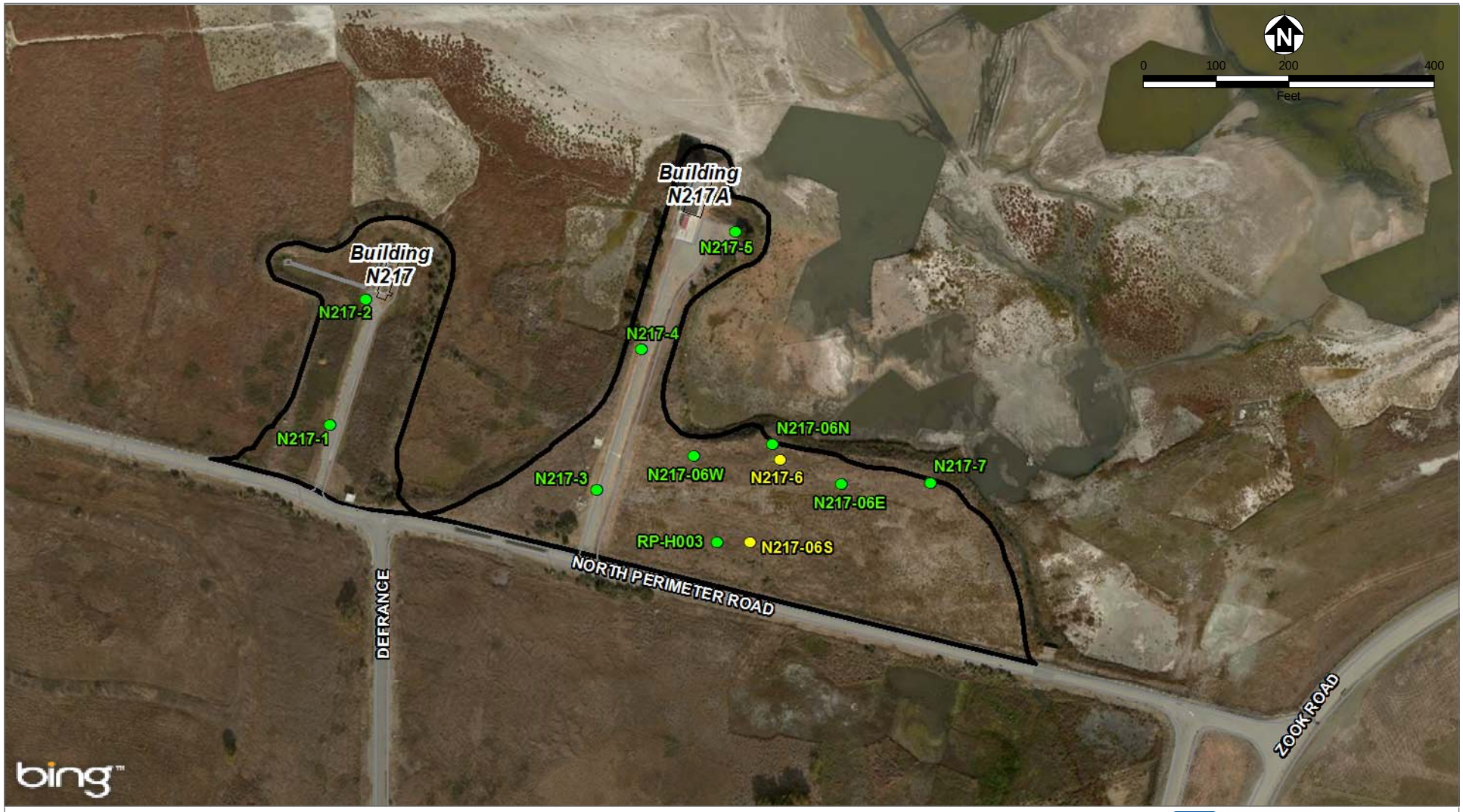

Soil Sample Location
(No chemical exceeded the residential screening level and background for any sample at any depth at this location.)

Soil Sample Location
(One or more chemicals exceeded the residential screening level and background for at least one sample at this location.)

N217 and N217A Area Boundaries

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 4

LOCATIONS WHERE CHEMICALS EXCEED HUMAN HEALTH SCREENING CRITERIA, N217 AND N217A AREAS

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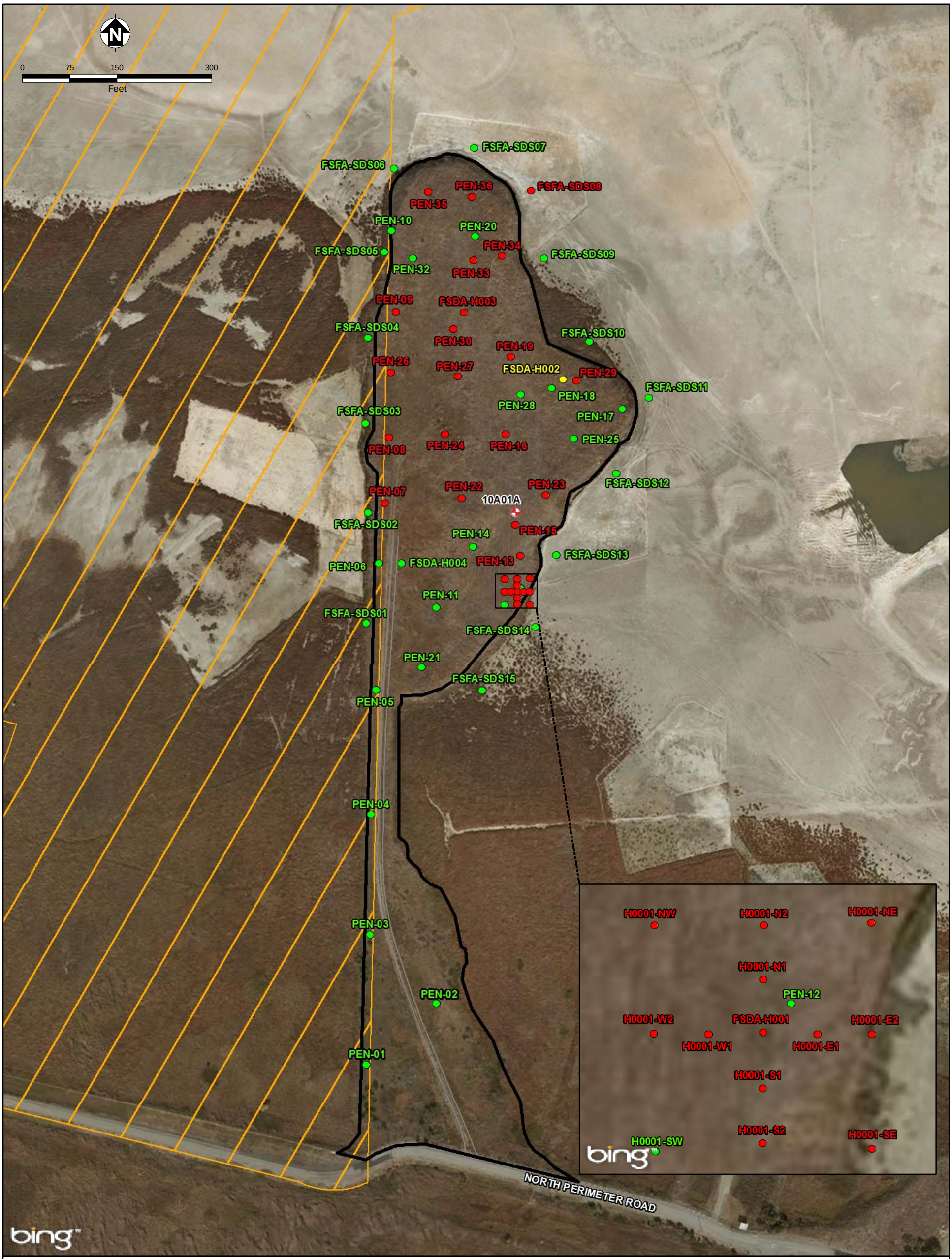


Groundwater Sample Location

Soil Sample Location
(One or more chemicals exceeded the Navy IR Site 25 Remediation Goal and background for at least one sample at this location.)

Soil Sample Location
[No chemical exceeded either of the screening levels (Navy IR Site 25 Remediation Goal and Tier 1 ESL) and background for any sample at any depth at this location.]

Soil Sample Location
(One or more chemicals exceeded the Tier I ESL and Navy IR Site 25 Remediation Goal [if applicable] and background for at least one sample at this location.)

Former Soil Fill Area Boundary

Midpeninsula Regional Open Space District Preserve

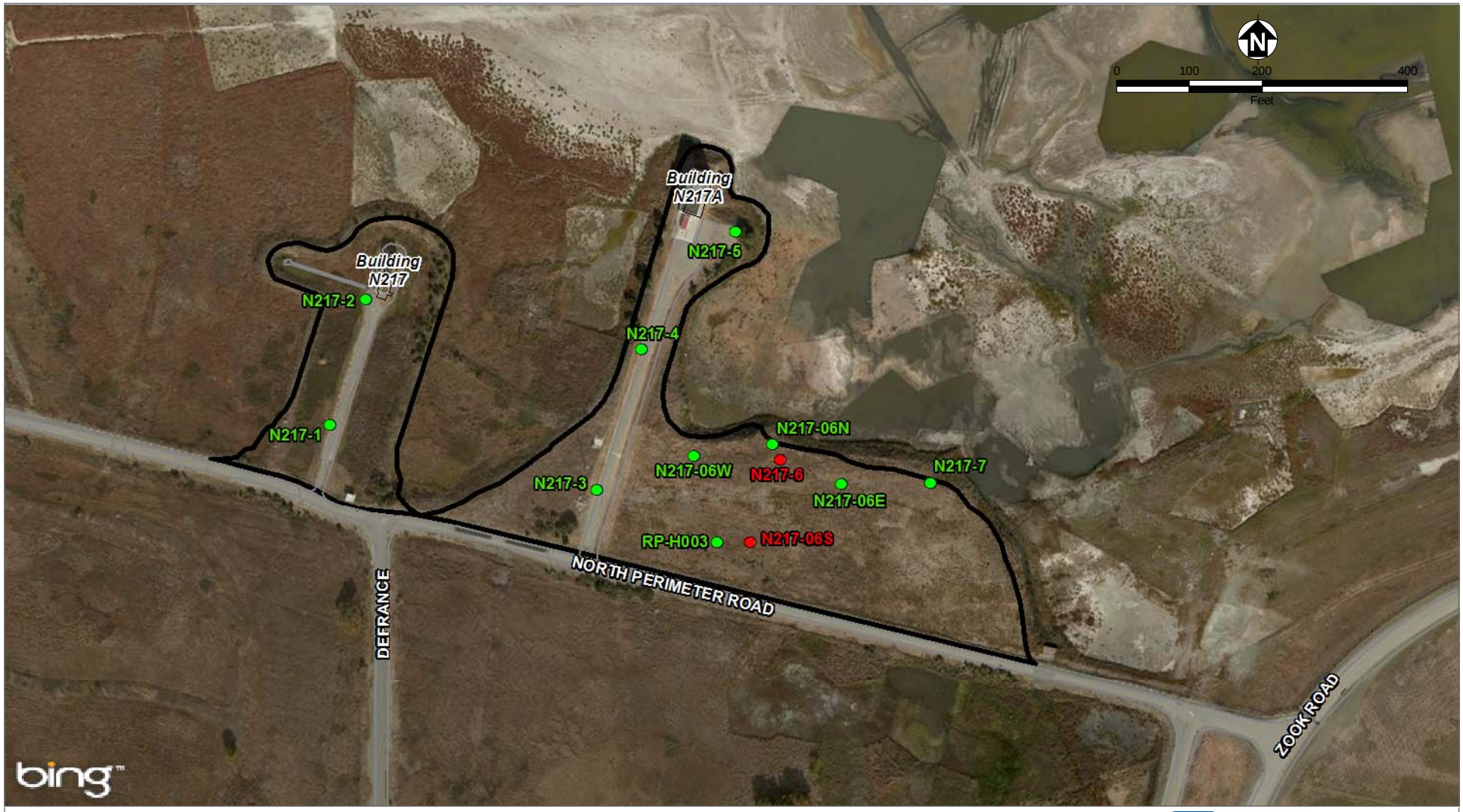
ESL Environmental Screening Level
IR Installation Restoration

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 5
LOCATIONS WHERE CHEMICALS EXCEED ECOLOGICAL SCREENING CRITERIA, FORMER SOIL FILL AREA



Soil Sample Location
[No chemical exceeded either of the screening levels (Navy IR Site 25 Remediation Goal and Tier 1 ESL) and background for any sample at any depth at this location.]

Soil Sample Location
[One or more chemicals exceeded both of the screening levels (Navy IR Site 25 Remediation Goal and Tier 1 ESL) and background for at least one sample at this location.]

N217 and N217A Area Boundaries

ESL Environmental Screening Level
IR Installation Restoration
PCB Polychlorinated biphenyl

Note:
Ecological receptors are not exposed to concentrations of lead (N217-6; N217-06S) and total PCBs (N217-6) that exceeded both the Navy IR Site 25 remedial goals and Tier 1 ESLs because they are at depths of 8 and 10 feet below ground surface.

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 6
LOCATIONS WHERE CHEMICALS EXCEED ECOLOGICAL SCREENING CRITERIA, N217 AND N217A AREAS

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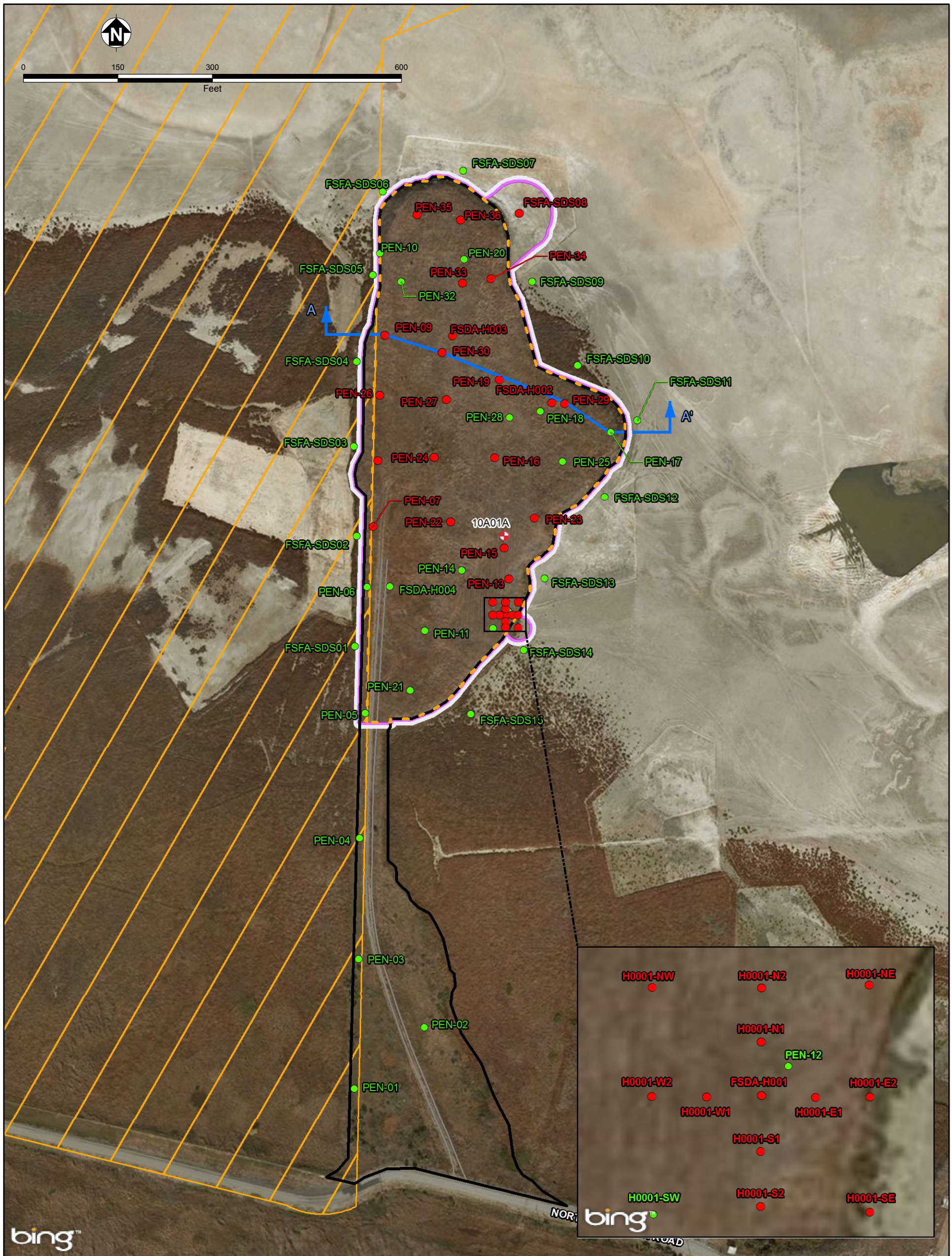

Groundwater Sample Location

Cross Section

Soil Sample Location
(Chemicals exceeded the cleanup goal for at least one sample at this location.)

Midpeninsula Regional Open Space District Preserve

Soil Sample Location
(Chemicals do not exceed the cleanup goal in any samples at this location.)

Containment Boundary

Former Soil Fill Area Boundary

Removal Action Boundary

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 7
LOCATIONS WHERE CHEMICALS EXCEED CLEANUP GOALS, FORMER SOIL FILL AREA

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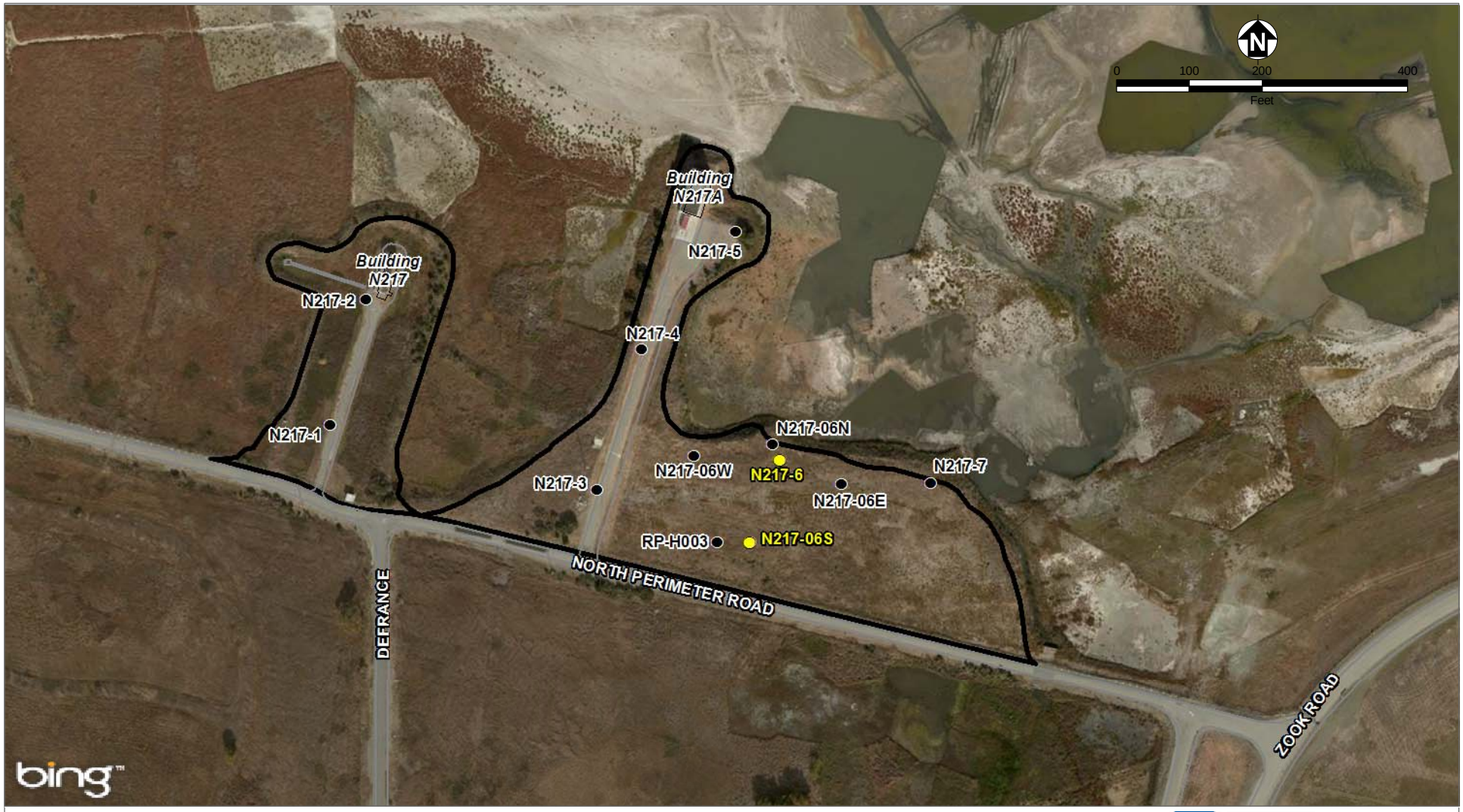

● Soil Sample Location (Chemicals do not exceed the cleanup goal for at least one sample at this location.)

● Soil Sample Location (Chemicals exceeded the cleanup goal for at least one sample at this location.)

N217 and N217A Area Boundaries

PCB Polychlorinated biphenyl

Note:
Ecological receptors are not exposed to concentrations of lead (N217-6; N217-06S) and total PCBs (N217-6) that exceeded both the Navy IR Site 25 remedial goals and Tier 1 ESLs because they are at depths of 8 and 10 feet below ground surface.

PROJECTION - NAD 1983 State Plane California III Feet
BASE DATA - NASA 2014
AERIAL: 2014 MICROSOFT CORPORATION (BING)

TETRA TECH

NASA Ames Research Center
Moffett Field, California

PLATE 8
LOCATIONS WHERE CHEMICALS EXCEED CLEANUP GOALS, N217 AND N217A AREAS

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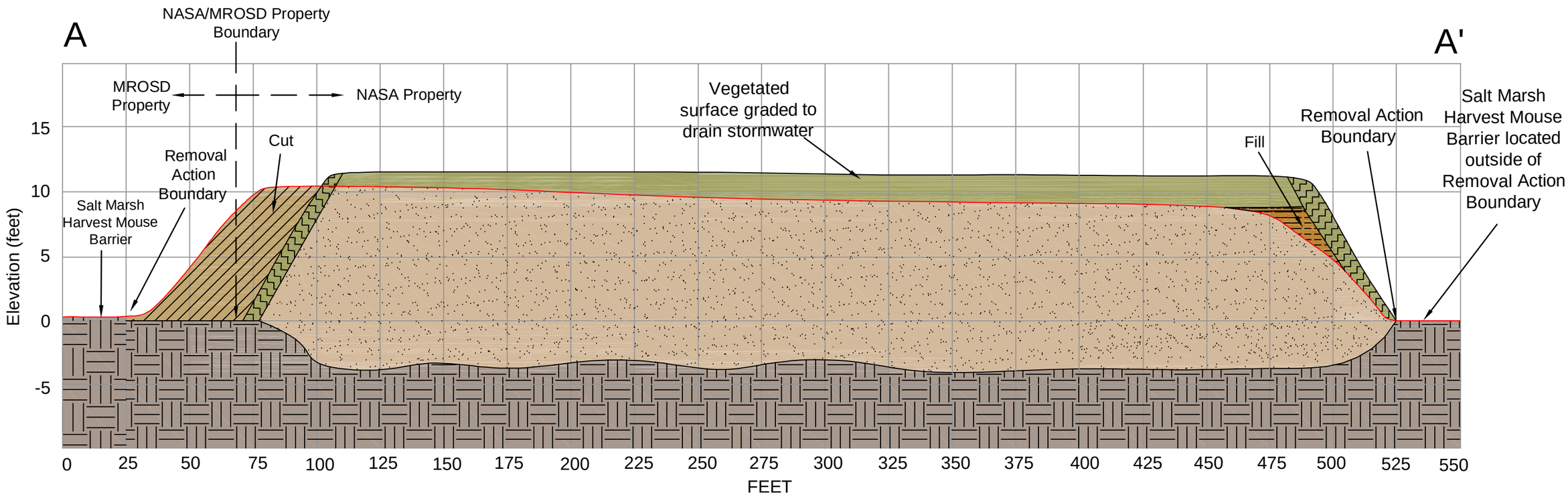

Excavated FSFA fill removed from MROSD property to be placed on FSFA surface

Fill placement using material cut from MROSD property

2-foot-thick side slope armoring consisting of a soil cover and vegetation, with an underlying 1.5-foot-thick structural material (e.g., biotic barrier) to prevent erosion, at a slope of 3 horizontal units to 1 vertical unit (assumes cross section without horizontal/vertical scale exaggeration)

FSFA, existing surface reworked as base foundation layer

2-foot-thick soil cover and 1.5-foot-thick biotic barrier

Approximate extent of native soil

Approximate topographic surface before excavation, and placement of fill, soil cover/biotic layer, and structural material

FSFA	Former Soil Fill Area
MROSD	Midpeninsula Regional Open Space District
NASA	National Aeronautics and Space Administration

Notes:
1. Cross section horizontal/vertical scale ratio is 1:5
2. Plan view of cross section A-A' shown on Plate 7

TETRA TECH

NASA Ames Research Center
Moffett Field, California

Plate 9
Typical Cross Section of Alternative 2

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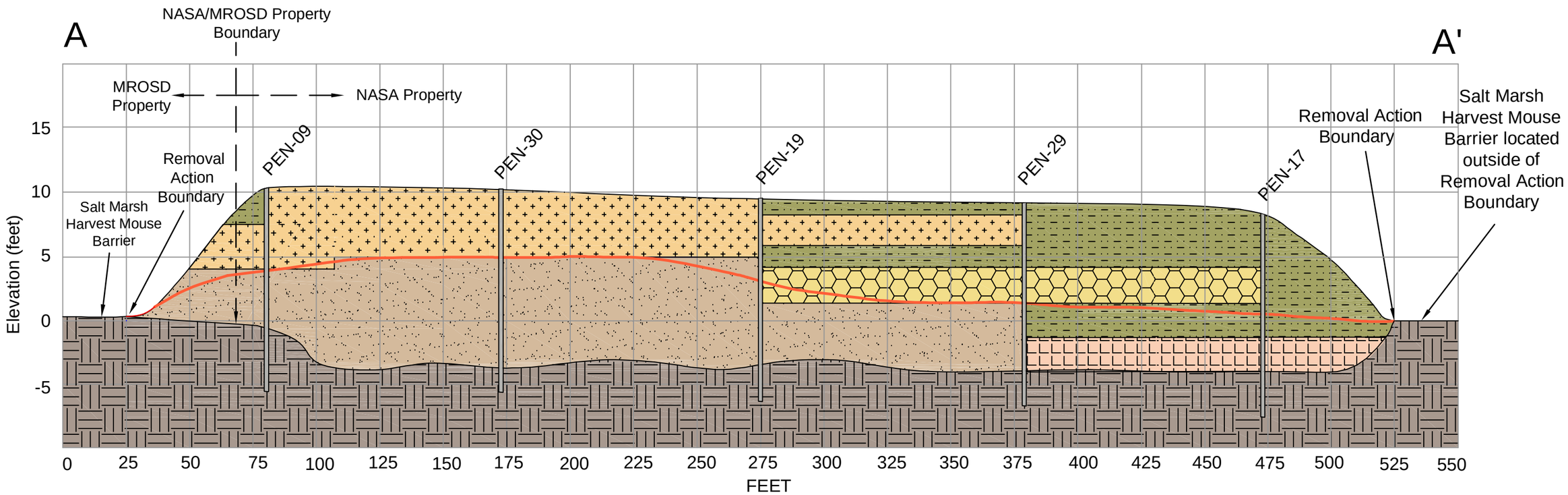

FSFA fill material to be excavated, stockpiled, and used during grading after underlying contaminated fill is removed

FSFA and MROSD fill material to remain in place

Approximate extent of native soil

FSFA fill material with PCB concentrations greater than cleanup goal to be transported off site for disposal

FSFA fill material with lead concentrations greater than cleanup goal to be transported off site for disposal

FSFA fill material with DDT concentrations greater than cleanup goal to transported off site for disposal

PEN-19

Soil Borehole

Approximate topographic surface after removal action and grading using stockpiled FSFA fill (final grade vegetated to drain stormwater)

FSFA	Former Soil Fill Area
MROSD	Midpeninsula Regional Open Space District
NASA	National Aeronautics and Space Administration
PCB	Polychlorinated biphenyl
DDT	Dichlorodiphenyltrichlorethane

Notes:
1. Cross section horizontal/vertical scale ratio is 1:5
2. Plan view of cross A-A' is shown on Plate 7

TETRA TECH

NASA Ames Research Center
Moffett Field, California

Plate 10
Typical Cross Section of Alternative 3

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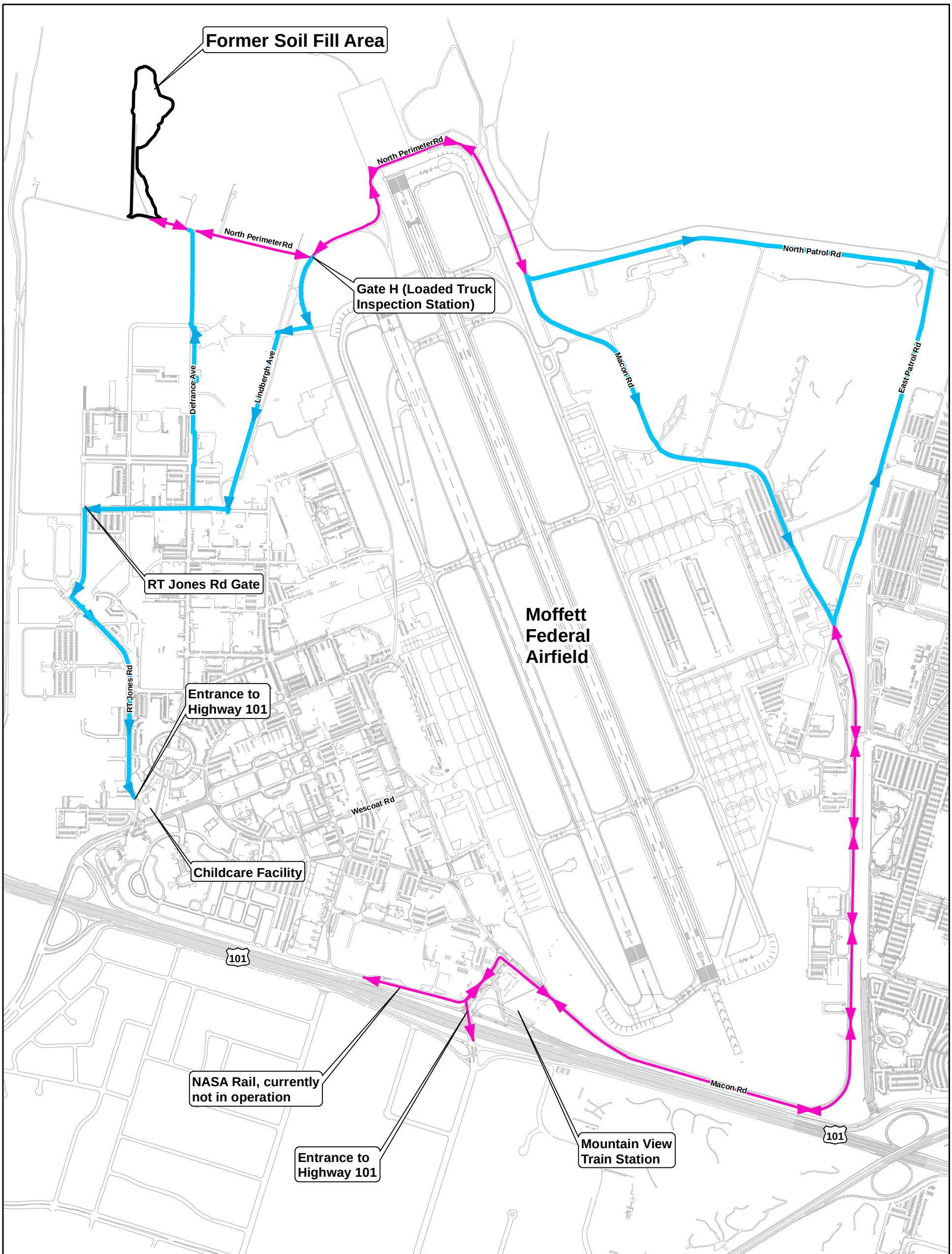

One Way Direction of Truck Traffic

Two-Way Direction of Truck Traffic

Former Soil Fill Area Boundary

N

0 1,000 2,000
Feet

TETRA TECH

National Aeronautics and Space Administration
Ames Research Center, Moffettl Field, CA

PLATE 11
POTENTIAL HAULING ROUTES FOR ALTERNATIVE 3

1/23/2015 V:\NASA\GIS\LAYOUTS\Route_Map.mxd TtEMI-OAK colin.lee

APPENDIX A
SUMMARY OF PREVIOUS INVESTIGATIONS AND DATA

(Provided on CD only)

APPENDIX A
SUMMARY OF PREVIOUS INVESTIGATIONS AND DATA

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A1 Soil and Groundwater Analytical Data

A2 Available Soil Boring Logs

A3 Quality Control Summary Report and Laboratory Data Reports

A4 Responses to Regulatory Agency Comments on the Draft Current Conditions Report for AOI 14

A5 Chemicals at AOI 14 Exceeding Screening Criteria and Navy IR Site 25 Remediation Goals

A1.0 INTRODUCTION

This appendix summarizes the analytical results for investigations that include samples collected within Area of Investigation (AOI) 14. An investigation "fact sheet" for each investigation involving AOI 14 presents the purpose, date, analytical method, number and type of samples collected, a summary of findings, references, and figures and tables. Laboratory analytical results for soil and groundwater samples collected during all investigations are included in Attachment A1. Available boring logs are included in Attachment A2. A letter report describing the results of the data validation summary and all laboratory data reports are included in Attachment A3. Attachment A4 presents the responses to regulatory agency comments on the November 2013 Current Conditions Report. Attachment A5 presents analytical results for those samples with detected concentrations exceeding one or more screening criteria and the Navy Installation Restoration (IR) Site 25 remediation goals.

A2.0 PREVIOUS INVESTIGATION FACT SHEETS

Investigation-specific fact sheets were developed for each investigation involving AOI 14 to provide a concise summary of important aspects of each investigation. Each fact sheet was prepared by reviewing available quality assurance project plans, sampling and analysis plans, and report of findings documents. Figures and tables are reproduced from existing documents and, where possible, updated to address agency comments on the draft Current Conditions Report (NASA 2013a).

SAMPLING EVENT

LISTING SITE INSPECTION

Purpose

The Listing Site Inspection was a 1992 National Aeronautics and Space Administration (NASA) Ames-wide investigation to generate a preliminary site ranking for the U.S. Environmental Protection Agency's (EPA) Hazard Ranking System by evaluating data for soil, groundwater, surface water, and air. AOI 14 data for soil were analyzed for polychlorinated biphenyls (PCB), organochlorine pesticides (pesticide), volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and metals in surface and near-surface soils. No groundwater, surface water, or air samples were collected at AOI 14.

Section 4 of the Listing Site Inspection report explains the rationale for chemical analyses as follows: "Based on the results of prior investigations, the primary chemicals of concern in the shallow soil at NARC were PCBs, Pb, and Hg. VOCs and SVOCs did not appear to be ubiquitous in the areas that were previously sampled; therefore, EKI analyzed for these chemicals only in areas that either had not been previously sampled for VOCs and SVOCs (e.g., N227, Stevens Creek, Former Soil Disposal Area, T350, and N239), or in areas where these chemicals are known to be currently stored (e.g., N255)." (EKI 1992).

Sampling Date	Analytical Method
April 7, 1992	• EPA 8080 (PCBs and pesticides) • EPA 8240 (VOCs) • EPA 8270 (SVOCs) • EPA 7471 (metals)
Design: Number/Type of Samples Collected	**Sampling Method**
Four former soil fill area (FSFA) locations sampled at two depths. Three N217 and N217A locations sampled at 3 depths; however, only one location on N217A is within AOI 14.	**Surface**: Collected 8 ounces of soil from top 6 inches using a clean, stainless steel trowel. **Near surface**: Collected undisturbed soil sample with 4-inch brass sleeve using a slide hammer. A hand auger was used to remove soil to the desired depth of 2 feet below ground surface (bgs).

Summary of Findings

Reporting limits for chemicals of concern (COC) in the AOI 14 samples of this investigation were less than Navy IR Site 25 remediation goals. The arsenic reporting limit was greater than the environmental screening level (ESL).

FSFA

VOCs, SVOCs, selenium, silver, and thallium were reported as nondetect for the eight FSFA samples.

Metals (antimony, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc) and pesticides were all detected, but concentrations were below Navy IR Site 25 remediation goals and ESLs. Arsenic was detected at concentrations above its ESL (see table below); however, the arsenic concentrations are considered to be in the range of background.

PCBs were detected at concentrations greater than the Navy IR Site 25 remediation goals in four of eight FSFA samples.

N217A

Results for the three N217A samples reported detections of pesticides, lead, and mercury at concentrations below the Navy IR Site 25 remediation goals. PCBs were reported as nondetect.

References

EKI 1992, NASA 2013a, ISSi 12/2005; Laboratory Date Report: Sequoia Analytical

Figures and Tables are reproduced from the CCR (NASA 2013a).

Site Listing Inspection FSFA Sampling Locations

FSFA, formerly named Former Soil Disposal Area (FSDA), sampling locations.

Analytical Results for the FSFA from the Site Listing Investigation. Units are µg/kg.

Sample ID	Depth (ft)	PCBs[1]	Pesticides[2]	Lead	Mercury
FSDA-H001-0.5	0.0 – 0.5	**710**	<20	29,000	160
FSDA-H001-2.0	1.5 – 2.0	<200	<20	10,000	260
FSDA-H002-0.5	0.0 – 0.5	**220**	13	40,000	200
FSDA-H002-1.5	1.0 – 1.5	**210**	11	16,000	120
FSDA-H003-0.5	0.0 – 0.5	21	<2	5,000	100
FSDA-H003-2.0	1.5 – 2.0	**310**	27	29,000	80
FSDA-H004-0.5	0.0 – 0.5	50	4	12,000	70
FSDA-H004-2.0	1.5 – 2.0	26	<2	12,000	190
Remediation Goal[3]		***210***	***109***	***93,800***	***314,000***

Notes:

1. PCB 1254.
2. 4,4'-DDE
3. Remedial Goals are based on Navy IRP Site 25 remediation goals (Navy 2009).
4. Remedial goal for Mercury based on Regional Water Quality Control Board Environmental Screening Levels. ESLs are taken from May 2013 ESLs Workbook, Table A.

Metals Analytical Results for the FSFA from the Site Listing Investigation. Units are mg/kg.

Sample ID	Sb	As	Be	Cd	Cr	Cu	Ni	Se	Ag	Tl	Zn
FSDA-H001-0.5	ND<5[1]	ND<5	0.58	0.40	52	25	50	ND<2.5	ND<0.50	ND<0.25	80
FSDA-H001-2.0	10	16	0.55	0.79	45	20	48	ND<2.5	ND<0.50	ND<0.25	59
FSDA-H003-0.5	8	13	0.63	0.18	47	20	48	ND<2.5	ND<0.50	ND<0.25	53
FSDA-H003-2.0	ND<5	ND<5	0.53	0.82	57	25	56	ND<2.5	ND<0.50	ND<0.25	85
ESL[2]:	***20***	***0.39***	***4***	***12***	***750[3]***	***230***	***150***	***10***	***20***	***0.78***	***314[4]***

Notes:

1. ND<5: not detected above the reporting limit
2. RWQCB ESL: Regional Water Quality Control Board Environmental Screening Level. ESLs are taken from May 2013 ESLs Workbook, Table A.
3. ESL for Cr is for Cr^{+3}. ESL for total Cr is 2,500.0 and for Cr+6 is 8.0 from Table A, 2013 ESL Workbook.
4. Level for Zinc is based on Navy IRP Site 25 Remediation Goal versus ESL.
5. Sb=antimony, As=arsenic, Be=beryllium, Cd=cadmium, Cr=chromium, Cu=copper, Ni=nickel, Se=selenium, Ag=silver, Tl=thallium, and Zn=zinc

Site Listing Inspection N217 and N217 Fill Area Sampling Locations

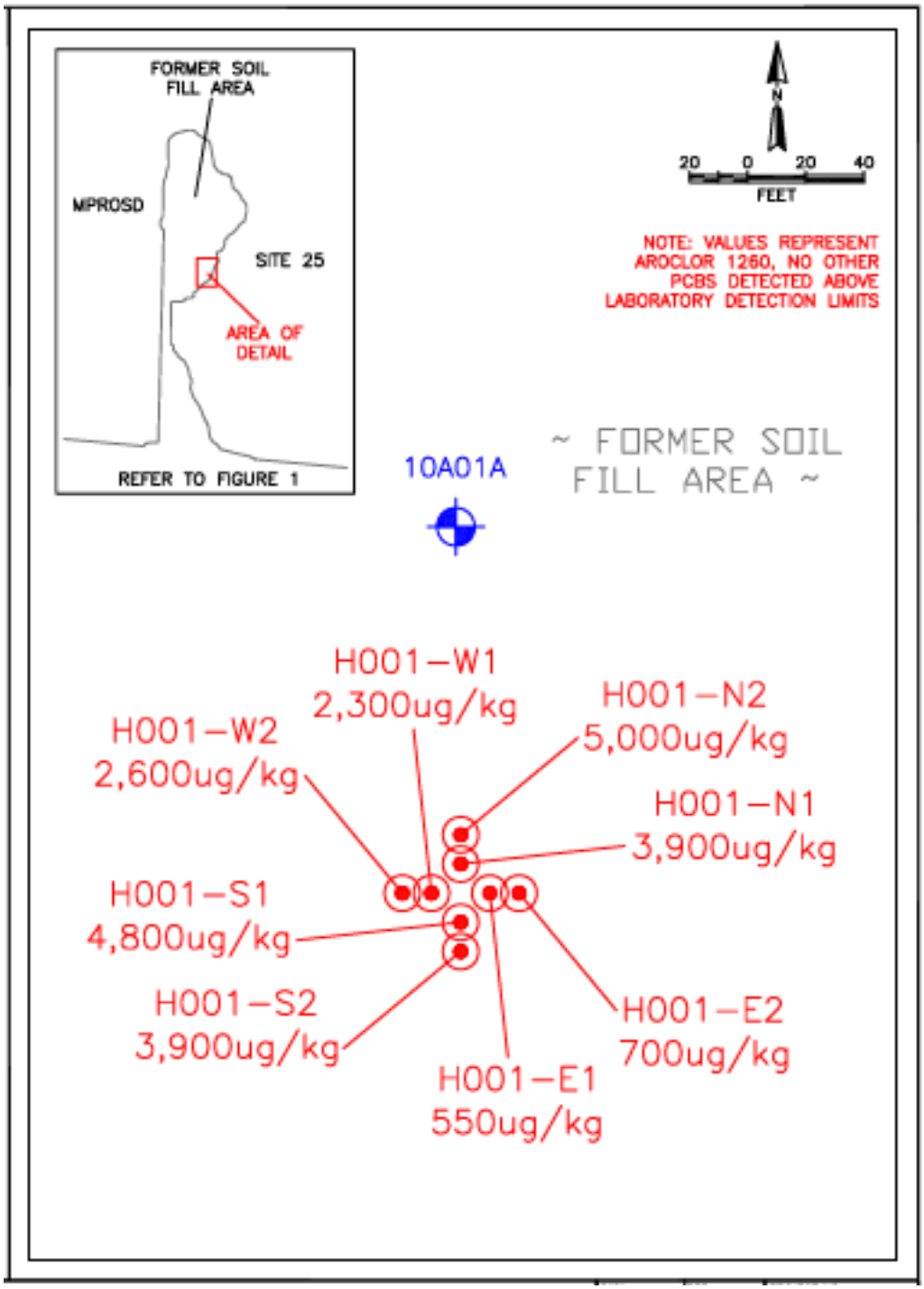
Sample results for N217A Area from the Site Listing Investigation. Units are in µg/kg
Only RP-H003 is within AOI 14.

Sample ID	Depth (ft)	PCBs[1]	Pesticides[2]	Lead	Mercury
RP-H003-0.5	0.0 – 0.5	<20	9	8,000	90
RP-H003-1.0	0.5 – 1.0	<20	<6	4,000	20
RP-H003-1.5	1.0 – 1.5	<20	<6	4,000	20
Remediation Goal[3]		***210***	***109***	***93,800***	***6,700[4]***

Notes:

1. PCB 1254.
2. 4'4-DDD
3. Remedial Goals are based on Navy IRP Site 25 remediation goals (Navy 2009).
4. Remedial goal for Mercury based on Regional Water Quality Control Board Environmental Screening Levels. ESLs are taken from May 2013 ESLs Workbook, Table A.

SAMPLING EVENT	
PHASE I PCB IN SITE SOILS (2004)	
Purpose	
The Phase I PCB in Site Soils investigation was a site-wide investigation to identify potential sources of PCBs that could contaminate stormwater runoff. The AOI 14 investigation focused on delineating PCB contamination detected during the Listing Site Inspection at sampling location FSDA-H001.	
Sampling Date	**Analytical Method**
September 22, 2004	• EPA 8082 (Total PCBs with Aroclor 1268 requested)
Design: Number/Type of Samples Collected	**Sampling Method**
Surface soil samples (0.5 foot bgs) were collected from eight sampling locations surrounding previous site listing sample location FSDA-H001.	Samples collected using a hand auger or direct-push rig, depending on accessibility (Uribe 2004). Samples were collected using decontaminated trowels (PAI 2004).
Summary of Findings	
Although the reporting limit for several PCB congeners was greater than the Navy IR Site 25 remediation goal, results for the eight samples reported Aroclor 1260 at concentrations greater than the Navy IR Site 25 remediation goal.	
References	
SAP: Uribe 2004/PAI 2004; Phase I ROF: PAI 2004; Laboratory Data Report: CNI0794 Figures and Tables are reproduced from the PCB Phase I ROF (PAI 2004).	


FORMER SOIL FILL AREA
MPROSD
SITE 25
AREA OF DETAIL
REFER TO FIGURE 1
N
20 0 20 40
FEET
NOTE: VALUES REPRESENT AROCLOR 1260, NO OTHER PCBS DETECTED ABOVE LABORATORY DETECTION LIMITS
10A01A
~ FORMER SOIL FILL AREA ~
H001-W1 2,300ug/kg
H001-N2 5,000ug/kg
H001-W2 2,600ug/kg
H001-N1 3,900ug/kg
H001-S1 4,800ug/kg
H001-S2 3,900ug/kg
H001-E2 700ug/kg
H001-E1 550ug/kg

SURFICIAL SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS
NASA AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA

Sample Location	Sample ID	Sample Date	Aroclor 1260 Concentration (ug/Kg)
Former Soil Fill Area	H0001-N1-0.5	09/22/04	**3,900**
(North of OARF Road)	H0001-N2-0.5	09/22/04	**5,000**
	H0001-S1-0.5	09/22/04	**4,800**
	H0001-S2-0.5	09/22/04	**3,900**
	H0001-E1-0.5	09/22/04	**550**
	H0001-E2-0.5	09/22/04	**700**
	H0001-W1-0.5	09/22/04	**2,300**
	H0001-W2-0.5	09/22/04	**2,600**

All samples anlayzed by California Laboratory Services, Inc., Rancho Cardova, California.

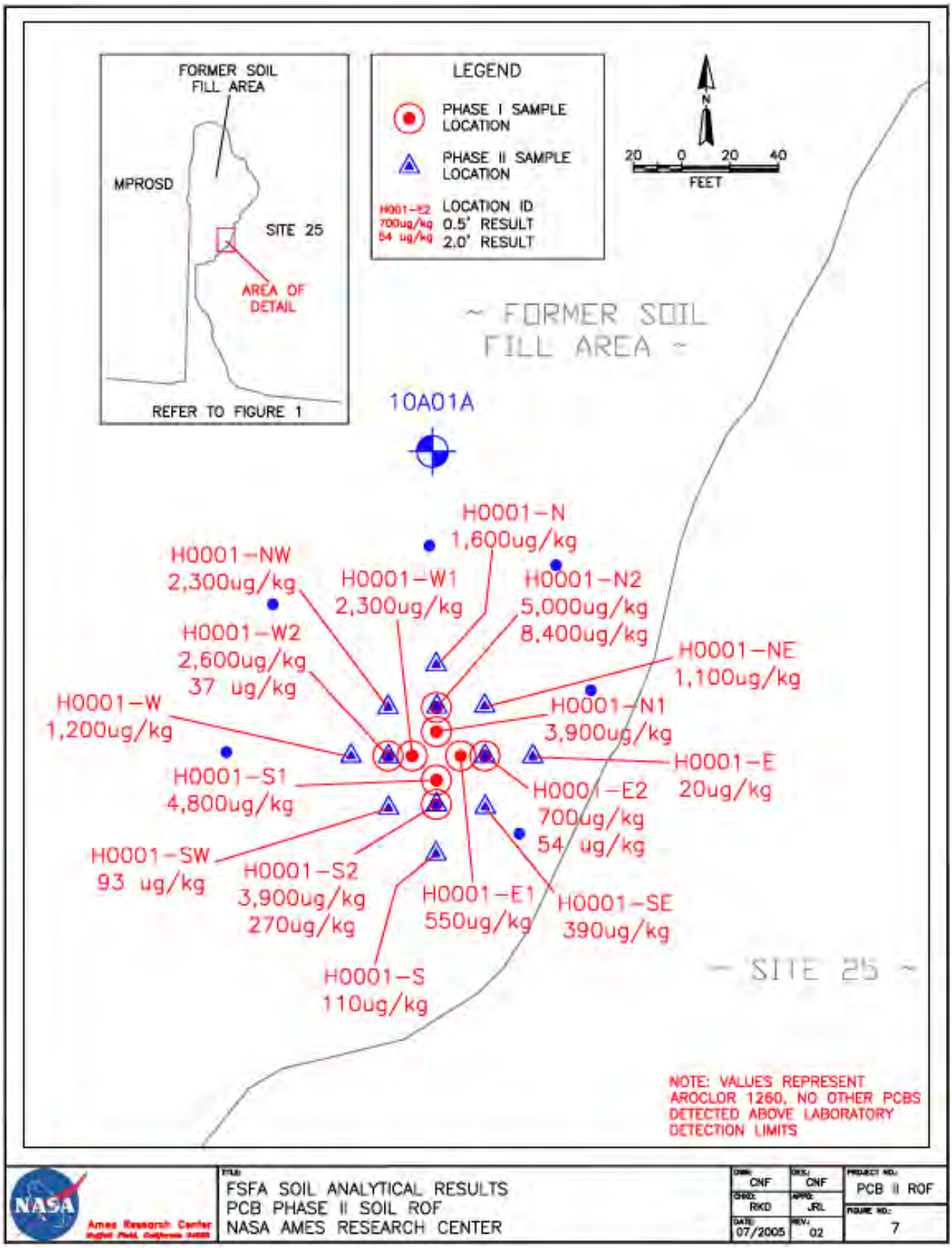
ug/Kg = Micrograms per Kilograms (equivalent to parts per billion [ppb])

Sample results in bold are concentrations that exceed NASA Ames PCB in Site Soils Action Limits (see below)

PCB in site soils Action Limits: South of OARF Road = 1000 ug/Kg (1000 ppb) = 1 mg/kg (1ppm)
North of OARF Road = 470 ug/kg = 470 ppb (0.47 mg/Kg = 0.47 ppm)

Sample results in italics are at concentrations approaching the Action Limits.

SAMPLING EVENT	
PHASE II PCB IN SITE SOILS (2005)	
Purpose	
The purpose of the Phase II PCB in Site Soils investigation was to further characterize the lateral and vertical extent of PCBs in the FSFA identified in Phase I PCB in Site Soils investigation.	
Sampling Date	**Analytical Method**
May 27, 2005	• EPA 8082 (Total PCBs and Aroclor 1268)
Design: Number/Type of Samples Collected	**Sampling Method**
Four near surface soil samples (1.5 to 2.0 feet bgs) were collected from four Phase I locations, and eight surface samples (0 to 0.5 foot bgs) were collected surrounding the Phase I locations.	**Surface:** Collected 8 ounces of soil from top 6 inches using a clean, stainless steel trowel. **Subsurface:** Collected 4-inch brass sleeve of undisturbed soil using a slide hammer. A hand auger was used to remove soil to the desired depth of 2 feet bgs.
Summary of Findings	
Although the reporting limit for several PCB congeners was greater than the Navy IR Site 25 remediation goal, Aroclor 1260 was detected in all 12 samples collected and seven of those samples had concentrations greater than the Navy IR Site 25 remediation goal.	
References	
QAPP: Canonie 1991; SAP: PAI 2005; ROF: ISSi 2005a; Laboratory Data Report: COF0020 Figures and Tables are reproduced from the PCB Phase II ROF (ISSi 2005a).	


FORMER SOIL FILL AREA
MPROSD
SITE 25
AREA OF DETAIL
REFER TO FIGURE 1
LEGEND
PHASE I SAMPLE LOCATION
PHASE II SAMPLE LOCATION
H001-E2 LOCATION ID
700ug/kg 0.5' RESULT
54 ug/kg 2.0' RESULT
N
20 0 20 40
FEET
~ FORMER SOIL FILL AREA ~
10A01A
H0001-N
1,600ug/kg
H0001-NW
2,300ug/kg
H0001-W1
2,300ug/kg
H0001-N2
5,000ug/kg
8,400ug/kg
H0001-W2
2,600ug/kg
37 ug/kg
H0001-NE
1,100ug/kg
H0001-W
1,200ug/kg
H0001-N1
3,900ug/kg
H0001-E
20ug/kg
H0001-S1
4,800ug/kg
H0001-E2
700ug/kg
54 ug/kg
H0001-SW
93 ug/kg
H0001-S2
3,900ug/kg
270ug/kg
H0001-E1
550ug/kg
H0001-SE
390ug/kg
H0001-S
110ug/kg
~ SITE 25 ~
NOTE: VALUES REPRESENT AROCLOR 1260, NO OTHER PCBS DETECTED ABOVE LABORATORY DETECTION LIMITS
NASA
Ames Research Center
FSFA SOIL ANALYTICAL RESULTS
PCB PHASE II SOIL ROF
NASA AMES RESEARCH CENTER
DWN: CNF
DES: CNF
CHKD: RKD
APPD: JRL
DATE: 07/2005
REV: 02
PROJECT NO.: PCB II ROF
FIGURE NO.: 7

PHASE II SURFICIAL SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS
May 2005

Sample Location	Sample ID	Sample Date	Aroclor 1016 (ug/Kg)	Aroclor 1254 (ug/Kg)	Aroclor 1260 (ug/Kg)	Aroclor 1268 (ug/Kg)
Former Soil Fill Area (Action Level = 210 ug/Kg)	H0001-N-0.5	05/27/05	<200	<200	**1,600**	<200
	H0001-NE-0.5	05/27/05	<200	<200	**1,100**	<200
	H0001-E-0.5	05/27/05	<20	<20	20	<20
	H0001-SE-0.5	05/27/05	<100	<100	**390**	<100
	H0001-S-0.5	05/27/05	<20	<20	110	<20
	H0001-SW-0.5	05/27/05	<20	<20	93	<20
	H0001-W-0.5	05/27/05	<200	<200	**1,200**	<200
	H0001-NW-0.5'	05/27/05	<400	<400	**2,300**	<400
	H0001-N2-R1-2'	05/27/05	<1000	<1000	**8,400**	<1000
	H0001-E2-R1-2'	05/27/05	<20	<20	54	<20
	H0001-S2-R1-2'	05/27/05	<40	<40	**270**	<40
	H0001-W2-R1-2'	05/27/05	<20	<20	37	<20

All samples anlayzed by California Laboratory Services, Inc., Rancho Cardova, California.

ug/Kg = Micrograms per Kilograms (equivalent to parts per billion [ppb])

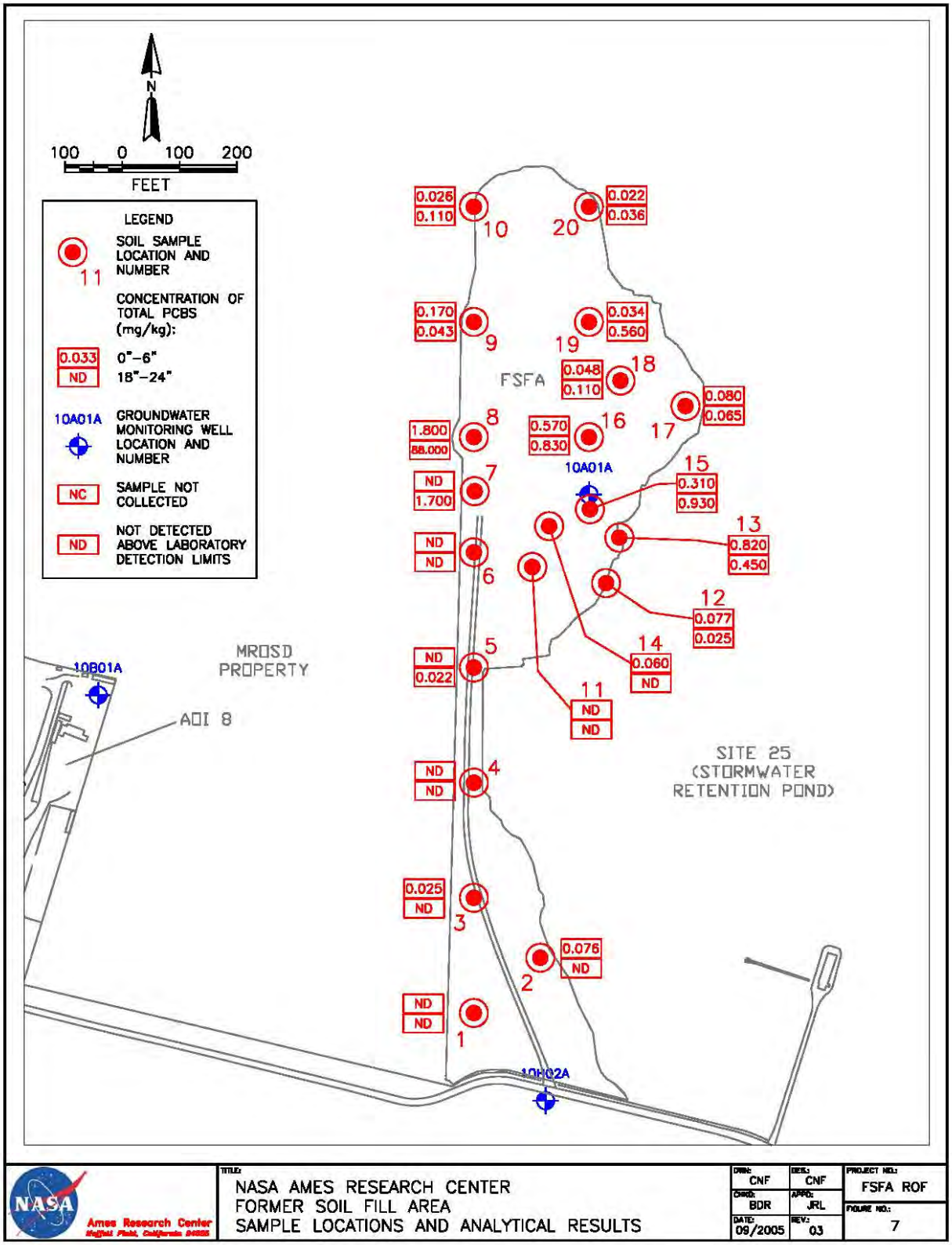
Sample results in bold are concentrations that exceed NASA Ames PCB in Site Soils Action Levels (see below)

PCB in site soils Action Levels: South of OARF Road = 1000 ug/Kg (1000 ppb) = 1 mg/kg (1ppm)

Former Soil Fill Area = 210 ug/Kg = 210 ppb (0.210 mg/Kg = 0.210 ppm)

< - Less than. Where an analyte is not detected, a Method Detection Limit is given.

SAMPLING EVENT	
AOI 14 PHASE I (SUMMER 2005)	
Purpose	
The purpose of the AOI 14 Summer 2005 (Phase I) Investigation was further characterization of the extent of PCBs, and characterization of dichlorodiphenyltrichloroethane (DDT), lead, and zinc contamination within the FSFA. Analysis for DDT, lead, and zinc was conducted because DDT, lead, and zinc were identified as contaminants of concern at the adjacent Navy IR Site 25.	
Sampling Date	**Analytical Method**
August to September 2005	• EPA 8082 (Total PCBs, including Aroclor 1268) • EPA 8081A (Total DDT, including DDD, DDE, and DDT) • EPA 6010B/7000 (Lead and Zinc)
Design: Number/Type of Samples Collected	**Sampling Method**
Two soil samples (surface and near surface) collected from each of 20 locations at depths of 0 to 0.5 and 1.5 to 2.0 feet bgs. Sampling locations on an approximate 200-foot grid across the FSFA (ISSi 2005c).	**Surface**: Collected 8 ounces of soil from top 6 inches using a clean, stainless steel trowel. **Near surface**: Collected undisturbed soil sample with 4-inch brass sleeve using a slide hammer. A hand auger was used to remove soil to the desired depth of 1.5 feet bgs (ISSi 2005b).
Summary of Findings	
Although the reporting limit for several PCB congeners was greater than the Navy IR Site 25 remediation goal, Aroclor 1260 was detected in 27 of 40 soil samples, including those samples with elevated reporting limits. Ten of the 40 soil samples contained concentrations of Aroclor-1260 in excess of the Navy IR Site 25 remediation goal, with a maximum concentration of 88 milligrams per kilogram (mg/kg). No other PCBs were detected. Total DDT was not detected above laboratory reporting limits; however, reporting limits for seven of 40 samples exceeded the Navy IR Site 25 remediation goal. These seven samples were collocated with Aroclor 1260 exceedances. Lead was detected in 35 of the 40 soil samples at a maximum concentration of 67 mg/kg, below the Navy IR Site 25 remediation goal. Zinc was detected in all 40 soil samples at a maximum concentration of 300 mg/kg, below the Navy IR Site 25 remediation goal. The AOI 14 Report of Findings recommended that additional surface, near-surface, and subsurface soil samples be collected across the FSFA. Surface, near-surface, and subsurface soil sample locations were to be situated to adequately determine the distribution of PCBs throughout the FSFA (ISSi 2005c).	
References	
QAPP: Canonie 1991; SAP: ISSi 2005b; ROF: ISSi 2005c; Laboratory Data Report: COH1032 and COI0441 Figures and Tables are reproduced from the Summer 2005 Soil Investigation ROF (ISSi 2005c).	


N
100 0 100 200
FEET
LEGEND
SOIL SAMPLE LOCATION AND NUMBER
11
CONCENTRATION OF TOTAL PCBS (mg/kg):
0.033 0"–6"
ND 18"–24"
10A01A GROUNDWATER MONITORING WELL LOCATION AND NUMBER
NC SAMPLE NOT COLLECTED
ND NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
0.026 0.110 10
0.022 0.036 20
0.170 0.043 9
0.034 0.560 19
0.048 0.110 18
FSFA
0.080 0.065 17
1.800 88.000 8
0.570 0.830 16
10A01A
ND 1.700 7
15 0.310 0.930
13 0.820 0.450
ND ND 6
12 0.077 0.025
14 0.060 ND
ND 0.022 5
11 ND ND
MROSD PROPERTY
10B01A
AOI 8
SITE 25 (STORMWATER RETENTION POND)
ND ND 4
0.025 ND 3
0.076 ND 2
ND ND 1
10H02A
NASA
Ames Research Center
Moffett Field, California 94035
TITLE:
NASA AMES RESEARCH CENTER
FORMER SOIL FILL AREA
SAMPLE LOCATIONS AND ANALYTICAL RESULTS
DRN: CNF
DES.: CNF
CHKD: BDR
APPD: JRL
DATE: 09/2005
REV.: 03
PROJECT NO.: FSFA ROF
FIGURE NO.: 7

FORMER SOIL FILL AREA
SUMMER 2005 SOIL INVESTIGATION
SOIL SAMPLE ANALYTICAL RESULTS

Sample Location	Depth Interval (bgs)	Sample Date	Aroclor 1260 (mg/kg)	Aroclor 1268 (mg/kg)	Other PCBs (mg/kg)	DDT[1] (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-1-6"	0" – 6"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	8.1	39
PEN-1-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	< 12	32
PEN-2-6"	0" – 6"	09/12/05	0.076	< 0.020	< 0.020	< 0.016	29	70
PEN-2-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.033	38	52
PEN-3-6"	0" – 6"	09/12/05	0.025	< 0.020	< 0.020	< 0.0033	18	55
PEN-3-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	4.8	35
PEN-4-6"	0" – 6"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	3.5	25
PEN-4-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	< 12	39
PEN-5-6"	0" – 6"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.0033	9.6	48
PEN-5-24"	18" – 24"	09/12/05	0.022	< 0.020	< 0.020	< 0.0033	7.1	49
PEN-6-6"	0" – 6"	08/23/05	< 0.020	< 0.020	< 0.020	< 0.0033	14	54
PEN-6-24"	18" – 24"	08/23/05	< 0.020	< 0.020	< 0.020	< 0.033	6.6	52
PEN-7-6"	0" – 6"	08/23/05	< 0.100	< 0.100	< 0.100	< 0.066	18	97
PEN-7-24"	18" – 24"	08/23/05	**1.700**	< 0.200	< 0.200	< 0.330	22	73
PEN-8-6"	0" – 6"	08/23/05	**1.800**	< 0.200	< 0.200	< 0.330	18	67
PEN-8-24"	18" – 24"	08/23/05	**88.000**	< 20.000	< 20.000	< 16.000	14	60
PEN-9-6"	0" – 6"	08/23/05	0.170	< 0.200	< 0.200	< 0.033	15	50
PEN-9-24"	18" – 24"	08/23/05	0.043	< 0.200	< 0.200	< 0.033	< 0.012	43
PEN-10-6"	0" – 6"	08/23/05	0.026	< 0.200	< 0.200	< 0.033	19	71
PEN-10-24"	18" – 24"	08/23/05	0.110	< 0.200	< 0.200	< 0.033	< 0.012	61
Ecological Remediation Level[2]			*0.210*	*0.210*	*0.210*	*0.109*	*93.8*	*314*

PCBs = Polychlorinated Biphenyls
DDT = Dichlorodiphenyltrichloroethane
mg/kg = milligrams per kilogram or parts per million (ppm)
[1] = Total DDT, includes DDT, DDD, and DDE
[2] source: Addendum to *Revised Final Site-Wide Feasibility Study, Site 25, Former NAS Moffett Field* (SulTech, 2005)

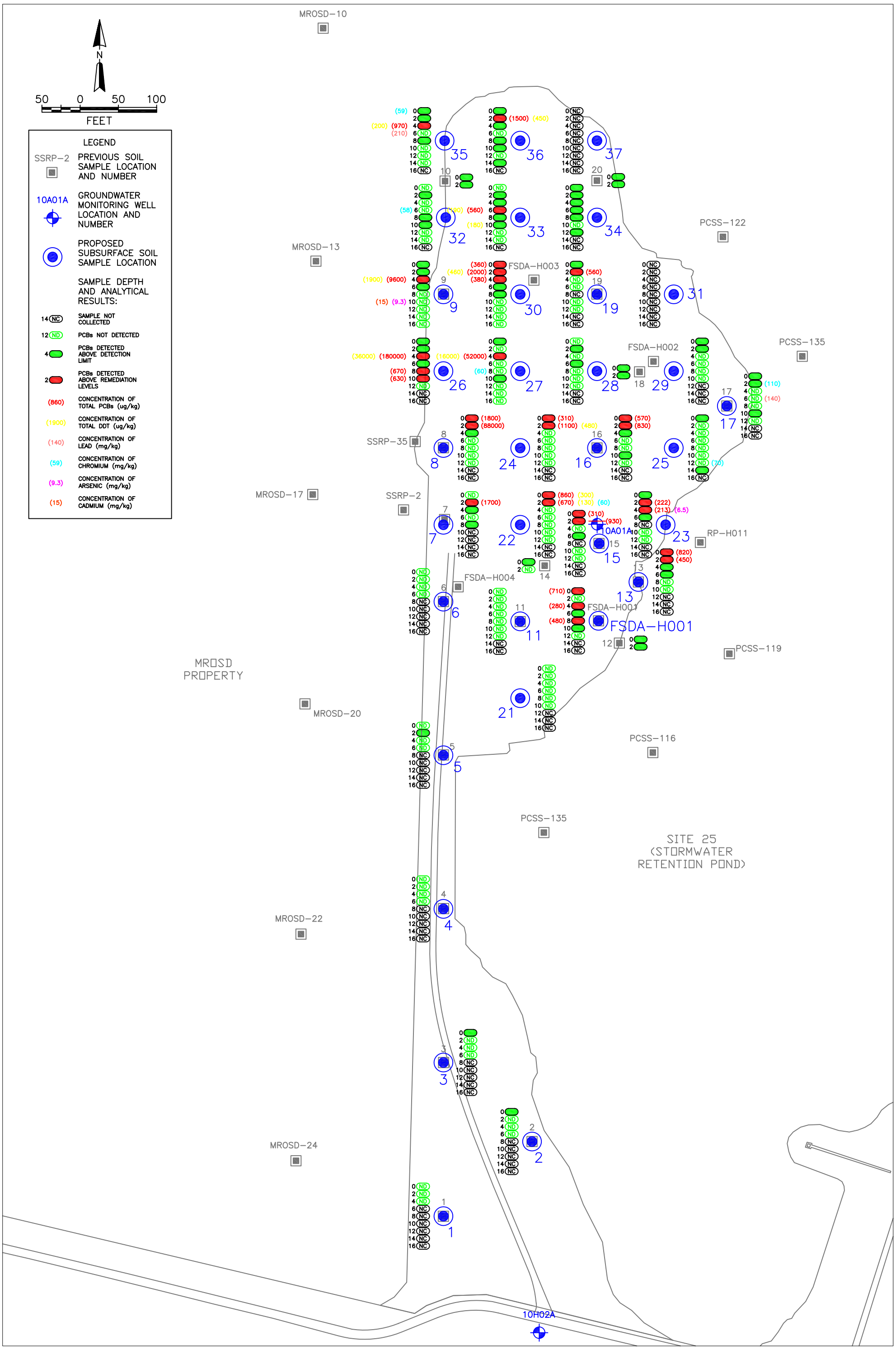
FORMER SOIL FILL AREA
SUMMER 2005 SOIL INVESTIGATION
SOIL SAMPLE ANALYTICAL RESULTS

Sample Location	Depth Interval (bgs)	Sample Date	Aroclor 1260 (mg/kg)	Aroclor 1268 (mg/kg)	Other PCBs (mg/kg)	DDT[1] (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-11-6"	0" – 6"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.033	9.2	53
PEN-11-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.016	6.9	44
PEN-12-6"	0" – 6"	09/12/05	0.077	< 0.020	< 0.020	< 0.016	13	46
PEN-12-24"	18" – 24"	09/12/05	0.025	< 0.020	< 0.020	< 0.016	18	51
PEN-13-6"	0" – 6"	09/12/05	**0.820**	< 0.200	< 0.200	< 0.066	16	55
PEN-13-24"	18" – 24"	09/12/05	**0.450**	< 0.100	< 0.100	< 0.066	29	60
PEN-14-6"	0" – 6"	09/12/05	0.060	< 0.020	< 0.020	< 0.066	14	59
PEN-14-24"	18" – 24"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.033	22	53
PEN-15-6"	0" – 6"	09/12/05	**0.310**	< 0.100	< 0.100	< 0.033	26	80
PEN-15-24"	18" – 24"	09/12/05	**0.930**	< 0.200	< 0.200	< 0.160	45	110
PEN-16-6"	0" – 6"	08/23/05	**0.570**	< 0.100	< 0.100	< 0.160	67	190
PEN-16-24"	18" – 24"	08/23/05	**0.830**	< 0.200	< 0.200	< 0.160	55	140
PEN-17-6"	0" – 6"	08/23/05	0.080	< 0.200	< 0.200	< 0.033	11	59
PEN-17-24"	18" – 24"	08/23/05	0.065	< 0.200	< 0.200	< 0.033	3.0	44
PEN-18-6"	0" – 6"	08/23/05	0.048	< 0.200	< 0.200	< 0.033	7.0	57
PEN-18-24"	18" – 24"	08/23/05	0.110	< 0.200	< 0.200	< 0.033	37	300
PEN-19-6"	0" – 6"	08/23/05	0.034	< 0.200	< 0.200	< 0.033	12	100
PEN-19-24"	18" – 24"	08/23/05	**0.560**	< 0.100	< 0.100	< 0.160	37	100
PEN-20-6"	0" – 6"	08/23/05	0.022	< 0.200	< 0.200	< 0.033	4.4	52
PEN-20-24"	18" – 24"	08/23/05	0.036	< 0.200	< 0.200	< 0.033	< 0.012	72
PEN-40-6"[2]	0" – 6"	08/23/05	0.033	< 0.200	< 0.200	< 0.033	< 0.012	63
PEN-41-6"[3]	0" – 6"	09/12/05	**0.460**	< 0.100	< 0.100	< 0.033	26	67
PEN-42-6"[4]	0" – 6"	09/12/05	< 0.020	< 0.020	< 0.020	< 0.066	7.7	53
Ecological Remediation Level[5]			*0.210*	*0.210*	*0.210*	*0.109*	*93.8*	*314*

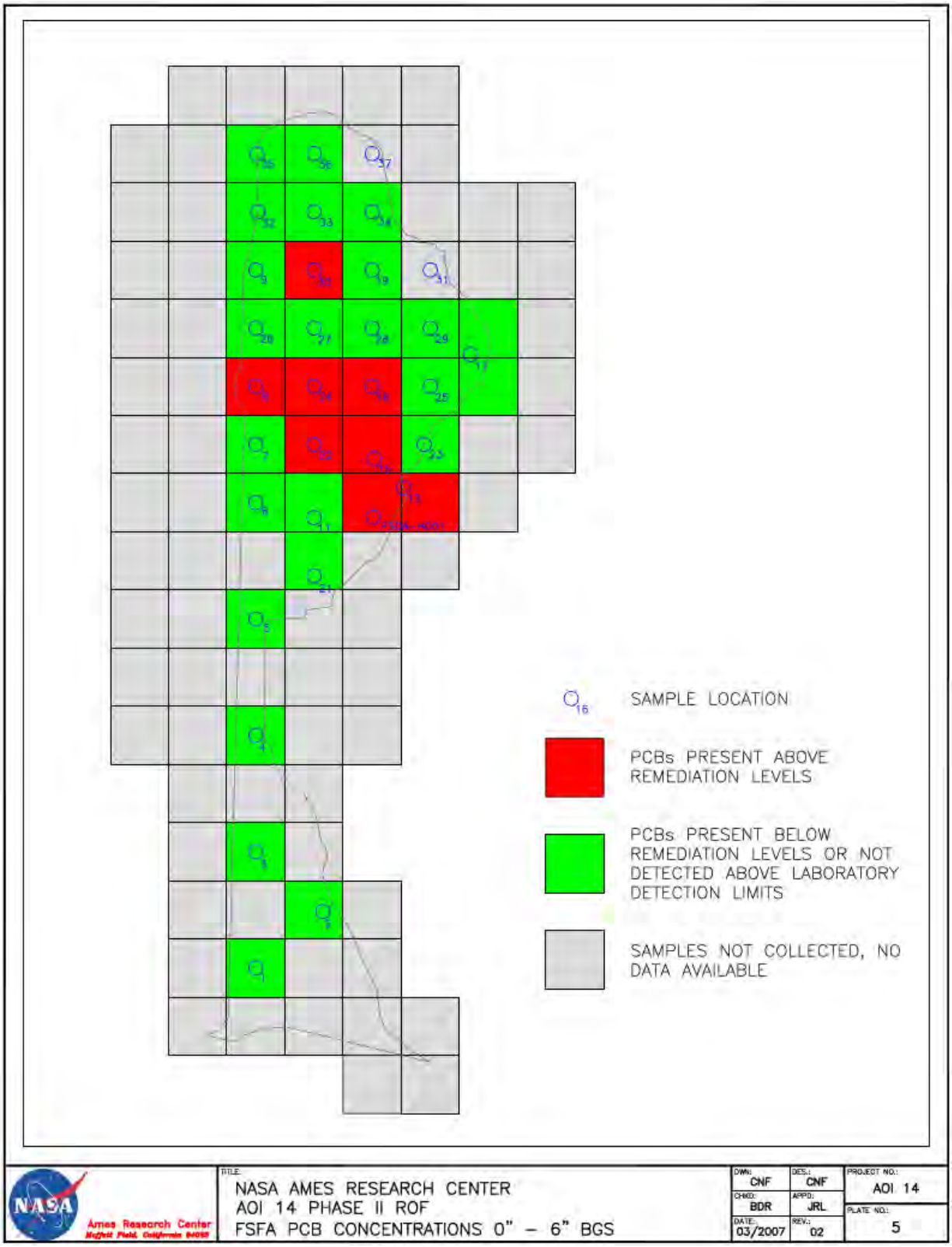
PCBs = Polychlorinated Biphenyls
DDT = Dichlorodiphenyltrichloroethane
mg/kg = milligrams per kilogram or parts per million (ppm)
[1] = Total DDT, includes DDT, DDD, and DDE
[2] = Duplicate Sample of Sample 'PEN-10-6"'
[3] = Duplicate Sample of Sample 'PEN-15-6"'
[4] = Duplicate Sample of Sample 'PEN-11-6"'
[5] source: Addendum to *Revised Final Site-Wide Feasibility Study, Site 25, Former NAS Moffett Field* (SulTech, 2005)

SAMPLING EVENT	
AOI 14 PHASE II (SUMMER 2006 AND 2007 RESAMPLING)	
Purpose	
The purpose of the AOI 14 Summer 2006 (Phase II) and 2007 resampling investigations was to further characterize the extent of PCB (and potential total DDT, lead, and zinc) contamination within AOI 14.	
Sampling Date	**Analytical Method**
June 20-23, 2006 (207 samples collected from 38 locations) November 7, 2007 (resampled: 11 samples collected from eight locations) November 19-20, 2007 (resampled: 33 samples collected from 14 locations; and collected 21 samples from three new locations)	• EPA 8082 (Total PCBs, including Aroclor 1268) • EPA 8081A (Total DDT, including DDD, DDE, and DDT) • EPA 6010B/7000 (Lead and Zinc) • 16 samples analyzed for total petroleum hydrocarbons (TPH) as diesel (TPH-d), TPH as gasoline (TPH-g), TPH as jet fuels 4, 5, and 8 (TPH-JP4/5/8), TPPH as motor oil (TPH-mo) by EPA 8015M; total oil and grease (TOG) by EPA 1664; VOCs by EPA 8260; and priority pollutant metals by EPA 6010B/7000.
Design: Number/Type of Samples Collected	**Sampling Method**
Surface and near-surface soil samples collected to a depth of 2 feet bgs at 15 locations across FSFA. **Subsurface** soil samples collected at various depths (based on thickness of fill material) at 31 locations across FSFA. **Surface, near-surface, and subsurface** soil samples collected at various depths (based on thickness of fill material) at 7 locations across the Building N217 and N217A areas.	**Surface**: Collected 8 ounces of soil from top 6 inches using a clean, stainless steel trowel. **Near surface**: Collected using the direct push technology (DPT). At each subsurface soil sample location, a continuous-core soil boring was completed in 4-foot iterations by advancing a clean 2.25-inch by 4.5-foot hollow core barrel equipped with a clean 1.6-inch by 4-foot clear acrylic coring sleeve into subsurface soils. Sample collected from 18-in to 24-inches bgs interval. If necessary, near-surface samples were collected using a slide hammer to collect a 4-inch brass sleeve of undisturbed soil. **Subsurface**: Collected at 2-foot intervals starting at 4 feet bgs using the DPT as described for near-surface and continuing 2 feet into native soils (ISSi 2006a).
Summary of Findings	
FSFA Analytical results of soil samples collected within the FSFA indicated the presence of PCBs, total DDT, lead, zinc, arsenic, beryllium, cadmium, chromium, copper, mercury, nickel, silver, and TPH-mo (see Tables below). The remaining compounds analyzed, TPH-d, TPH-g, TPH-JP4/5/8, TOG, and VOCs were not detected above applicable laboratory reporting limits. Reporting limits for several PCB congeners and most total DDT results were greater than the Navy IR Site 25 remediation goals. Samples with elevated reporting limits were resampled in 2007. The PCB Aroclor 1260 was detected at various depths in 95 of the 211 samples collected at the FSFA (including samples collected during the FSFA Summer 2005 Soil Investigation). Of those 95 soil samples, 28 contained Aroclor 1260 in excess of the Navy IR Site 25 remediation goal. The maximum detected Aroclor 1260 concentration was 180,000 micrograms per kilogram (µg/kg) at sample PEN-26-4'.	

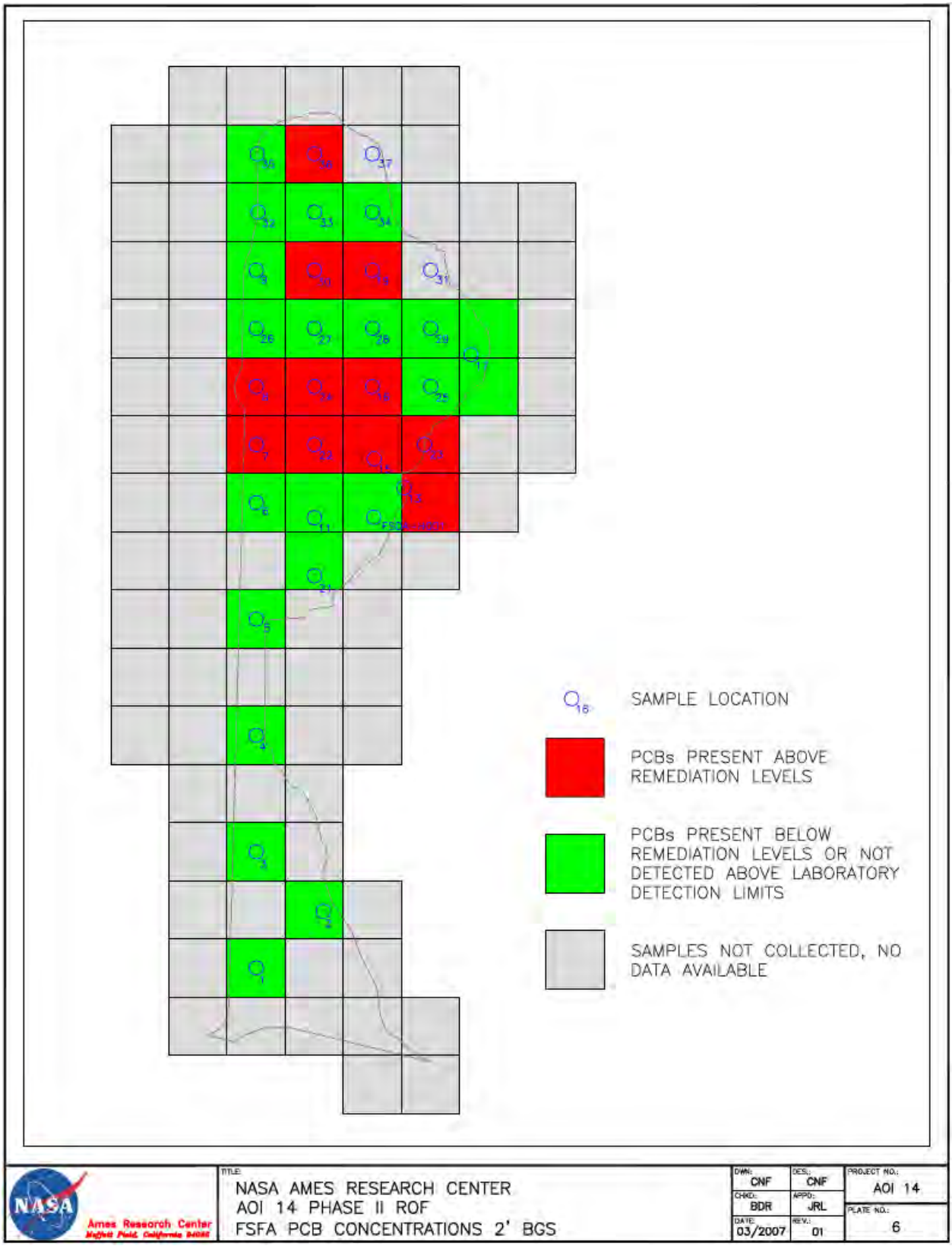
SAMPLING EVENT
AOI 14 PHASE II (SUMMER 2006 AND 2007 RESAMPLING)
Total DDT was present above laboratory reporting limits in 17 of the 211 soil samples collected; 12 samples contained total DDT in excess of the Navy IR Site 25 remediation goal. The maximum detected total DDT concentration was 35,000 µg/kg in sample PEN-26-4'. Lead was detected in 161 of the 211 soil samples, with concentrations ranging from 2.5 mg/kg to a maximum of 210 mg/kg. Lead was present above the Navy IR Site 25 remediation goal in two of the 161 samples. Zinc was detected in all but three of the 211 soil samples collected. Zinc concentrations ranged from 18 mg/kg to a maximum of 300 mg/kg, all below the Navy IR Site 25 remediation goal. Arsenic was detected in all 13 samples for which it was analyzed, with concentrations ranged from 2.8 mg/kg to 9.3 mg/kg. Two of 13 samples contained arsenic in excess of the 2005 ESL of 5.5 mg/kg. Cadmium was detected in one of 13 samples for which it was analyzed; however, reporting limits for three of 13 samples were in excess of the 1.7 mg/kg 2005 ESL. Chromium was detected in all 16 samples for which it was analyzed. Concentrations of chromium varied from 22 mg/kg to a maximum of 110 mg/kg. Six soil samples contained chromium in excess of the 58 mg/kg 2005 ESL. Copper, mercury, nickel, and silver were all detected in one or more soil samples; however, none of these compounds was detected in excess of its 2005 ESLs. FSFA 2007 resampling results and reporting limits for total DDT, lead, and zinc were below Navy IR Site 25 remediation goals. Total PCB results at two locations exceeded the Navy IR Site 25 remediation goals. **N217 and N217A** The PCB Aroclor 1260 was detected in six of the 38 samples collected at the N217 peninsula and the N217A fill area. Of those six soil samples, only one – N217-6-8' – contained Aroclor 1260 in excess of the Navy IR Site 25 remediation goal. The detected Aroclor 1260 concentration in this sample was 450 µg/kg. Lead was present in 10 of the 38 soil samples collected in these two areas, with concentrations ranging from 7.6 mg/kg to a maximum of 280 mg/kg. The same sample – N217-6-8' – contained lead at 280 mg/kg, above the Navy IR Site 25 remediation goal. Zinc was detected in all 38 soil samples collected. The maximum detected zinc concentration was 81 mg/kg, below the Navy IR Site 25 remediation goal. Chromium was detected in all three samples for which it was analyzed. One soil sample – N217-7-6" – contained chromium at 61 mg/kg, exceeding 58 mg/kg, the 2005 ESL. Arsenic, copper, mercury, nickel, and TPH-mo were all detected in one or more soil samples; however, none of these compounds was present in excess of its 2005 ESL. N217 and N217A Fill Area 2007 limited resampling results and reporting limits for DDT, lead, and zinc were below Navy IR Site 25 remediation goals. Total PCB results at one location exceeded the Navy IR Site 25 remediation goal. Additional resampling to address elevated DDT reporting limits was conducted in 2013.
References
SAP: ISSi 2006a; ROF: ISSi 2007a; Laboratory Data Report: CPF0718, CPF0748, CPF0799, CQK0224, CQK0707, CQK0809, and CQL0270. Figures and Tables are reproduced from the AOI 14 Phase II ROF (ISSi 2007a). Results from 2007 resampled data are presented in Tables generated for this appendix.



Ames Research Center, Moffett Field, California 94035	TITLE: NASA AMES RESEARCH CENTER AOI 14 PHASE II ROF FSFA ANALYTICAL RESULTS	DWN: CNF CHKD: BDR DATE: 03/2007	DES.: CNF APPD: JRL REV.: 03	PROJECT NO.: AOI 14 PLATE NO.: 4



For overview and sample numbers, see figure on page A-18. For complete data, see tables on pages A-28 through A-35.



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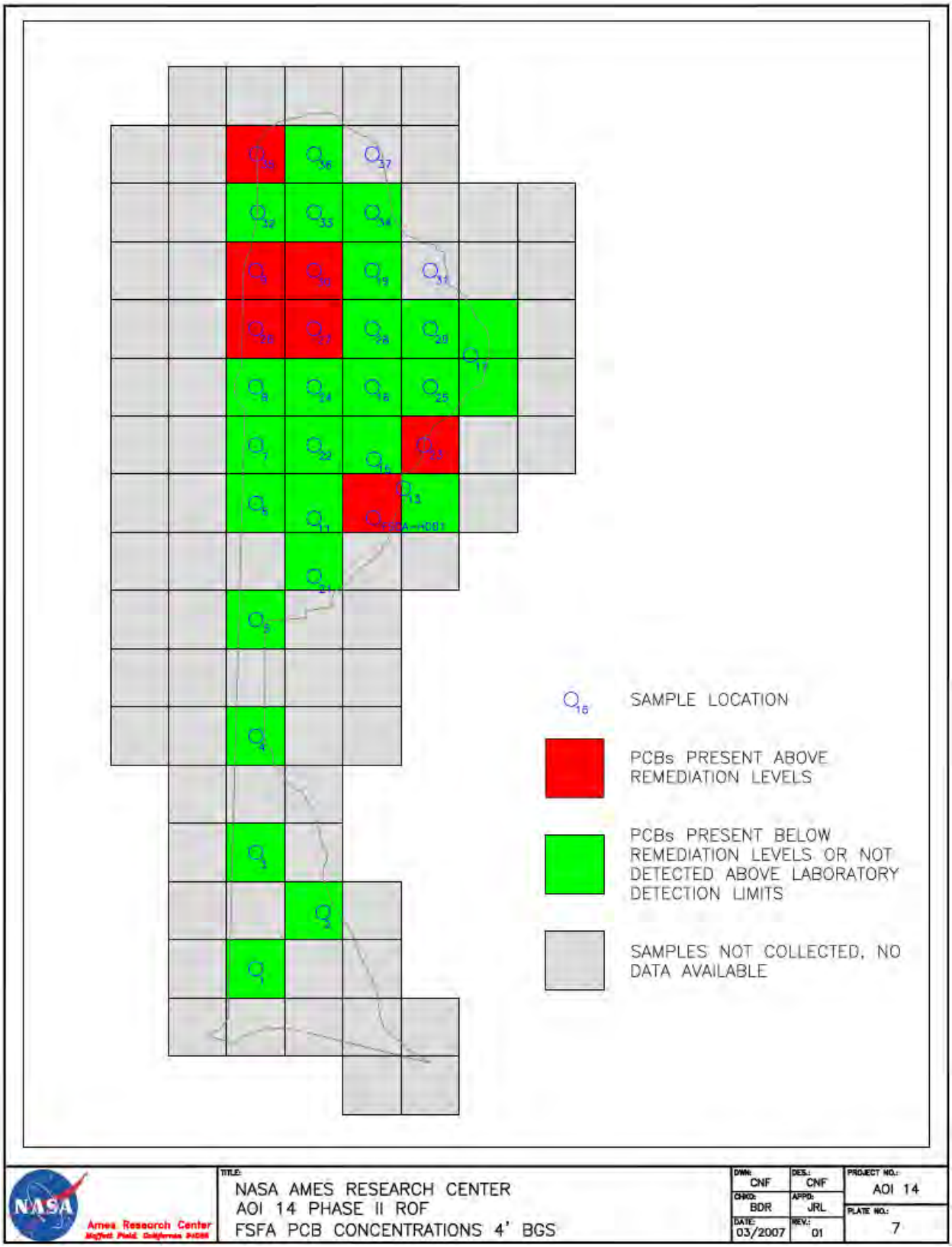

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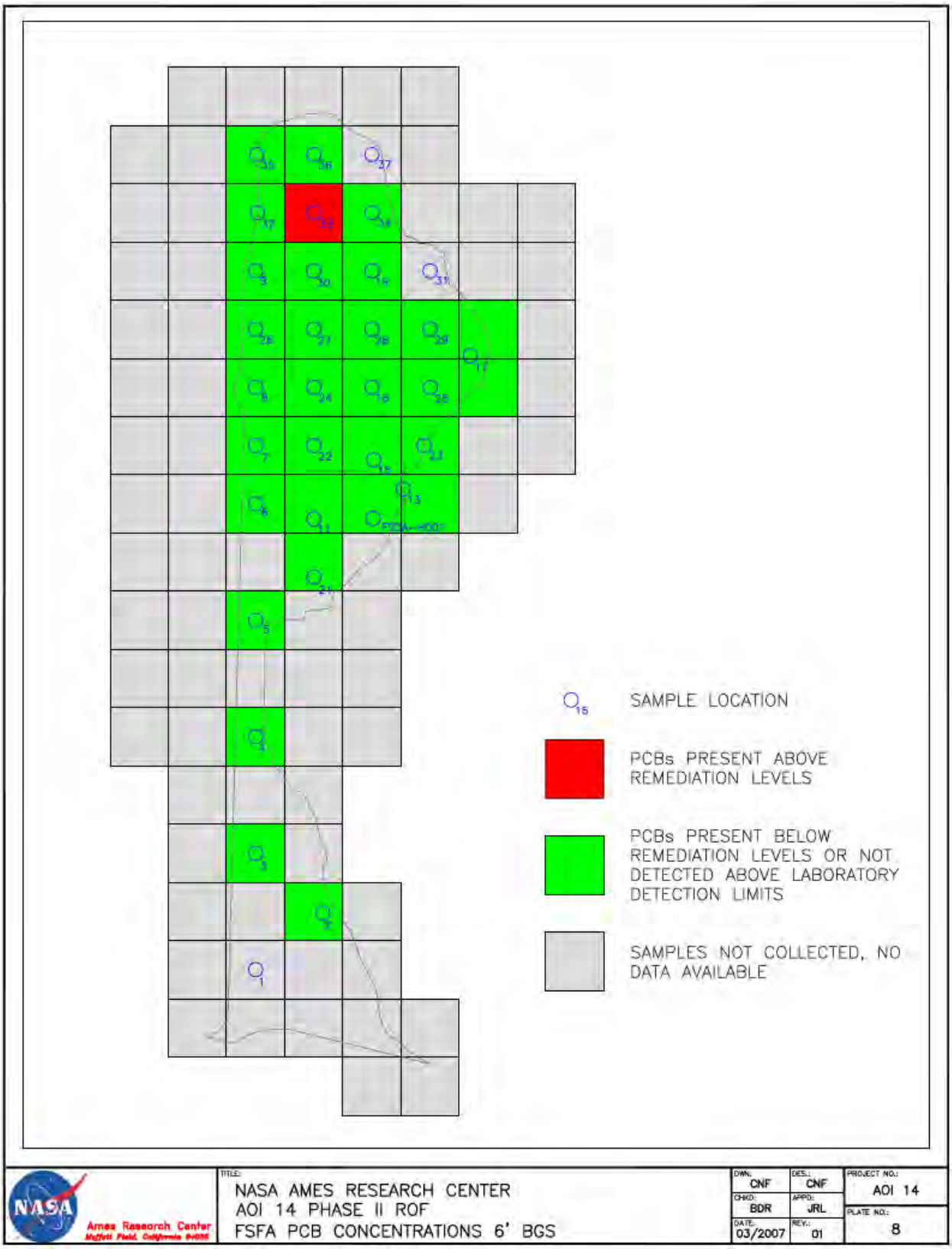

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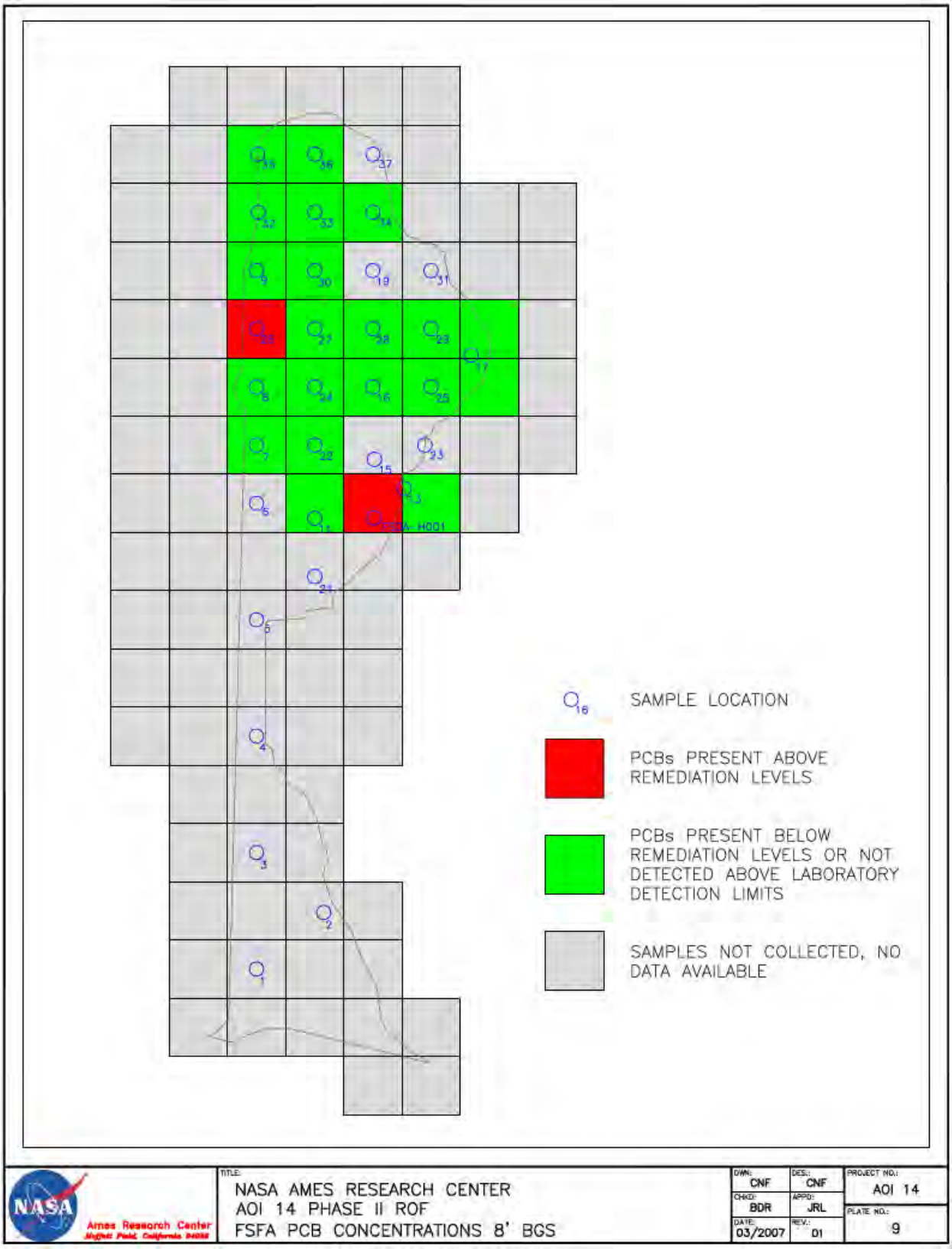
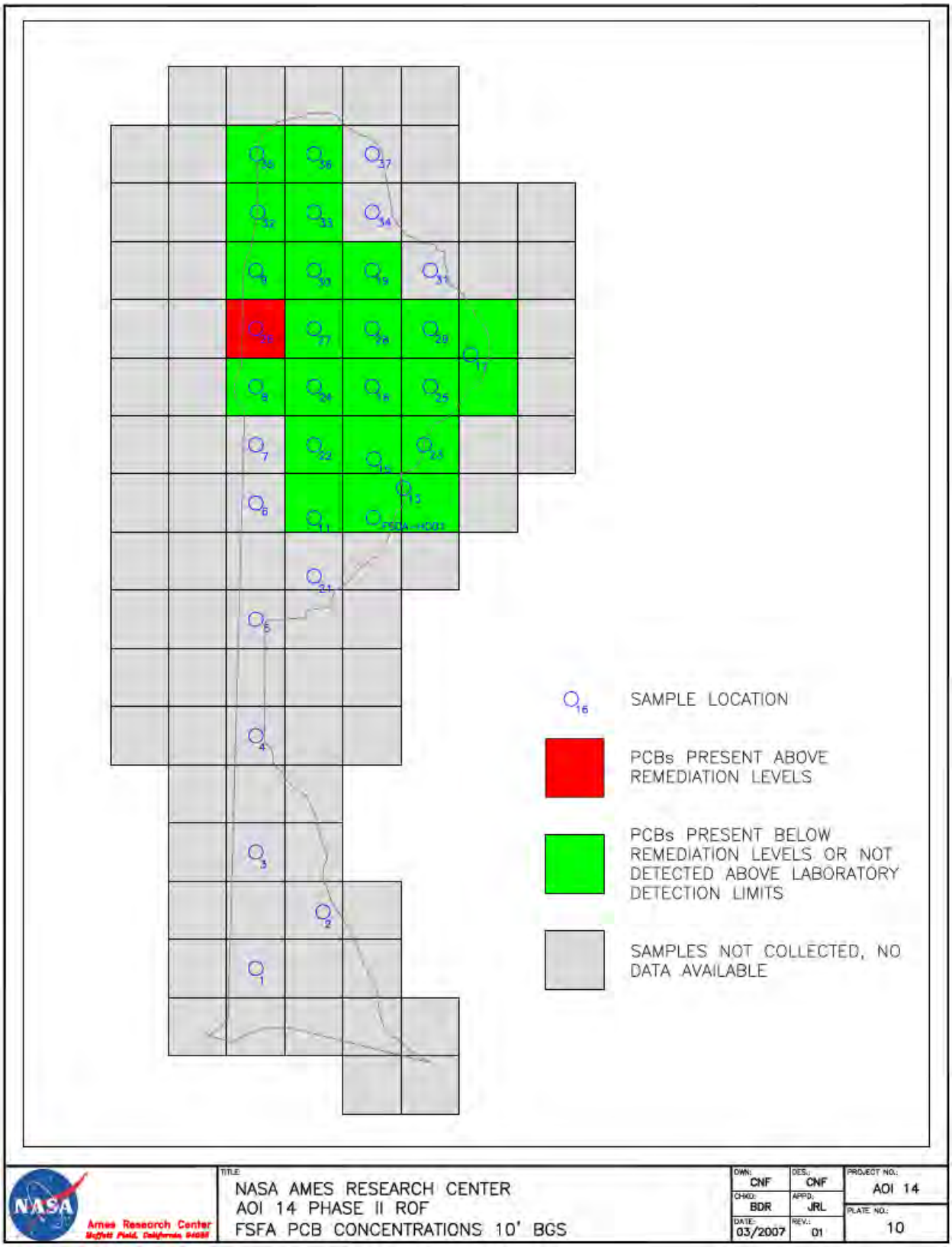
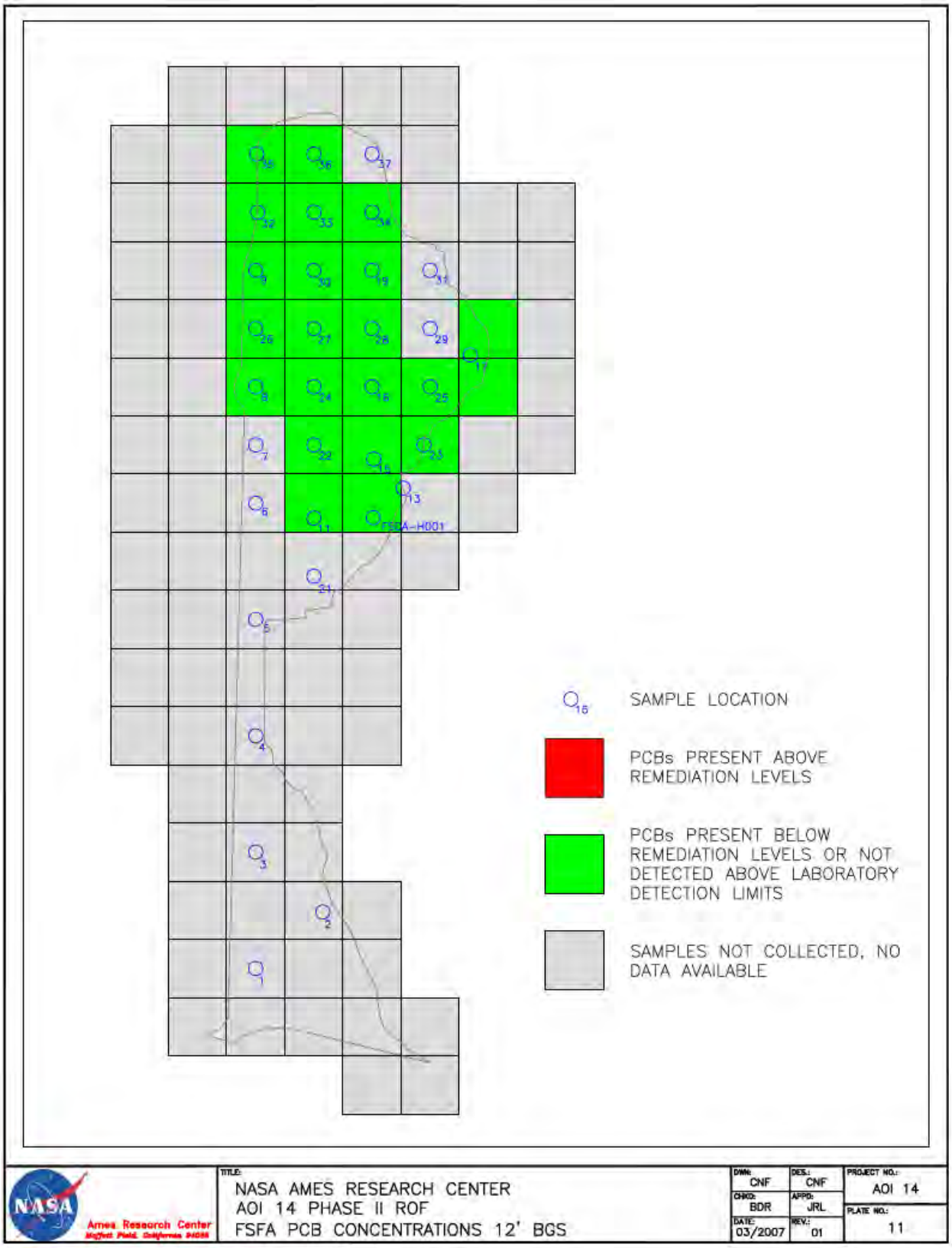


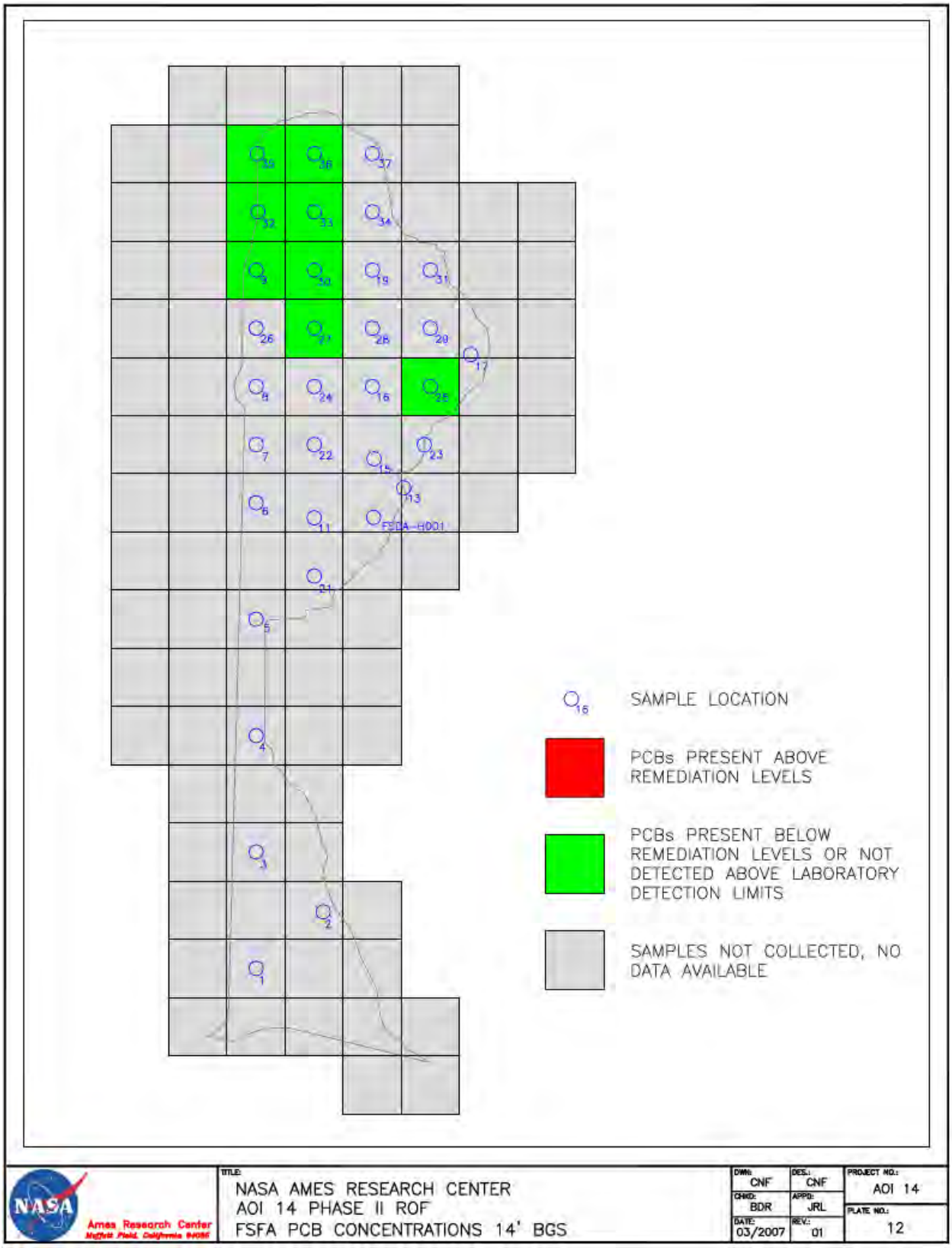
For overview and sample numbers, see figure on page A-18. For complete data, see tables on pages A-28 through A-35.



For overview and sample numbers, see figure on page A-18. For complete data, see tables on pages A-28 through A-35.



For overview and sample numbers, see figure on page A-18. For complete data, see tables on pages A-28 through A-35.



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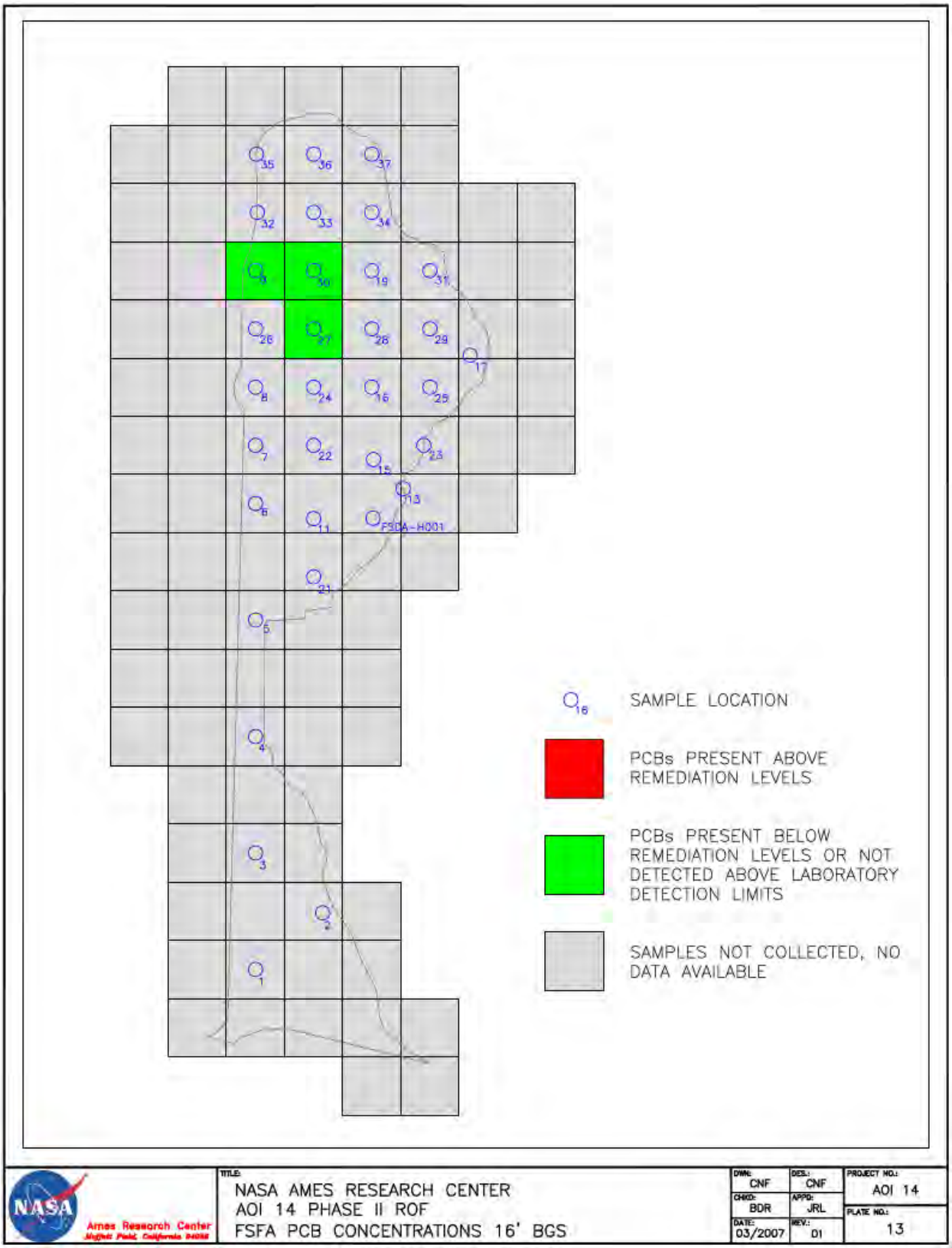


For overview and sample numbers, see figure on page A-18. For complete data, see tables on pages A-28 through A-35.

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-1-6"	0" – 6"	09/12/05	<20	<20		<3.3	**8.1**	**39**
PEN-1-24"	2'	09/12/05	<20	<20		<3.3	<12	**32**
PEN-1-4'	4'	06/20/06	<20	<20		<75	**3**	**47**
PEN-2-6"	0" – 6"	09/12/05	**76**	<20	**76**	<0.16	**29**	**70**
PEN-2-24"	2'	09/12/05	<20	<20		<3.3	**38**	**52**
PEN-2-4'	4'	06/20/06	<20	<20		<75	<12	**51**
PEN-2-6'	6'	06/20/06	<20	<20		<75	<12	**28**
PEN-3-6"	0' – 6"	09/12/05	**25**	<20	**25**	<3.3	**18**	**55**
PEN-3-24"	2'	09/12/05	<20	<20		<3.3	**4.8**	**35**
PEN-3-4'	4'	06/20/06	<20	<20		<75	<12	**34**
PEN-3-6'	6'	06/20/06	<20	<20		<75	**5.9**	**75**
PEN-4-6"	0" – 6"	09/12/05	<20	<20		<3.3	**3.5**	**25**
PEN-4-24"	2'	09/12/05	<20	<20		<3.3	<12	**39**
PEN-4-4'	4'	06/20/06	<20	<20		<75	<12	**40**
PEN-4-6'	6'	06/20/06	<20	<20		<75	**6.3**	**67**
PEN-5-6"	0" – 6"	09/12/05	<20	<20		<3.3	**9.6**	**48**
PEN-5-24"	2'	09/12/05	**22**	<20	**22**	<3.3	**7.1**	**49**
PEN-5-4'	4'	06/20/06	<20	<20		<75	**3.7**	**51**
PEN-5-6'	6'	06/20/06	<20	<20		<75	**7.1**	**70**
PEN-6-6"	0" – 6"	08/29/05	<20	<20		<33	**14**	**54**
PEN-6-24"	2'	08/29/05	<20	<20		<33	**6.6**	**52**
PEN-6-4'	4'	06/20/05	<20	<20		<75	**3**	**41**
PEN-6-6'	6'	06/20/06	<20	<20		<75	**4.1**	**49**
PEN-7-6"	0" – 6"	08/29/05	<100	<100		<6.6	**18**	**97**
PEN-7-24"	2'	08/29/05	**1700**	<200	**1700**	<330	**22**	**73**
PEN-7-4'	4'	06/20/06	**24**	<20	**24**	<75	<12	**49**
PEN-7-6'	6'	06/02/06	<20	<20		<75	**3.2**	**44**
PEN-7-8'	8'	06/20/06	**190**	<20	**190**	<75	**4.9**	**44**
PEN-8-6"	0" -6"	08/29/05	**1800**	<200	**1800**	<330	**18**	**67**
PEN-8-24"	2'	08/29/05	**88000**	<20000	**88000**	<16000	**14**	**60**
PEN-8-4'	4'	06/20/06	**34**	<20	**34**	<75	**7**	**37**
PEN-8-6'	6'	06/20/06	<20	<20		<75	<2.5	**37**
PEN-8-8'	8'	06/20/06	<20	<20		<75	<12	**45**
PEN-8-10'	10'	06/20/06	<20	<20		<75	**2.6**	**38**
Soil Remediation Level[3]			***210***	***210***	***210***	***109***	***93.8***	***314***

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-8-12'	12'	06/20/06	<20	<20		<75	3.8	59
PEN-9-6"	0' – 6"	08/29/05	170	<200	170	<33	15	50
PEN-9-24"	2'	08/29/05	43	<200	43	<33	<12	43
PEN-9-4'	4'	06/21/06	9600	<1000	9600	1900	21	60
PEN-9-6'	6'	06/21/06	52	<20	52	<150	29	97
PEN-9-8'	8'	06/21/06	<20	<20		<75	3.2	32
PEN-9-10'	10'	06/21/06	<20	<20		<75	4.6	44
PEN-9-12'	12'	06/21/06	<20	<20		<75	<12	43
PEN-9-14'	14'	06/21/06	<200	<200		<75	2.7	22
PEN-9-16'	16'	06/21/06	<20	<20		<75	5	42
PEN-10-6"	0" – 6"	08/29/05	26	<200	26	<33	19	71
PEN-10-24"	2'	08/29/05	110	<200	110	<33	<12	61
PEN-11-6"	0" – 6"	09/12/05	<20	<20		<33	9.2	53
PEN-11-24"	2'	09/12/05	<20	<20		<16	6.9	44
PEN-11-4'	4'	06/20/06	<20	<20		<75	4.5	64
PEN-11-6'	6'	06/20/06	<20	<20		<75	6.4	67
PEN-11-8'	8'	06/20/06	<20	<20		<75	<12	41
PEN-11-10'	10'	06/20/06	<20	<20		<75	11	260
PEN-11-12'	12'	06/20/06	<20	<20		<75	2.6	43
PEN-12-6"	0" – 6"	09/12/05	<20	<20		<16	13	46
PEN-12-24"	2'	09/12/05	<20	<20		<16	18	51
PEN-13-6"	0" – 6"	09/12/05	820	<200	820	<66	16	55
PEN-13-24"	2'	19/12/05	450	<100	450	<66	29	60
PEN-13-4'	4'	06/20/06	150	<20	150	<75	15	62
PEN-13-6'	6'	06/20/06	130	<20	130	<75	9.7	51
PEN-13-8'	8'	06/20/06	<20	<20		<75	5.3	41
PEN-13-10'	10'	06/20/06	<20	<20		<75	4.2	47
PEN-14-6"	0" – 6"	09/12/05	60	<20	60	<66	14	59
PEN-14-24"	2'	19/12/05	<20	<20		<33	22	53
PEN-15-6"	0" – 6"	09/12/05	310	<100	310	<33	26	80
PEN-15-24"	2'	09/12/05	930	<200	930	<160	45	110
PEN-15-4'	4'	06/20/06	<20	<20		<75	21	75
PEN-15-6'	6'	06/20/06	97	<20	97	<75	16	74
PEN-15-8'	8'	06/20/06	NC	NC	NC	NC	NC	NC
PEN-15-10'	10'	06/20/06	<20	<20		<75	3.5	37
PEN-15-12'	12'	06/20/06	<20	<20		<75	3.4	46
PEN-16-6"	0" – 6"	08/29/05	570	<100	570	<33	19	71
PEN-16-24"	2'	08/29/05	830	<200	830	<33	<12	61
PEN-16-4'	4'	06/20/06	64	<20	64	<75	4.3	31
PEN-16-6'	6'	06/20/06	<20	<20		<75	4	55
Soil Remediation Level[3]			***210***	***210***	***210***	***109***	***93.8***	***314***

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-16-8'	8'	06/20/06	<20	<20		<75	**5.7**	**53**
PEN-16-10'	10'	06/20/06	**20**	<20	**20**	<75	**3.8**	**46**
PEN-16-12'	12'	06/20/06	<200	<200		<75	**2.5**	**22**
PEN-17-6"	0" – 6"	08/29/05	**80**	<200	**80**	<33	**11**	**59**
PEN-17-24"	2'	08/29/05	**65**	<200	**65**	<33	**3**	**44**
PEN-17-4'	4'	06/21/06	<20	<20		<75	**7.8**	**50**
PEN-17-6'	6'	06/21/06	<20	<20		<75	**12**	**44**
PEN-17-8'	8'	06/21/06	<20	<20		<75	<12	**45**
PEN-17-10'	10'	06/21/06	**28**	<20	**28**	<300	**23**	**40**
PEN-17-12'	12'	06/21/06	<200	<200		<75	<2.5	**38**
PEN-18-6"	0" – 6"	08/29/05	**48**	<200	**48**	<33	**7**	**57**
PEN-18-24"	2'	08/29/05	**110**	<200	**110**	<33	**37**	**300**
PEN-19-6"	0" – 6"	08/29/05	**34**	<200	**34**	<33	**12**	**100**
PEN-19-24"	2'	08/29/05	**560**	<200	**560**	<160	**37**	**100**
PEN-19-4'	4'	06/21/06	<20	<20		<75	<12	**61**
PEN-19-6'	6'	06/21/06	<20	<20		<75	<12	**37**
PEN-19-8'	8'	06/21/06	NC	NC	NC	NC	NC	NC
PEN-19-10'	10'	06/21/06	<20	<20		<75	**4.6**	**44**
PEN-19-12'	12'	06/21/06	<200	<200		<75	<2.5	**26**
PEN-20-6"	0" – 6"	08/29/05	**22**	<200	**22**	<33	**4.4**	**52**
PEN-20-24"	2'	08/29/05	**39**	<200	**39**	<33	<12	**72**
PEN-21-6'	0" – 6"	06/20/06	<20	<20		<75	**9.8**	**57**
PEN-21-24"	2'	06/20/06	<20	<20		<75	**5.6**	**43**
PEN-21-4'	4'	06/20/06	<20	<20		<75	<12	**47**
PEN-21-6'	6'	06/20/06	<20	<20		<75	**2.5**	**27**
PEN-21-8'	8'	06/20/06	<20	<20		<75	**4.3**	**61**
PEN-21-10'	10'	06/20/06	<20	<20		<75	<2.5	**26**
PEN-22-6"	0" – 6"	06/20/06	**600**	**260**	**860**	**300**	**79**	**160**
PEN-22-24"	2'	06/20/06	**470**	**200**	**670**	**130**	**35**	**120**
PEN-22-4'	4'	06/20/06	<20	<20		<75	**24**	**140**
PEN-22-6'	6'	06/20/06	<20	<20		<75	**3.7**	**49**
PEN-22-8'	8'	06/20/06	<20	<20		<75	**2.9**	**36**
PEN-22-10'	10'	06/20/06	<200	<200		<75	**4.4**	**48**
PEN-22-12'	12'	06/20/06	<20	<20		<75	<2.5	**35**
PEN-23-6"	0" – 6"	06/22/06	**160**	**48**	**208**	<150	**36**	**100**
PEN-23-24"	2'	06/22/06	**180**	**42**	**222**	<150	**42**	**91**
PEN-23-4'	4'	06/22/06	**170**	**43**	**213**	<150	**48**	**89**
PEN-23-6'	6'	06/22/06	**46**	<20	**46**	<300	**23**	**60**
PEN-23-8'	8'	06/22/06	NC	NC	NC	NC	NC	NC
PEN-23-10'	10'	06/22/06	<20	<20		<300	**23**	**64**
Soil Remediation Level[3]			***210***	***210***	***210***	***109***	***93.8***	***314***

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-23-12'	12'	06/22/06	<20	<20		<75	3.9	35
PEN-24-6"	0" – 6"	06/20/06	310	<20	310	<75	15	73
PEN-24-24"	2'	06/20/06	1100	<20	1100	480	5.5	51
PEN-24-4'	4'	06/20/06	<20	<20		<75	5.5	47
PEN-24-6'	6'	06/20/06	<20	<20		<75	3.6	45
PEN-24-8'	8'	06/20/06	<20	<20		<75	5.2	59
PEN-24-10'	10'	06/20/06	<200	<200		<75	6.3	57
PEN-24-12'	12'	06/20/06	<20	<20		<75	3	38
PEN-25-0"	0" – 6"	06/21/06	88	26	114	<75	29	94
PEN-25-24"	2'	06/21/06	<20	<20		<75	49	95
PEN-25-4'	4'	06/21/06	<20	<20		<75	9.2	52
PEN-25-6'	6'	06/21/06	<20	<20		<75	<2.5	<5.0
PEN-25-8'	8'	06/21/06	<20	<20		<75	<2.5	<5.0
PEN-25-10'	10'	06/21/06	<20	<200		<75	<2.5	<5.0
PEN-25-12'	12'	06/21/06	<200	<200		<75	9.6	65
PEN-25-14'	14'	06/21/06	57	<20	57	<75	17	48
PEN-26-0'	0" – 6"	06/21/06	99	<20	99	<75	<12	66
PEN-26-2'	2'	06/21/06	100	<20	100	<75	11	70
PEN-26-4'	4'	06/21/06	180000	<20000	180000	35000	21	68
PEN-26-6'	6'	06/21/06	65	<20	65	<75	<12	60
PEN-26-8'	8'	06/21/06	670	<100	670	140	9.8	76
PEN-26-10'	10'	06/21/06	630	<100	630	<150	7.4	62
PEN-26-12'	12'	06/21/06	<20	<20		<75	7.9	57
PEN-27-0'	0" – 6"	06/21/06	48	<20	48	<75	13	87
PEN-27-2'	2'	06/21/06	<20	<20		<75	<12	54
PEN-27-4'	4'	06/21/06	52000	<10000	52000	16000	<2.5	18
PEN-27-6'	6'	06/21/06	<20	<20		<75	<12	54
PEN-27-8'	8'	06/21/06	<20	<20		<75	5.1	48
PEN-27-10'	10'	06/21/06	94	<20		<75	<12	52
PEN-27-12'	12'	06/21/06	<200	<200		<75	12	54
PEN-27-14'	14'	06/21/06	<200	<200		<75	14	33
PEN-27-16'	16'	06/21/06	<20	<20		<75	5	44
PEN-28-6"	0" – 6"	06/21/06	<20	<20		<75	4	51
PEN-28-2'	2'	06/21/06	200	<40	200	<75	19	75
PEN-28-4'	4'	06/21/06	<20	<20		<750	8.1	34
PEN-28-6'	6'	06/21/06	78	26	104	<75	31	130
PEN-28-8'	8'	06/21/06	<20	<20		<75	<12	74
PEN-28-10'	10'	06/21/06	<20	<20		<75	<12	83
PEN-28-12'	12'	06/21/06	<20	<20		<75	<12	78
PEN-29-6"	0" – 6"	06/21/06	64	<20	64	<75	18	130
Soil Remediation Level[3]			*210*	*210*	*210*	*109*	*93.8*	*314*

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-29-2'	2'	06/21/06	66	<20	66	<75	15	110
PEN-29-4'	4'	06/21/06	<20	<20		<75	<12	84
PEN-29-6'	6'	06/21/06	<20	<20		<75	140	110
PEN-29-8'	8'	06/21/06	<20	<20		<75	13	94
PEN-29-10'	10'	06/21/06	<200	<200		<75	<12	83
PEN-30-6"	0" – 6"	06/21/06	360	<100	360	<75	<12	90
PEN-30-2'	2'	06/21/06	2000	<400	2000	460	24	70
PEN-30-4'	4'	06/21/06	380	<400	380	79	31	58
PEN-30-6'	6'	06/21/06	32	<20	32	<75	67	58
PEN-30-8'	8'	06/21/06	77	<20	77	<75	5.4	48
PEN-30-10'	10'	06/21/06	<20	<20		<750	4.6	38
PEN-30-12'	12'	06/21/06	<20	<20		<750	4.3	40
PEN-30-14'	14'	06/21/06	<20	<20		<750	4.5	33
PEN-30-16'	16'	06/21/06	<20	<20		<75	3	38
PEN-32-6"	0" – 6"	06/21/06	<20	<20		<75	9.6	50
PEN-32-2'	2'	06/21/06	23	<20	23	<75	55	62
PEN-32-4'	4'	06/21/06	<20	<20		<75	12	74
PEN-32-6'	6'	06/21/06	<20	<20		<75	<12	49
PEN-32-8'	8'	06/21/06	28	<20	28	<75	6.2	58
PEN-32-10'	10'	06/21/06	39	<20	39	<75	4.5	47
PEN-32-12'	12'	06/21/06	<20	<20		<75	25	62
PEN-32-14'	14'	06/21/06	<20	<20		<75	8.3	66
PEN-33-6"	0" – 6"	06/21/06	<20	<20		<75	<12	40
PEN-33-2'	2'	06/21/06	100	<20	100	<75	24	64
PEN-33-4'	4'	06/21/06	54	<20	54	<75	45	68
PEN-33-6'	6'	06/21/06	550	<100	550	190	10	91
PEN-33-8'	8'	06/21/06	84	120	204	<750	19	38
PEN-33-10'	10'	06/21/06	56	<100	56	180	7.9	50
PEN-33-12'	12'	06/21/06	<20	<20		<750	29	71
PEN-33-14'	14'	06/21/06	<1000	<1000		<75	<2.5	40
PEN-34-6"	0" – 6"	06/22/06	190	<20	190	82	12	61
PEN-34-2'	2'	06/22/06	100	<20	100	<150	17	88
PEN-34-4'	4'	06/22/06	50	<20	50	<150	36	82
PEN-34-6'	6'	06/22/06	160	<20	160	87	11	54
PEN-34-8'	8'	06/22/06	27	<20	27	<150	15	52
PEN-34-10'	10'	06/22/06	<20	<20		<75	53	53
PEN-34-12'	12'	06/22/06	94	<20	94	<150	12	33
PEN-35-6"	0" – 6"	06/22/06	57	<20	57	<150	<7.5	70
PEN-35-2'	2'	06/22/06	200	<100	200	78	11	53
PEN-35-4'	4'	06/22/06	970	<20	970	200	9.8	80
Soil Remediation Level[3]			*210*	*210*	*210*	*109*	*93.8*	*314*

AOI 14 Phase II FSFA Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
PEN-35-6'	6'	06/22/06	<20	<20		<150	**210**	**54**
PEN-35-8'	8'	06/22/06	**22**	<20	**22**	<150	**10**	**54**
PEN-35-10'	10'	06/22/06	<20	<20		<150	**26**	**54**
PEN-35-12'	12'	06/22/06	<20	<20		<75	**7.6**	**71**
PEN-35-14'	14'	06/22/06	<1000	<1000		<150	<7.5	**51**
PEN-36-6"	0" – 6"	06/22/06	**49**	<20	**49**	<150	**15**	**95**
PEN-36-2'	2'	06/22/06	**1500**	<400	**1500**	**450**	<7.5	**39**
PEN-36-4'	4'	06/22/06	**140**	**22**	**162**	<150	**18**	**84**
PEN-36-6'	6'	06/22/06	<20	<20		<150	<7.5	**57**
PEN-36-8'	8'	06/22/06	**100**	<20	**100**	<150	**29**	**65**
PEN-36-10'	10'	06/22/06	**36**	<20	**36**	<150	<7.5	**39**
PEN-36-12'	12'	06/22/06	<200	<200		<150	<7.5	**74**
PEN-36-14'	14'	06/22/06	**31**	<20	**31**	<150	<7.5	**41**
FSDA-H001-6"	0" – 6"	04/07/02	**710**	<20	**710**	<20	**29**	**80**
FSDA-H001-2'	2'	04/07/02	<20	<20		<20	**9.9**	**59**
FSDA-H001-4'	4'	06/20/06	**280**	<20	**280**	<75	<12	**68**
FSDA-H001-6'	6'	06/20/06	**35**	<20	**35**	<75	**9.9**	**41**
FSDA-H001-8'	8'	06/20/06	**480**	<20	**480**	**96**	<12	**69**
FSDA-H001-10'	10'	06/20/06	**26**	<20	**26**	<75	**8**	**60**
FSDA-H001-12'	12'	06/20/06	<20	<20		<75	**2.8**	**31**
Soil Remediation Level[3]			***210***	***210***	***210***	***109***	***93.8***	***314***

bgs = below ground surface
µg/kg: micrograms per kilogram, parts per billion (ppb)
mg/kg: milligrams per kilogram, parts per million (ppm)
PCB = Polychlorinated Biphenyl
DDT = Dichlorodiphenyltrichloroethane
[1] includes Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1268
[2] includes DDT, DDD, and DDE
[3] source: *Addendum to Revised Final Site-Wide Feasibility Study, Site 25, Former NAS Moffett Field* (SulTech, 2005)
26 = Compound detected above applicable Laboratory Detection Limit, compound concentration does not exceed site-specific soil remediation level.
480 = Compound Detected at or above applicable Laboratory Detection Limit, compound concentration exceeds site-specific soil remediation level.
<20 = Compound not detected above applicable Laboratory Detection Limit. Laboratory Detection Limit provided.
<150 = Compound not detected above elevated Laboratory Detection Limit. Laboratory Detection Limit exceeds site-specific soil remediation level.
NC = Sample not collected.

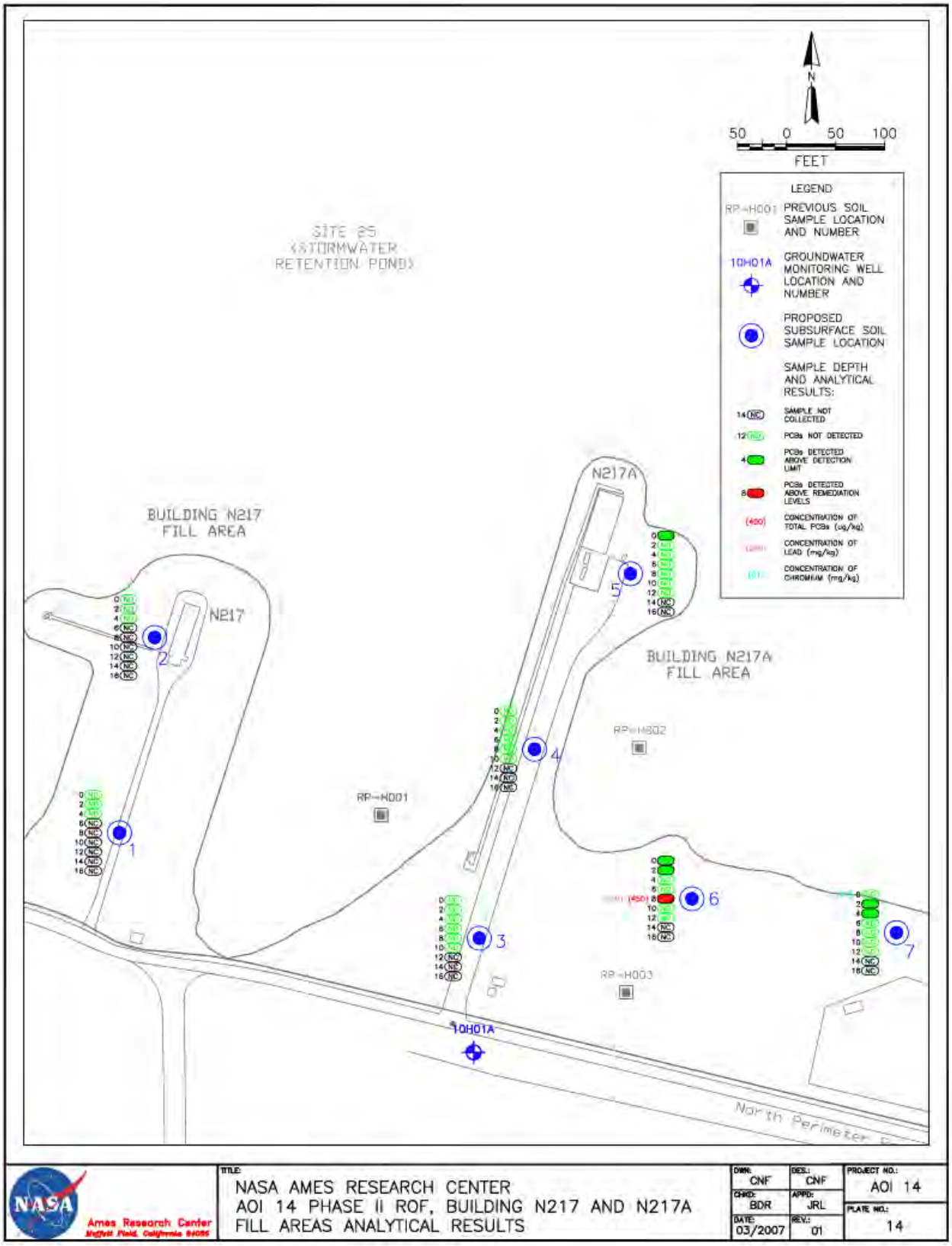
AOI 14 Phase II FSFA Soil Sample Analytical Results for Additional Compounds

Sample Location	Depth (bgs)	Sample Date	Arsenic (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Silver (mg/kg)	TPH-MO (mg/kg)
PEN-4-4'	4'	06/20/06	**4.6**	<1.2	<2.5	**44**	**19**	<0.10	**47**	<2.5	<1.0
PEN-8-6'	6'	06/20/06	**3.1**	**0.31**	<0.50	**37**	**22**	<0.10	**38**	<0.50	<1.0
PEN-9-10'	10'	06/21/06	**9.3**	**0.38**	**15**	**56**	**40**	<0.10	**55**	<0.50	<1.0
PEN-16-4'	4'	06/20/06	**3.1**	<0.25	<0.50	**22**	**13**	<0.10	**27**	<0.50	<1.0
PEN-22-2'	2'	06/20/06	**3.6**	**0.43**	<0.50	**60**	**40**	<0.10	**59**	**1.0**	**11**
PEN-23-4'	4'	06/22/06	**6.5**	**0.36**	<0.50	**55**	**31**	<0.10	**43**	<0.50	**29**
PEN-24-4'	4'	06/20/06	**3.7**	**0.49**	<0.50	**56**	**28**	<0.10	**57**	<0.50	**29**
PEN-25-12'	12'	06/21/06	**4.7**	**0.61**	<0.50	**70**	**34**	**0.17**	**73**	<0.50	<1.0
PEN-27-8'	8'	06/21/06	**4.1**	**0.58**	<0.50	**60**	**29**	**0.16**	**56**	<0.50	**27**
PEN-29-2'	2'	06/21/06	**2.8**	<1.2	<2.5	**110**	**57**	**0.11**	**120**	<2.5	**10**
PEN-30-10'	10'	06/21/06	**3.4**	<0.25	<0.50	**35**	**25**	<0.10	**47**	<0.50	**400**
PEN-32-6'	6'	06/21/06	**4.1**	<1.2	<2.5	**58**	**26**	**0.11**	**60**	<2.5	**43**
PEN-35-6"	0" – 6"	06/22/06	**4.8**	<0.75	<1.5	**59**	**33**	<0.10	**60**	<1.5	**20**
Soil Remediation Level[1]			***5.5***	***4.0***	***1.7***	***58***	***230***	***3.7***	***150***	***20***	***1000***

bgs = below ground surface
mg/kg: milligrams per kilogram, parts per million (ppm)
[1] source: Environmental Screening Levels (California Regional Water Quality Control Board, February, 2005)
0.43 = Compound detected above applicable Laboratory Detection Limit, compound concentration does not exceed site-specific soil remediation level.
6.5 = Compound Detected at or above applicable Laboratory Detection Limit, compound concentration exceeds site-specific soil remediation level.
<0.50 = Compound not detected above applicable Laboratory Detection Limit. Laboratory Detection Limit provided.
<2.5= Compound not detected above elevated Laboratory Detection Limit. Laboratory Detection Limit exceeds site-specific soil remediation level.
NC = Sample not collected.

AOI 14 Phase II FSFA 2007 Resampling Results

Point ID	Sample ID	Depth (bgs ft)	Sample Date	TOTAL AROCLOR (mg/kg)	TOTAL DDT (mg/kg)	LEAD (mg/kg)	ZINC (mg/kg)
PEN-09	PEN - 9R - 6'	6	11/19/2007		<0.075		
PEN-09	PEN - 9R - 14'	14	11/19/2007	<0.1			
PEN-10	PEN-10R-6"	0.5	11/7/2007	0.028			
PEN-10	PEN-10R-2'	2	11/7/2007	<0.02			
PEN-16	PEN - 16R - 12'	12	11/20/2007	<0.02			
PEN-17	PEN-17R-6"	0.5	11/7/2007	0.192			
PEN-17	PEN-17R-2'	2	11/7/2007	<0.02			
PEN-17	PEN - 17R - 10'	10	11/19/2007		<0.075		
PEN-17	PEN - 17R - 12'	12	11/19/2007		<0.075		
PEN-19	PEN-19R-6"	0.5	11/7/2007	0.047			
PEN-19	PEN - 19R - 8'	8	11/19/2007	<0.02	<0.075	<25	<50
PEN-19	PEN - 19R - 12'	12	11/19/2007	<0.02			
PEN-20	PEN-20R-6"	0.5	11/7/2007	<0.02			
PEN-20	PEN-20R-2'	2	11/7/2007	<0.02			
PEN-23	PEN-23R-6"	0.5	11/7/2007	0.72			
PEN-23	PEN-23R-6"	0.5	11/7/2007		<0.075		
PEN-23	PEN - 23R - 6'	6	11/19/2007		<0.075		
PEN-23	PEN - 23R - 8'	8	11/19/2007	<0.1	<0.075	22	56
PEN-23	PEN - 23R - 10'	10	11/19/2007		<0.075		
PEN-24	PEN - 24R - 10'	10	11/20/2007	0.419			
PEN-25	PEN - 25R - 10'	10	11/19/2007	<0.02			
PEN-25	PEN - 25R - 12'	12	11/19/2007	<0.1			
PEN-27	PEN - 27R - 12'	12	11/19/2007	0.023			
PEN-27	PEN - 27R - 14'	14	11/19/2007	<0.02			
PEN-28	PEN - 28R - 4'	4	11/19/2007		<0.075		
PEN-30	PEN - 30R - 10'	10	11/19/2007		<0.075		
PEN-30	PEN - 30R - 12'	12	11/19/2007		<0.075		
PEN-30	PEN - 30R - 14'	14	11/19/2007		<0.075		
PEN-33	PEN - 33R - 8'	8	11/19/2007		<0.075		
PEN-33	PEN - 33R - 12'	12	11/19/2007		<0.075		
PEN-34	PEN-34R-2'	2	11/7/2007		<0.075		
PEN-34	PEN - 34R - 4'	4	11/19/2007		<0.075		
PEN-34	PEN - 34R - 8'	8	11/19/2007		<0.075		
PEN-34	PEN - 34R - 12'	12	11/19/2007		<0.075		
PEN-35	PEN-35R-6"	0.5	11/7/2007		<0.075		
PEN-35	PEN - 35R - 8'	8	11/19/2007		<0.075		
PEN-35	PEN - 35R - 10'	10	11/19/2007		<0.075		
PEN-35	PEN - 35R - 14'	14	11/19/2007	0.76	<0.075		
PEN-36	PEN - 36R - 4'	4	11/19/2007		<0.075		
PEN-36	PEN - 36R - 6'	6	11/19/2007		<0.075		
PEN-36	PEN - 36R - 8'	8	11/19/2007		<0.075		
PEN-36	PEN - 36R - 10'	10	11/19/2007		<0.075		
PEN-36	PEN - 36R - 12'	12	11/19/2007	0.296	<0.075		
PEN-36	PEN - 36R - 14'	14	11/19/2007		<0.075		
Soil Remediation Level				0.21	0.109	93.8	314



NASA Ames Research Center Moffett Field, California 94035	TITLE: NASA AMES RESEARCH CENTER AOI 14 PHASE II ROF, BUILDING N217 AND N217A FILL AREAS ANALYTICAL RESULTS	DWN: CNF / DES.: CNF	PROJECT NO.: AOI 14	
		CHKD: BDR / APPD: JRL	PLATE NO.: 14	
		DATE: 03/2007 / REV.: 01		

AOI 14 Phase II N217 and N217A Fill Areas Soil Sample Analytical Results

Sample Location	Depth (bgs)	Sample Date	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs[1] (µg/kg)	Total DDT[2] (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)
N217-1-6"	0" – 6"	06/22/06	<20	<20		<75	<7.5	**49**
N217-1-2'	2'	06/22/06	<20	<20		<75	<7.5	**39**
N217-1-4'	4'	06/22/06	<20	<20		<75	<7.5	**37**
N217-2-6"	0" – 6"	06/22/06	<20	<20		<150	<7.5	**37**
N217-2-2'	2'	06/22/06	<20	<20		<150	<7.5	**24**
N217-2-4'	4'	06/22/06	<20	<20		<75	<7.5	**42**
N217-3-6"	0" – 6"	06/23/06	<20	<20		<300	<12	**55**
N217-3-2'	2'	06/23/06	<20	<20		<150	**14**	**52**
N217-3-4'	4'	06/23/06	<20	<20		<150	<7.5	**27**
N217-3-6'	6'	06/23/06	<20	<20		<150	<7.5	**67**
N217-3-8'	8'	06/23/06	<20	<20		<150	<7.5	**48**
N217-3-10'	10'	06/23/06	<20	<20		<150	<7.5	**40**
N217-4-6"	0" – 6"	06/23/06	<20	<20		<150	<7.5	**36**
N217-4-2'	2'	06/23/06	<20	<20		<75	<7.5	**63**
N217-4-4'	4'	06/23/06	<20	<20		<150	<7.5	**34**
N217-4-6'	6'	06/23/06	<20	<20		<150	<7.5	**45**
N217-4-8'	8'	06/23/06	<20	<20		<150	<7.5	**47**
N217-4-10'	10'	06/23/06	<20	<20		<150	<7.5	**40**
N217-5-6"	0" – 6"	06/23/06	**22**	<20	**22**	<150	<12	**54**
N217-5-2'	2'	06/23/06	<20	<20		<150	<7.5	**49**
N217-5-4'	4'	06/23/06	<20	<20		<150	<7.5	**58**
N217-5-8'	8'	06/23/06	<20	<20		<150	<7.5	**49**
N217-5-10'	10'	06/23/06	<20	<20		<150	**10**	**81**
N217-5-12'	12'	06/23/06	<20	<20		<150	<7.5	**35**
N217-6-6"	0" – 6"	06/22/06	**26**	<20	**26**	<150	**14**	**68**
N217-6-2'	2'	06/22/06	**27**	<20	**27**	<150	**9.3**	**59**
N217-6-4'	4'	06/22/06	<20	<20		<300	<7.5	**57**
N217-6-6'	6'	06/22/06	<20	<20		<150	**13**	**48**
N217-6-8'	8'	06/22/06	**450**	<20	**450**	<150	**280**	**53**
N217-6-10'	10'	06/22/06	<20	<20		<75	<7.5	**36**
N217-6-12'	12'	06/22/06	<20	<20		<150	<7.5	**38**
N217-7-6"	0" – 6"	06/22/06	<20	<20		<150	<7.5	**56**
N217-7-2'	2'	06/22/06	**90**	<20	**90**	<150	**9.6**	**58**
N217-7-4'	4'	06/22/06	**80**	<20	**80**	<750	**11**	**48**
N217-7-6'	6'	06/22/06	<20	<20		<750	<7.5	**56**
N217-7-8'	8'	06/22/06	<20	<20		<300	<7.5	**66**
N217-7-10'	10'	06/22/06	<20	<20		<300	**7.6**	**61**
N217-7-12'	12'	06/22/06	<20	<20		<150	**9.3**	**68**
Soil Remediation Level[3]			***210***	***210***	***210***	***109***	***93.8***	***314***

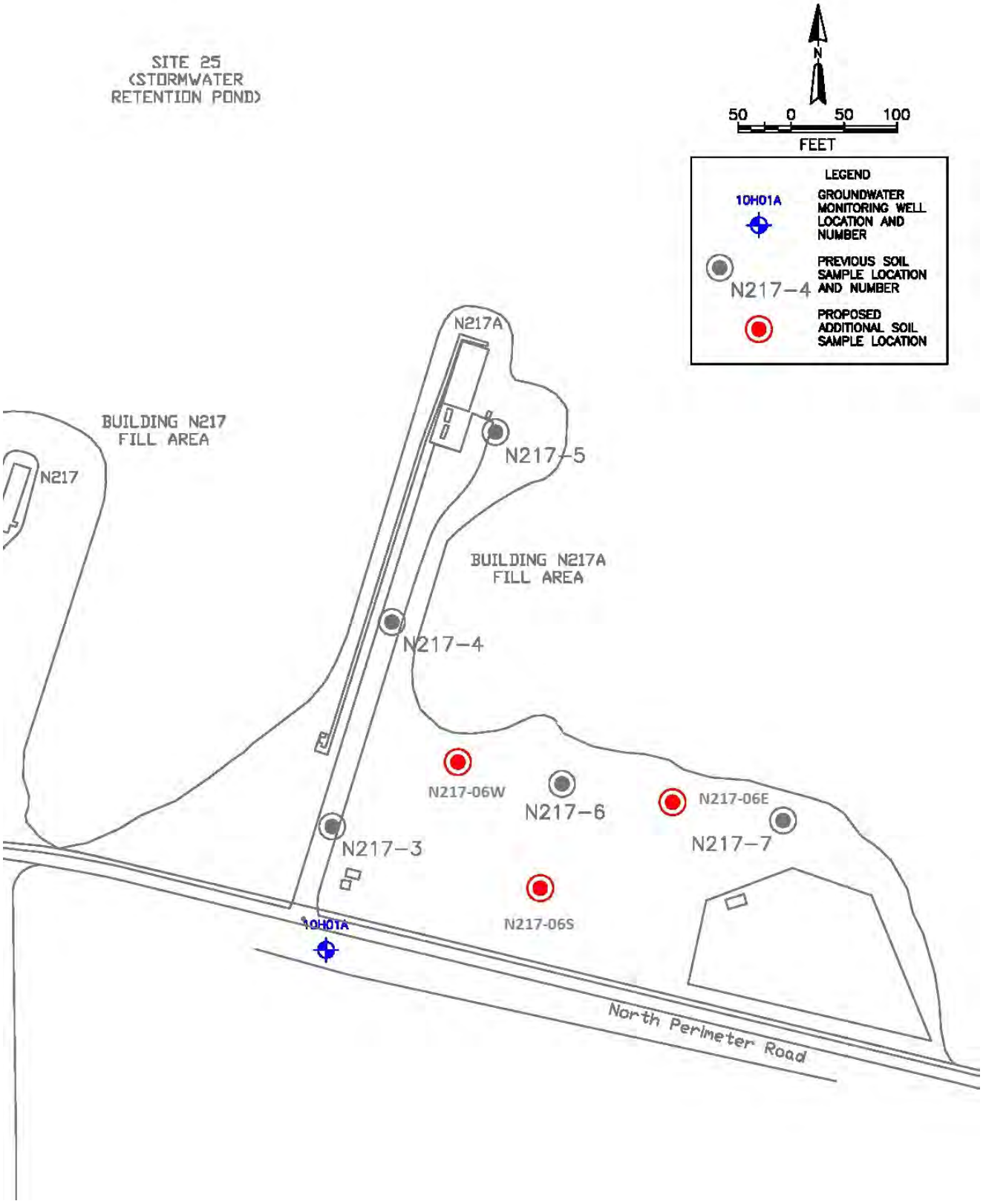
bgs = below ground surface
µg/kg: micrograms per kilogram, parts per billion (ppb)
mg/kg: milligrams per kilogram, parts per million (ppm)
PCB = Polychlorinated Biphenyl
DDT = Dichlorodiphenyltrichloroethane

[1] includes Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1268
[2] includes DDT, DDD, and DDE
[3] source: *Addendum to Revised Final Site-Wide Feasibility Study, Site 25, Former NAS Moffett Field* (SulTech, 2005)
26 = Compound detected above applicable Laboratory Detection Limit, compound concentration does not exceed site-specific soil remediation level.
480 = Compound Detected above applicable Laboratory Detection Limit, compound concentration exceeds site-specific soil remediation level.
<20 = Compound not detected above applicable Laboratory Detection Limit. Laboratory Detection Limit provided.
<150 = Compound not detected above elevated Laboratory Detection Limit. Laboratory Detection Limit exceeds site-specific soil remediation level.
NC = Sample not collected.

AOI 14 Phase II N217 and N217A Fill Areas Soil Sample Analytical Results for Additional Compounds

Sample Location	Depth (bgs)	Sample Date	Arsenic (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Silver (mg/kg)	TPH-MO (mg/kg)
N217-2-2'	2'	06/22/06	**2.6**	<0.75	<1.5	**20**	**9.3**	<0.10	**30**	<1.5	**33**
N217-4-6"	0" – 6"	06/23/06	**1.7**	<0.75	<1.5	**22**	**17**	<0.10	**27**	<1.5	**80**
N217-7-6"	0" – 6"	06/22/06	**3.9**	<0.75	<1.5	**61**	**30**	**0.25**	**62**	<1.5	<1.0
Soil Remediation Level[1]			***5.5***	***4.0***	***1.7***	***58***	***230***	***3.7***	***150***	***20***	***1000***

bgs = below ground surface
mg/kg: milligrams per kilogram, parts per million (ppm)
[1] source: Environmental Screening Levels (California Regional Water Quality Control Board, February, 2005)
0.43 = Compound detected above applicable Laboratory Detection Limit, compound concentration does not exceed site-specific soil remediation level.
6.5 = Compound Detected above applicable Laboratory Detection Limit, compound concentration exceeds site-specific soil remediation level.
<0.50 = Compound not detected above applicable Laboratory Detection Limit. Laboratory Detection Limit provided.
<2.5= Compound not detected above elevated Laboratory Detection Limit, Laboratory Detection Limit exceeds site-specific soil remediation level. Laboratory Detection Limit provided.
NC = Sample not collected.

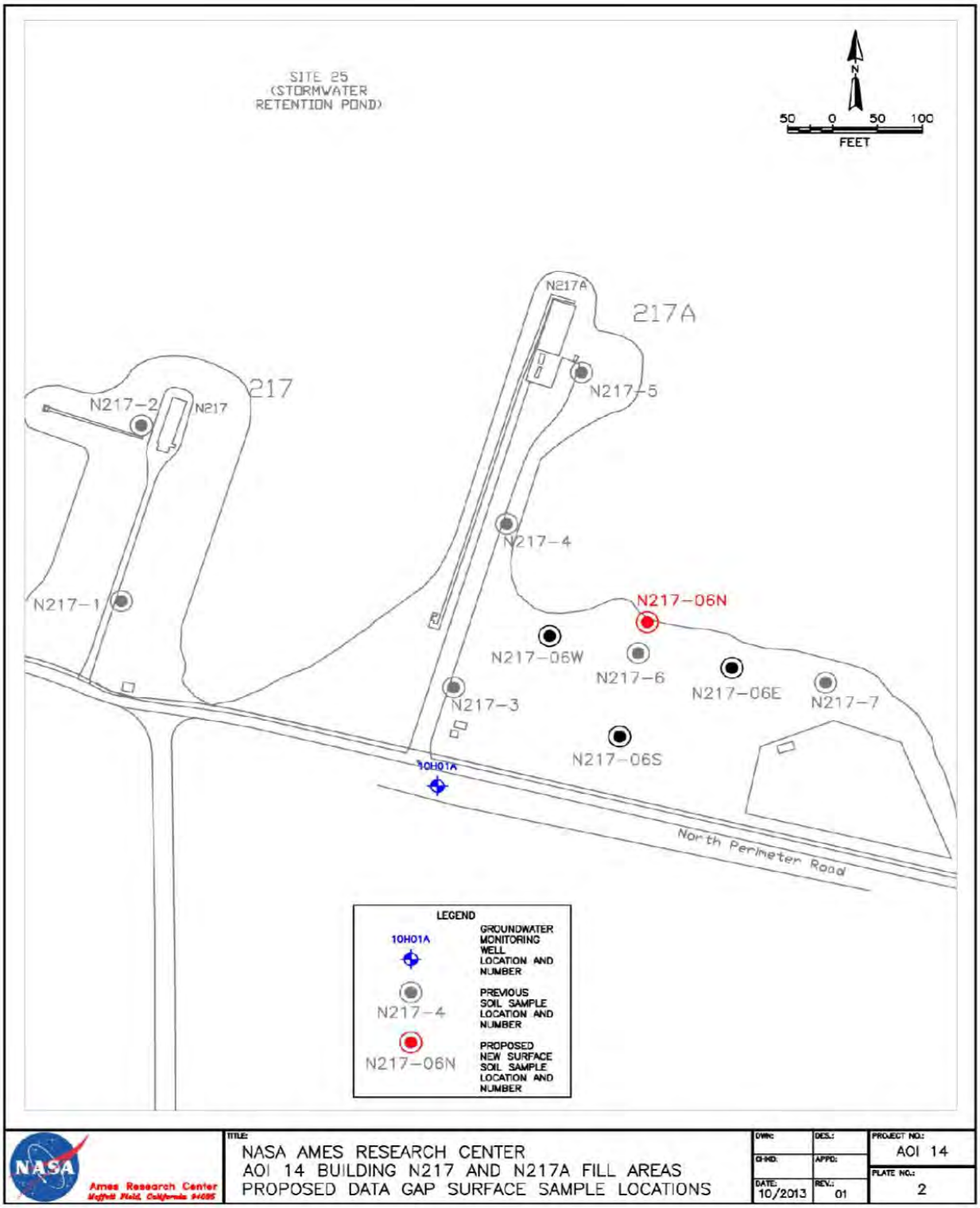


AOI 14 Phase II N217 and N217A Fill Area 2007 Resampling Locations

AOI 14 Phase II N217 and N217A Fill Area 2007 Resampling Results

Sample ID	Depth (bgs ft)	Sample Date	TOTAL AROCLOR (mg/kg)	TOTAL DDT (mg/kg)	LEAD (mg/kg)	ZINC (mg/kg)
N217 - 06E - 6"	0.5	11/20/2007	0.025	<0.075	11	55
N217 - 06E - 2'	2	11/20/2007	<0.02	<0.075	12	47
N217 - 06E - 4'	4	11/20/2007	<0.02	<0.075	4.4	25
N217 - 06E - 6'	6	11/20/2007	<0.02	<0.075	13	28
N217 - 06E - 8'	8	11/20/2007	<0.02	<0.075	8.2	32
N217 - 06E - 10'	10	11/20/2007	<0.02	<0.075	3.4	31
N217 - 06E - 12'	12	11/20/2007	<0.02	<0.075	3.3	30
N217 - 06S - 6"	0.5	11/20/2007	<0.02	<0.075	9.6	50
N217 - 06S - 2'	2	11/20/2007	<0.02	<0.075	7.6	38
N217 - 06S - 4'	4	11/20/2007	<0.02	<0.075	7.3	48
N217 - 06S - 6'	6	11/20/2007	<0.02	<0.075	6.1	37
N217 - 06S - 8'	8	11/20/2007	<0.02	<0.075	3.9	34
N217 - 06S - 10'	10	11/20/2007	<0.02	<0.075	96	120
N217 - 06S - 12'	12	11/20/2007	<0.02	<0.075	<2.5	26
N217 - 06W - 6"	0.5	11/20/2007	<0.02	<0.075	13	46
N217 - 06W - 2'	2	11/20/2007	<0.02	<0.075	7.9	43
N217 - 06W - 4'	4	11/20/2007	<0.02	<0.075	6	44
N217 - 06W - 6'	6	11/20/2007	<0.02	<0.075	4.4	35
N217 - 06W - 8'	8	11/20/2007	<0.02	<0.075	25	25
N217 - 06W - 10'	10	11/20/2007	<0.02	<0.075	4.8	31
N217 - 06W - 12'	12	11/20/2007	<0.02	<0.075	8.9	22
Soil Remediation Level			0.21	0.109	93.8	314

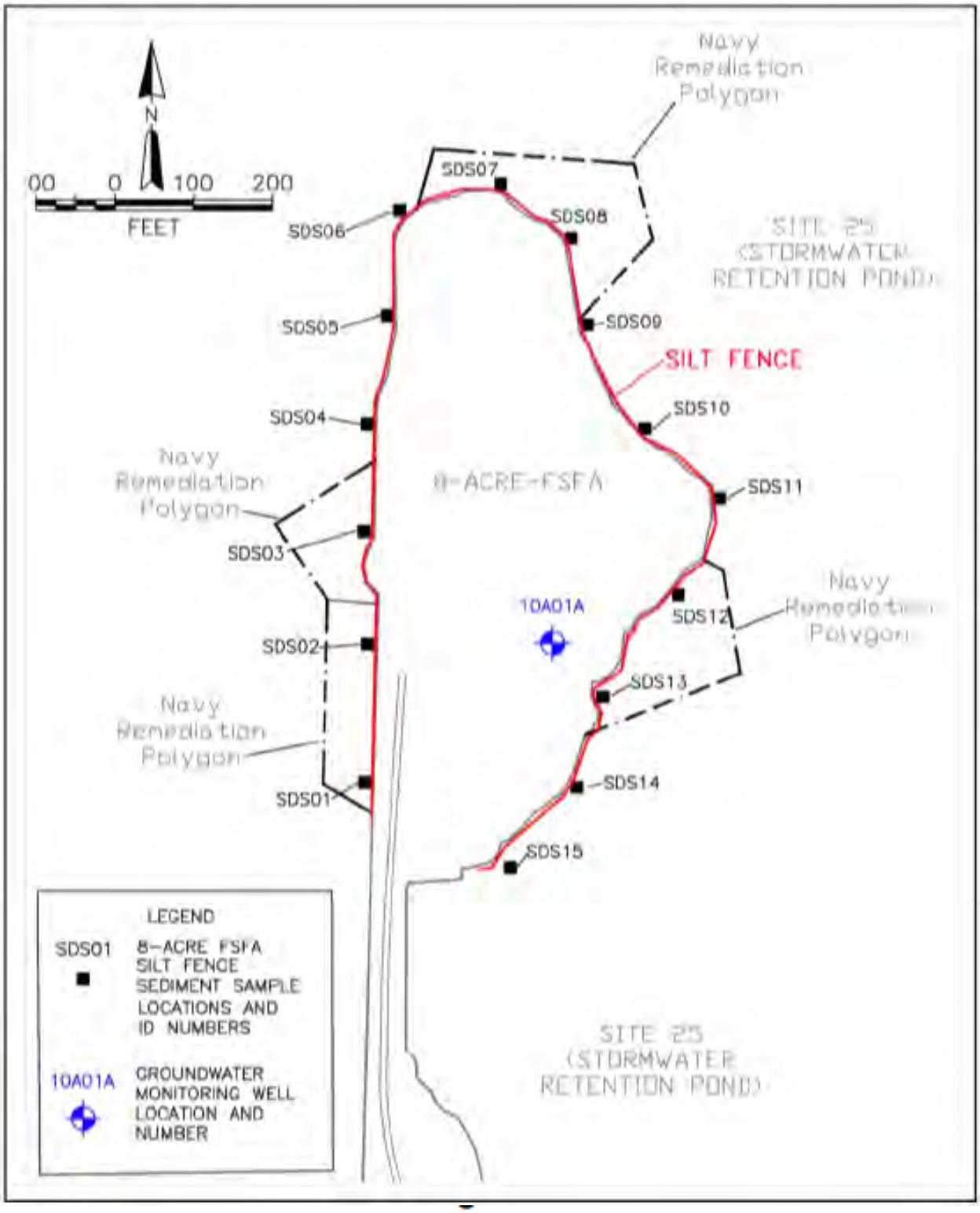
SAMPLING EVENT	
N217 AND N217A FILL AREA ICAM DATA GAP SAMPLING (2013)	
Purpose	
The purpose of the N217 and N217A Interim Corrective Action Measures (ICAM) Data Gap investigation was to address data gaps created by elevated DDT reporting limits, confirmation of nature of chromium detections, and the lateral extent of any COCs north of sampling location N217-6.	
Sampling Date	**Analytical Method**
November 4, 2013	• EPA 3545/8082 (Total PCBs, including Aroclor 1268) • EPA 3545/8081A (Total DDT, including DDD, DDE, and DDT) • EPA 3050B/6010B/7000 (Chromium, Lead, and Zinc) • EPA 7199 (Chromium VI)
Design: Number/Type of Samples Collected	**Sampling Method**
Surface soil samples collected at a depth of 1 foot bgs at seven locations: six locations previously sampled in 2006 (N217-2 through N217-7) and one new sample location (N217-06N) north of N217-6 and adjacent to the northern limit of the fill area (NASA 2013b).	**Surface**: Collected 8 ounces of soil from top 12 inches using a clean, stainless steel trowel. If necessary, near-surface samples were collected using a slide hammer to collect a 4-inch brass sleeve of undisturbed soil.
Summary of Findings	
Laboratory reporting limits were all below the Navy IR Site 25 remediation goals and ESLs. Samples collected from sampling locations N217-2 through N217-6 were analyzed for total DDT only. No chemicals were reported above the reporting limit of 75 µg/kg, which is below the Navy IR Site 25 remediation goal of 109 µg/kg. The sample collected from sampling location N217-7 was analyzed for total DDT, total chromium, and hexavalent chromium. Only total chromium was reported above its reporting limit of 1 mg/kg. Chromium VI was not detected; therefore, the detected total chromium concentration of 67 mg/kg represents chromium III and is below the 2013 ESL of 750 mg/kg for chromium III. The sample collected from sampling location N217-06N was analyzed for total PCBs, total DDT, lead, zinc, total chromium, and hexavalent chromium. Only zinc and total chromium were reported above their reporting limits. The zinc concentration was below the Navy IR Site 25 remediation goal and the total chromium concentration was below the chromium III 2013 ESL. Surface soils at N217 and N217A fill area do not contain COCs at concentrations that would contaminate the surrounding Navy IR Site 25 wetland areas through surface erosion.	
References	
SAP: ERT 2013b; ROF: NASA 2013b; Laboratory Data Report: CWK0722 Figure and Table are reproduced from the N217 & N217A Fill Areas ICAM Data Gap ROF (NASA 2013b). Table modified to accurately represent 2013 data analyses.	


SITE 25
(STORMWATER
RETENTION POND)
N
50 0 50 100
FEET
N217A
217A
217
N217-2
N217
N217-5
N217-4
N217-1
N217-06N
N217-06W
N217-6
N217-06E
N217-7
N217-3
N217-06S
10H01A
North Perimeter Road
LEGEND
10H01A
GROUNDWATER MONITORING WELL LOCATION AND NUMBER
N217-4
PREVIOUS SOIL SAMPLE LOCATION AND NUMBER
N217-06N
PROPOSED NEW SURFACE SOIL SAMPLE LOCATION AND NUMBER
NASA
Ames Research Center
Moffett Field, California 94035
TITLE:
NASA AMES RESEARCH CENTER
AOI 14 BUILDING N217 AND N217A FILL AREAS
PROPOSED DATA GAP SURFACE SAMPLE LOCATIONS
DWN:
DES.:
CHKD:
APPD:
DATE: 10/2013
REV.: 01
PROJECT NO.: AOI 14
PLATE NO.: 2

AOI 14 Phase II N217 and N217A Fill Areas 2013 ICAM Data Gap Sampling Results

Sample ID	Point ID	Depth (bgs ft)	Sample Date	TOTAL AROCLOR (mg/kg)	TOTAL DDT (mg/kg)	CHROMIUM (mg/kg)	LEAD (mg/kg)	ZINC (mg/kg)	HEXAVALENT CHROMIUM (mg/kg)
N217-06N	N217-06N	0 - 1	11/4/2013	<0.02	<0.075	58	<12	58	<0.01
N217-2	N217-2	0 - 1	11/4/2013		<0.075				
N217-3	N217-3	0 - 1	11/4/2013		<0.075				
N217-4	N217-4	0 - 1	11/4/2013		<0.075				
N217-5	N217-5	0 - 1	11/4/2013		<0.075				
N217-6	N217-6	0 - 1	11/4/2013		<0.075				
N217-7	N217-7	0 - 1	11/4/2013		<0.075	67			<0.01
Soil Remediation Level or ESL				0.21	0.109	750	93.8	314	--

SAMPLING EVENT	
ICAM-SILT FENCE (BASELINE 2013)	
Purpose	
The purpose of the ICAM baseline sampling was to determine baseline sediment concentrations immediately after installation of the ICAM silt fence erosion control barrier.	
Sampling Date	**Analytical Method**
December 20, 2013	• EPA 8082 (Total PCBs, including Aroclor 1268) • EPA 8081A (Total DDT, including DDD, DDE, and DDT) • EPA 6010B/7000/7471A (Priority Pollutant-13 Metals)
Design: Number/Type of Samples Collected	**Sampling Method**
Surface sediment samples collected at 15 locations approximately 5 feet outboard of the silt fence from the surface to a depth of 6 inches below sediment surface (ERT 2013a).	**Surface**: Collected 8 ounces of sediment using a disposable scoop or similar instrument.
Summary of Findings	
COCs (total PCBs, total DDT, lead, and zinc) were not detected above the Navy IR Site 25 sediment remediation goals in any sample. Reporting limits were all below the Navy IR Site 25 sediment remediation goals. Two samples with the highest total chromium levels were also analyzed for hexavalent chromium (Cr VI). Cr VI was not detected in either sample; therefore, the detected total chromium is chromium III. The chromium concentrations in these two samples (110 mg/kg in SDS03 and 70 mg/kg in SDS12) were reported as exceeding the 2005 ESL of 58 mg/kg. However, ESLs were updated in December 2013 and these concentrations do not exceed the 2013 ESL for chromium III of 750 mg/kg.	
References	
SAP: ERT 2013a; ROF: ERT 2014a; Laboratory Data Report: CWL1055, CXA0028 Figure and Table are reproduced from the AOI 14 Final ICAM Completion Report (ERT 2014a).	



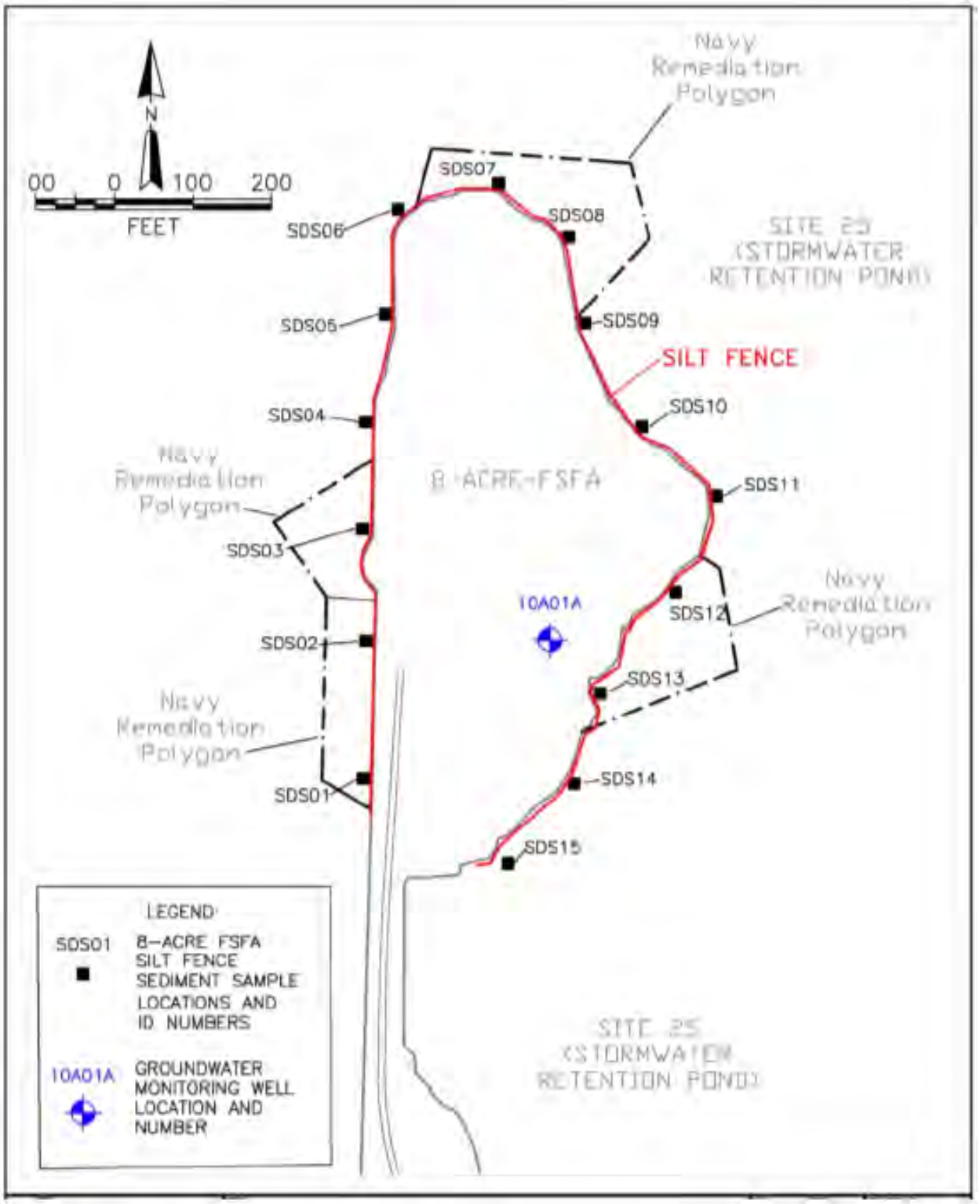
AOI 14 FSFA Silt Fence and Baseline Sample Locations

Baseline Sediment Samples Analytical Results Summary

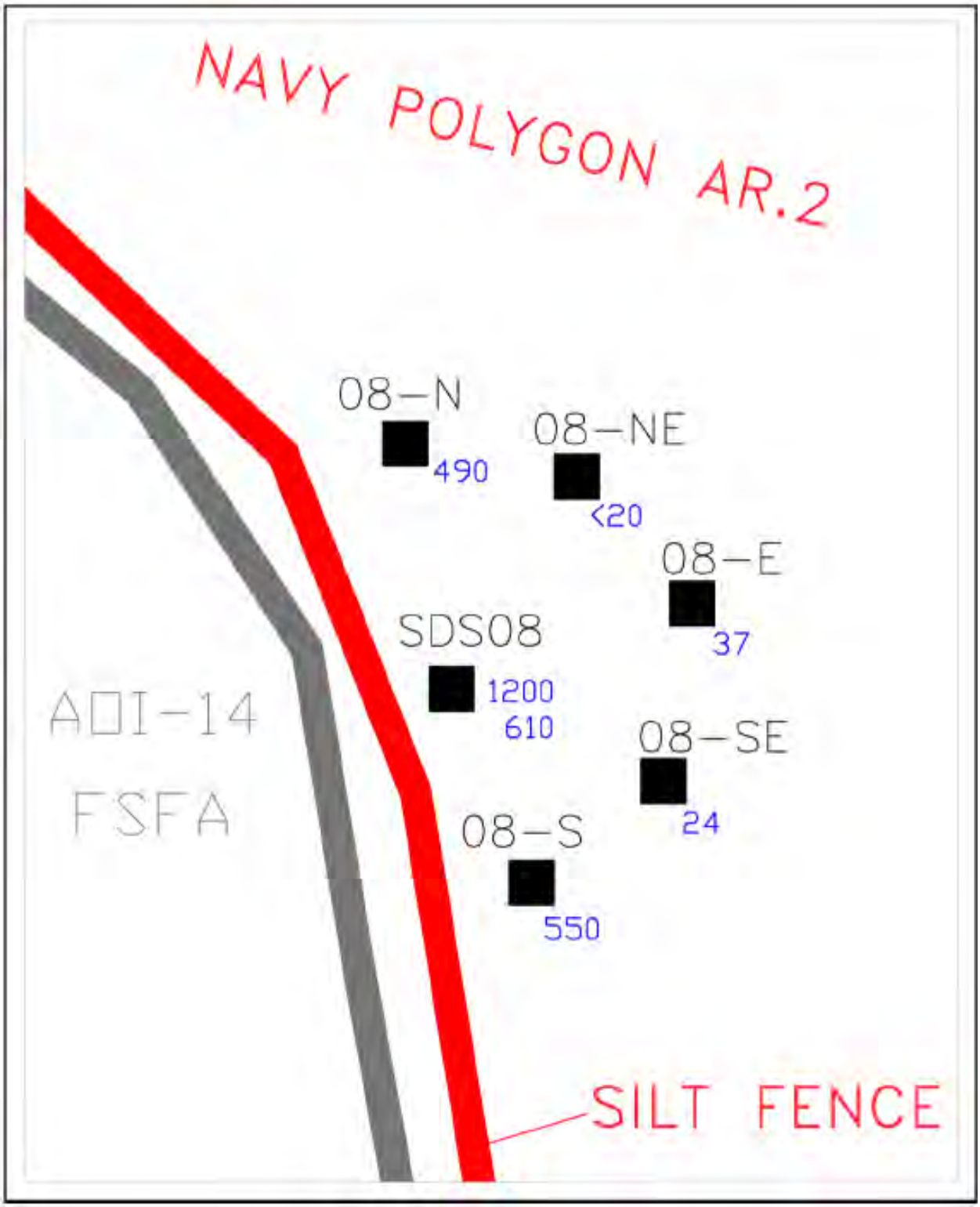
Sample Location	Depth (bgs)	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs (µg/kg)	Total DDT (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)	Chromium (total) (mg/kg)
SDS01	0–6"	<20	<20	<20	<75	8.5	53	52
SDS02	0–6"	<20	<20	<20	<75	17	39	64
SDS03	0–6"	<20	<20	<20	<75	24	36	110
SDS04	0–6"	30	<20	30	<75	13	32	26
SDS05	0–6"	22	<20	22	<75	18	62	21
SDS06	0–6"	68	<20	68	<75	15	44	30
SDS07	0–6"	<20	<20	<20	<75	14	21	23
SDS08	0–6"	110	<20	110	<75	15	25	42
SDS09	0–6"	<20	<20	<20	<75	<13	21	7.9
SDS10	0–6"	24	<20	24	<75	11	55	54
SDS11	0–6"	28	<20	28	<75	20	39	27
SDS11K	0–6"	<20	<20	<20	<75	17	47	51
SDS12	0–6"	100	<20	100	<75	32	96	70
SDS13	0–6"	<20	<20	<20	<75	16	35	55
SDS14	0–6"	21	<20	21	<75	17	36	29
SDS15	0–6"	34	<20	34	<75	27	36	29
Sediment Remediation Goal or ESL		**210**	**210**	**210**	**109**	**93.8**	**314**	**750**[1]

Note: The symbol "<" designates a value less than the reporting limit (e.g. <13 = less than 13 mg/kg).
1. The 2013 ESL for chromium III is 750 mg/kg.

SAMPLING EVENT	
ICAM-SILT FENCE ANNUAL SAMPLING (2014)	
Purpose	
The purpose of the ICAM annual sediment sampling was to evaluate the effectiveness of the silt fence erosion control barrier.	
Sampling Date	**Analytical Method**
September 17, 2014 (annual sampling of 15 locations) October 16, 2014 (follow-on sampling at SDS-08 and five new locations)	• EPA 8082 (Total PCBs, including Aroclor 1268) • EPA 8081A (Total DDT, including DDD, DDE, and DDT) • EPA 6010B/7000/7471A (Priority Pollutant-13 Metals)
Design: Number/Type of Samples Collected	**Sampling Method**
Surface sediment samples collected at the 15 baseline locations approximately 5 feet outboard of the silt fence from the surface to a depth of 6 inches below sediment surface. (ERT 2013c). Additional six surface samples collected from six locations near SDS08.	**Surface**: Collected 8 ounces of sediment using a disposable scoop or similar instrument.
Summary of Findings	
In all samples, total DDT, lead, and zinc reporting limits and detections were below the Navy IR Site 25 remediation goals and were similar to concentrations detected in the 2013 baseline samples. Total chromium concentrations were reported as being below the 2005 ESL of 58 mg/kg in all samples except SDS03, where total chromium was detected at 77 mg/kg. . However, ESLs were updated in December 2013 and the chromium concentration at SDS03 does not exceed the 2013 ESL for chromium III of 750 mg/kg. Total PCBs were either non-detect or below the Navy IR Site 25 remediation goal in all sample locations except SDS08. Aroclor 1260 was detected at 610 µg/kg in SDS08 and at 1,200 µg/kg in duplicate sample SDS08K. To better define the extent of PCBs at this location, an additional sample was collected at SDS08, and five additional samples were collected approximately 20 feet outboard from SDS08 to the north (SDS08-N), northeast (SDS08-NE), east (SDS08-E), southeast (SDS08-SE), and south (SDS08-S). The results indicate that Aroclor 1260 concentrations in the northeast, east, and southeast sample locations are below the Navy IR Site 25 remediation goal but are above the Navy IR Site 25 remediation goal at the SDS08-N (490 µg/kg) and SDS08-S (550 µg/kg) sample locations.	
References	
SAP: ERT 2013a; ROF: ERT 2014b; Laboratory Data Report: CXI0840, CXJ1017 Figure and Table reproduced from AOI 14 ICAM Quarter 3 Inspection Report (ERT 2014b).	



AOI 14 Sediment Sampling Locations



AOI 14 SDS08 Area Sediment Sampling Locations

(PCB concentrations in **blue** are in µg/kg)

Baseline and Annual Sediment Sampling Results

Sample Location (year)	Depth (bgs)	Aroclor 1260 (µg/kg)	Aroclor 1268 (µg/kg)	Total PCBs (µg/kg)	Total DDT (µg/kg)	Lead (mg/kg)	Zinc (mg/kg)	Chromium (total) (mg/kg)
SDS01 (2013)	0–6"	<20	<20	<20	<75	8.5	53	52
SDS01 (2014)	0–6"	<20	<20	<20	<75	9.5	30	31
SDS02 (2013)	0–6"	<20	<20	<20	<75	17	39	64
SDS02 (2014)	0–6"	<20	<20	<20	<75	18	60	56
SDS03 (2013)	0–6"	<20	<20	<20	<75	24	36	110
SDS03 (2014)	0–6"	36	<20	36	<75	11	40	77
SDS04 (2013)	0–6"	30	<20	30	<75	13	32	26
SDS04 (2014)	0–6"	37	<20	37	<75	19	45	20
SDS05 (2013)	0–6"	22	<20	22	<75	18	62	21
SDS05 (2014)	0–6"	7.4[J]	<20	7.4	<75	17	39	19
SDS06 (2013)	0–6"	68	<20	68	<75	15	44	30
SDS06 (2014)	0–6"	24	<20	24	<75	20	45	27
SDS07 (2013)	0–6"	<20	<20	<20	<75	14	21	23
SDS07 (2014)	0–6"	28	<20	28	<75	26	48	37
SDS08 (2013)	0–6"	110	<20	110	<75	15	25	42
SDS08 (2014)	0–6"	1200	<20	1200	<75	26	45	40
SDS08K (2014)	0–6"	610	<20	610	<75	29	43	43
SDS08 (2014a)	0–6"	610	<20	610	na	na	na	na
SDS08-N (2014a)	0–6"	490	<20	490	na	na	na	na
SDS08-NE (2014a)	0–6"	<20	<20	<20	na	na	na	na
SDS08-E (2014a)	0–6"	37	<20	37	na	na	na	na
SDS08-SE (2014a)	0–6"	24	<20	24	na	na	na	na
SDS08-S (2014a)	0–6"	550	<20	550	na	na	na	na
SDS09 (2013)	0–6"	<20	<20	<20	<75	<13	21	7.9
SDS09 (2014)	0–6"	26	<20	26	<75	11	22	12
SDS10 (2013)	0–6"	24	<20	24	<75	11	55	54
SDS10 (2014)	0–6"	36	<20	36	<75	18	71	53
SDS11 (2013)	0–6"	28	<20	28	<75	20	39	27
SDS11K (2013)	0–6"	<20	<20	<20	<75	17	47	51
SDS11 (2014)	0–6"	74	<20	74	<75	17	36	29
SDS12 (2013)	0–6"	100	<20	100	<75	32	96	70
SDS12 (2014)	0–6"	35	<20	35	<75	24	58	44
SDS13 (2013)	0–6"	<20	<20	<20	<75	16	35	55
SDS13 (2014)	0–6"	<20	<20	<20	<75	13	33	22
SDS14 (2013)	0–6"	21	<20	21	<75	17	36	29
SDS14 (2014)	0–6"	7.4[J]	<20	7.4	<75	28	44	32
SDS15 (2013)	0–6"	34	<20	34	<75	27	36	29
SDS15 (2014)	0–6"	18[J]	<20	18	<75	11	28	15
Sediment Remediation Goal or ESL		**210**	**210**	**210**	**109**	**93.8**	**314**	**750**

Footnote 1: The symbol "<" designates a value less than the reporting limit (e.g. <13 = less than 13 mg/kg).
Footnote 2: 7.4[J] denotes a concentration detected below the Reporting Limit but above the Method Detection Limit (MDL).
Footnote 3: na = Not Analyzed.
Footnote 4: The 2013 ESL for chromium III is 750 mg/kg and is not a Site 25 remediation goal.
Footnote 5: (2014a) = Indicates additional sediment sampling location near SDS08.
Footnote 6: SDS08K is duplicate sample of SDS08.

SAMPLING EVENT	
GROUNDWATER MONITORING WELL 10A01A	
Purpose	
Groundwater Monitoring Well 10A01A was installed to monitor for potential VOC contamination in groundwater. In addition, one sampling event in 2004 included analysis for PCBs.	
Sampling Date	**Analytical Method**
Sampled semiannually from 1991 to 1995; annually from 1996 to 2000; and 2004.	EPA 8010, 601, 624 (VOCs) EPA 8082A (PCBs) in 2004 only
Design: Number/Type of Samples Collected	**Sampling Method**
A-aquifer sampled semiannually from 1991 to 1995; annually from 1996 to 2000; and 2004.	Three well volumes purged before a sample was collected at the well screen depth.
Summary of Findings	
All groundwater samples collected from Monitoring Well 10A01A, located in the FSFA peninsula, have been analyzed for VOCs. In 2004, groundwater from Monitoring Well 10A01A was analyzed for PCBs. No VOCs were detected in any of the samples collected at Monitoring Well 10A01A except for one detection of trichloroethene (TCE) (0.61 micrograms per liter [µg/L]) in the sample collected on July 6, 1995. This detected concentration is less than the federal and California maximum contaminant level (MCL) for TCE (5 µg/L). The groundwater sample collected from Monitoring Well 10A01A in September 2004 was also analyzed for PCBs. No PCBs were detected in the sample. Reporting limits were within the guidelines set in the Unified Quality Assurance Project Plan (Canonie 1991).	
References	
Canonie 1991 and NASA 2014	

Groundwater Well 10A01A Sampling Results

PT_ID	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A
Depth	01/02/1991	01/16/1991	08/01/1991	06/02/1992	10/27/1992	03/08/1993	11/24/1993	05/25/1994	11/21/1994	07/06/1995	09/28/1995	06/21/1996	01/01/1997	09/04/1997	03/23/1998	05/28/1999	09/09/1999	09/05/2000	09/22/2004
PCB (µg/L)																			
Aroclor-1016																			<0.5
Aroclor-1221																			<0.5
Aroclor-1232																			<0.5
Aroclor-1242																			<0.5
Aroclor-1248																			<0.5
Aroclor-1254																			<0.5
Aroclor-1260																			<0.5
VOA (µg/L)																			
1,1,1-Trichloroethane		<0.25	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,1,2,2-Tetrachloroethane					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,1,2-Trichloroethane		<0.25			<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,1-Dichloroethane			<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,1-Dichloroethene			<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,1-Difluoroethane																			<20
1,2-Dichlorobenzene					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.3
1,2-Dichloroethane					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,2-Dichloroethene (Total)					<1		<0.5	<0.5	<0.5	<0.5	<0.5								
1,2-Dichloropropane					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
1,3-Dichlorobenzene					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.3
1,4-Dichlorobenzene					<1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.3
2-Chloroethylvinyl Ether					<10		<0.5	<0.5	<0.5	<0.5	<0.5	<1		<0.5	<0.5	<0.5		<0.5	<2
Benzene																			<0.3
Bromodichloromethane					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Bromoform					<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Bromomethane					<1		<0.5	<0.5	<0.5	<0.5	<0.5	<1		<0.5	<0.5	<0.5		<0.5	<0.5
Carbon Tetrachloride					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Chlorobenzene					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.3
Chloroethane			<0.5	<0.5	<1		<0.5	<0.5	<0.5	<0.5	<0.5	<1		<0.5	<0.5	<0.5		<0.5	<0.5
Chloroform			<0.5		<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Chloromethane				<1	<1		<0.5	<0.5	<0.5	<0.5	<0.5	<1		<0.5	<0.5	<0.5		<0.5	<0.5
cis-1,2-Dichloroethene		<0.25		<0.5	<1							<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
cis-1,3-Dichloropropene					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Dibromochloromethane					<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Dichlorodifluoromethane					<1		<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5		<0.5	<0.5
Ethylbenzene																			<0.3
Freon 113		<0.25	<0.5	<0.5	<1		<0.5	<0.5	<0.5	<0.5	<0.5			<0.5	<0.5	<0.5		<0.5	<0.5
Methylene Chloride				<1	<1	<1	<0.5	<0.5	<0.5	<5	<5	<5		<0.5	<0.5	<0.5		<0.5	<0.5
Residue, Filterable																			<0.5
Tetrachloroethene		<0.25	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Toluene																			<0.3
Total Organic Halides	<0.5												<0.5				<0.5		
trans-1,2-Dichloroethene		<0.25			<1	<1						<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
trans-1,3-Dichloropropene					<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Trichloroethene	<0.5	<0.25	<0.5	<0.5	<1	<1	<0.5	<0.5	<0.5	0.61	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Trichlorofluoromethane					<1		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5		<0.5	<0.5
Vinyl Chloride			<0.5	<0.5	<1		<0.5	<0.5	<0.5	<0.5	<0.5	<1		<0.5	<0.5	<0.5		<0.5	<0.5
Xylene (Total)																			<0.5

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ATTACHMENT A1
SOIL AND GROUNDWATER ANALYTICAL DATA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	5 U	9.9	NA	NA	NA	NA	NA
ARSENIC	5.4	16	NA	NA	NA	NA	NA
BERYLLIUM	0.58	0.55	NA	NA	NA	NA	NA
CADMIUM	0.4	0.79	NA	NA	NA	NA	NA
CHROMIUM	52	45	NA	NA	NA	NA	NA
COPPER	25	20	NA	NA	NA	NA	NA
LEAD	29	9.9	12 U	9.9	12 U	8	2.8
MERCURY	0.16	0.26	NA	NA	NA	NA	NA
NICKEL	50	48	NA	NA	NA	NA	NA
SELENIUM	2.5 U	5 U	NA	NA	NA	NA	NA
SILVER	0.5 U	0.5 U	NA	NA	NA	NA	NA
THALLIUM	0.25 U	5 U	NA	NA	NA	NA	NA
ZINC	80	59	68	41	69	60	31
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.2 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.8 U	0.8 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.2 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.2 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.2 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.71	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.2 U	0.2 U	0.28	0.035	0.48	0.026	0.02 U
AROCLOR-1268	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.71	0 U	0.28	0.035	0.48	0.026	0 U
Pesticides							
4,4'-DDD	0.06 U	0.06 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.02 U	0.02 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.06 U	0.06 U	0.075 U	0.075 U	0.096	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	0.01 U	0.01 U	NA	NA	NA	NA	NA
ALPHA-BHC	0.01 U	0.01 U	NA	NA	NA	NA	NA
BETA-BHC	0.01 U	0.01 U	NA	NA	NA	NA	NA
CHLORDANE	0.2 U	0.2 U	NA	NA	NA	NA	NA
DELTA-BHC	0.01 U	0.01 U	NA	NA	NA	NA	NA
DIELDRIN	0.02 U	0.02 U	NA	NA	NA	NA	NA
ENDOSULFAN I	0.02 U	0.02 U	NA	NA	NA	NA	NA
ENDOSULFAN II	0.02 U	0.02 U	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	0.06 U	0.06 U	NA	NA	NA	NA	NA
ENDRIN	0.02 U	0.02 U	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	0.06 U	0.06 U	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	0.01 U	0.01 U	NA	NA	NA	NA	NA
HEPTACHLOR	0.01 U	0.01 U	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	0.01 U	0.01 U	NA	NA	NA	NA	NA
METHOXYCHLOR	0.2 U	0.2 U	NA	NA	NA	NA	NA
TOXAPHENE	0.8 U	0.8 U	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0.096	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	0.1 U	0.1 U	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	0.5 U	0.5 U	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	0.5 U	0.5 U	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
2-CHLOROPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
2-METHYLPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
2-NITROANILINE	0.5 U	0.5 U	NA	NA	NA	NA	NA
2-NITROPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	0.5 U	0.5 U	NA	NA	NA	NA	NA
3-NITROANILINE	0.5 U	0.5 U	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	0.5 U	0.5 U	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	0.1 U	0.1 U	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
4-CHLOROANILINE	0.1 U	0.1 U	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	0.1 U	0.1 U	NA	NA	NA	NA	NA
4-METHYLPHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
4-NITROANILINE	0.5 U	0.5 U	NA	NA	NA	NA	NA
4-NITROPHENOL	0.5 U	0.5 U	NA	NA	NA	NA	NA
ACENAPHTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
ACENAPHTHYLENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
ANILINE	0.1 U	0.1 U	NA	NA	NA	NA	NA
ANTHRACENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZIDINE	2.5 U	2.5 U	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZO(A)PYRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BENZOIC ACID	0.5 U	0.5 U	NA	NA	NA	NA	NA
BENZYL ALCOHOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	0.1 U	0.1 U	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	0.5 U	0.5 U	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CHRYSENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	0.5 U	0.5 U	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIBENZOFURAN	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	0.1 U	0.1 U	NA	NA	NA	NA	NA
FLUORANTHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
FLUORENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
HEXACHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
ISOPHORONE	0.1 U	0.1 U	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	0.1 U	0.1 U	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	0.1 U	0.1 U	NA	NA	NA	NA	NA
NAPHTHALENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
NITROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	0.5 U	0.5 U	NA	NA	NA	NA	NA
PHENANTHRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
PHENOL	0.1 U	0.1 U	NA	NA	NA	NA	NA
PYRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	0.5 U	0.5 U	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	0.5 U	0.5 U	NA	NA	NA	NA	NA
2-HEXANONE	0.5 U	0.5 U	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	0.5 U	0.5 U	NA	NA	NA	NA	NA
ACETONE	0.5 U	0.5 U	NA	NA	NA	NA	NA
BENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
BROMOFORM	0.1 U	0.1 U	NA	NA	NA	NA	NA
BROMOMETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CARBON DISULFIDE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CHLOROBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CHLOROETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CHLOROFORM	0.1 U	0.1 U	NA	NA	NA	NA	NA
CHLOROMETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001	FSDA-H001
Sample ID	FSDA-H001-0.5	FSDA-H001-2.0	FSDA-H001-4'	FSDA-H001-6'	FSDA-H001-8'	FSDA-H001-10'	FSDA-H001-12'
Sample Date	04/07/1992	04/07/1992	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.00 - 0.50	1.50 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	0.25 U	0.25 U	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TOLUENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TRICHLOROETHENE	0.1 U	0.1 U	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	0.1 U	0.1 U	NA	NA	NA	NA	NA
VINYL ACETATE	0.1 U	0.1 U	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.1 U	0.1 U	NA	NA	NA	NA	NA
XYLENE (TOTAL)	0.1 U	0.1 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	8	5 U	NA	NA	2.5 U
ARSENIC	NA	NA	13	5 U	NA	NA	2.5 U
BERYLLIUM	NA	NA	0.63	0.53	NA	NA	0.72
CADMIUM	NA	NA	0.18	0.8	NA	NA	0.7
CHROMIUM	NA	NA	47	57	NA	NA	52
COPPER	NA	NA	20	25	NA	NA	37
LEAD	40	16	4.6	29	12	12	8.5
MERCURY	0.2	0.12	0.1	0.082	0.074	0.19	0.1 U
NICKEL	NA	NA	48	56	NA	NA	67
SELENIUM	NA	NA	2.5 U	2.5 U	NA	NA	2.5 U
SILVER	NA	NA	0.5 U	0.5 U	NA	NA	0.75
THALLIUM	NA	NA	0.25 U	0.25 U	NA	NA	2.5 U
ZINC	NA	NA	53	85	NA	NA	53
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.4 U	0.4 U	0.08 U	0.4 U	0.08 U	0.08 U	0.02 U
AROCLOR-1232	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.22	0.21	0.021	0.31	0.05	0.026	0.02 U
AROCLOR-1260	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	NA	NA	NA	NA	NA	NA	0.02 U
TOTAL PCBS	0.22	0.21	0.021	0.31	0.05	0.026	0 U
Pesticides							
4,4'-DDD	0.03 U	0.03 U	0.006 U	0.03 U	0.006 U	0.006 U	0.075 U
4,4'-DDE	0.013	0.011	0.002 U	0.027	0.0039	0.002 U	0.075 U
4,4'-DDT	0.03 U	0.03 U	0.006 U	0.03 U	0.006 U	0.006 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
ALPHA-BHC	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
BETA-BHC	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
CHLORDANE	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	NA
DELTA-BHC	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
DIELDRIN	0.01 U	0.01 U	0.002 U	0.01 U	0.002 U	0.002 U	NA
ENDOSULFAN I	0.01 U	0.01 U	0.002 U	0.01 U	0.002 U	0.002 U	NA
ENDOSULFAN II	0.01 U	0.01 U	0.002 U	0.01 U	0.002 U	0.002 U	NA
ENDOSULFAN SULFATE	0.03 U	0.03 U	0.006 U	0.03 U	0.006 U	0.006 U	NA
ENDRIN	0.01 U	0.01 U	0.002 U	0.01 U	0.002 U	0.002 U	NA
ENDRIN ALDEHYDE	0.03 U	0.03 U	0.006 U	0.03 U	0.006 U	0.006 U	NA
GAMMA-BHC (LINDANE)	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
HEPTACHLOR	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
HEPTACHLOR EPOXIDE	0.005 U	0.005 U	0.001 U	0.005 U	0.001 U	0.001 U	NA
METHOXYCHLOR	0.1 U	0.1 U	0.02 U	0.1 U	0.02 U	0.02 U	NA
TOXAPHENE	0.4 U	0.4 U	0.08 U	0.4 U	0.08 U	0.08 U	NA
TOTAL DDT	0.013	0.011	0 U	0.027	0.0039	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,2-DICHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,3-DICHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,4-DICHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2,4,5-TRICHLOROPHENOL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2,4,6-TRICHLOROPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2,4-DICHLOROPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2,4-DINITROPHENOL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2,4-DINITROTOLUENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2,6-DINITROTOLUENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-CHLORONAPHTHALENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-CHLOROPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-METHYLNAPHTHALENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-METHYLPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
2-NITROANILINE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-NITROPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
3,3'-DICHLOROBENZIDINE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
3-NITROANILINE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4,6-DINITRO-2-METHYLPHENOL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-BROMOPHENYL-PHENYLETHER	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
4-CHLORO-3-METHYLPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
4-CHLOROANILINE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
4-CHLOROPHENYL-PHENYLETHER	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
4-METHYLPHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
4-NITROANILINE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-NITROPHENOL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
ACENAPHTHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
ACENAPHTHYLENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
ANILINE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
ANTHRACENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZIDINE	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NA
BENZO(A)ANTHRACENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZO(A)PYRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZO(B)FLUORANTHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZO(G,H,I)PERYLENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZO(K)FLUORANTHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BENZOIC ACID	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
BENZYL ALCOHOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BIS(2-CHLOROETHOXY)METHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BIS(2-ETHYLHEXYL)PHTHALATE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
BUTYLBENZYLPHTHALATE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CHRYSENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DI-N-BUTYLPHTHALATE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
DI-N-OCTYLPHTHALATE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIBENZ(A,H)ANTHRACENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIBENZOFURAN	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIETHYLPHTHALATE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIMETHYLPHTHALATE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
FLUORANTHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
FLUORENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
HEXACHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
HEXACHLOROBUTADIENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
HEXACHLOROCYCLOPENTADIENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
HEXACHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
INDENO(1,2,3-CD)PYRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
ISOPHORONE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
N-NITROSO-DI-N-PROPYLAMINE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
N-NITROSODIPHENYLAMINE (1)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
NAPHTHALENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
NITROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
PENTACHLOROPHENOL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
PHENANTHRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
PHENOL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
PYRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,1,2,2-TETRACHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,1,2-TRICHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,1-DICHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,1-DICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,2-DICHLOROPROPANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-CHLOROETHYLVINYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-HEXANONE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
4-METHYL-2-PENTANONE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
ACETONE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA
BENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BROMOFORM	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
BROMOMETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CARBON DISULFIDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CARBON TETRACHLORIDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CHLOROBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CHLOROETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CHLOROFORM	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CHLOROMETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
CIS-1,2-DICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSDA-H002	FSDA-H002	FSDA-H003	FSDA-H003	FSDA-H004	FSDA-H004	FSFA-SDS01
Sample ID	FSDA-H002-0.5	FSDA-H002-1.5	FSDA-H003-0.5	FSDA-H003-2.0	FSDA-H004-0.5	FSDA-H004-2.0	FSFA-SDS01-201312
Sample Date	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	04/07/1992	12/20/2013
Sample Depth	0.00 - 0.50	1.00 - 1.50	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50	1.50 - 2.00	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIBROMOCHLOROMETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TOLUENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TRANS-1,2-DICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TRANS-1,3-DICHLOROPROPENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TRICHLOROETHENE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
TRICHLOROFLUOROMETHANE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
VINYL ACETATE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
VINYL CHLORIDE	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA
XYLENE (TOTAL)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	0.01 U	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U	5 U
ARSENIC	1.2 J	3.9	2.6	2.5 U	2 U	3.5	1.4 J
BERYLLIUM	0.5 U	0.34	0.5 U	0.39	0.5 U	0.25 U	0.5 U
CADMIUM	1 U	0.56	1 U	0.89	1 U	0.5 U	1 U
CHROMIUM	31	64	56	110	77	26	20
COPPER	2.3	39	12	47	8.4	28	15
LEAD	9.5	17	18	24	11	13	19
MERCURY	0.13	0.1 U	0.1	0.1 U	0.061 J	0.1 U	0.069 J
NICKEL	38	44	65	61	72	17	27
SELENIUM	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U	5 U
SILVER	1 U	0.5 U	1 U	1.5	1 U	0.5 U	1 U
THALLIUM	8 U	2.5 U	8 U	2.5 U	8 U	2.5 U	8 U
ZINC	30	39	60	36	40	32	45
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.036	0.03	0.037
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0.036	0.03	0.037
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS01	FSFA-SDS02	FSFA-SDS02	FSFA-SDS03	FSFA-SDS03	FSFA-SDS04	FSFA-SDS04
Sample ID	FSFA-SDS01-201409	FSFA-SDS02-201312	FSFA-SDS02-201409	FSFA-SDS03-201312	FSFA-SDS03-201409	FSFA-SDS04-201312	FSFA-SDS04-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	13 U	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U
ARSENIC	2.9	1.7 J	3.3	2.1	2.5 U	1.8 J	3
BERYLLIUM	1.3 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U
CADMIUM	2.5 U	1 U	0.5 U	0.32 J	0.5 U	1 U	0.5 U
CHROMIUM	21	19	30	27	23	37	42
COPPER	17	3	27	4.7	15	6.8	20
LEAD	18	17	15	20	14	26	15
MERCURY	0.1 U	0.071 J	0.1 U	0.072 J	0.1 U	0.092 J	0.1 U
NICKEL	28	25	25	34	17	44	18
SELENIUM	2.5 U	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U
SILVER	2.5 U	1 U	0.5 U	1 U	0.88	1 U	0.5 U
THALLIUM	2.5 U	8 U	2.5 U	8 U	2.5 U	8 U	2.5 U
ZINC	62	39	44	45	21	48	25
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.022	0.0074 J	0.068	0.024	0.02 U	0.028	0.11
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.022	0.0074	0.068	0.024	0 U	0.028	0.11
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS05	FSFA-SDS05	FSFA-SDS06	FSFA-SDS06	FSFA-SDS07	FSFA-SDS07	FSFA-SDS08
Sample ID	FSFA-SDS05-201312	FSFA-SDS05-201409	FSFA-SDS06-201312	FSFA-SDS06-201409	FSFA-SDS07-201312	FSFA-SDS07-201409	FSFA-SDS08-201312
Sample Date	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	5 U	5 U	NA	NA	NA	NA	NA
ARSENIC	3.7	4	NA	NA	NA	NA	NA
BERYLLIUM	0.5 U	0.5 U	NA	NA	NA	NA	NA
CADMIUM	0.52 J	1 U	NA	NA	NA	NA	NA
CHROMIUM	40	43	NA	NA	NA	NA	NA
COPPER	2.2	1.9 J	NA	NA	NA	NA	NA
LEAD	26	29	NA	NA	NA	NA	NA
MERCURY	0.069 J	0.08 J	NA	NA	NA	NA	NA
NICKEL	41	42	NA	NA	NA	NA	NA
SELENIUM	5 U	5 U	NA	NA	NA	NA	NA
SILVER	1 U	1 U	NA	NA	NA	NA	NA
THALLIUM	8 U	8 U	NA	NA	NA	NA	NA
ZINC	45	43	NA	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	1.2	0.61	0.61	0.037	0.49	0.02 U	0.55
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	1.2	0.61	0.61	0.037	0.49	0 U	0.55
Pesticides							
4,4'-DDD	0.075 U	0.075 U	NA	NA	NA	NA	NA
4,4'-DDE	0.075 U	0.075 U	NA	NA	NA	NA	NA
4,4'-DDT	0.075 U	0.075 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08	FSFA-SDS08
Sample ID	FSFA-SDS08-201409	FSFA-SDS08K-20140	FSFA-SDS08	FSFA-SDS08-E	FSFA-SDS08-N	FSFA-SDS08-NE	FSFA-SDS08-S
Sample Date	09/17/2014	09/17/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	13 U	5 U	2.5 U	5 U	13 U	2.5 U
ARSENIC	NA	2.5 U	2 J	2.6	2 U	3	2.5 U
BERYLLIUM	NA	1.3 U	0.5 U	0.47	0.5 U	1.3 U	0.27
CADMIUM	NA	2.5 U	1 U	0.61	1 U	2.5 U	0.5 U
CHROMIUM	NA	7.9	12	54	53	27	51
COPPER	NA	8.3	2.2	32	16	15	26
LEAD	NA	13 U	11	11	18	20	17
MERCURY	NA	0.1 U	0.052 J	0.1 U	0.19	0.1 U	0.11
NICKEL	NA	17	19	51	58	36	41
SELENIUM	NA	2.5 U	5 U	2.5 U	5 U	2.5 U	2.5 U
SILVER	NA	2.5 U	1 U	0.5 U	1 U	2.5 U	0.5 U
THALLIUM	NA	2.5 U	8 U	2.5 U	8 U	2.5 U	2.5 U
ZINC	NA	21	22	55	71	39	47
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.024	0.02 U	0.026	0.024	0.036	0.028	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.024	0 U	0.026	0.024	0.036	0.028	0 U
Pesticides							
4,4'-DDD	NA	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	NA	0.075 U	0.075 U	0.075 U	0.023 J	0.075 U	0.075 U
4,4'-DDT	NA	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	NA	0 U	0 U	0 U	0.023	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS08	FSFA-SDS09	FSFA-SDS09	FSFA-SDS10	FSFA-SDS10	FSFA-SDS11	FSFA-SDS11
Sample ID	FSFA-SDS08-SE	FSFA-SDS09-201312	FSFA-SDS09-201409	FSFA-SDS10-201312	FSFA-SDS10-201409	FSFA-SDS11-201312	FSFA-SDS11K-20131
Sample Date	10/16/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	12/20/2013
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	0.01 U	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U	5 U
ARSENIC	1.7 J	6.7	3.2	3.5	1.4 J	3.8	1.6 J
BERYLLIUM	0.5 U	0.68	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U
CADMIUM	1 U	0.54	1 U	0.61	1 U	0.5 U	1 U
CHROMIUM	29	70	44	55	22	29	32
COPPER	3.2	49	9.8	27	3.6	23	6.8
LEAD	17	32	24	16	13	17	28
MERCURY	0.073 J	0.16	0.12	0.1 U	0.073 J	0.1 U	0.072 J
NICKEL	33	76	51	28	26	21	35
SELENIUM	5 U	2.5 U	5 U	2.5 U	5 U	2.5 U	5 U
SILVER	1 U	0.74	1 U	0.5 U	1 U	0.53	1 U
THALLIUM	8 U	2.5 U	8 U	2.5 U	8 U	2.5 U	8 U
ZINC	36	96	58	35	33	36	44
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.074	0.1	0.035	0.02 U	0.02 U	0.021	0.0074 J
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.074	0.1	0.035	0 U	0 U	0.021	0.0074
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.01 J	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.0092 J
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0.01	0 U	0 U	0 U	0.0092
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS11	FSFA-SDS12	FSFA-SDS12	FSFA-SDS13	FSFA-SDS13	FSFA-SDS14	FSFA-SDS14
Sample ID	FSFA-SDS11-201409	FSFA-SDS12-201312	FSFA-SDS12-201409	FSFA-SDS13-201312	FSFA-SDS13-201409	FSFA-SDS14-201312	FSFA-SDS14-201409
Sample Date	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014	12/20/2013	09/17/2014
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50	0.00 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	2.9	5 U	NA	NA	NA	NA	NA
ARSENIC	3	1.2 J	NA	NA	NA	NA	NA
BERYLLIUM	0.25 U	0.5 U	NA	NA	NA	NA	NA
CADMIUM	0.88	0.32 J	NA	NA	NA	NA	NA
CHROMIUM	29	15	NA	NA	NA	NA	NA
COPPER	25	3.3	NA	NA	NA	NA	NA
LEAD	27	11	NA	NA	NA	NA	NA
MERCURY	0.1 U	0.046 J	NA	NA	NA	NA	NA
NICKEL	25	20	NA	NA	NA	NA	NA
SELENIUM	2.5 U	5 U	NA	NA	NA	NA	NA
SILVER	2.1	1 U	NA	NA	NA	NA	NA
THALLIUM	2.5 U	8 U	NA	NA	NA	NA	NA
ZINC	36	28	NA	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1221	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1232	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1242	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1248	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1254	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
AROCLOR-1260	0.034	0.018 J	0.55	0.02	0.7	0.054	3.9
AROCLOR-1268	0.02 U	0.02 U	0.1 U	0.02 U	0.1 U	0.02 U	1 U
TOTAL PCBS	0.034	0.018	0.55	0.02	0.7	0.054	3.9
Pesticides							
4,4'-DDD	0.075 U	0.075 U	NA	NA	NA	NA	NA
4,4'-DDE	0.075 U	0.075 U	NA	NA	NA	NA	NA
4,4'-DDT	0.075 U	0.075 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	FSFA-SDS15	FSFA-SDS15	H0001-E1	H0001-E1	H0001-E2	H0001-E2	H0001-N1
Sample ID	FSFA-SDS15-201312	FSFA-SDS15-201409	H0001-E1-0.5	H0001-E-0.5'	H0001-E2-0.5	H0001-E2-R1-2'	H0001-N1-0.5
Sample Date	12/20/2013	09/17/2014	09/22/2004	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.00 - 0.50	0.00 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1221	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1232	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1242	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1248	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1254	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
AROCLOR-1260	1.6	5	8.4	1.1	2.3	4.8	0.11
AROCLOR-1268	0.2 U	1 U	1 U	0.2 U	0.4 U	1 U	0.02 U
TOTAL PCBS	1.6	5	8.4	1.1	2.3	4.8	0.11
Pesticides							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-N1	H0001-N2	H0001-N2	H0001-NE	H0001-NW	H0001-S1	H0001-S1
Sample ID	H0001-N-0.5'	H0001-N2-0.5	H0001-N2-R1-2'	H0001-NE-0.5'	H0001-NW-0.5'	H0001-S1-0.5	H0001-S-0.5'
Sample Date	05/27/2005	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	NA	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1221	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1232	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1242	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1248	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1254	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
AROCLOR-1260	3.9	0.27	0.39	0.093	2.3	1.2	2.6
AROCLOR-1268	1 U	0.04 U	0.1 U	0.02 U	0.4 U	0.2 U	0.4 U
TOTAL PCBS	3.9	0.27	0.39	0.093	2.3	1.2	2.6
Pesticides							
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	NA	NA	NA	NA	NA	NA	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-S2	H0001-S2	H0001-SE	H0001-SW	H0001-W1	H0001-W1	H0001-W2
Sample ID	H0001-S2-0.5	H0001-S2-R1-2'	H0001-SE-0.5'	H0001-SW-0.5'	H0001-W1-0.5	H0001-W-0.5'	H0001-W2-0.5
Sample Date	09/22/2004	05/27/2005	05/27/2005	05/27/2005	09/22/2004	05/27/2005	09/22/2004
Sample Depth	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	11	12	4.4	13	3.4	3.3
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	55	47	25	28	31	30
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.037	0.025	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.037	0.025	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	NA	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	NA	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	NA	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	NA	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	H0001-W2	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E	N217-06E
Sample ID	H0001-W2-R1-2'	N217 - 06E - 6"	N217 - 06E - 2'	N217 - 06E - 4'	N217 - 06E - 6'	N217 - 06E - 10'	N217 - 06E - 12'
Sample Date	05/27/2005	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	0.01 U	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	58	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	8.2	12 U	7.6	7.3	6.1	96	2.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	32	58	38	48	37	120	26
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06E	N217-06N	N217-06S	N217-06S	N217-06S	N217-06S	N217-06S
Sample ID	N217 - 06E - 8'	N217-06N	N217 - 06S - 2'	N217 - 06S - 4'	N217 - 06S - 6'	N217 - 06S - 10'	N217 - 06S - 12'
Sample Date	11/20/2007	11/04/2013	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	9.6	3.9	7.9	6	4.4	4.8	8.9
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	50	34	43	44	35	31	22
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06S	N217-06S	N217-06W	N217-06W	N217-06W	N217-06W	N217-06W
Sample ID	N217 - 06S - 6"	N217 - 06S - 8'	N217 - 06W - 2'	N217 - 06W - 4'	N217 - 06W - 6'	N217 - 06W - 10'	N217 - 06W - 12'
Sample Date	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007	11/20/2007
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	7.5 U	NA
ARSENIC	NA	NA	NA	NA	NA	2.6	NA
BERYLLIUM	NA	NA	NA	NA	NA	0.75 U	NA
CADMIUM	NA	NA	NA	NA	NA	1.5 U	NA
CHROMIUM	NA	NA	NA	NA	NA	20	NA
COPPER	NA	NA	NA	NA	NA	9.3	NA
LEAD	13	25	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U
MERCURY	NA	NA	NA	NA	NA	0.1 U	NA
NICKEL	NA	NA	NA	NA	NA	30	NA
SELENIUM	NA	NA	NA	NA	NA	1 U	NA
SILVER	NA	NA	NA	NA	NA	1.5 U	NA
THALLIUM	NA	NA	NA	NA	NA	1 U	NA
ZINC	46	25	49	39	37	24	42
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.15 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.15 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.15 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	1 U	NA
JP-5/JP-8	NA	NA	NA	NA	NA	1 U	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	33	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-06W	N217-06W	N217-1	N217-1	N217-1	N217-2	N217-2
Sample ID	N217 - 06W - 6''	N217 - 06W - 8'	N217-1-6''	N217-1-2'	N217-1-4'	N217-2-2'	N217-2-4'
Sample Date	11/20/2007	11/20/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	7.5 U	NA	12 U	14	7.5 U	7.5 U	7.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	37	NA	55	52	27	67	40
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	NA	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.075 U	0.3 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDE	0.15 U	0.075 U	0.3 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDT	0.15 U	0.075 U	0.3 U	0.15 U	0.15 U	0.15 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-2	N217-2	N217-3	N217-3	N217-3	N217-3	N217-3
Sample ID	N217-2-6''	N217-2	N217-3-6''	N217-3-2'	N217-3-4'	N217-3-6'	N217-3-10'
Sample Date	06/22/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	0.50 - 0.50	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	7.5 U	NA	NA	NA	NA
ARSENIC	NA	NA	1.7	NA	NA	NA	NA
BERYLLIUM	NA	NA	0.75 U	NA	NA	NA	NA
CADMIUM	NA	NA	1.5 U	NA	NA	NA	NA
CHROMIUM	NA	NA	22	NA	NA	NA	NA
COPPER	NA	NA	17	NA	NA	NA	NA
LEAD	7.5 U	NA	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U
MERCURY	NA	NA	0.25	NA	NA	NA	NA
NICKEL	NA	NA	27	NA	NA	NA	NA
SELENIUM	NA	NA	1 U	NA	NA	NA	NA
SILVER	NA	NA	1.5 U	NA	NA	NA	NA
THALLIUM	NA	NA	1 U	NA	NA	NA	NA
ZINC	48	NA	70	63	34	45	40
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	NA	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.075 U	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U
4,4'-DDE	0.15 U	0.075 U	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U
4,4'-DDT	0.15 U	0.075 U	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	1 U	NA
JP-5/JP-8	NA	NA	NA	NA	NA	1 U	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	80	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-3	N217-3	N217-4	N217-4	N217-4	N217-4	N217-4
Sample ID	N217-3-8'	N217-3	N217-4-6"	N217-4-2'	N217-4-4'	N217-4-6'	N217-4-10'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6"	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	7.5 U	NA	12 U	7.5 U	7.5 U	10	7.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	47	NA	54	49	58	81	35
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	NA	0.022	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	NA	0.022	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDE	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDT	0.15 U	0.075 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6''	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6''	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6''	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6''	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-4	N217-4	N217-5	N217-5	N217-5	N217-5	N217-5
Sample ID	N217-4-8'	N217-4	N217-5-6"	N217-5-2'	N217-5-4'	N217-5-10'	N217-5-12'
Sample Date	06/23/2006	11/04/2013	06/23/2006	06/23/2006	06/23/2006	06/23/2006	06/23/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	7.5 U	NA	9.3	7.5 U	13	7.5 U	7.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	49	NA	59	57	48	36	38
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	NA	0.027	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	NA	0.027	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.075 U	0.15 U	0.3 U	0.15 U	0.075 U	0.15 U
4,4'-DDE	0.15 U	0.075 U	0.15 U	0.3 U	0.15 U	0.075 U	0.15 U
4,4'-DDT	0.15 U	0.075 U	0.15 U	0.3 U	0.15 U	0.075 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	0.2 U	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-5	N217-5	N217-6	N217-6	N217-6	N217-6	N217-6
Sample ID	N217-5-8'	N217-5	N217-6-2'	N217-6-4'	N217-6-6'	N217-6-10'	N217-6-12'
Sample Date	06/23/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	14	280	NA	9.6	11	7.6	9.3
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	68	53	NA	58	48	61	68
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.026	0.45	NA	0.09	0.08	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.1 U	NA	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.026	0.45	NA	0.09	0.08	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.15 U	0.075 U	0.15 U	0.75 U	0.3 U	0.15 U
4,4'-DDE	0.15 U	0.15 U	0.075 U	0.15 U	0.75 U	0.3 U	0.15 U
4,4'-DDT	0.15 U	0.15 U	0.075 U	0.15 U	0.75 U	0.3 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-6	N217-6	N217-6	N217-7	N217-7	N217-7	N217-7
Sample ID	N217-6-6''	N217-6-8'	N217-6	N217-7-2'	N217-7-4'	N217-7-10'	N217-7-12'
Sample Date	06/22/2006	06/22/2006	11/04/2013	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	0.00 - 1.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6"	N217-7-6'	N217-7-8'	N217-7	PEN-1-6"	PEN-1-24"	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	0.01 U	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	7.5 U	NA	NA	NA	NA	NA	NA
ARSENIC	3.9	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.75 U	NA	NA	NA	NA	NA	NA
CADMIUM	1.5 U	NA	NA	NA	NA	NA	NA
CHROMIUM	61	NA	NA	67	NA	NA	NA
COPPER	30	NA	NA	NA	NA	NA	NA
LEAD	7.5 U	7.5 U	7.5 U	NA	8.1	12 U	3
MERCURY	0.1 U	NA	NA	NA	NA	NA	NA
NICKEL	62	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA
SILVER	1.5 U	NA	NA	NA	NA	NA	NA
THALLIUM	1 U	NA	NA	NA	NA	NA	NA
ZINC	56	56	66	NA	39	32	47
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	NA	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.15 U	0.75 U	0.3 U	0.075 U	0.0033 U	0.0033 U	0.075 U
4,4'-DDE	0.15 U	0.75 U	0.3 U	0.075 U	0.0033 U	0.0033 U	0.075 U
4,4'-DDT	0.15 U	0.75 U	0.3 U	0.075 U	0.0033 U	0.0033 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6''	N217-7-6'	N217-7-8'	N217-7	PEN-1-6''	PEN-1-24''	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	1 U	NA	NA	NA	NA	NA
JP-5/JP-8	NA	1 U	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	1 U	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6''	N217-7-6'	N217-7-8'	N217-7	PEN-1-6''	PEN-1-24''	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6"	N217-7-6'	N217-7-8'	N217-7	PEN-1-6"	PEN-1-24"	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6''	N217-7-6'	N217-7-8'	N217-7	PEN-1-6''	PEN-1-24''	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	N217-7	N217-7	N217-7	N217-7	PEN-01	PEN-01	PEN-01
Sample ID	N217-7-6"	N217-7-6'	N217-7-8'	N217-7	PEN-1-6"	PEN-1-24"	PEN-1-4'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/04/2013	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.00 - 1.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	29	38	12 U	12 U	18	4.8	12 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	70	52	51	28	55	35	34
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.076	0.02 U	0.02 U	0.02 U	0.025	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.076	0 U	0 U	0 U	0.025	0 U	0 U
Pesticides							
4,4'-DDD	0.016 U	0.033 U	0.075 U	0.075 U	0.0033 U	0.0033 U	0.075 U
4,4'-DDE	0.016 U	0.033 U	0.075 U	0.075 U	0.0033 U	0.0033 U	0.075 U
4,4'-DDT	0.016 U	0.033 U	0.075 U	0.075 U	0.0033 U	0.0033 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-02	PEN-02	PEN-02	PEN-02	PEN-03	PEN-03	PEN-03
Sample ID	PEN-2-6"	PEN-2-24"	PEN-2-4'	PEN-2-6'	PEN-3-6"	PEN-3-24"	PEN-3-4'
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	12 U	NA	NA	NA
ARSENIC	NA	NA	NA	4.6	NA	NA	NA
BERYLLIUM	NA	NA	NA	1.2 U	NA	NA	NA
CADMIUM	NA	NA	NA	2.5 U	NA	NA	NA
CHROMIUM	NA	NA	NA	44	NA	NA	NA
COPPER	NA	NA	NA	19	NA	NA	NA
LEAD	5.9	3.5	12 U	12 U	6.3	9.6	7.1
MERCURY	NA	NA	NA	0.1 U	NA	NA	NA
NICKEL	NA	NA	NA	47	NA	NA	NA
SELENIUM	NA	NA	NA	1 U	NA	NA	NA
SILVER	NA	NA	NA	2.5 U	NA	NA	NA
THALLIUM	NA	NA	NA	1 U	NA	NA	NA
ZINC	75	25	39	40	67	48	49
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.022
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0.022
Pesticides							
4,4'-DDD	0.075 U	0.0033 U	0.0033 U	0.075 U	0.075 U	0.0033 U	0.0033 U
4,4'-DDE	0.075 U	0.0033 U	0.0033 U	0.075 U	0.075 U	0.0033 U	0.0033 U
4,4'-DDT	0.075 U	0.0033 U	0.0033 U	0.075 U	0.075 U	0.0033 U	0.0033 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	1 U	NA	NA	NA
JP-5/JP-8	NA	NA	NA	1 U	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	1 U	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	0.01 U	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
2-BUTANONE	NA	NA	NA	0.1 U	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	0.05 U	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	0.05 U	NA	NA	NA
ACETONE	NA	NA	NA	0.1 U	NA	NA	NA
BENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOFORM	NA	NA	NA	0.005 U	NA	NA	NA
BROMOMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROFORM	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-03	PEN-04	PEN-04	PEN-04	PEN-04	PEN-05	PEN-05
Sample ID	PEN-3-6'	PEN-4-6"	PEN-4-24"	PEN-4-4'	PEN-4-6'	PEN-5-6"	PEN-5-24"
Sample Date	06/20/2006	09/12/2005	09/12/2005	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
FREON 113	NA	NA	NA	0.005 U	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	0.005 U	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.005 U	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
NAPHTHALENE	NA	NA	NA	0.005 U	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
STYRENE	NA	NA	NA	0.005 U	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	0.01 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.01 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	3.7	7.1	6.6	14	3	4.1	22
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	51	70	52	54	41	49	73
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	1.7
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	1.7
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.033 U	0.0033 U	0.075 U	0.075 U	0.33 U
4,4'-DDE	0.075 U	0.075 U	0.033 U	0.0033 U	0.075 U	0.075 U	0.33 U
4,4'-DDT	0.075 U	0.075 U	0.033 U	0.0033 U	0.075 U	0.075 U	0.33 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-05	PEN-05	PEN-06	PEN-06	PEN-06	PEN-06	PEN-07
Sample ID	PEN-5-4'	PEN-5-6'	PEN-6-24"	PEN-6-6"	PEN-6-4'	PEN-6-6'	PEN-7-24"
Sample Date	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006	06/20/2006	08/29/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	18	12 U	3.2	4.9	18	14	2.6
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	97	49	44	44	67	60	38
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1221	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1232	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1242	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1248	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1254	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
AROCLOR-1260	0.37	0.024	0.02 U	0.19	1.8	88	0.02 U
AROCLOR-1268	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	20 U	0.02 U
TOTAL PCBS	0.37	0.024	0 U	0.19	1.8	88	0 U
Pesticides							
4,4'-DDD	0.066 U	0.075 U	0.075 U	0.075 U	0.33 U	16 U	0.075 U
4,4'-DDE	0.066 U	0.075 U	0.075 U	0.075 U	0.33 U	16 U	0.075 U
4,4'-DDT	0.066 U	0.075 U	0.075 U	0.075 U	0.33 U	16 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-07	PEN-07	PEN-07	PEN-07	PEN-08	PEN-08	PEN-08
Sample ID	PEN-7-6"	PEN-7-4'	PEN-7-6'	PEN-7-8'	PEN-8-6"	PEN-8-24"	PEN-8-10'
Sample Date	08/29/2005	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/20/2006
Sample Depth	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	2.5 U	NA	NA	NA	NA	2.5 U
ARSENIC	NA	3.1	NA	NA	NA	NA	9.3
BERYLLIUM	NA	0.31	NA	NA	NA	NA	0.38
CADMIUM	NA	0.5 U	NA	NA	NA	NA	15
CHROMIUM	NA	37	NA	NA	NA	NA	56
COPPER	NA	22	NA	NA	NA	NA	27
LEAD	7	2.5 U	12 U	3.8	15	12 U	4.6
MERCURY	NA	0.1 U	NA	NA	NA	NA	0.1 U
NICKEL	NA	38	NA	NA	NA	NA	55
SELENIUM	NA	1 U	NA	NA	NA	NA	1 U
SILVER	NA	0.5 U	NA	NA	NA	NA	0.5 U
THALLIUM	NA	1 U	NA	NA	NA	NA	1 U
ZINC	37	37	45	59	50	43	44
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.034	0.02 U	0.02 U	0.02 U	0.17	0.043	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.034	0 U	0 U	0 U	0.17	0.043	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U	0.033 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U	0.033 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U	0.033 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	1 U	NA	NA	NA	NA	1 U
JP-5/JP-8	NA	1 U	NA	NA	NA	NA	1 U
MOTOR OIL RANGE ORGANICS	NA	1 U	NA	NA	NA	NA	1 U
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,1,1-TRICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,1,2,2-TETRACHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,1,2-TRICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,1-DICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,1-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	0.005 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2,3-TRICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2,3-TRICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2,4-TRICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2,4-TRIMETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.01 U	NA	NA	NA	NA	0.01 U
1,2-DIBROMOETHANE (EDB)	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2-DICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,2-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,3,5-TRIMETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,3-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,3-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
1,4-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
2,2-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
2-BUTANONE	NA	0.1 U	NA	NA	NA	NA	0.1 U
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	0.05 U	NA	NA	NA	NA	0.05 U
4-METHYL-2-PENTANONE	NA	0.05 U	NA	NA	NA	NA	0.05 U
ACETONE	NA	0.1 U	NA	NA	NA	NA	0.1 U
BENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
BROMOBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
BROMOCHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
BROMODICHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
BROMOFORM	NA	0.005 U	NA	NA	NA	NA	0.005 U
BROMOMETHANE	NA	0.01 U	NA	NA	NA	NA	0.01 U
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	0.005 U	NA	NA	NA	NA	0.005 U
CHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
CHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
CHLOROFORM	NA	0.005 U	NA	NA	NA	NA	0.005 U
CHLOROMETHANE	NA	0.01 U	NA	NA	NA	NA	0.01 U
CIS-1,2-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	0.005 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-08	PEN-08	PEN-08	PEN-08	PEN-09	PEN-09	PEN-09
Sample ID	PEN-8-4'	PEN-8-6'	PEN-8-8'	PEN-8-12'	PEN-9-6"	PEN-9-24"	PEN-9-10'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	08/29/2005	08/29/2005	06/21/2006
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
DIBROMOCHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
DIBROMOMETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
DICHLORODIFLUOROMETHANE	NA	0.01 U	NA	NA	NA	NA	0.01 U
ETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
FREON 113	NA	0.005 U	NA	NA	NA	NA	0.005 U
HEXACHLOROBUTADIENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
ISOPROPYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
METHYL TERT-BUTYL ETHER	NA	0.005 U	NA	NA	NA	NA	0.005 U
METHYLENE CHLORIDE	NA	0.005 U	NA	NA	NA	NA	0.005 U
N-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
N-PROPYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
NAPHTHALENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
O-CHLOROTOLUENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
P-CHLOROTOLUENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
P-ISOPROPYLTOLUENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
SEC-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
STYRENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TERT-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TETRACHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TOLUENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TRANS-1,2-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TRANS-1,3-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TRICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	0.005 U
TRICHLOROFLUOROMETHANE	NA	0.005 U	NA	NA	NA	NA	0.005 U
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	0.01 U	NA	NA	NA	NA	0.01 U
XYLENE (TOTAL)	NA	0.01 U	NA	NA	NA	NA	0.01 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	21	29	3.2	12 U	2.7	5	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	60	97	32	43	22	42	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U
AROCLOR-1221	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U
AROCLOR-1232	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U
AROCLOR-1242	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U
AROCLOR-1248	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.1 U
AROCLOR-1254	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U
AROCLOR-1260	9.6	0.052	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U
AROCLOR-1268	1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U
TOTAL PCBS	9.6	0.052	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	NA
4,4'-DDE	0.075 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	NA
4,4'-DDT	1.9	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	1.9	0 U	0 U	0 U	0 U	0 U	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09	PEN-09
Sample ID	PEN-9-4'	PEN-9-6'	PEN-9-8'	PEN-9-12'	PEN-9-14'	PEN-9-16'	PEN - 9R - 14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	19	12 U	NA	NA	9.2	6.9
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	71	61	NA	NA	53	44
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	NA	0.026	0.042	0.028	0.02 U	0.02 U	0.02 U
AROCLOR-1268	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	NA	0.026	0.042	0.028	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.033 U	0.033 U	NA	NA	0.033 U	0.016 U
4,4'-DDE	0.075 U	0.033 U	0.033 U	NA	NA	0.033 U	0.016 U
4,4'-DDT	0.075 U	0.033 U	0.033 U	NA	NA	0.033 U	0.016 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	NA	NA	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-09	PEN-10	PEN-10	PEN-10	PEN-10	PEN-11	PEN-11
Sample ID	PEN - 9R - 6'	PEN-10-6"	PEN-10-24"	PEN-10R-6"	PEN-10R-2'	PEN-11-6"	PEN-11-24"
Sample Date	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	09/12/2005	09/12/2005
Sample Depth	6.00 - 6.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	4.5	6.4	12 U	11	2.6	13	18
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	64	67	41	260	43	46	51
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.077	0.025
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0.077	0.025
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.016 U	0.016 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.016 U	0.016 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.016 U	0.016 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-11	PEN-11	PEN-11	PEN-11	PEN-11	PEN-12	PEN-12
Sample ID	PEN-11-4'	PEN-11-6'	PEN-11-8'	PEN-11-10'	PEN-11-12'	PEN-12-6"	PEN-12-24"
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005	09/12/2005
Sample Depth	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	16	29	15	9.7	5.3	4.2	22
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	55	60	62	51	41	47	53
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.82	0.45	0.15	0.13	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.2 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.82	0.45	0.15	0.13	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.066 U	0.066 U	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U
4,4'-DDE	0.066 U	0.066 U	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U
4,4'-DDT	0.066 U	0.066 U	0.075 U	0.075 U	0.075 U	0.075 U	0.033 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-13	PEN-14
Sample ID	PEN-13-6"	PEN-13-24"	PEN-13-4'	PEN-13-6'	PEN-13-8'	PEN-13-10'	PEN-14-24"
Sample Date	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	09/12/2005
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	14	26	45	21	16	3.5	3.4
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	59	80	110	75	74	37	46
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.06	0.31	0.93	0.02 U	0.097	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.06	0.31	0.93	0 U	0.097	0 U	0 U
Pesticides							
4,4'-DDD	0.066 U	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.066 U	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.066 U	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-14	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15	PEN-15
Sample ID	PEN-14-6"	PEN-15-6"	PEN-15-24"	PEN-15-4'	PEN-15-6'	PEN-15-10'	PEN-15-12'
Sample Date	09/12/2005	09/12/2005	09/12/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	2.5 U	NA	NA	NA	NA
ARSENIC	NA	NA	3.1	NA	NA	NA	NA
BERYLLIUM	NA	NA	0.25 U	NA	NA	NA	NA
CADMIUM	NA	NA	0.5 U	NA	NA	NA	NA
CHROMIUM	NA	NA	22	NA	NA	NA	NA
COPPER	NA	NA	13	NA	NA	NA	NA
LEAD	67	55	4.3	4	5.7	3.8	2.5
MERCURY	NA	NA	0.1 U	NA	NA	NA	NA
NICKEL	NA	NA	27	NA	NA	NA	NA
SELENIUM	NA	NA	1 U	NA	NA	NA	NA
SILVER	NA	NA	0.5 U	NA	NA	NA	NA
THALLIUM	NA	NA	1 U	NA	NA	NA	NA
ZINC	190	140	31	55	53	46	22
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1221	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1232	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1242	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1248	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1254	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1260	0.57	0.83	0.064	0.02 U	0.02 U	0.02	0.2 U
AROCLOR-1268	0.1 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
TOTAL PCBS	0.57	0.83	0.064	0 U	0 U	0.02	0 U
Pesticides							
4,4'-DDD	0.16 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.16 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.16 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	1 U	NA	NA	NA	NA
JP-5/JP-8	NA	NA	1 U	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	1 U	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	0.005 U	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	0.005 U	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	0.005 U	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	0.01 U	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	0.005 U	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	0.005 U	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	0.005 U	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	0.005 U	NA	NA	NA	NA
2-BUTANONE	NA	NA	0.1 U	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	0.05 U	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	0.05 U	NA	NA	NA	NA
ACETONE	NA	NA	0.1 U	NA	NA	NA	NA
BENZENE	NA	NA	0.005 U	NA	NA	NA	NA
BROMOBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	0.005 U	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	0.005 U	NA	NA	NA	NA
BROMOFORM	NA	NA	0.005 U	NA	NA	NA	NA
BROMOMETHANE	NA	NA	0.01 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	0.005 U	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
CHLOROETHANE	NA	NA	0.005 U	NA	NA	NA	NA
CHLOROFORM	NA	NA	0.005 U	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	0.01 U	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	0.005 U	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16	PEN-16
Sample ID	PEN-16-6"	PEN-16-24"	PEN-16-4'	PEN-16-6'	PEN-16-8'	PEN-16-10'	PEN-16-12'
Sample Date	08/29/2005	08/29/2005	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	0.005 U	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	0.005 U	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	0.005 U	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	0.01 U	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
FREON 113	NA	NA	0.005 U	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	0.005 U	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	0.005 U	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	0.005 U	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
NAPHTHALENE	NA	NA	0.005 U	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	0.005 U	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	0.005 U	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	0.005 U	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
STYRENE	NA	NA	0.005 U	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	0.005 U	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	0.005 U	NA	NA	NA	NA
TOLUENE	NA	NA	0.005 U	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	0.005 U	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	0.005 U	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	0.005 U	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	0.005 U	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	0.01 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	0.01 U	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	11	3	7.8	12	23	2.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	59	44	50	44	40	38
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
AROCLOR-1260	0.02 U	0.08	0.065	0.02 U	0.02 U	0.028	0.2 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U
TOTAL PCBS	0 U	0.08	0.065	0 U	0 U	0.028	0 U
Pesticides							
4,4'-DDD	NA	0.033 U	0.033 U	0.075 U	0.075 U	0.3 U	0.075 U
4,4'-DDE	NA	0.033 U	0.033 U	0.075 U	0.075 U	0.3 U	0.075 U
4,4'-DDT	NA	0.033 U	0.033 U	0.075 U	0.075 U	0.3 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	NA	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-16	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17
Sample ID	PEN - 16R - 12'	PEN-17-6"	PEN-17-24"	PEN-17-4'	PEN-17-6'	PEN-17-10'	PEN-17-12'
Sample Date	11/20/2007	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12 U	NA	NA	NA	NA	7	37
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	45	NA	NA	NA	NA	57	300
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	NA	NA	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.17	0.02 U	NA	NA	0.048	0.11
AROCLOR-1268	0.02 U	0.022	0.02 U	NA	NA	0.02 U	0.02 U
TOTAL PCBS	0 U	0.192	0 U	NA	NA	0.048	0.11
Pesticides							
4,4'-DDD	0.075 U	NA	NA	0.075 U	0.075 U	0.033 U	0.033 U
4,4'-DDE	0.075 U	NA	NA	0.075 U	0.075 U	0.033 U	0.033 U
4,4'-DDT	0.075 U	NA	NA	0.075 U	0.075 U	0.033 U	0.033 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	NA	NA	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-17	PEN-17	PEN-17	PEN-17	PEN-17	PEN-18	PEN-18
Sample ID	PEN-17-8'	PEN-17R-6"	PEN-17R-2'	PEN - 17R - 10'	PEN - 17R - 12'	PEN-18-6"	PEN-18-24"
Sample Date	06/21/2006	11/07/2007	11/07/2007	11/19/2007	11/19/2007	08/29/2005	08/29/2005
Sample Depth	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12	37	12 U	4.6	2.5 U	12 U	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	100	100	37	44	37	61	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1221	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1232	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1242	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1248	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1254	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1260	0.034	0.56	0.02 U	0.02 U	0.2 U	0.2 U	0.047
AROCLOR-1268	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
TOTAL PCBS	0.034	0.56	0 U	0 U	0 U	0 U	0.047
Pesticides							
4,4'-DDD	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	NA
4,4'-DDE	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	NA
4,4'-DDT	0.033 U	0.16 U	0.075 U	0.075 U	0.075 U	0.075 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	NA
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19	PEN-19
Sample ID	PEN-19-6"	PEN-19-24"	PEN-19-6'	PEN-19-10'	PEN-19-12'	PEN-19-14'	PEN-19R-6"
Sample Date	08/29/2005	08/29/2005	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/07/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	0.50 - 0.50
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	25 U	NA	4.4	12 U	NA	NA	2.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	50 U	NA	52	72	NA	NA	26
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.022	0.036	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0.022	0.036	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	NA	0.033 U	0.033 U	NA	NA	0.075 U
4,4'-DDE	0.075 U	NA	0.033 U	0.033 U	NA	NA	0.075 U
4,4'-DDT	0.075 U	NA	0.033 U	0.033 U	NA	NA	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	NA	0 U	0 U	NA	NA	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-19	PEN-19	PEN-20	PEN-20	PEN-20	PEN-20	PEN-21
Sample ID	PEN - 19R - 8'	PEN - 19R - 12'	PEN-20-6"	PEN-20-24"	PEN-20R-6"	PEN-20R-2'	PEN-21-10'
Sample Date	11/19/2007	11/19/2007	08/29/2005	08/29/2005	11/07/2007	11/07/2007	06/20/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	0.50 - 0.50	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6"	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	9.8	5.6	12 U	2.5	4.3	4.4	2.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	57	43	47	27	61	48	35
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6"	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6''	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6''	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6"	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-21	PEN-21	PEN-21	PEN-21	PEN-21	PEN-22	PEN-22
Sample ID	PEN-21-6"	PEN-21-2'	PEN-21-4'	PEN-21-6'	PEN-21-8'	PEN-22-10'	PEN-22-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6"	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	2.5 U	NA	NA	NA	NA	NA
ARSENIC	NA	3.6	NA	NA	NA	NA	NA
BERYLLIUM	NA	0.43	NA	NA	NA	NA	NA
CADMIUM	NA	0.5 U	NA	NA	NA	NA	NA
CHROMIUM	NA	60	NA	NA	NA	NA	NA
COPPER	NA	40	NA	NA	NA	NA	NA
LEAD	79	35	24	3.7	2.9	23	3.9
MERCURY	NA	0.1 U	NA	NA	NA	NA	NA
NICKEL	NA	59	NA	NA	NA	NA	NA
SELENIUM	NA	1 U	NA	NA	NA	NA	NA
SILVER	NA	1	NA	NA	NA	NA	NA
THALLIUM	NA	1 U	NA	NA	NA	NA	NA
ZINC	160	120	140	49	36	64	35
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.6	0.47	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.26	0.2	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.86	0.67	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.3 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.3 U	0.075 U
4,4'-DDT	0.3	0.13	0.075 U	0.075 U	0.075 U	0.3 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6''	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0.3	0.13	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	1 U	NA	NA	NA	NA	NA
JP-5/JP-8	NA	1 U	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	11	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6''	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6"	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6"	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	0.01 U	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	0.005 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	0.005 U	NA	NA	NA	NA	NA
2-BUTANONE	NA	0.1 U	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	0.05 U	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	0.05 U	NA	NA	NA	NA	NA
ACETONE	NA	0.1 U	NA	NA	NA	NA	NA
BENZENE	NA	0.005 U	NA	NA	NA	NA	NA
BROMOBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	NA
BROMOFORM	NA	0.005 U	NA	NA	NA	NA	NA
BROMOMETHANE	NA	0.01 U	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	0.005 U	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
CHLOROETHANE	NA	0.005 U	NA	NA	NA	NA	NA
CHLOROFORM	NA	0.005 U	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	0.01 U	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-22	PEN-22	PEN-22	PEN-22	PEN-22	PEN-23	PEN-23
Sample ID	PEN-22-6''	PEN-22-2'	PEN-22-4'	PEN-22-6'	PEN-22-8'	PEN-23-10'	PEN-23-12'
Sample Date	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	0.005 U	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	0.005 U	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	0.01 U	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
FREON 113	NA	0.005 U	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	0.005 U	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	0.005 U	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	0.005 U	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
NAPHTHALENE	NA	0.005 U	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	0.005 U	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	0.005 U	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	0.005 U	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
STYRENE	NA	0.005 U	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	0.005 U	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	NA
TOLUENE	NA	0.005 U	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	0.005 U	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	0.005 U	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	0.005 U	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	0.01 U	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.01 U	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	2.5 U	NA	NA	NA	NA
ARSENIC	NA	NA	6.5	NA	NA	NA	NA
BERYLLIUM	NA	NA	0.36	NA	NA	NA	NA
CADMIUM	NA	NA	0.5 U	NA	NA	NA	NA
CHROMIUM	NA	NA	55	NA	NA	NA	NA
COPPER	NA	NA	31	NA	NA	NA	NA
LEAD	36	42	48	23	NA	NA	NA
MERCURY	NA	NA	0.32	NA	NA	NA	NA
NICKEL	NA	NA	43	NA	NA	NA	NA
SELENIUM	NA	NA	1 U	NA	NA	NA	NA
SILVER	NA	NA	0.5 U	NA	NA	NA	NA
THALLIUM	NA	NA	1 U	NA	NA	NA	NA
ZINC	100	91	89	60	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	NA	0.02 U	NA
AROCLOR-1260	0.16	0.18	0.17	0.046	NA	0.5	NA
AROCLOR-1268	0.048	0.042	0.043	0.02 U	NA	0.22	NA
TOTAL PCBS	0.208	0.222	0.213	0.046	NA	0.72	NA
Pesticides							
4,4'-DDD	0.15 U	0.15 U	0.15 U	0.3 U	0.075 U	NA	0.075 U
4,4'-DDE	0.15 U	0.15 U	0.15 U	0.3 U	0.075 U	NA	0.075 U
4,4'-DDT	0.15 U	0.15 U	0.15 U	0.3 U	0.075 U	NA	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	NA	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	1 U	NA	NA	NA	NA
JP-5/JP-8	NA	NA	1 U	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	29	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23	PEN-23
Sample ID	PEN-23-6"	PEN-23-2'	PEN-23-4'	PEN-23-6'	PEN-23R-6"	PEN-23R-6"	PEN - 23R - 10'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	0.50 - 0.50	0.50 - 0.50	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	2.5 U	NA	NA	NA
ARSENIC	NA	NA	NA	3.7	NA	NA	NA
BERYLLIUM	NA	NA	NA	0.49	NA	NA	NA
CADMIUM	NA	NA	NA	0.5 U	NA	NA	NA
CHROMIUM	NA	NA	NA	56	NA	NA	NA
COPPER	NA	NA	NA	28	NA	NA	NA
LEAD	NA	22	5.5	5.5	3.6	6.3	3
MERCURY	NA	NA	NA	0.1 U	NA	NA	NA
NICKEL	NA	NA	NA	57	NA	NA	NA
SELENIUM	NA	NA	NA	1 U	NA	NA	NA
SILVER	NA	NA	NA	0.5 U	NA	NA	NA
THALLIUM	NA	NA	NA	1 U	NA	NA	NA
ZINC	NA	56	51	47	45	57	38
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	NA	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1221	NA	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1232	NA	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1242	NA	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1248	NA	0.1 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1254	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1260	NA	0.02 U	1.1	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1268	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
TOTAL PCBS	NA	0 U	1.1	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.48	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0.48	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	1 U	NA	NA	NA
JP-5/JP-8	NA	NA	NA	1 U	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	29	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	0.01 U	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
2-BUTANONE	NA	NA	NA	0.1 U	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	0.05 U	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	0.05 U	NA	NA	NA
ACETONE	NA	NA	NA	0.1 U	NA	NA	NA
BENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOFORM	NA	NA	NA	0.005 U	NA	NA	NA
BROMOMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROFORM	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-23	PEN-23	PEN-24	PEN-24	PEN-24	PEN-24	PEN-24
Sample ID	PEN - 23R - 6'	PEN - 23R - 8'	PEN-24-2'	PEN-24-4'	PEN-24-6'	PEN-24-10'	PEN-24-12'
Sample Date	11/19/2007	11/19/2007	06/20/2006	06/20/2006	06/20/2006	06/20/2006	06/20/2006
Sample Depth	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
FREON 113	NA	NA	NA	0.005 U	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	0.005 U	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.005 U	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
NAPHTHALENE	NA	NA	NA	0.005 U	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
STYRENE	NA	NA	NA	0.005 U	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	0.01 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.01 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6"	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	2.5 U	NA
ARSENIC	NA	NA	NA	NA	NA	4.7	NA
BERYLLIUM	NA	NA	NA	NA	NA	0.61	NA
CADMIUM	NA	NA	NA	NA	NA	0.5 U	NA
CHROMIUM	NA	NA	NA	NA	NA	70	NA
COPPER	NA	NA	NA	NA	NA	34	NA
LEAD	15	5.2	NA	29	2.5 U	9.6	17
MERCURY	NA	NA	NA	NA	NA	0.17	NA
NICKEL	NA	NA	NA	NA	NA	73	NA
SELENIUM	NA	NA	NA	NA	NA	1 U	NA
SILVER	NA	NA	NA	NA	NA	0.5 U	NA
THALLIUM	NA	NA	NA	NA	NA	1 U	NA
ZINC	73	59	NA	94	5 U	65	48
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1221	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1232	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1242	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1248	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1254	0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	0.2 U	0.2 U
AROCLOR-1260	0.31	0.02 U	0.36	0.088	0.02 U	0.2 U	0.057
AROCLOR-1268	0.02 U	0.02 U	0.059	0.026	0.2 U	0.2 U	0.02 U
TOTAL PCBS	0.31	0 U	0.419	0.114	0 U	0 U	0.057
Pesticides							
4,4'-DDD	0.075 U	0.075 U	NA	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	NA	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	NA	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6''	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	NA	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	1 U	NA
JP-5/JP-8	NA	NA	NA	NA	NA	1 U	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	1 U	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6''	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6''	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	0.005 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6''	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	0.005 U	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	0.005 U	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	0.01 U	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	0.005 U	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	0.005 U	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	0.005 U	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	0.005 U	NA
2-BUTANONE	NA	NA	NA	NA	NA	0.1 U	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	0.05 U	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	0.05 U	NA
ACETONE	NA	NA	NA	NA	NA	0.1 U	NA
BENZENE	NA	NA	NA	NA	NA	0.005 U	NA
BROMOBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	0.005 U	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	0.005 U	NA
BROMOFORM	NA	NA	NA	NA	NA	0.005 U	NA
BROMOMETHANE	NA	NA	NA	NA	NA	0.01 U	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	0.005 U	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
CHLOROETHANE	NA	NA	NA	NA	NA	0.005 U	NA
CHLOROFORM	NA	NA	NA	NA	NA	0.005 U	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	0.01 U	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	0.005 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-24	PEN-24	PEN-24	PEN-25	PEN-25	PEN-25	PEN-25
Sample ID	PEN-24-6''	PEN-24-8'	PEN - 24R - 10'	PEN-25-0'	PEN-25-10'	PEN-25-12'	PEN-25-14'
Sample Date	06/20/2006	06/20/2006	11/20/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	0.00 - 0.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	0.005 U	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	0.005 U	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	0.005 U	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	0.01 U	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
FREON 113	NA	NA	NA	NA	NA	0.005 U	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	0.005 U	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	0.005 U	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	0.005 U	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
NAPHTHALENE	NA	NA	NA	NA	NA	0.005 U	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	0.005 U	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	0.005 U	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	0.005 U	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
STYRENE	NA	NA	NA	NA	NA	0.005 U	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	0.005 U	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	0.005 U	NA
TOLUENE	NA	NA	NA	NA	NA	0.005 U	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	0.005 U	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	0.005 U	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	0.005 U	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	0.005 U	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	0.01 U	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	0.01 U	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	49	9.2	2.5 U	2.5 U	NA	NA	12 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	95	52	5 U	5 U	NA	NA	66
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.099
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0 U	0 U	0 U	0 U	0 U	0.099
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	NA	NA	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	NA	NA	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	NA	NA	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	NA	NA	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-25	PEN-26
Sample ID	PEN-25-2'	PEN-25-4'	PEN-25-6'	PEN-25-8'	PEN - 25R - 10'	PEN - 25R - 12'	PEN-26-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	11	21	12 U	9.8	7.4	7.9	13
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	70	68	60	76	62	57	87
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	10 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.1	180	0.065	0.67	0.63	0.02 U	0.048
AROCLOR-1268	0.02 U	20 U	0.02 U	0.1 U	0.1 U	0.02 U	0.02 U
TOTAL PCBS	0.1	180	0.065	0.67	0.63	0 U	0.048
Pesticides							
4,4'-DDD	0.075 U	0.15 U	0.075 U	0.15 U	0.15 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.15 U	0.075 U	0.15 U	0.15 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	35	0.075 U	0.14	0.15 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	35	0 U	0.14	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-26	PEN-27
Sample ID	PEN-26-2'	PEN-26-4'	PEN-26-6'	PEN-26-8'	PEN-26-10'	PEN-26-12'	PEN-27-0'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	0.00 - 0.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12 U	2.5 U	12 U	12 U	12	14	5
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	54	18	54	52	54	33	44
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1221	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1232	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1242	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1248	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1254	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
AROCLOR-1260	0.02 U	52	0.02 U	0.094	0.2 U	0.2 U	0.02 U
AROCLOR-1268	0.02 U	10 U	0.02 U	0.02 U	0.2 U	0.2 U	0.02 U
TOTAL PCBS	0 U	52	0 U	0.094	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	16	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	16	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27	PEN-27
Sample ID	PEN-27-2'	PEN-27-4'	PEN-27-6'	PEN-27-10'	PEN-27-12'	PEN-27-14'	PEN-27-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	2.5 U	NA	NA	NA	NA	NA	NA
ARSENIC	4.1	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.58	NA	NA	NA	NA	NA	NA
CADMIUM	0.5 U	NA	NA	NA	NA	NA	NA
CHROMIUM	60	NA	NA	NA	NA	NA	NA
COPPER	29	NA	NA	NA	NA	NA	NA
LEAD	5.1	NA	NA	19	8.1	12 U	12 U
MERCURY	0.16	NA	NA	NA	NA	NA	NA
NICKEL	56	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA
SILVER	0.5 U	NA	NA	NA	NA	NA	NA
THALLIUM	1 U	NA	NA	NA	NA	NA	NA
ZINC	48	NA	NA	75	34	83	78
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.02 U	0.023	0.02 U	0.2	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0 U	0.023	0 U	0.2	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	NA	NA	0.075 U	0.75 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	NA	NA	0.075 U	0.75 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	NA	NA	0.075 U	0.75 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	NA	NA	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	1 U	NA	NA	NA	NA	NA	NA
JP-5/JP-8	1 U	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	27	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.005 U	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	0.005 U	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	0.005 U	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	0.01 U	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	0.005 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	0.005 U	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	0.005 U	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	0.005 U	NA	NA	NA	NA	NA	NA
2-BUTANONE	0.1 U	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	0.05 U	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	0.05 U	NA	NA	NA	NA	NA	NA
ACETONE	0.1 U	NA	NA	NA	NA	NA	NA
BENZENE	0.005 U	NA	NA	NA	NA	NA	NA
BROMOBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	0.005 U	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	0.005 U	NA	NA	NA	NA	NA	NA
BROMOFORM	0.005 U	NA	NA	NA	NA	NA	NA
BROMOMETHANE	0.01 U	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	0.005 U	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
CHLOROETHANE	0.005 U	NA	NA	NA	NA	NA	NA
CHLOROFORM	0.005 U	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	0.01 U	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	0.005 U	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-27	PEN-27	PEN-27	PEN-28	PEN-28	PEN-28	PEN-28
Sample ID	PEN-27-8'	PEN - 27R - 12'	PEN - 27R - 14'	PEN-28-2'	PEN-28-4'	PEN-28-10'	PEN-28-12'
Sample Date	06/21/2006	11/19/2007	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	8.00 - 8.00	12.00 - 12.00	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	0.005 U	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	0.005 U	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	0.005 U	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	0.01 U	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
FREON 113	0.005 U	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	0.005 U	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	0.005 U	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	0.005 U	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
NAPHTHALENE	0.005 U	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	0.005 U	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	0.005 U	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	0.005 U	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
STYRENE	0.005 U	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	0.005 U	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	0.005 U	NA	NA	NA	NA	NA	NA
TOLUENE	0.005 U	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	0.005 U	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	0.005 U	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	0.005 U	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	0.005 U	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.01 U	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	0.01 U	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	12 U	NA	NA
ARSENIC	NA	NA	NA	NA	2.8	NA	NA
BERYLLIUM	NA	NA	NA	NA	1.2 U	NA	NA
CADMIUM	NA	NA	NA	NA	2.5 U	NA	NA
CHROMIUM	NA	NA	NA	NA	110	NA	NA
COPPER	NA	NA	NA	NA	57	NA	NA
LEAD	4	31	12 U	NA	15	12 U	12 U
MERCURY	NA	NA	NA	NA	0.11	NA	NA
NICKEL	NA	NA	NA	NA	120	NA	NA
SELENIUM	NA	NA	NA	NA	1 U	NA	NA
SILVER	NA	NA	NA	NA	2.5 U	NA	NA
THALLIUM	NA	NA	NA	NA	1 U	NA	NA
ZINC	51	130	74	NA	110	84	83
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	NA	0.02 U	0.02 U	0.2 U
AROCLOR-1260	0.02 U	0.078	0.02 U	NA	0.066	0.02 U	0.2 U
AROCLOR-1268	0.02 U	0.026	0.02 U	NA	0.02 U	0.02 U	0.2 U
TOTAL PCBS	0 U	0.104	0 U	NA	0.066	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	1 U	NA	NA
JP-5/JP-8	NA	NA	NA	NA	1 U	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	10	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	0.005 U	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	0.005 U	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	0.005 U	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	0.01 U	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	0.005 U	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	0.005 U	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	0.005 U	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	0.005 U	NA	NA
2-BUTANONE	NA	NA	NA	NA	0.1 U	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	0.05 U	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	0.05 U	NA	NA
ACETONE	NA	NA	NA	NA	0.1 U	NA	NA
BENZENE	NA	NA	NA	NA	0.005 U	NA	NA
BROMOBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	0.005 U	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	0.005 U	NA	NA
BROMOFORM	NA	NA	NA	NA	0.005 U	NA	NA
BROMOMETHANE	NA	NA	NA	NA	0.01 U	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	0.005 U	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
CHLOROETHANE	NA	NA	NA	NA	0.005 U	NA	NA
CHLOROFORM	NA	NA	NA	NA	0.005 U	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	0.01 U	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	0.005 U	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-28	PEN-28	PEN-28	PEN-28	PEN-29	PEN-29	PEN-29
Sample ID	PEN-28-6''	PEN-28-6'	PEN-28-8'	PEN - 28R - 4'	PEN-29-2'	PEN-29-4'	PEN-29-10'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	4.00 - 4.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	0.005 U	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	0.005 U	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	0.005 U	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	0.01 U	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
FREON 113	NA	NA	NA	NA	0.005 U	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	0.005 U	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	0.005 U	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	0.005 U	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
NAPHTHALENE	NA	NA	NA	NA	0.005 U	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	0.005 U	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	0.005 U	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	0.005 U	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
STYRENE	NA	NA	NA	NA	0.005 U	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	0.005 U	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	0.005 U	NA	NA
TOLUENE	NA	NA	NA	NA	0.005 U	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	0.005 U	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	0.005 U	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	0.005 U	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	0.005 U	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	0.01 U	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	0.01 U	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	2.5 U	NA	NA	NA
ARSENIC	NA	NA	NA	3.4	NA	NA	NA
BERYLLIUM	NA	NA	NA	0.25 U	NA	NA	NA
CADMIUM	NA	NA	NA	0.5 U	NA	NA	NA
CHROMIUM	NA	NA	NA	35	NA	NA	NA
COPPER	NA	NA	NA	25	NA	NA	NA
LEAD	18	140	13	4.6	4.3	4.5	3
MERCURY	NA	NA	NA	0.1 U	NA	NA	NA
NICKEL	NA	NA	NA	47	NA	NA	NA
SELENIUM	NA	NA	NA	1 U	NA	NA	NA
SILVER	NA	NA	NA	0.5 U	NA	NA	NA
THALLIUM	NA	NA	NA	1 U	NA	NA	NA
ZINC	130	110	94	38	40	33	38
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	0.064	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	0.064	0 U	0 U	0 U	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.75 U	0.75 U	0.75 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.75 U	0.75 U	0.75 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.75 U	0.75 U	0.75 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	1 U	NA	NA	NA
JP-5/JP-8	NA	NA	NA	1 U	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	400	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	0.01 U	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
2-BUTANONE	NA	NA	NA	0.1 U	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	0.05 U	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	0.05 U	NA	NA	NA
ACETONE	NA	NA	NA	0.1 U	NA	NA	NA
BENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOFORM	NA	NA	NA	0.005 U	NA	NA	NA
BROMOMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROFORM	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-29	PEN-29	PEN-29	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-29-6''	PEN-29-6'	PEN-29-8'	PEN-30-10'	PEN-30-12'	PEN-30-14'	PEN-30-16'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00	16.00 - 16.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
FREON 113	NA	NA	NA	0.005 U	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	0.005 U	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.005 U	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
NAPHTHALENE	NA	NA	NA	0.005 U	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
STYRENE	NA	NA	NA	0.005 U	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	0.01 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.01 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12 U	24	31	67	5.4	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	90	70	58	58	48	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1221	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1232	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1242	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1248	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1254	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
AROCLOR-1260	0.36	2	0.38	0.032	0.077	NA	NA
AROCLOR-1268	0.1 U	0.4 U	0.1 U	0.02 U	0.02 U	NA	NA
TOTAL PCBS	0.36	2	0.38	0.032	0.077	NA	NA
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.46	0.079	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0.46	0.079	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30	PEN-30
Sample ID	PEN-30-6''	PEN-30-2'	PEN-30-4'	PEN-30-6'	PEN-30-8'	PEN - 30R - 10'	PEN - 30R - 12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	2.5 U	NA	NA	NA
ARSENIC	NA	NA	NA	4.1	NA	NA	NA
BERYLLIUM	NA	NA	NA	1.2 U	NA	NA	NA
CADMIUM	NA	NA	NA	2.5 U	NA	NA	NA
CHROMIUM	NA	NA	NA	58	NA	NA	NA
COPPER	NA	NA	NA	26	NA	NA	NA
LEAD	NA	55	12	12 U	4.5	25	8.3
MERCURY	NA	NA	NA	0.11	NA	NA	NA
NICKEL	NA	NA	NA	60	NA	NA	NA
SELENIUM	NA	NA	NA	1 U	NA	NA	NA
SILVER	NA	NA	NA	2.5 U	NA	NA	NA
THALLIUM	NA	NA	NA	1 U	NA	NA	NA
ZINC	NA	62	74	49	47	62	66
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1221	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1232	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1242	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1248	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1254	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
AROCLOR-1260	NA	0.023	0.02 U	0.02 U	0.039	0.02 U	0.02 U
AROCLOR-1268	NA	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
TOTAL PCBS	NA	0.023	0 U	0 U	0.039	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	1 U	NA	NA	NA
JP-5/JP-8	NA	NA	NA	1 U	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	43	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	0.01 U	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	0.005 U	NA	NA	NA
2-BUTANONE	NA	NA	NA	0.1 U	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	0.05 U	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	0.05 U	NA	NA	NA
ACETONE	NA	NA	NA	0.1 U	NA	NA	NA
BENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
BROMOFORM	NA	NA	NA	0.005 U	NA	NA	NA
BROMOMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROETHANE	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROFORM	NA	NA	NA	0.005 U	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-30	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32	PEN-32
Sample ID	PEN - 30R - 14'	PEN-32-2'	PEN-32-4'	PEN-32-6'	PEN-32-10'	PEN-32-12'	PEN-32-14'
Sample Date	11/19/2007	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	14.00 - 14.00	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	0.01 U	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
FREON 113	NA	NA	NA	0.005 U	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	0.005 U	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	0.005 U	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	0.005 U	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
NAPHTHALENE	NA	NA	NA	0.005 U	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
STYRENE	NA	NA	NA	0.005 U	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	0.005 U	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TOLUENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	0.005 U	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.005 U	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	0.01 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.01 U	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6"	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	9.6	6.2	24	45	7.9	29	2.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	50	58	64	68	50	71	40
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	1 U
AROCLOR-1260	0.02 U	0.028	0.1	0.054	0.056	0.02 U	1 U
AROCLOR-1268	0.02 U	0.02 U	0.02 U	0.02 U	0.1 U	0.02 U	1 U
TOTAL PCBS	0 U	0.028	0.1	0.054	0.056	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.075 U	0.075 U	0.75 U	0.75 U	0.075 U
4,4'-DDE	0.075 U	0.075 U	0.075 U	0.075 U	0.75 U	0.75 U	0.075 U
4,4'-DDT	0.075 U	0.075 U	0.075 U	0.075 U	0.18	0.75 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6''	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0.18	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6"	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6"	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6"	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-32	PEN-32	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33
Sample ID	PEN-32-6"	PEN-32-8'	PEN-33-2'	PEN-33-4'	PEN-33-10'	PEN-33-12'	PEN-33-14'
Sample Date	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006	06/21/2006
Sample Depth	0.50 - 0.50	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12 U	10	19	NA	NA	53	12
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	40	91	38	NA	NA	53	33
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1221	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1232	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1242	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1248	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1254	0.02 U	0.1 U	0.04 U	NA	NA	0.02 U	0.2 U
AROCLOR-1260	0.02 U	0.55	0.084	NA	NA	0.02 U	0.094
AROCLOR-1268	0.02 U	0.1 U	0.12	NA	NA	0.02 U	0.02 U
TOTAL PCBS	0 U	0.55	0.204	NA	NA	0 U	0.094
Pesticides							
4,4'-DDD	0.075 U	0.75 U	0.75 U	0.075 U	0.075 U	0.075 U	0.15 U
4,4'-DDE	0.075 U	0.75 U	0.75 U	0.075 U	0.075 U	0.075 U	0.15 U
4,4'-DDT	0.075 U	0.19	0.75 U	0.075 U	0.075 U	0.075 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0.19	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-33	PEN-33	PEN-33	PEN-33	PEN-33	PEN-34	PEN-34
Sample ID	PEN-33-6''	PEN-33-6'	PEN-33-8'	PEN - 33R - 8'	PEN - 33R - 12'	PEN-34-10'	PEN-34-12'
Sample Date	06/21/2006	06/21/2006	06/21/2006	11/19/2007	11/19/2007	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	8.00 - 8.00	12.00 - 12.00	10.00 - 10.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6"	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	12	17	36	11	15	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	61	88	82	54	52	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	NA	NA
AROCLOR-1260	0.19	0.1	0.05	0.16	0.027	NA	NA
AROCLOR-1268	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U	NA	NA
TOTAL PCBS	0.19	0.1	0.05	0.16	0.027	NA	NA
Pesticides							
4,4'-DDD	0.075 U	0.15 U	0.15 U	0.075 U	0.15 U	0.075 U	0.075 U
4,4'-DDE	0.075 U	0.15 U	0.15 U	0.075 U	0.15 U	0.075 U	0.075 U
4,4'-DDT	0.082	0.15 U	0.15 U	0.087	0.15 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6"	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0.082	0 U	0 U	0.087	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6''	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6"	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6"	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34	PEN-34
Sample ID	PEN-34-6"	PEN-34-2'	PEN-34-4'	PEN-34-6'	PEN-34-8'	PEN-34R-2'	PEN - 34R - 12'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	8.00 - 8.00	2.00 - 2.00	12.00 - 12.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	NA	NA	11	9.8	26	7.6	7.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	NA	NA	53	80	54	71	51
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1221	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1232	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1242	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1248	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1254	NA	NA	0.02 U	0.02 U	0.02 U	0.02 U	1 U
AROCLOR-1260	NA	NA	0.2	0.97	0.02 U	0.02 U	1 U
AROCLOR-1268	NA	NA	0.1 U	0.2 U	0.02 U	0.02 U	1 U
TOTAL PCBS	NA	NA	0.2	0.97	0 U	0 U	0 U
Pesticides							
4,4'-DDD	0.075 U	0.075 U	0.15 U	0.15 U	0.15 U	0.075 U	0.15 U
4,4'-DDE	0.075 U	0.075 U	0.15 U	0.15 U	0.15 U	0.075 U	0.15 U
4,4'-DDT	0.075 U	0.075 U	0.078	0.2	0.15 U	0.075 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0.078	0.2	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-34	PEN-34	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN - 34R - 4'	PEN - 34R - 8'	PEN-35-2'	PEN-35-4'	PEN-35-10'	PEN-35-12'	PEN-35-14'
Sample Date	11/19/2007	11/19/2007	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	4.00 - 4.00	8.00 - 8.00	2.00 - 2.00	4.00 - 4.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	7.5 U	NA	NA	NA	NA	NA	NA
ARSENIC	4.8	NA	NA	NA	NA	NA	NA
BERYLLIUM	0.75 U	NA	NA	NA	NA	NA	NA
CADMIUM	1.5 U	NA	NA	NA	NA	NA	NA
CHROMIUM	59	NA	NA	NA	NA	NA	NA
COPPER	33	NA	NA	NA	NA	NA	NA
LEAD	7.5 U	210	10	NA	NA	NA	NA
MERCURY	0.11	NA	NA	NA	NA	NA	NA
NICKEL	60	NA	NA	NA	NA	NA	NA
SELENIUM	1 U	NA	NA	NA	NA	NA	NA
SILVER	1.5 U	NA	NA	NA	NA	NA	NA
THALLIUM	1 U	NA	NA	NA	NA	NA	NA
ZINC	70	54	54	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.1 U
AROCLOR-1260	0.057	0.02 U	0.022	NA	NA	NA	0.65
AROCLOR-1268	0.02 U	0.02 U	0.02 U	NA	NA	NA	0.11
TOTAL PCBS	0.057	0 U	0.022	NA	NA	NA	0.76
Pesticides							
4,4'-DDD	0.15 U	0.15 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.15 U	0.15 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.15 U	0.15 U	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	1 U	NA	NA	NA	NA	NA	NA
JP-5/JP-8	1 U	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	20	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35	PEN-35
Sample ID	PEN-35-6''	PEN-35-6'	PEN-35-8'	PEN-35R-6''	PEN - 35R - 8'	PEN - 35R - 10'	PEN - 35R - 14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	0.50 - 0.50	6.00 - 6.00	8.00 - 8.00	0.50 - 0.50	8.00 - 8.00	10.00 - 10.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6"	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	15	7.5 U	18	7.5 U	7.5 U	7.5 U	7.5 U
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	95	39	84	57	39	74	41
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1221	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1232	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1242	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1248	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1254	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U
AROCLOR-1260	0.049	1.5	0.14	0.02 U	0.036	0.2 U	0.031
AROCLOR-1268	0.02 U	0.4 U	0.022	0.02 U	0.02 U	0.2 U	0.02 U
TOTAL PCBS	0.049	1.5	0.162	0 U	0.036	0 U	0.031
Pesticides							
4,4'-DDD	0.075 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDE	0.075 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
4,4'-DDT	0.075 U	0.45	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6''	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0.45	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6''	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6''	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6''	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-6"	PEN-36-2'	PEN-36-4'	PEN-36-6'	PEN-36-10'	PEN-36-12'	PEN-36-14'
Sample Date	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006	06/22/2006
Sample Depth	0.50 - 0.50	2.00 - 2.00	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Chromium VI (mg/kg)							
HEXAVALENT CHROMIUM	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
ANTIMONY	NA	NA	NA	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA	NA	NA	NA
COPPER	NA	NA	NA	NA	NA	NA	NA
LEAD	29	NA	NA	NA	NA	NA	NA
MERCURY	NA	NA	NA	NA	NA	NA	NA
NICKEL	NA	NA	NA	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA	NA	NA	NA
SILVER	NA	NA	NA	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA	NA	NA	NA
ZINC	65	NA	NA	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)							
PCBs							
AROCLOR-1016	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1221	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1232	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1242	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1248	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1254	0.02 U	NA	NA	NA	NA	0.04 U	NA
AROCLOR-1260	0.1	NA	NA	NA	NA	0.25	NA
AROCLOR-1268	0.02 U	NA	NA	NA	NA	0.046	NA
TOTAL PCBS	0.1	NA	NA	NA	NA	0.296	NA
Pesticides							
4,4'-DDD	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDE	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U
4,4'-DDT	0.15 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U	0.075 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
PCBs/Pesticides (mg/kg)							
Pesticides							
ALDRIN	NA	NA	NA	NA	NA	NA	NA
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA
BETA-BHC	NA	NA	NA	NA	NA	NA	NA
CHLORDANE	NA	NA	NA	NA	NA	NA	NA
DELTA-BHC	NA	NA	NA	NA	NA	NA	NA
DIELDRIN	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA
ENDRIN	NA	NA	NA	NA	NA	NA	NA
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA
GAMMA-BHC (LINDANE)	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR	NA	NA	NA	NA	NA	NA	NA
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA
TOTAL DDT	0 U	0 U	0 U	0 U	0 U	0 U	0 U
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Semivolatile Organic Compounds (mg/kg)							
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)							
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36	PEN-36
Sample ID	PEN-36-8'	PEN-36R-6"	PEN - 36R - 4'	PEN - 36R - 6'	PEN - 36R - 10'	PEN - 36R - 12'	PEN - 36R - 14'
Sample Date	06/22/2006	11/07/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007	11/19/2007
Sample Depth	8.00 - 8.00	0.50 - 0.50	4.00 - 4.00	6.00 - 6.00	10.00 - 10.00	12.00 - 12.00	14.00 - 14.00
Volatile Organic Compounds (mg/kg)							
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
Chromium VI (mg/kg)				
HEXAVALENT CHROMIUM	NA	NA	NA	NA
Metals (mg/kg)				
ANTIMONY	NA	NA	NA	NA
ARSENIC	NA	NA	NA	NA
BERYLLIUM	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA
CHROMIUM	NA	NA	NA	NA
COPPER	NA	NA	NA	NA
LEAD	NA	7.5	4	4
MERCURY	NA	0.093	0.021	0.018
NICKEL	NA	NA	NA	NA
SELENIUM	NA	NA	NA	NA
SILVER	NA	NA	NA	NA
THALLIUM	NA	NA	NA	NA
ZINC	NA	NA	NA	NA
PCBs/Pesticides (mg/kg)				
PCBs				
AROCLOR-1016	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1221	NA	0.08 U	0.08 U	0.08 U
AROCLOR-1232	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1242	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1248	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1254	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1260	NA	0.02 U	0.02 U	0.02 U
AROCLOR-1268	NA	NA	NA	NA
TOTAL PCBS	NA	0 U	0 U	0 U
Pesticides				
4,4'-DDD	0.075 U	0.0092	0.006 U	0.006 U
4,4'-DDE	0.075 U	0.002 U	0.002 U	0.002 U
4,4'-DDT	0.075 U	0.006 U	0.006 U	0.006 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
PCBs/Pesticides (mg/kg)				
Pesticides				
ALDRIN	NA	0.001 U	0.001 U	0.001 U
ALPHA-BHC	NA	0.001 U	0.001 U	0.001 U
BETA-BHC	NA	0.001 U	0.001 U	0.001 U
CHLORDANE	NA	0.02 U	0.02 U	0.02 U
DELTA-BHC	NA	0.001 U	0.001 U	0.001 U
DIELDRIN	NA	0.002 U	0.002 U	0.002 U
ENDOSULFAN I	NA	0.002 U	0.002 U	0.002 U
ENDOSULFAN II	NA	0.002 U	0.002 U	0.002 U
ENDOSULFAN SULFATE	NA	0.006 U	0.006 U	0.006 U
ENDRIN	NA	0.002 U	0.002 U	0.002 U
ENDRIN ALDEHYDE	NA	0.006 U	0.006 U	0.006 U
GAMMA-BHC (LINDANE)	NA	0.001 U	0.001 U	0.001 U
HEPTACHLOR	NA	0.001 U	0.001 U	0.001 U
HEPTACHLOR EPOXIDE	NA	0.001 U	0.001 U	0.001 U
METHOXYCHLOR	NA	0.02 U	0.02 U	0.02 U
TOXAPHENE	NA	0.08 U	0.08 U	0.08 U
TOTAL DDT	0 U	0.0092	0 U	0 U
Petroleum Hydrocarbons (mg/kg)				
Diesel/Motor Oil Range (extractables)				
DIESEL RANGE ORGANICS	NA	NA	NA	NA
JP-5/JP-8	NA	NA	NA	NA
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)				
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA
2,2'-OXYBIS(1-CHLOROPROPANE)	NA	NA	NA	NA
2,4,5-TRICHLOROPHENOL	NA	NA	NA	NA
2,4,6-TRICHLOROPHENOL	NA	NA	NA	NA
2,4-DICHLOROPHENOL	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
Semivolatile Organic Compounds (mg/kg)				
2,4-DIMETHYLPHENOL	NA	NA	NA	NA
2,4-DINITROPHENOL	NA	NA	NA	NA
2,4-DINITROTOLUENE	NA	NA	NA	NA
2,6-DINITROTOLUENE	NA	NA	NA	NA
2-CHLORONAPHTHALENE	NA	NA	NA	NA
2-CHLOROPHENOL	NA	NA	NA	NA
2-METHYLNAPHTHALENE	NA	NA	NA	NA
2-METHYLPHENOL	NA	NA	NA	NA
2-NITROANILINE	NA	NA	NA	NA
2-NITROPHENOL	NA	NA	NA	NA
3,3'-DICHLOROBENZIDINE	NA	NA	NA	NA
3-NITROANILINE	NA	NA	NA	NA
4,6-DINITRO-2-METHYLPHENOL	NA	NA	NA	NA
4-BROMOPHENYL-PHENYLETHER	NA	NA	NA	NA
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	NA
4-CHLOROANILINE	NA	NA	NA	NA
4-CHLOROPHENYL-PHENYLETHER	NA	NA	NA	NA
4-METHYLPHENOL	NA	NA	NA	NA
4-NITROANILINE	NA	NA	NA	NA
4-NITROPHENOL	NA	NA	NA	NA
ACENAPHTHENE	NA	NA	NA	NA
ACENAPHTHYLENE	NA	NA	NA	NA
ANILINE	NA	NA	NA	NA
ANTHRACENE	NA	NA	NA	NA
BENZIDINE	NA	NA	NA	NA
BENZO(A)ANTHRACENE	NA	NA	NA	NA
BENZO(A)PYRENE	NA	NA	NA	NA
BENZO(B)FLUORANTHENE	NA	NA	NA	NA
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA
BENZO(K)FLUORANTHENE	NA	NA	NA	NA
BENZOIC ACID	NA	NA	NA	NA
BENZYL ALCOHOL	NA	NA	NA	NA
BIS(2-CHLOROETHOXY)METHANE	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
Semivolatile Organic Compounds (mg/kg)				
BIS(2-CHLOROETHYL)ETHER	NA	NA	NA	NA
BIS(2-ETHYLHEXYL)PHTHALATE	NA	NA	NA	NA
BUTYLBENZYLPHTHALATE	NA	NA	NA	NA
CHRYSENE	NA	NA	NA	NA
DI-N-BUTYLPHTHALATE	NA	NA	NA	NA
DI-N-OCTYLPHTHALATE	NA	NA	NA	NA
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA
DIBENZOFURAN	NA	NA	NA	NA
DIETHYLPHTHALATE	NA	NA	NA	NA
DIMETHYLPHTHALATE	NA	NA	NA	NA
FLUORANTHENE	NA	NA	NA	NA
FLUORENE	NA	NA	NA	NA
HEXACHLOROBENZENE	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA
HEXACHLOROCYCLOPENTADIENE	NA	NA	NA	NA
HEXACHLOROETHANE	NA	NA	NA	NA
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA
ISOPHORONE	NA	NA	NA	NA
N-NITROSO-DI-N-PROPYLAMINE	NA	NA	NA	NA
N-NITROSODIPHENYLAMINE (1)	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA
NITROBENZENE	NA	NA	NA	NA
PENTACHLOROPHENOL	NA	NA	NA	NA
PHENANTHRENE	NA	NA	NA	NA
PHENOL	NA	NA	NA	NA
PYRENE	NA	NA	NA	NA
Volatile Organic Compounds (mg/kg)				
1,1,1,2-TETRACHLOROETHANE	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	NA	NA	NA	NA
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA
1,1,2-TRICHLOROETHANE	NA	NA	NA	NA
1,1-DICHLOROETHANE	NA	NA	NA	NA
1,1-DICHLOROETHENE	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
Volatile Organic Compounds (mg/kg)				
1,1-DICHLOROPROPENE	NA	NA	NA	NA
1,2,3-TRICHLOROBENZENE	NA	NA	NA	NA
1,2,3-TRICHLOROPROPANE	NA	NA	NA	NA
1,2,4-TRICHLOROBENZENE	NA	NA	NA	NA
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA
1,2-DIBROMO-3-CHLOROPROPANE	NA	NA	NA	NA
1,2-DIBROMOETHANE (EDB)	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA
1,2-DICHLOROETHANE	NA	NA	NA	NA
1,2-DICHLOROPROPANE	NA	NA	NA	NA
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA
1,3-DICHLOROBENZENE	NA	NA	NA	NA
1,3-DICHLOROPROPANE	NA	NA	NA	NA
1,4-DICHLOROBENZENE	NA	NA	NA	NA
2,2-DICHLOROPROPANE	NA	NA	NA	NA
2-BUTANONE	NA	NA	NA	NA
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA
4-METHYL-2-PENTANONE	NA	NA	NA	NA
ACETONE	NA	NA	NA	NA
BENZENE	NA	NA	NA	NA
BROMOBENZENE	NA	NA	NA	NA
BROMOCHLOROMETHANE	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA
BROMOFORM	NA	NA	NA	NA
BROMOMETHANE	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA
CARBON TETRACHLORIDE	NA	NA	NA	NA
CHLOROBENZENE	NA	NA	NA	NA
CHLOROETHANE	NA	NA	NA	NA
CHLOROFORM	NA	NA	NA	NA
CHLOROMETHANE	NA	NA	NA	NA
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	PEN-36	RP-H003	RP-H003	RP-H003
Sample ID	PEN - 36R - 8'	RP-H003-0.5	RP-H003-1.5	RP-H003-2.0
Sample Date	11/19/2007	04/07/1992	04/07/1992	04/07/1992
Sample Depth	8.00 - 8.00	0.00 - 0.50	1.00 - 1.50	1.50 - 2.00
Volatile Organic Compounds (mg/kg)				
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA
DIBROMOCHLOROMETHANE	NA	NA	NA	NA
DIBROMOMETHANE	NA	NA	NA	NA
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA
ETHYLBENZENE	NA	NA	NA	NA
FREON 113	NA	NA	NA	NA
HEXACHLOROBUTADIENE	NA	NA	NA	NA
ISOPROPYLBENZENE	NA	NA	NA	NA
METHYL TERT-BUTYL ETHER	NA	NA	NA	NA
METHYLENE CHLORIDE	NA	NA	NA	NA
N-BUTYLBENZENE	NA	NA	NA	NA
N-PROPYLBENZENE	NA	NA	NA	NA
NAPHTHALENE	NA	NA	NA	NA
O-CHLOROTOLUENE	NA	NA	NA	NA
P-CHLOROTOLUENE	NA	NA	NA	NA
P-ISOPROPYLTOLUENE	NA	NA	NA	NA
SEC-BUTYLBENZENE	NA	NA	NA	NA
STYRENE	NA	NA	NA	NA
TERT-BUTYLBENZENE	NA	NA	NA	NA
TETRACHLOROETHENE	NA	NA	NA	NA
TOLUENE	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA
TRICHLOROETHENE	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA
VINYL ACETATE	NA	NA	NA	NA
VINYL CHLORIDE	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 SOIL SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Notes:

BHC	Hexachlorocyclohexane
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethene
DDT	Dichlorodiphenyltrichloroethane
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
PCB	Polychlorinated biphenyl
U	Nondetected

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19010102	10A01A_19910116	10A01A_19910801	10A01A_19920602	10A01A_19921027	10A01A_19930308	10A01A_19931124
Sample Date	01/02/1991	01/16/1991	08/01/1991	06/02/1992	10/27/1992	03/08/1993	11/24/1993
PCBs/Pesticides (µg/L)							
PCBs							
AROCLOR-1016	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1221	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1232	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1242	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1248	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1254	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)							
1,1,1-TRICHLOROETHANE	NA	0.25 U	0.5 U	0.5 U	1 U	1 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	NA	NA	NA	NA	1 U	1 U	0.5 U
1,1,2-TRICHLOROETHANE	NA	0.25 U	NA	NA	1 U	1 U	0.5 U
1,1-DICHLOROETHANE	NA	NA	0.5 U	0.5 U	1 U	1 U	0.5 U
1,1-DICHLOROETHENE	NA	NA	0.5 U	0.5 U	1 U	1 U	0.5 U
1,1-DIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	NA	1 U	1 U	0.5 U
1,2-DICHLOROETHANE	NA	NA	NA	NA	1 U	1 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	1 U	NA	0.5 U
1,2-DICHLOROPROPANE	NA	NA	NA	NA	1 U	1 U	0.5 U
1,3-DICHLOROBENZENE	NA	NA	NA	NA	1 U	1 U	0.5 U
1,4-DICHLOROBENZENE	NA	NA	NA	NA	1 U	NA	0.5 U
2-CHLOROETHYLVINYL ETHER	NA	NA	NA	NA	10 U	NA	0.5 U
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	NA	NA	NA	NA	1 U	1 U	0.5 U
BROMOFORM	NA	NA	NA	NA	1 U	5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	1 U	NA	0.5 U
CARBON TETRACHLORIDE	NA	NA	NA	NA	1 U	1 U	0.5 U
CHLOROBENZENE	NA	NA	NA	NA	1 U	1 U	0.5 U
CHLOROETHANE	NA	NA	0.5 U	0.5 U	1 U	NA	0.5 U
CHLOROFORM	NA	NA	0.5 U	NA	1 U	1 U	0.5 U
CHLOROMETHANE	NA	NA	NA	1 U	1 U	NA	0.5 U
CIS-1,2-DICHLOROETHENE	NA	0.25 U	NA	0.5 U	1 U	NA	NA
CIS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	1 U	1 U	0.5 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19010102	10A01A_19910116	10A01A_19910801	10A01A_19920602	10A01A_19921027	10A01A_19930308	10A01A_19931124
Sample Date	01/02/1991	01/16/1991	08/01/1991	06/02/1992	10/27/1992	03/08/1993	11/24/1993
Volatile Organic Compounds (µg/L)							
DIBROMOCHLOROMETHANE	NA	NA	NA	NA	1 U	5 U	0.5 U
DICHLORODIFLUOROMETHANE	NA	NA	NA	NA	1 U	NA	0.5 U
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	NA	0.25 U	0.5 U	0.5 U	1 U	NA	0.5 U
METHYLENE CHLORIDE	NA	NA	NA	1 U	1 U	1 U	0.5 U
RESIDUE, FILTERABLE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	NA	0.25 U	0.5 U	0.5 U	1 U	1 U	0.5 U
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC HALIDES	0.5 U	NA	NA	NA	NA	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	0.25 U	NA	NA	1 U	1 U	NA
TRANS-1,3-DICHLOROPROPENE	NA	NA	NA	NA	1 U	1 U	0.5 U
TRICHLOROETHENE	0.5 U	0.25 U	0.5 U	0.5 U	1 U	1 U	0.5 U
TRICHLOROFLUOROMETHANE	NA	NA	NA	NA	1 U	NA	0.5 U
VINYL CHLORIDE	NA	NA	0.5 U	0.5 U	1 U	NA	0.5 U
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19940525	10A01A_19941121	10A01A_19950706	10A01A_19950928	10A01A_19960621	10A01A_19970101	10A01A_19970904
Sample Date	05/25/1994	11/21/1994	07/06/1995	09/28/1995	06/21/1996	01/01/1997	09/04/1997
PCBs/Pesticides (µg/L)							
PCBs							
AROCLOR-1016	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1221	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1232	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1242	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1248	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1254	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (µg/L)							
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,1-DIFLUOROETHANE	NA	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
2-CHLOROETHYLVINYL ETHER	0.5 U	0.5 U	0.5 U	0.5 U	1 U	NA	0.5 U
BENZENE	NA	NA	NA	NA	NA	NA	NA
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	NA	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	NA	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	NA	0.5 U
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	0.5 U	NA	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19940525	10A01A_19941121	10A01A_19950706	10A01A_19950928	10A01A_19960621	10A01A_19970101	10A01A_19970904
Sample Date	05/25/1994	11/21/1994	07/06/1995	09/28/1995	06/21/1996	01/01/1997	09/04/1997
Volatile Organic Compounds (µg/L)							
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA
FREON 113	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	5 U	5 U	5 U	NA	0.5 U
RESIDUE, FILTERABLE	NA	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
TOLUENE	NA	NA	NA	NA	NA	NA	NA
TOTAL ORGANIC HALIDES	NA	NA	NA	NA	NA	0.5 U	NA
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	0.5 U	NA	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.61	0.5 U	0.5 U	NA	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	NA	0.5 U
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19980323	10A01A_19990528	10A01A_19990909	10A01A_20000905	10A01A_20040922
Sample Date	03/23/1998	05/28/1999	09/09/1999	09/05/2000	09/22/2004
PCBs/Pesticides (µg/L)					
PCBs					
AROCLOR-1016	NA	NA	NA	NA	0.5 U
AROCLOR-1221	NA	NA	NA	NA	0.5 U
AROCLOR-1232	NA	NA	NA	NA	0.5 U
AROCLOR-1242	NA	NA	NA	NA	0.5 U
AROCLOR-1248	NA	NA	NA	NA	0.5 U
AROCLOR-1254	NA	NA	NA	NA	0.5 U
AROCLOR-1260	NA	NA	NA	NA	0.5 U
Volatile Organic Compounds (µg/L)					
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,1-DIFLUOROETHANE	NA	NA	NA	NA	20 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.3 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA
1,2-DICHLOROPROPANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.3 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.3 U
2-CHLOROETHYLVINYL ETHER	0.5 U	0.5 U	NA	0.5 U	2 U
BENZENE	NA	NA	NA	NA	0.3 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	NA	0.5 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	NA	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.3 U
CHLOROETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	NA	0.5 U	0.5 U
CHLOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	NA	0.5 U	0.5 U

ATTACHMENT A1: ANALYTICAL RESULTS FOR AOI 14 WATER SAMPLES (Continued)

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

Sample Location ID	10A01A	10A01A	10A01A	10A01A	10A01A
Sample ID	10A01A_19980323	10A01A_19990528	10A01A_19990909	10A01A_20000905	10A01A_20040922
Sample Date	03/23/1998	05/28/1999	09/09/1999	09/05/2000	09/22/2004
Volatile Organic Compounds (µg/L)					
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
ETHYLBENZENE	NA	NA	NA	NA	0.3 U
FREON 113	0.5 U	0.5 U	NA	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	NA	0.5 U	0.5 U
RESIDUE, FILTERABLE	NA	NA	NA	NA	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
TOLUENE	NA	NA	NA	NA	0.3 U
TOTAL ORGANIC HALIDES	NA	NA	0.5 U	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U
VINYL CHLORIDE	0.5 U	0.5 U	NA	0.5 U	0.5 U
XYLENE (TOTAL)	NA	NA	NA	NA	0.5 U

Notes:

ID	Identification
NA	Not analyzed
PCB	Polychlorinated biphenyl
U	Nondetected
µg/L	Micrograms per liter

Attachment A1. Water Level Results for AOI 14 Water Samples

Date: 12/19/2014

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

PERIOD: From 05/24/1990 thru 11/20/2003 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
10A01A	5/24/1990	14.55	00:00	8.90	NA	5.65
10A01A	8/23/1990	14.55	00:00	9.42	-0.52	5.13
10A01A	11/20/1990	14.55	00:00	8.55	0.87	6.00
10A01A	11/26/1991	6.93	00:00	11.50	-10.57	- 4.57
10A01A	3/19/1992	6.93	00:00	10.16	1.34	- 3.23
10A01A	5/28/1992	6.93	00:00	10.54	-0.38	- 3.61
10A01A	8/27/1992	6.93	12:27	8.73	1.81	- 1.80
10A01A	11/19/1992	6.93	00:00	10.73	-2.00	- 3.80
10A01A	2/25/1993	6.93	00:00	8.33	2.40	- 1.40
10A01A	5/20/1993	6.93	00:00	8.57	-0.24	- 1.64
10A01A	8/26/1993	6.93	00:00	10.45	-1.88	- 3.52
10A01A	11/18/1993	6.93	00:00	9.51	0.94	- 2.58
10A01A	2/24/1994	6.93	00:00	9.21	0.30	- 2.28
10A01A	5/19/1994	6.93	00:00	9.72	-0.51	- 2.79
10A01A	8/25/1994	6.93	00:00	11.97	-2.25	- 5.04
10A01A	11/17/1994	6.93	00:00	11.09	0.88	- 4.16
10A01A	2/23/1995	6.93	00:00	5.62	5.47	1.31
10A01A	5/25/1995	6.93	00:00	7.98	-2.36	- 1.05
10A01A	7/6/1995	6.93	12:50	8.53	-0.55	- 1.60
10A01A	9/28/1995	6.93	09:20	10.22	-1.69	- 3.29
10A01A	8/22/1996	6.93	00:00	10.38	-0.16	- 3.45
10A01A	2/20/1997	6.93	00:00	8.00	2.38	- 1.07
10A01A	5/22/1997	6.93	00:00	9.33	-1.33	- 2.40
10A01A	8/28/1997	6.93	00:00	NM	NA	NA
10A01A	11/20/1997	6.93	00:00	10.07	-10.07	- 3.14
10A01A	2/26/1998	6.93	00:00	6.20	3.87	0.73

Attachment A1. Water Level Results for AOI 14 Water Samples

Date: 12/19/2014

Engineering Evaluation/Cost Analysis for AOI 14
NASA Ames Research Center, Moffett Field, California

PERIOD: From 05/24/1990 thru 11/20/2003 - Inclusive

SITE	DATE	MP ELEVATION (feet)	TIME	DEPTH TO WATER (feet)	DELTA WATER ELEV (feet)	WATER ELEV. (feet)
10A01A	5/28/1998	6.93	00:00	7.36	-1.16	- 0.43
10A01A	8/27/1998	6.93	00:00	NM	NA	NA
10A01A	11/19/1998	6.93	00:00	9.66	-9.66	- 2.73
10A01A	2/25/1999	6.93	00:00	8.39	1.27	- 1.46
10A01A	5/27/1999	6.93	00:00	0.00	8.39	6.93
10A01A	5/27/1999	6.93	08:00	NM	NA	NA
10A01A	8/26/1999	6.93	00:00	10.78	-10.78	- 3.85
10A01A	11/18/1999	6.93	00:00	10.61	0.17	- 3.68
10A01A	12/22/1999	6.98	00:00	10.61	0.05	- 3.63
10A01A	2/24/2000	6.98	00:00	8.82	1.79	- 1.84
10A01A	5/25/2000	6.98	00:00	NM	NA	NA
10A01A	8/24/2000	6.98	00:00	NM	NA	NA
10A01A	11/16/2000	6.98	00:00	NM	NA	NA
10A01A	2/22/2001	6.98	00:00	NM	NA	NA
10A01A	5/24/2001	6.98	00:00	NM	NA	NA
10A01A	8/23/2001	6.98	00:00	NM	NA	NA
10A01A	11/15/2001	6.98	00:00	NM	NA	NA
10A01A	2/28/2002	6.98	00:00	NM	NA	NA
10A01A	5/23/2002	6.98	00:00	NM	NA	NA
10A01A	8/22/2002	6.98	00:00	NM	NA	NA
10A01A	11/21/2002	6.98	00:00	NM	NA	NA
10A01A	2/27/2003	6.98	00:00	NM	NA	NA
10A01A	5/22/2003	6.98	00:00	NM	NA	NA
10A01A	8/28/2003	6.98	00:00	11.35	-11.35	- 4.37
10A01A	11/20/2003	6.98	00:00	10.50	0.85	- 3.52

ATTACHMENT A2
AVAILABLE SOIL BORING LOGS

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Boring Log Index (Continued)

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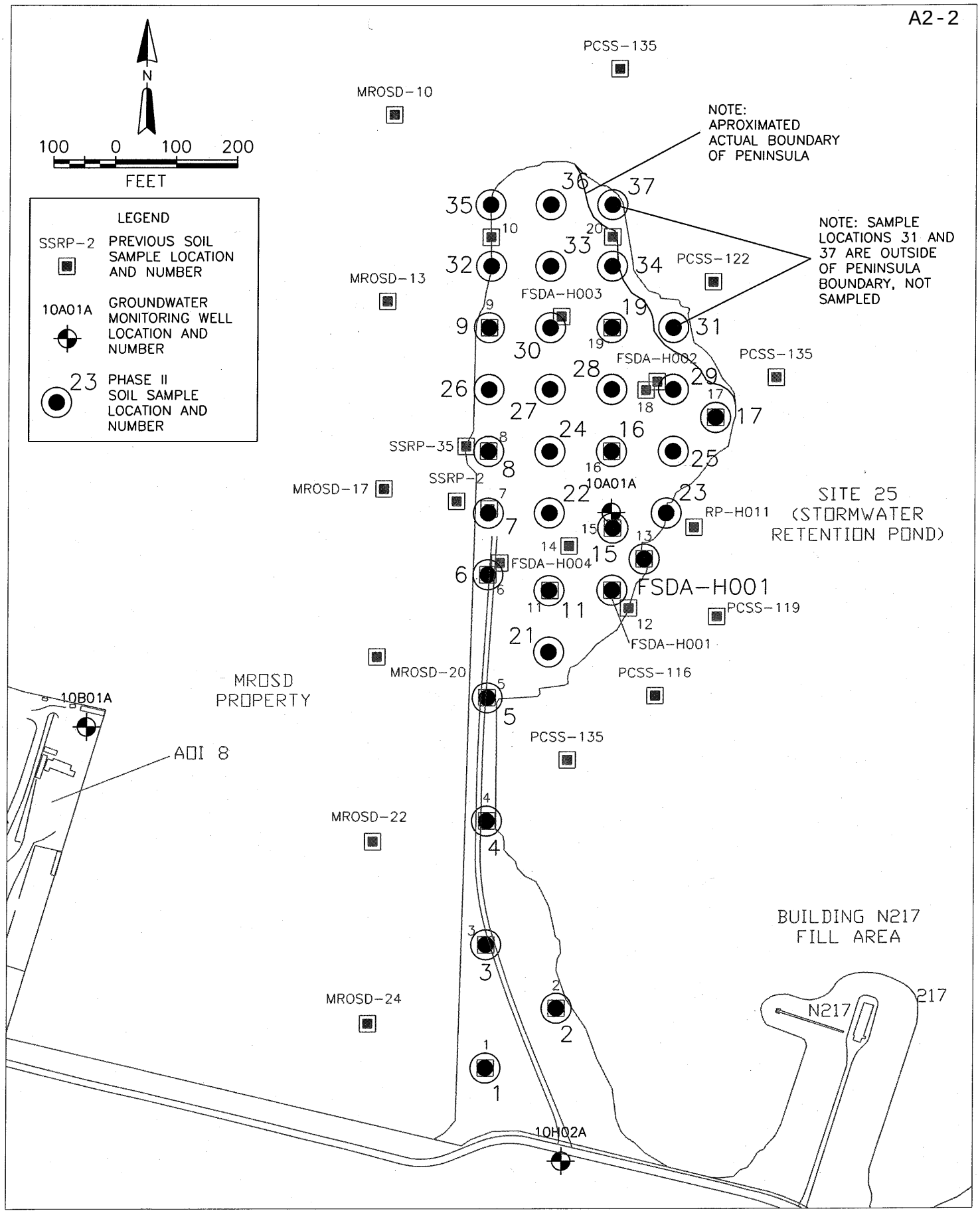
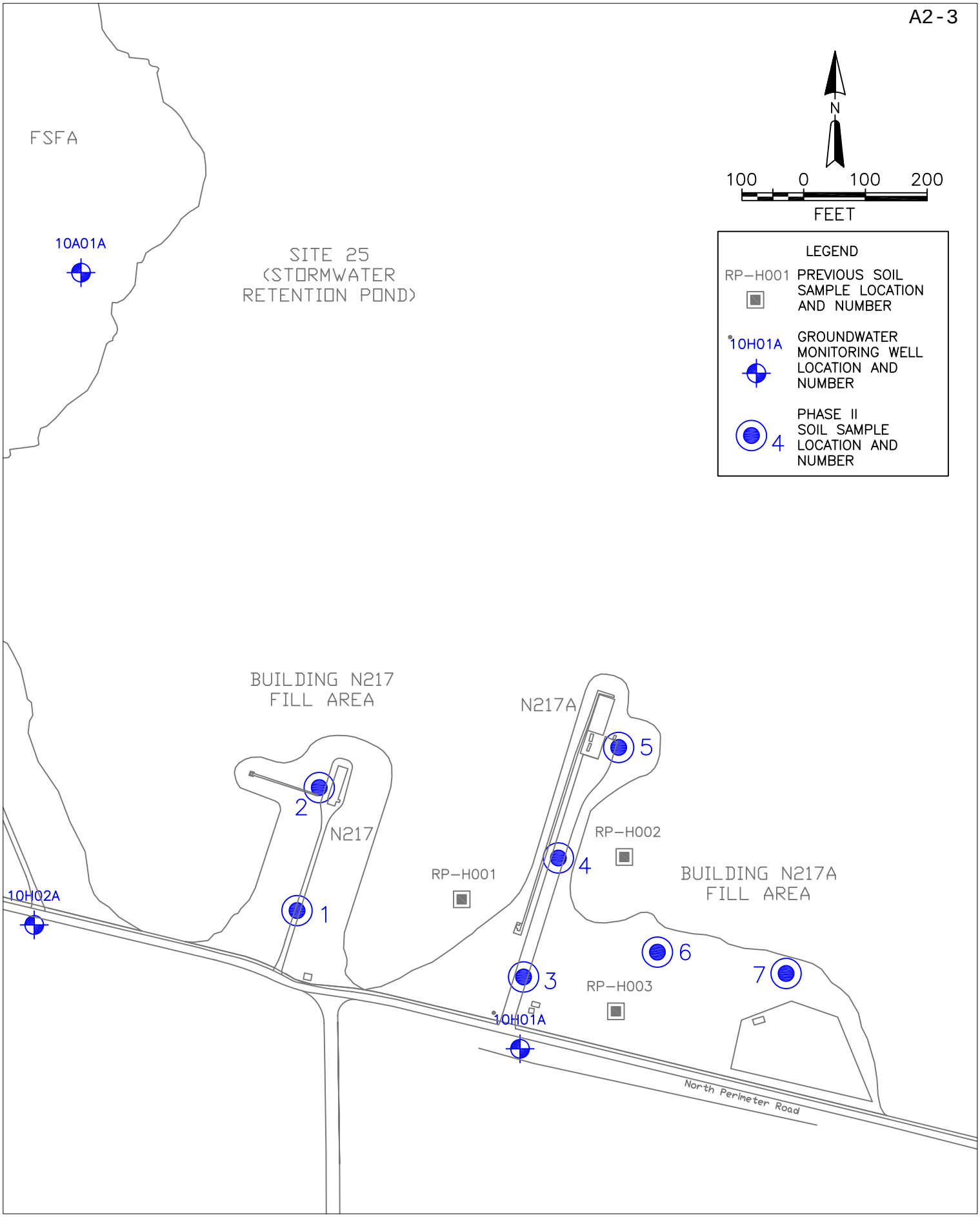
	Permit No.: 91W0310	Site Id: 10A01A	Purpose: Monitoring Well, Shallow
	Permit Date: 01/28/91	Location: Wetlands, N of Gate 16C	
	Consulting Firm: URS	X Coordinate: 1546384.18	Y Coordinate: 342552.19
	Logged By: KL	Total Depth: 20.00'	Completed Depth: 20.00'
	Certified By:	Conductor Casing: type: dia: 0.00in fm: 0.00' to: 0.00'	
Date(s): 01/17/91 - 01/17/91	Measuring Point: 6.98'		
Contractor: KVILHAUG	Datum: Mean Sea Level	Blank Casing: type: 40 PVC dia: 2.00in fm: -2.3' to: 10.00'	
Borehole Dia.: 8.00in	Static Water Level: 13.00'	Screens: type: Perforated size: 0.020india: 2.00in fm: 10.00' to: 20.00'	
Drilling Method: Hollow Stem Auger			
Remarks: No samples taken. MW-8		Annular Fill: type: Grout fm: 0.00' to: 7.50' type: Bentonite fm: 7.50' to: 9.00' type: #2/20 Sand fm: 9.00' to: 20.00' type: fm: to:	

Elevation (ft)	Recovery	Sample No.	Blow Count	Depth (ft)	Well Construction	Graphic Log	USCS Code	Material Description
					MP. EL. 6.98		ML	SILTY SANDY CLAY; brown; moist; rootlets.
0				5			GC	SILTY SANDY GRAVEL; with cobbles; moist; probably fill materials. Numerous cobbles.
				10			OH	ORGANIC SILTY CLAY; black; moist; very soft; plastic. Increasing plasticity.
-10				15			SC	SILTY CLAYEY SAND; brown; wet.
				20				
-20				25				



NASA Ames Research Center Moffett Field, California 94035	TITLE: NASA AMES RESEARCH CENTER AOI 14 PHASE II ROF FSFA SAMPLE LOCATIONS	DWN: CNF	DES.: CNF	PROJECT NO.: AOI 14	
		CHKD: BDR	APPD: JRL	PLATE NO.: 2	
		DATE: 03/2007	REV.: 01		



Ames Research Center, Moffett Field, California 94035	TITLE: NASA AMES RESEARCH CENTER AOI 14 PHASE II ROF, BUILDING N217 AND N217A FILL AREAS SAMPLE LOCATIONS	DWN: CNF	DES.: CNF	PROJECT NO.: AOI 14
		CHKD: BDR	APPD: JRL	PLATE NO.: 3
		DATE: 03/2007	REV.: 01	

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-01

PROJECT No. A01 14 DATE 6/20/06

CLIENT

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet ____ of ____

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0'-2.0' grayish brown silty clay w/ angular gravel (1/2") slightly moist.

2.0'-4.0' dk brown silty clay, v. stiff, hi plast, root holes, v. moist

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-02

PROJECT No. A0114 DATE 6/20/06

CLIENT

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet ____ of ____

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0'-1" top soil

1.0'-3.5' angular gravel (1") in black clay matrix.

3.5'-4.0' dk brown silty clay, stiff, mod plast, v. moist

4.0'-8.0' dk gray clay, v. stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN 03

PROJECT No. A01 14 DATE
CLIENT:
LOCATION
LOGGED BY BR DRILLER Gregs

BORING No.
Sheet of

Casing installation data

Drilling method
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' Topsoil

0.5-2.0' med gray gravelly silt, ang gravel to 3/4"

2.0-4.0' med brown silty clay w/ gravel, gravel to 1", mottled med gray & base

4.0-6.0' mottled dk gray / dk brown silty clay, stiff, med plast, v. moist

6.0-8.0' dk gray clay, hi plast, v. stiff, v. moist

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN 04

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method Geo Probe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' Topsoil

0.5-5.0' lt gray mottled med gray gravelly clay, subr gravel to 1", lo plast, stiff, roots, moist

5.0-8.0' dk gray silty clay, stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN 05

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method Geo Probe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' Topsoil

0.5-5.0' dk gray clayey silt w/ gravel ang to sub-a gravel to 1/2", lo plast, med stiff, roots
moist @ 4.0'

5.0-8.0' dk gray silty clay, v. stiff, hi plast, v. moist

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN 06

PROJECT No. A01 14 DATE

CLIENT

LOCATION

LOGGED BY BR DRILLER Greg

BORING No.

Sheet of

Casing installation data

Drilling method

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' Topsoil

0.5-3.0' med gray clayey silt w/ gravel mottled lt. brown, subA gravel to 1/2", low plast, med stiff to stiff, sand blebs

5.0-6.5' dk gray silty clay w/ tan mottling & iron staining

6.5-8.0' dk gray silty clay, v. stiff, hi plast, v. moist.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-07

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY CNF DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-4.0' med brown sandy gravel w/ fines fine-med sand, gravel to 1", loose

4.0-8.0' silty gravelly clay, med gray, gravel to 1", med stiff, lo plast.

8.0-12.0' dk gray clay, v. stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-08

PROJECT No. A0114 DATE

CLIENT

LOCATION

LOGGED BY JRL DRILLER Gregg

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-4.0' med gray gravelly clay, dry

4.0-8.0' med brown gravelly clay, minor silt, damp @ base

8.0-10.0' med brown gravelly clay, damp

10.0-12.0' dk gray silty clay, roots, black concretions, stiff, hi plast, damp

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-09

PROJECT No. A0114 DATE

CLIENT:

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet of

Casing installation data

Drilling method Geoprobe

Hole dia.

Water level				
Time				
Date				

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-5.0' med gray clayey silt w/ gravel, loose-med dense, dry
						5.0-5.5' gravel w/ sand
						5.5-7.5' dk gray clayey silt w/ sand
						7.5-8.0' sand w/ gravel
						8.0-11.5' dk brown sandy clay, fine/med sand, stiff, lo plast.
						11.5-12.0' sand, med
						12.0-14.0' same as 8.0-11.5
						14.0-16.0' dk gray/blk clay, stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-11

PROJECT No. A01 14 DATE
CLIENT:
LOCATION
LOGGED BY GR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' TOPSOIL

1.0-7.0' med brown gravelly sandy clay, fine-med sand, ang gravel to 1/2", low plast., damp

7.0-9.5' color change to med. gray

9.5-12.0' dk gray silty clay, v. stiff, hi plast, moist-v. moist

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-13

PROJECT No. A0114 DATE

CLIENT

LOCATION

LOGGED BY BR DRILLER Greg S

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' Topsoil

1.0-6.0' med brown sandy clay w/ gravel
Fine-med sand, gravel to 1"

6.0-9.0' color change to med gray

9.0-12.0' dk gray silty clay, v. stiff
hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-15

PROJECT No. A01 14 DATE
CLIENT:
LOCATION
LOGGED BY BR DRILLER Gross

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-6.0' med brown sandy gravel w/ fines, fine-med sand, gravel to 1-1/4", loose

6.0-9.0' NO RECOVERY

9.0-10.0' dk gray gravelly clay, gravel to 1", stiff, med plast, wet

10.0-12.0' dk gray silty clay, v. stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-16

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY JRL DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-4.0' med gray silty sandy gravel, loose, dry.
						pieces of visqueen plastic at 4.0'.
						4.0-7.0' med brown silty clay, damp at base.
						7.0-10.0' dk gray silty clay, some mottling, damp.
						10.0-15.5' dk gray/black clay, hi plast, organics, roots, damp.
						15.5-16.0' med gray gravelly silty clay, concretions, organics, v. moist-wet.

Water level				
Time				
Date				

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-21

PROJECT No. A0114 DATE
CLIENT:
LOCATION
LOGGED BY BR DRILLER Greg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' Topsoil

1.0-7.5' med brown sandy silty clay w/ gravel mottled lt. brown, v. fine - fine sand, subr gravel to 1.5", dry

gravel + sand decrease downward

color change to med gray at 6.0' v. moist

7.5-12.0' dk gray silty clay, v. stiff, hi plast, wet

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-22

PROJECT No. A01 14 DATE

CLIENT:

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-3.0' sandy gravel w/ fines, med brown, fine-med sand, gravel to 1", loose

3.0-5.0' sandy gravelly clay, med brown, dry, friable.

5.0-9.0' med brown silty clay w/ gravel mottled lt. brown, med stiff, mod plast.

9.0-10.5' dk gray sandy clay, med sand, stiff, med plast, v moist.

10.5-12.5' dk gray / blk silty clay, stiff-v. stiff, hi plast.

12.5-14.0' gley clay, v stiff, hi. plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-23

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' topsoil

0.5-5.0' med brown silty clay w/ gravel

5.0-6.5' med brown sandy silt w/ gravel
coarse sand, loose-med dense

6.5-10.0' gravelly sandy clay, dk gray
gravel increases downward

10.0-10.5' dk gray gravelly clay

10.5-12.0' dk gray silty clay, stiff, hi. plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-24

PROJECT No. A01 14 DATE
CLIENT:
LOCATION
LOGGED BY JRL DRILLER Gregs

BORING No.
Sheet
of

Casing installation data

Drilling method Geoprobe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-4.0' med gray sandy gravel w/ fines, loose

4.0-4.5' dk gray silty gravel, dry, possible asphaltic material.

4.5-8.0' med brown silty clay w/ gravel damp @ 8.0'

1" coarse sand lense at 7.5', wet

8.0-12.0' dk gray/black clay, organic material + roots, stiff, hi plast., damp-moist.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-25

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method ~~Gr.~~ GeoProbe
Hole dia.

Water level				
Time				
Date				

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-0.5' Topsoil
						0.5-2.5' sandy gravel w/ fines, loose
						2.5-11.5' dk gray gravelly clay, gravel to 1/2", slt. moist.
						grades sandy downward
						7.0' color change to dk. brown sand decreases downward
						11.5-14.0' dk gray silty clay, stiff, h. plast.
						14.0-16.0' gley clay, stiff, h. plast concretions.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-26

PROJECT No. A0114 DATE

CLIENT:

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-0.5' Topsoil

0.5-3.0' sandy gravel w/ fines, loose.

3.0-7.0' dk gray gravelly clay, gravel to 1/2". sand increases downward

7.0-11.5' dk brown gravelly clay, minor med sand.

11.5-14.0' dk gray silty clay, stiff, hi plast.

14.0-16.0' gley clay, stiff-v stiff, hi plast. concretions.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-27

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' TOPSOIL

1.0-8.0' dk brown silty clay, lo plast, dry
grades siltier downward
Some sub4 gravel (1/4") at 6.0-7.0'

8.0-11.5' mottled lt gray/dk gray silty clay, minor gravel, v. moist @ base

11.5-16.0' dk gray silty clay, stiff, hi plast

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-28

PROJECT No. A01 14 DATE
CLIENT:
LOCATION
LOGGED BY BR DRILLER Gress

BORING No.
Sheet
of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' Topsoil

1.0-8.0' dk brown silty clay, lo plast
silt increases downward
4' Sandy lense 4"

8.0-11.5' mottled lt brown/dk gray silty clay
mod plast, v. moist @ base

11.5-16.0' dk gray/black silty clay, stiff.
hi plast

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-30

PROJECT No. A0114 DATE

CLIENT

LOCATION

LOGGED BY BR DRILLER Gregg

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-8.0' med gray clayey silt w/ gravel loose - med dense, dry

@ 5' 4" lense of ∆ gravel to 1"

@ 7' 4" lense of sand + gravel

8.0-11.5' dk brown sandy clay, med sand, stiff, lo plast

11.5-12.0' sand layer, fine/med

12.0-14.0' SA 8-11.5

14.0-16.0' dk gray/black clay, stiff, hi plast

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-32

PROJECT No. A01-14 DATE

CLIENT

LOCATION

LOGGED BY JRL DRILLER Gregs

BORING No.

Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-11.5' gray clayey silt

11.5-12.0' dk gray silty clay, organics, damp

12.0-12.5' peaty layer w/ roots, gravelly at base.

12.5-16.0' black clay, organics, wet.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-33

PROJECT No. A0114 DATE 6/21/06

CLIENT

LOCATION

LOGGED BY JRL DRILLER Gregg

BORING No.

Sheet ____ of ____

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
							0-4.0' sandy silt, gray, dry, loose.
							4.0-8.0' sandy silt, gray, loose-med dense, dry
							8.0-10.0' dk gray silty clay, damp
							10.0-11.0' dk brown gravelly sand+silt, damp
							11.0-15.5' dk gray/black silty clay, organics, moist
							15.5-16.0' med gray clayey silt, moist.

Water level				
Time				
Date				

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-34

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet
of

Casing installation data

Drilling method GeoProbe
Hole dia.

Water level				
Time				
Date				

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-6.0' dK gray gravelly clay, loose to med dense
						6.0-10.5' dK brown gravelly clay, med stiff-stiff, med plast
						10.5-12.0' peaty interbeds w/ concrete dust.
						12.0-16.0' dK gray clay, stiff, hi plast
						lost sample shoe

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-35

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method Geoprobe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
Water level							
Time							
Date							

0-0.5' Topsoil

0.5-1.0' gravel

1.0-6.0' med brown silty clay w/ gravel
dk gray mottling downward

6.0-10.0' dk gray silty clay, stiff, med plast
minor gravel

10.0-11.5' dk gray silty clay, stiff, hi. plast.

11.5-12.0' peaty area.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

PEN-36

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.5' dk gray gravelly clay, loose, dry
1.5-3.5' angular gravel to 1¼"
3.5-8.0' dk brown gravelly clay
8.0-10.5' dk gray silty clay w/ gravel stiff, lo plast
10.5-12.0' peaty interbeds.
12.0-16.0' dk gray silty clay, stiff, hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

FDSA-H001

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe

Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-1.0' Topsoil

1.0-6.0' med brown sandy clay w/ gravel
fine sand, subr gravel to 1-1/2"

6.0' color change to med gray
to 9.5'

9.5-12.0' dk gray silty clay, v. stiff,
hi plast.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N217-01

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
							0-1.5' gravelly sand w/ fine matrix, med dense
							1.5-3.5' black clay, stiff, hi plast
							3.5-5.0' med gray gravelly clay
							5.0-8.0' lt brown sandy clay w/ gravel.

Water level				
Time				
Date				

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N 217-02

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
Water level							
Time							
Date							
							0-2.0' gravelly sand
							2.0-3.0' black clay, stiff, hi plast.
							3.0-6.0' lt. brown sandy clay

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N217-03

PROJECT No. A0114 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method Geo Probe
Hole dia.

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)

Water level				
Time				
Date				

DESCRIPTION

0-4.0' dk gray gravelly clay

4.0-5.0' med gray mottled brown gravelly clay.

5.0-7.0' lt. brown gravelly silt.

7.0-9.0' silty clay w/ gravel, dk gray mottled lt. brown

9.0-12.0' dk gray/black silty clay, stiff, hi plast.

10' minor coarse sand + subr gravel.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N217-04

PROJECT No. _____ DATE _____
CLIENT _____
LOCATION _____
LOGGED BY _____ DRILLER _____

BORING No.

Sheet _____ of _____

Casing installation data _____

Drilling method _____ Hole dia.

Water level										
Time										
Date										

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-4.0' dk gray gravelly clay
						3.0-3.5 gravelly lense.
						4.0-5.0' med gray mottled brown gravelly clay
						5.0-7.0' lt. brown gravelly silt
						7.0-9.0' silty clay w/ gravel, dk gray mottled lt. brown.
						9.0-14.0 dk gray/black silty clay, stiff, hi plast.
						13' minor coarse sand + sub4 gravel

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N217-05

PROJECT No. A0114 DATE
CLIENT:
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

Water level				
Time				
Date				

Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
						0-4.0' lt. brown clayey silt, minor fine sand.
						4.0-8.0' NO RECOVERY
						8.0'-10.5' med brown silty clay, minor gravel.
						10.5-13.0' dk gray silty clay, stiff, hi plast.
						13.0-15.0' gley gravelly clay.

REMARKS:

FIELD EXPLORATORY BORING LOG

Field location of boring:

N217-06

PROJECT No. A01 14 DATE
CLIENT
LOCATION
LOGGED BY BR DRILLER Gregg

BORING No.
Sheet of

Casing installation data

Drilling method GeoProbe
Hole dia.

	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
Water level							
Time							
Date							

0-3.5' lt. brown gravelly sandy clay, sub∠ gravel to 1-1/2", loose.

3.5-5.5' color change to med brown

5.5-8.0' color change to dk gray mottled med gray, stiff, med plast.

8.0-10.0' dk gray gravelly clay

10.0-15.0' dk gray clay, stiff, hi plast

15.0-16.0' dk gray sandy silt, v. fine sand.

REMARKS:

ATTACHMENT A3
QUALITY CONTROL SUMMARY REPORT AND LABORATORY DATA REPORTS

Tetra Tech, Inc.

DATA REVIEW REPORT

Site:	NASA Ames
Laboratory:	California Laboratory Services Sequoia Analytical
Data Reviewer:	Sara Woolley, Tetra Tech
Review Date:	11/3 – 12/11/14

Sample Delivery Group (SDG) No.:

1992 Listing Site Inspection – EKI 92008.2

2004 PCB Phase I – CNI0794

2005 PCB Phase II – COE645, COE0826, COE0861, COF0020, COF0305

2005 AOI 14 Phase I (Summer) – COH1032, COI0441

2006/2007 AOI 14 Phase II and Resampling – CPF0718, CPF0748, CPF0799, CQK0224, CQK0707, CQK0809, CQL0270

2013 N217 + N217A Fill Area Data Gap – CWK0722

2013 AOI 14 Baseline Silt Fence Sediment Samples – CWL1055, CXA0028

2014 AOI 14 Annual Silt Fence Sediment Samples – CXJ1017, CXI0848

Matrix:	Soil
Collection Date(s):	1992, 2004, 2005, 2006, 2007, 2013, and 2014

The data were qualified according to the U.S. Environmental Protection Agency (EPA) documents "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review" (June 2008) and "USEPA Contract Laboratory Program National Functional Guidelines For Inorganic Data Review" (January 2010). In addition, the Tetra Tech documents "Data Validation Guidelines" (November 2013) was used along with other specified criteria in EPA methods. Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

Sara Woolley

Certified by

DATA ASSESSMENT

VOLATILE ORGANIC ANALYSIS

I. Holding Times

CPF0718- All holding times were met.
CPF0748- All holding times were met.
CPF0799- All holding times were met.
EKI 92008.2 - All holding times were met.

II. Surrogate Recovery

CPF0718- All surrogate recoveries were met.
CPF0748- A few surrogate recoveries were above criteria in some samples. Results were ND, therefore, data is not expected to be affected.
CPF0799- All surrogate recoveries were met.

III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

CPF0718- All MS/MSD and RPD criteria were met.
CPF0748- All MS/MSD and RPD criteria were met.
CPF0799- All MS/MSD and RPD criteria were met.
EKI 92008.2 – All MS/MSD and RPD criteria were met.

IV. Blank Spike or Laboratory Control Sample (LCS)

CPF0718- All LCS/LCSD and RPD criteria were met.
CPF0748- All LCS/LCSD and RPD criteria were met.
CPF0799- All LCS/LCSD and RPD criteria were met.

V. Blank Contamination

CPF0718- All blanks were free of contamination.
CPF0748- All blanks were free of contamination.
CPF0799- All blanks were free of contamination.

DATA ASSESSMENT

SEMIVOLATILE ORGANIC ANALYSIS

I. Holding Times

EKI 92008.2 - All holding times were met.

III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

EKI 92008.2 – All MS/MSD and RPD criteria were met.

PESTICIDE ANALYSIS

I. Holding Times

COH1032- All holding times were met.
COI0441- All holding times were met.
CPF0718- All holding times were met.
CPF0748- All holding times were met.
CPF0799- All holding times were met.
CQK0224- All holding times were met.
CQK0707- All holding times were met.
CQK0809- One sample was prepped 6 days outside the 14 day holding time.
CQL0270- Two samples were prepped 7 days outside the 14 day holding time.
CWL1055- All holding times were met.
CXI0848- All holding times were met.
EKI 92008.2 – All holding times were met.

II. Surrogate Recovery

COH1032- Several samples required dilution, therefore, surrogate recoveries were unavailable.
COI0441- Two samples required dilution, therefore, surrogate recoveries were unavailable.
CPF0718- Most surrogate recoveries were met, a few were outside of established control limits due to a sample matrix effect.
CPF0748- Most surrogate recoveries were met, a few were outside of established control limits due to a sample matrix effect or sample dilution.
CPF0799- A few were above established control limits due to a sample matrix effect, all results were ND, therefore data is not expected to be affected.
CQK0224- All surrogate recovery criteria were met.
CQK0707- All surrogate recovery criteria were met.
CQK0809- All surrogate recovery criteria were met.
CQL0270- All surrogate recovery criteria were met.
CWL1055- All surrogate recovery criteria were met.
CXI0848- Several surrogate recoveries were below criteria. Samples required 10X dilution due to matrix interference.

III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

COH1032- Batch CO06575 - All MS/MSD recovery and RPD criteria were met.
COH1032- Batch CO06626 - The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COI0441- Batch CO06992 - All MS/MSD recovery and RPD criteria were met.

COI0441- Batch CO07026 - The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0718- Batch CP04666 - All MS/MSD recovery and RPD criteria were met.
CPF0718- Batch CP04686 - The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
CPF0718- Batch CP04703- Some spike recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0748- Batch CP04745- Spike recoveries for 4,4'-DDT were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0748- Batch CP04792- All MS/MSD recovery and RPD criteria were met.
CPF0748- Batch CP04810- Some spike recoveries were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0799- Batch CP04841- Spike recoveries for 4,4'-DDT and Endrin were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0799- Batch CP04882- Spike recoveries for 4,4'-DDT and Endrin were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits. Some spike recoveries were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0799- Batch CP04904- Some spike recoveries were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CQK0224- Spike recoveries for 4'4-DDT were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CQK0707- Batch CQ09702- Spike recoveries for 4,4'-DDT were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CQK0707- Batch CQ09752, CQ09827 - All MS/MSD recovery and RPD criteria were met.
CQK0809- All MS/MSD recovery and RPD criteria were met.
CQL0270- All MS/MSD recovery and RPD criteria were met.
CWL1055- All MS/MSD recovery and RPD criteria were met.
CXI0848- All MS/MSD recovery and RPD criteria were met.
EKI 92008.2 - All MS/MSD recovery and RPD criteria were met.

IV. Blank Spike or Laboratory Control Sample (LCS)/LCS Duplicate (LCSD)

COH1032- All LCS/LCSD recovery and RPD criteria were met.
COI0441- All LCS/LCSD recovery and RPD criteria were met
CPF0718- All LCS/LCSD recovery and RPD criteria were met
CPF0748- All LCS/LCSD recovery and RPD criteria were met
CPF0799- All LCS/LCSD recovery and RPD criteria were met
CQK0224- All LCS/LCSD recovery and RPD criteria were met
CQK0707- All LCS/LCSD recovery and RPD criteria were met
CQK0809- All LCS/LCSD recovery and RPD criteria were met
CQL0270- All LCS/LCSD recovery and RPD criteria were met
CWL1055- All LCS/LCSD recovery and RPD criteria were met
CXI0848- All LCS/LCSD recovery and RPD criteria were met

V. Blank Contamination

COH1032- All blanks were free of contamination.
COI0441- All blanks were free of contamination.
CPF0718- All blanks were free of contamination.
CPF0748- All blanks were free of contamination.
CPF0799- All blanks were free of contamination.
CQK0224- All blanks were free of contamination.
CQK0707- All blanks were free of contamination.
CQK0809- All blanks were free of contamination.
CQL0270- All blanks were free of contamination.
CWL1055- All blanks were free of contamination.
CXI0848- All blanks were free of contamination.

POLYCHLORINATED BIPHENYL ANALYSIS

I. Holding Times

COH1032- All holding times were met.
COI0441- All holding times were met.
CPF0718- All holding times were met.
CPF0748- All holding times were met.
CPF0799- All holding times were met.
CQK0224- All holding times were met.
CQK0707- All holding times were met.
CQL0270- Four samples were prepped 4 days outside the 14 day holding time.
COE0645- All holding times were met.
COE0826- All holding times were met.
COE0861- All holding times were met.
COF0200- All holding times were met.
COF0305- All holding times were met.
CWL1055- All holding times were met.
CXJ1017- All holding times were met.
CXI0848- All holding times were met.
CNI0794 - All holding times were met.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

COH1032- Batch CO06597 - The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
COH1032- Batch CO06627 – All MS/MSD and RPD recoveries were met.
COI0441- All MS/MSD and RPD recoveries were met.
CPF0718- Batch CP04667 - The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
CPF0718- Batches CP04677, CP04746, CP04790 – All MS/MSD and RPD recoveries were met.
CPF0748- Batches CP04811, CP04852 – The spike recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0748- Batches CP04836, CP04845 – The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0799- Batch CP04852 – The spike recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0799- Batches CP04936 – The MS/MSD low recoveries were very likely due to that the spike solution was not added.

CPF0799- Batches CP04885, CP04938, CP04803 – All MS/MSD and RPD recoveries were met.
CQK0224- All MS/MSD and RPD recoveries were met.
CQK0707- All MS/MSD and RPD recoveries were met.
CQL0270- The spike recoveries were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COE0645- The spike recoveries were outside acceptance limits for the MS and/or MSD. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0748- Batches CP04811, CP04852 – The spike recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
COE0861- Batch CO04047 – The spike AR-1260 recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
COF0200- All MS/MSD and RPD recoveries were met.
COF0305- All MS/MSD and RPD recoveries were met.
CWL1055- All MS/MSD and RPD recoveries were met.
CXJ1017- All MS/MSD and RPD recoveries were met.
CXI0848- All MS/MSD and RPD recoveries were met.
CNI0794- The spike recoveries were outside acceptance limits for the MS/MSD. The LCS/LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

III. Blank Spike or Laboratory Control Sample (LCS)

COH1032- All LCS/LCSD recovery and RPD criteria were met.
COI0441- All LCS/LCSD recovery and RPD criteria were met.
CPF0718- All LCS/LCSD recovery and RPD criteria were met.
CPF0748- All LCS/LCSD recovery and RPD criteria were met.
CPF0799- All LCS/LCSD recovery and RPD criteria were met.
CQK0224- All LCS/LCSD recovery and RPD criteria were met.
CQK0707- All LCS/LCSD recovery and RPD criteria were met.
COE0645- All LCS/LCSD recovery and RPD criteria were met.
COE0826- All LCS/LCSD recovery and RPD criteria were met.
COE0861- All LCS/LCSD recovery and RPD criteria were met.
COF0200- All LCS/LCSD recovery and RPD criteria were met.
COF0305- All LCS/LCSD recovery and RPD criteria were met.
CWL1055- All LCS/LCSD recovery and RPD criteria were met.
CXJ1017- All LCS/LCSD recovery and RPD criteria were met.
CXI0848- All LCS/LCSD recovery and RPD criteria were met.
CNI0794- All LCS/LCSD recovery and RPD criteria were met.

IV. Blank Contamination

COH1032- All blanks were free of contamination.
COI0441- All blanks were free of contamination.
CPF0718- All blanks were free of contamination.
CPF0748- All blanks were free of contamination.
CPF0799- All blanks were free of contamination.
CQK0224- All blanks were free of contamination.
CQK0707- All blanks were free of contamination.
COE0645- All blanks were free of contamination.
COE0826- All blanks were free of contamination.
COE0861- All blanks were free of contamination.
COF0200- All blanks were free of contamination.
COF0305- All blanks were free of contamination.
CWL1055- All blanks were free of contamination.
CXJ1017- All blanks were free of contamination.
CXI0848- All blanks were free of contamination.
CNI0794- All blanks were free of contamination.

METALS ANALYSIS

I. Holding Times

COH1032 – All holding times met.
COI0441- All holding times met.
CPF0718- All holding times met.
CPF0748- All holding times met.
CQK0707- All holding times met.
COE0861- All holding times met.
CWL1055- All holding times met.
CXI0848- All holding times met.
EKI 92008.2 – All holding times met.

II. Blank Contamination

COH1032- All blanks were free of contamination.
COI0441- All blanks were free of contamination.
CPF0718- All blanks were free of contamination.
CQK0707- All blanks were free of contamination.
COE0861- All blanks were free of contamination.
COE0861- All blanks were free of contamination.
CWL1055- All blanks were free of contamination.
CXI0848- All blanks were free of contamination.

III. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

COH1032- Batch CO06707 - The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
COH1032- Batch CO06790 - The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COI0441- Batch CO07022 - The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COI0441- Batch CO07081 – All MS/MSD recoveries and RPD criteria were met.
CPF0718- Batch CP04690 - The spike recoveries for arsenic and selenium were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0718- Batch CP04691 - The spike recoveries for antimony, chromium, copper, lead, and zinc were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

CPF0718- Batch CP04702 - The spike recoveries for antimony, chromium, copper, nickel, and zinc were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0718- Batch CP04709 - The spike recoveries for antimony, cadmium, chromium, nickel, and zinc were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0718- Batch CP04713 - The spike recoveries for antimony, copper, nickel, and zinc were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
The spike recovery for chromium was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0748- Some spike recoveries were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CPF0799- Batch CP04856 - The spike recoveries for arsenic and selenium were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0799- Batches CP04857, CP04870, CP04872, CP04892 - Several spike recoveries were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0799- Batches CP04912- The spike recoveries for lead and zinc were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
CQK0707- Some spike recoveries for lead and zinc were outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
COE0861- Batch CO04028 - The spike recoveries for arsenic, selenium, and thallium were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COE0861- Batch CO04020 - The spike recoveries for several analytes were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COE0861- Batch CO04170 - The spike recoveries for selenium were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
COE0861- Batch CO04172 - The spike recoveries for several analytes were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

COE0861- Batch CO04180 - The spike recoveries for mercury were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CWL1055- Batch CW08504 - The spike recoveries for chromium and thallium were outside acceptance limits for the MS and/or MSD. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CWL1055- Batch CW08505 - The spike recoveries for several analytes were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CXI0848- The spike recoveries for antimony, mercury, selenium and thallium were outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
EKI 92008.2 – All MS/MSD recoveries were met. All RPDs were met.

IV. Laboratory Control Sample (LCS)/Laboratory Control Spike Duplicate (LCSD)

COH1032 – All LCS/LCD % recoveries and RPDs were met.
COI0441- All LCS/LCD % recoveries and RPDs were met.
CPF0718- All LCS/LCD % recoveries and RPDs were met.
CPF0748- All LCS/LCD % recoveries and RPDs were met.
CPF0799- All LCS/LCD % recoveries and RPDs were met.
CQK0707- All LCS/LCD % recoveries and RPDs were met.
COE0861- All LCS/LCD % recoveries and RPDs were met.
CWL1055- All LCS/LCD % recoveries and RPDs were met.
CXI0848- All LCS/LCD % recoveries and RPDs were met.

TPH ANALYSIS

I. Holding Times

CPF0718- All holding times were met.
CPF0748- All holding times were met.
CPF0799- All holding times were met.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

CPF0718- The spike recovery was outside acceptance limits for the TPH-diesel MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
CPF0748- All MS/MSD recovery and RPD criteria were met.
CPF0799- All MS/MSD recovery and RPD criteria were met.

III. Blank Spike or Laboratory Control Sample (LCS)

CPF0718- All LCS/LCSD recovery and RPD criteria were met.
CPF0748- All LCS/LCSD recovery and RPD criteria were met.
CPF0799- All LCS/LCSD recovery and RPD criteria were met.

IV. Blank Contamination

CPF0718 – All blanks free of contamination.
CPF0748 – All blanks free of contamination.
CPF0799 – All blanks free of contamination.

IV. Surrogate Recoveries

CPF0718- All surrogate recoveries were met.
CPF0748- All surrogate recoveries were met.

HEXAVALENT CHROMIUM ANALYSIS

I. Holding Times

CXA0028- All holding times were met.

II. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

CXA0028- All MS/MSD recovery and RPD criteria were met.

III. Blank Spike or Laboratory Control Sample (LCS)

CXA0028- All LCS/LCSD recovery and RPD criteria were met.

IV. Blank Contamination

CXA0028- All blanks free of contamination.

OVERALL ASSESSMENT OF DATA

I. Method Compliance and Additional Comments

All analyses appear to be conducted within all specifications of the requested methods.

II. Usability

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. As discussed above some QC criteria were violated and the associated results should be considered estimated. QC violations were not severe enough to reject data.

REFERENCES

Tetra Tech EM Inc. 2013. "Tetra Tech EM Inc. Laboratory Analytical Statement of Work." November.

EPA. 2008. "Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review." EPA-540-R-08-01. June.

EPA. 2010. "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review." EPA-540-R-10-011. January.

APPENDIX A

CHAIN OF CUSTODY SHEETS

LISTING SITE INSPECTION

FOR

NASA AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA

Daily Inspection Report No. #5

EKLER & KALINOWSKI, INC.
CONSULTING ENGINEERS AND SCIENTISTS

Contractor: Precision Sampling Inc.
Supt. on Job: Mike Casey
Weather: Warm + Sunny
70 Temperature °F Max °F Min
Work Hours: 8 to 12 Memos Issued
Photos: —
Special Conditions, Delays, Changes: —

Sheet 1 of 1
Date: 4/21/92
Project: NASA
EKI Job No. 920008.02

Accidents Damage: Car accident Kersting's car was hit from behind. No one was hurt. Caused delay in starting time.

Sampling, Testing:

Visitors to Site:

Work Report (Work done, Personnel/Equipment working):

Annie Kersting, Chris Munson, Mike Casey, Jose

started late - due to car accident.

9:15 - arrived.
9:30 - sampled soil adjacent to Day Care center
4 soil locations to 2' depth - 3 soil samples each
11:00 - sampled soil adjacent to N239 (NE side)
2 soil ~~samples~~ locations to depth of 2'
3 samples at each location

total 6 locations
3 soil samples at each location

Total 18 samples

Distribution: Inspection File (orig)
Field File

By Annie Kersting

Please call if you h[illegible] y questions

1 of 2

ERLER & K[illegible]NO[illegible]WSKI, IN

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: 920008.02

Date Sampled: 4/21/92

Project Name: NASA

Sampled By: Annie Kersting

Source of Samples: 8 Soil Samples

Report Results To: Annie Kersting

Location:

Phone Number: (415) 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required B (Date/Time
	DC-S001-0.5	Soil	1 brass liner	9:45	8080, 8240, 8270, 7421, 7471	5 days
	DC-S001-1.0			"	" " " " "	
	DC-S001-1.5			"	" " " " "	
	DC-S002-0.5			10:00	" " " " "	
	DC-S002-1.0			"	" " " " "	
	DC-S002-1.5			"	" " " " "	
	DC-S003-0.5			10:20	" " " " "	
	DC-S003-1.0			"	" " " " "	

Special Instructions:

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/21/92	3:20	[illegible] 1524 4.21.92

Please call if you h[illegible] any questions

ERLER & K[illegible]N [illegible]VSKI, IN

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Project Number: 920008.02

Project Name: NASA

Source of Samples: 10 samples soil

Location:

Analytical Lab: Sequoia Labs

Date Sampled: 4/21/92

Sampled By: Annie Kersting

Report Results To: Annie Kersting

Phone Number: (415) 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required B (Date/Time
	DC-S003-1.5	Soil	brass liner	10:20	8080, 8240, 8270, 7421, 7471	5 days
	DC-S004-0.5	↓	↓	10:45	8080, ", ", ", "	↓
	DC-S004-1.0			"	8080, ", ", ", "	
	DC-S004-1.5			"	8080, ", ", ", "	
	239-S001-0.5			11:10	[illegible], 8240, 8270, 7421, 7471	
	239-S001-1.0			"	[illegible], ", ", ", "	
	239-S001-1.5			"	[illegible], ", ", ", "	
	239-S002-0.5			11:30	[illegible], ", ", ", "	
	239-S002-1.0			"	[illegible], ", ", ", "	
	239-S002-1.5			"	[illegible], ", ", ", "	

Special Instructions:

Relinquished By: Signature / Affiliation	Date / Time		Received By: Signature / Affiliation
Annie Kersting / EKI	4/21/92	3:20	Patrick [illegible] 1524 4-21-92

Daily Inspection Report No. 2

ERLER & KALINOWSKI, INC.
CONSULTING ENGINEERS AND SCIENTISTS

Contractor ~~NASA Ames~~ Precision Sampling

Supt. on Job Annie Kersting

Weather Sunny, hot

Temperature 75-80 °F Max _____ °F Min

Work Hours 7:45 to 6:40 Memos Issued _____

Photos 1-2

Special Conditions, Delays, Changes —

Sheet 1 of 1

Date 4/7/92

Project _____

EKI Job No. 92008.02

Accidents Damage None

Sampling, Testing Soil

Visitors to Site —

Work Report (Work done, Personnel/Equipment working)

Annie, Chris, ~~[illegible]~~ from EKI
Mike, Jose from Precision Sampling

chris left at 11:30 am →

Started sampling in Retention Pond

Background samples in Marsh

Stevens Creek

Former Soil Disposal Area

N267

N255

N227

N218

Finished 6:40 pm

Distribution: Inspection File (orig)
Field File

By Annie Kersting

Please call if you have any questions

ERLER & KAL .C SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	RP-H006-0.5	soil	1/SS liner		8080, 7421, 7471, % Mo	10 days
	RP-H006-1.5				" " " "	
	RP-H006-2.0				" " " "	
	RP-H007-0.5				" " " "	
	RP-H007-1.5				" " " "	
	RP-H007-2.0				" " " "	
	RP-H008-0.5				" " " "	
	RP-H008-1.0				" " " "	

Special Instructions: wet weight as received

% Mo = percent moisture

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Olive / Sequoia

please call if you have any questions

(2)

ERLER & KALINOWSKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kerstinj

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	RP-H008-2.0	soil	1/SS liner		8080, 7421, 7471, %Mo	10 days
	RP-H009-0.5				" " " "	
	RP-H009-1.0				" " " "	
	RP-H009-2.0				" " " "	
	RP-H010-0.5			9:30	" " " "	
	RP-H010-1.0			"	" " " "	
	RP-H010-2.0			"	" " " "	
	M-H007-0.5				8080, 7421, 7471, %Mo, 8240, 8270, PM	

Special Instructions: % Mo = [redacted] percent moisture

Wet weight as received ..... PM = EPA Priority Metals (Sb, As, Be, Cd, Cr, Cu, [redacted], Ni, Se, Ag, Tl, Zn)

By AA Low D.L. metals

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kerstinj / EKI	4/8/92	4 PM	Todd Olive / Sequoia

please call if you have any questions

ERLER & KALINOWSKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	M-H007-1.0	Soil	1/SS liner		8080, 7421, 7471, %Mo, 8240, 8270, PM	10 Days
	M-H008-0.5				" " " " " " "	
	M-H008-1.5				" " " " " " "	
	SC-H001-0.5				8080 7421 7471 %Mo, 8240, 8270, Sa	
	SC-H001-1.0				" " " " " " —	
	SC-H001-2.0				" " " " " " —	
	SC-H002-0.5				" " " " " " —	
	SC-H002-1.0				" " " " " " —	

Special Instructions: wet weight as received

%Mo = percent moisture Sa = Salinity

PM = EPA Priority Metals (Sb, As, Be, Cd, Cr, Cu, [redacted], Ni, Se, As, Tl, Zn)

By AA Low D.L. metals

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Oline / Sequoia

Please call if you have any questions

ERLER & KA[illegible] [illegible]SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA AMES

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA AMES

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	SC-H002-1.5	soil	1/SS liner		8080, 7421, 7471, %Mo, 8240, 8270	10 days
	SC-H003-0.5				" " " " " "	
	SC-H003-1.0				" " " " " "	
	SC-H003-1.5				" " " " " "	
	FSDA-H001-0.5			11:30	8080, 7421, 7471, 8240, 8270, PM	
	FSDA-H001-2.0			"	" " " " " , PM	
	FSDA-H002-0.5			12:00	" " " " " —	
	FSDA-H002-1.5			"	" " " " " —	

Special Instructions:
wet weight as received

% Mo = percent moisture
PM = EPA Priority Metals (Sb, As, Be, Cd, Cr, Cu, [redacted], Ni, Se, As, Tl, Zn)
By AA Low DL metals

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Oline / sequoia

Please call if you have any questions

ERLER & KAL .C 'SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	FSDA-H003-0.5	Soil	1/SS liner	12:30	8080, 7421, 7471, 8270, 8240, PM	10 days
	FSDA-H003-2.0			"	" " " " " PM	
	RP-H011-0.5			12:30	8080, 7421, 7471, %Mo, Sa	
	RP-H011-1.5			"	" " " " Sa	
	RP-H011-2.0			"	" " " " —	
	FSDA-H004-0.5			13:00	8080, 7421, 7471, 8270, 8240	
	FSDA-H004-2.0			"	8080 " " " "	
	267-H001-05			[redacted]	8080, 7421, 7471, 8270	

Special Instructions: wet weight as received

%Mo = [redacted] percent moisture Sa = Salinity

PM = EPA priority metals (Sb, As, Be, Cd, Cr, Cu, [redacted], Ni, Se, As, Tl, Zn By AA Low D.L. metals

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Oline / Sequoia

ERLER & KAI (/SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	267-H001-1.0 (1.5)	Soil	1/SS liner		8080, 7421, 7471, 8270 —	10 days
	267-H002-0.5				" " " " —	
	267-H003-0.5			15:00	" " " " —	
	267-H003-1.5			"	" " " " —	
	255-H001-0.5			15:50	" " " " 8240 —	
	255-H001-1.5			"	" " " " " —	
	255-H001-2.0			"	" " " " " —	
	255-H002-1.5			16:10	" " " " " —	

Special Instructions:

! wet weight as received

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Olive / Sequoia

ERLER & KA J VSKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	255-H003-0.5	soil	1/SS liner	16:40	8080, 7421, 7471, 8240, 8270	10 days
	255-H003-1.0			"	" " " " "	
	255-H003-1.5			"	" " " " "	
	227-H001-0.5			17:00	" " " " "	
	227-H001-1.0			17	" " " " "	
	227-H002-0.5			17:20	" " " " "	
	227-H002-1.5			"	" " " " "	
Missing	227-H003-0.5					
	218-H001-0.5			17:45	" " " ———	

Special Instructions:

wet weight as received

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Oline / Sequoia

ERLER & KAL[illegible]SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 92008.02

Date Sampled: 4/7/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	218-H001-1.5	soil	1/SS liner	17:45	8080, 7421, 7471,	10 days
	218-H002-0.5			18:00	" " "	
	218-H002-1.0			"	" " "	

Special Instructions:

wet weight as received

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 PM	Todd Oliva / Sequoia

Daily Inspection Report No. 1 4/6/92

ERLER & KALINOWSKI, INC.
CONSULTING ENGINEERS AND SCIENTISTS

Contractor Precision Sampling Inc

Supt. on Job

Sheet 1 of 1

Weather Sunny + warm

Date 4/6/92

Temperature 80 °F Max °F Min

Project NASA Ames

Work Hours 7 to 7 Memos Issued

Photos 3-4.

EKI Job No. 920008.02

Special Conditions, Delays, Changes

Low recovery from initial samples in SD area resulted in hand sampling the first 1' sa

Accidents Damage none

Sampling, Testing 51 soil samples, 19 boring locations

Visitors to Site Marla Harrison @ 11 am

Work Report (Work done, Personnel/Equipment working)

Arrived at EKI - 7am loaded van. Arrived NASA 8 am.
Mike Case + Jose from Precision Sampling Inc.
Annie Kersting + Chris Munson from EKI

Sampled open storm Drain area 8:30 - 12:30

Sampled Marsh area 1:00 - 3:00

Sampled Retention Pond 3:00 - 5:00
beginning gate 17A

De contamination 5:00 - 5:30

EKI returned 6 pm Both Chris + Annie
wrote + checked notes + C-O-C form.

Distribution: Inspection File (orig)
Field File

By Annie Kersting

Please call if there is a problem

ERLER & KA. /SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: 920008.02 EKI

Date Sampled: 4/6/92

Project Name: NASA - Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kerstins

Location: NASA - Ames

Phone Number: (415) 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
✓	SD-H001-1.0	soil	1	9:40	8080, 7421, 7471, %Mo, —	10 days
✓	SD-H001-2.0	soil	1	"	8080, 7421, 7471, %Mo, —	↓
✓	SD-H001-2.5	soil	1	"	8080, 7421, 7471, %Mo, —	↓
✓	SD-H002-1.0	↓	↓	10:20	8080, 7421, 7471, %Mo, —	↓
✓	SD-H002-1.5	↓	↓	"	8080, 7421, 7471, %Mo, —	↓
✓	SD-H002-2.0	↓	↓	"	8080, 7421, 7471, %Mo, —	↓
✓	SD-H003-0.5	↓	↓	10:55	8080, 7421, 7471, %Mo, —	↓
✓	SD-H003-1.0	↓	↓	"	8080, 7421, 7471, %Mo, —	↓

Special Instructions: Percent moisture

%Mo = % moisture [wet weight as received]

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kerstins / EKI	4/8/92	4 pm	Todd Oline / Sequoia

Please call if there is a [illegible]

(2

ERLER & KA[illegible]/SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 920008.02

Date Sampled: 4/6/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames R.C.

Phone Number: (415) 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	SD-H003-2.0	Soil		"	8080, 7421, 7471, %Mo —	10 days ~~2 weeks~~
	SD-H004-0.5			11:30	8080, 7421, 7471, %Mo —	
	SD-H004-1.5			"	8080, 7421, 7471, %Mo —	
	SD-H004-2.0			"	8080, 7421, 7471, %Mo —	
	SD-H005-0.5			11:55	8080, 7421, 7471, %Mo —	
	SD-H005-1.5				8080, 7421, 7471, %Mo —	
	SD-H005-2.0				8080, 7421, 7471, %Mo —	
	SD-H006-0.5			12:20	8080, 7421, 7471, %Mo —	

Special Instructions: wet weight as received

% moisture = % Mo

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/10/92	4 pm	Todd Oline / Sequoia

Please call if you have problem

ERLER & KA /SKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 920008.02

Date Sampled: 4/6/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
✓	SD-H006-1.5	Soil	1/SS liner	12:20	5050, 7421, 7471, % Mo —	10 days
✓	SD-H006-2.0	↓	↓	"	" " " % Mo —	↓
✓	SD-H007-0.5			13:20	" " " " —	
✓	SD-H007-1.0			"	" " " " " —	
✓	SD-H007-1.5			"	" " " " " —	
✓	SD-H008-0.5			13:45	" " " " " —	
✓	M-H001-0.5			13:50	" " " " —	
✓	M-H001-1.0	✓	✓		" " " "	✓

Special Instructions: % moisture [wet weight as received]

Relinquished By: Signature / Affiliation	Date / Time		Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4pm	Todd Oline / Sequoia

Please call if you have any questions

ERLER & KA VSKI, INC

CHAIN OF CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 920008.02

Date Sampled: 4/6/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	M-H001-1.5	Soil	1/SS sleeve	13:50	8080, 7421, 7471, %Mo —	10 days
	M-H002-0.5	↓	↓	14:00	" " " " —	↓
	M-H002-1.0			"	" " " " —	
	M-H002-1.5			"	" " " " —	
	M-H003-0.5			14:05	" " " " —	
	M-H003-1.5			"	" " " " —	
	M-H003-2.0			"	" " " " —	
	M-H004-0.5	↓	↓	14:20	" " " " —	↓

Special Instructions:

wet weight as received

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4PM	Todd Olive / Sequoia

please call if you have any questions

ERLER & KAL /SKI, INC

CHAIN F CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 920008.02

Date Sampled: 4/6/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
✓	M-H005-0.5	soil	1/SS sleeve	14:55	8080, 7421, 7471, 8240, 8270, %Mo, PM	10 days
✓	M-H005-1.5	↓	↓		8080, 7421, 7471, 8240, 8270, %Mo, PM	↓
✓	M-H006-0.5			15:00	8080, 7421, 7471, 8240, 8270, %Mo, PM	
✓	M-H006-1.0				8080, 7421, 7471, 8240, 8270, %Mo, PM	
✓	RP-H001-0.5			15:15	8080, 7421, 7471, %Mo, Sa	
✓	RP-H001-1.0				" " " " , —	
✓	RP-H001-1.5				" " " " , —	
✓	RP-H002-0.5	↓	↓	15:50	" " " " , Sa	↓

Special Instructions: %Mo = percent moisture Sa = Salinity

wet weight as received

PM = Priority Metals (Sb, As, Be, Cd, Cr, Cu, [redacted], Ni, Se, Ag, Ti, Zn)

Relinquished By: Signature / Affiliation	Date	Time	Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	[redacted]	Todd Oline / Sequoia

Please call if you have any questions

ERLER & KAL VSKI, INC

CHAIN F CUSTODY / SAMPLE ANALYSIS REQUEST

Analytical Lab: Sequoia

Project Number: EKI 920008.02

Date Sampled: 4/6/92

Project Name: NASA Ames

Sampled By: ABK

Source of Samples:

Report Results To: Annie Kersting

Location: NASA Ames

Phone Number: 415 578-1172

Lab Sample ID	Field Sample ID	Sample Type	Number/ Type of Containers	Time Collected	Analyses Requested (EPA Method No.)	Results Required By (Date/Time)
	RP-H002-1.5	Soil	1/ss sleeve		8080, 7421, 7471, %Mo, —	10 days
	RP-H002-2.0			"	" " " " —	
	RP-H003-0.5			16:00	" " " " —	
	RP-H003-1.5			"	" " " " [redacted]	
	RP-H003-2.0			"	" " " " —	
	RP-H004-0.5			16:25	" " " " —	
	RP-H004-1.5			"	" " " " —	
	RP-H004-2.0			"	" " " " —	
~~Special Instructions~~	RP-H005-0.5			16:30	" " " " —	

wet weight as received

%Mo = Percent Moisture

~~Sa = Salinity~~

Relinquished By: Signature / Affiliation	Date / Time		Received By: Signature / Affiliation
Annie Kersting / EKI	4/8/92	4 pm	Todd Oline / Sequoia

A

B

APPENDIX B

LABORATORY ANALYSIS SHEETS

LISTING SITE INSPECTION

FOR

NASA AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA

EPA 8080

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 218-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1315	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton

Christine L. Middleton
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 218-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1316	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
ndosulfan sulfate	6.0	N.D.
ndrin	2.0	N.D.
ndrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton

Christine L. Middleton
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 218-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1317	Analyzed:	Apr 21, 1992
			Revised:	May 5, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	160
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	730
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Christine L. Middleton

Christine L. Middleton
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 218-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1318	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**4.1**
4,4'-DDT	**6.0**	**11**
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**33**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1312	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1313	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	44
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2041264.ERL <35>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1314	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1352	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	25
PCB-1260	20	N.D.

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Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1304	Analyzed:	Apr 24, 1992
			Revised:	May 5, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	330
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1300	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1301	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1302	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	13
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1303	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1305	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	**20**	**290**
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1306	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	**60**	**79**
4,4'-DDE	**20**	**390**
4,4'-DDT	60	N.D.
Dieldrin	**20**	**31**
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1307	Analyzed:	Apr 21, 1992
			Revised:	May 5, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	320
4,4'-DDT	60	79
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1308	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	**20**	**360**
4,4'-DDT	60	N.D.
Dieldrin	**20**	**22**
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1309	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	**60**	**62**
4,4'-DDE	**20**	**370**
4,4'-DDT	60	N.D.
Dieldrin	**20**	**24**
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1310	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	**20**	**330**
4,4'-DDT	60	N.D.
Dieldrin	**20**	**20**
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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2041264.ERL <32>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1299	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	**4.0**	**70**
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	N.D.
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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A2041263.ERL <16>

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350-S001-0.5

Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3533	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	42
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3534	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3535	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2043533.ERL <3>

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3536	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3537	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3538	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3539	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	10	180
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	100	N.D.
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3540	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2043533.ERL <8>

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3541	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	13
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3542	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	3.7
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	52
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3543	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#920008.02, Nasa Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3544	Analyzed:	Apr 26, 1992
			Reported:	Apr 29, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	A2041183	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
ndosulfan sulfate	6.0	N.D.
ndrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	51
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1184	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	15
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	62
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H001-2.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1185	Analyzed:	Apr 15, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1186	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	N.D.
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	**200**	**520**
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1187	Analyzed:	Apr 15, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H002-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1188	Analyzed:	Apr 15, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1189	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	1,100
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1190	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	N.D.
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	440
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1191	Analyzed:	Apr 15, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1192	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	50	N.D.
alpha-BHC	50	N.D.
beta-BHC	50	N.D.
delta-BHC	50	N.D.
gamma-BHC (Lindane)	50	N.D.
Chlordane	1,000	N.D.
4,4'-DDD	300	N.D.
4,4'-DDE	100	N.D.
4,4'-DDT	300	N.D.
Dieldrin	100	N.D.
Endosulfan I	100	N.D.
Endosulfan II	100	N.D.
Endosulfan sulfate	300	N.D.
Endrin	100	N.D.
Endrin aldehyde	300	N.D.
Heptachlor	50	N.D.
Heptachlor expoxide	50	N.D.
Methoxychlor	1,000	N.D.
Toxaphene	4,000	N.D.
PCB-1016	1,000	N.D.
PCB-1221	4,000	N.D.
PCB-1232	1,000	N.D.
PCB-1242	1,000	N.D.
PCB-1248	1,000	N.D.
PCB-1254	1,000	2,300
PCB-1260	1,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H004-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1193	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	930
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1194	Analyzed:	Apr 24, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	1,000
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1195	Analyzed:	Apr 21, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	43
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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A2041183.ERL <11>

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1196	Analyzed:	Apr 21, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	55
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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A2041183.ERL <12>

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H005-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1197	Analyzed:	Apr 21, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	170
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1198	Analyzed:	Apr 23, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	50	N.D.
alpha-BHC	50	N.D.
beta-BHC	50	N.D.
delta-BHC	50	N.D.
gamma-BHC (Lindane)	50	N.D.
Chlordane	1,000	N.D.
4,4'-DDD	300	N.D.
4,4'-DDE	100	N.D.
4,4'-DDT	300	N.D.
Dieldrin	100	N.D.
Endosulfan I	100	N.D.
Endosulfan II	100	N.D.
Endosulfan sulfate	300	N.D.
Endrin	100	N.D.
Endrin aldehyde	300	N.D.
Heptachlor	50	N.D.
Heptachlor expoxide	50	N.D.
Methoxychlor	1,000	N.D.
Toxaphene	4,000	N.D.
PCB-1016	1,000	N.D.
PCB-1221	4,000	N.D.
PCB-1232	1,000	N.D.
PCB-1242	1,000	N.D.
PCB-1248	1,000	N.D.
PCB-1254	1,000	4,500
PCB-1260	1,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H006-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1199	Analyzed:	Apr 30, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	**6.0**	**12**
4,4'-DDE	**2.0**	**17**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**140**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H006-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	2041-1200	Analyzed:	Apr 15, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1201	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	50	N.D.
alpha-BHC	50	N.D.
beta-BHC	50	N.D.
delta-BHC	50	N.D.
gamma-BHC (Lindane)	50	N.D.
Chlordane	1,000	N.D.
4,4'-DDD	300	N.D.
4,4'-DDE	100	N.D.
4,4'-DDT	**300**	**530**
Dieldrin	100	N.D.
Endosulfan I	100	N.D.
Endosulfan II	100	N.D.
Endosulfan sulfate	300	N.D.
Endrin	100	N.D.
Endrin aldehyde	300	N.D.
Heptachlor	50	N.D.
Heptachlor expoxide	50	N.D.
Methoxychlor	1,000	N.D.
Toxaphene	4,000	N.D.
PCB-1016	1,000	N.D.
PCB-1221	4,000	N.D.
PCB-1232	1,000	N.D.
PCB-1242	1,000	N.D.
PCB-1248	1,000	N.D.
PCB-1254	**1,000**	**4,000**
PCB-1260	1,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1202	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	1,300
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H007-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1203	Analyzed:	Apr 17, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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A2041183.ERL <17>

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Duplicate to SD-H007-0.5

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SD-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1204	Analyzed:	Apr 30, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
ndrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	1,100
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1205	Analyzed:	Apr 17, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1206	Analyzed:	Apr 17, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
ndosulfan sulfate	6.0	N.D.
ndrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1207	Analyzed:	Apr 17, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1208	Analyzed:	Apr 23, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	4.5
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	110
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1209	Analyzed:	Apr 20, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	64
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1210	Analyzed:	Apr 17, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1211	Analyzed:	Apr 29, 1992
			Revised:	May 6, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	1,400
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1212	Analyzed:	Apr 20, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	38
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1213	Analyzed:	Apr 20, 1992
			Revised:	May 6, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Dup M-H003-0.5

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1214	Analyzed:	Apr 30, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	20	N.D.
alpha-BHC	20	N.D.
beta-BHC	20	N.D.
delta-BHC	20	N.D.
gamma-BHC (Lindane)	20	N.D.
Chlordane	400	N.D.
4,4'-DDD	120	N.D.
4,4'-DDE	40	N.D.
4,4'-DDT	120	N.D.
Dieldrin	40	N.D.
Endosulfan I	40	N.D.
Endosulfan II	40	N.D.
Endosulfan sulfate	120	N.D.
Endrin	40	N.D.
Endrin aldehyde	120	N.D.
Heptachlor	20	N.D.
Heptachlor expoxide	20	N.D.
Methoxychlor	400	N.D.
Toxaphene	1,600	N.D.
PCB-1016	400	N.D.
PCB-1221	1,600	N.D.
PCB-1232	400	N.D.
PCB-1242	400	N.D.
PCB-1248	400	N.D.
PCB-1254	400	960
PCB-1260	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1215	Analyzed:	Apr 20, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	3.7
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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A2041183.ERL <25>

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1216	Analyzed:	Apr 24, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1217	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	15
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	N.D.
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1218	Analyzed:	Apr 20, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1278	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	17
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1279	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1280	Analyzed:	Apr 24, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**4.7**
4,4'-DDT	**6.0**	**7.7**
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**49**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

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730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1281	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
eptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1081	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	**6.0**	**8.5**
4,4'-DDE	**2.0**	**14**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1219	Analyzed:	Apr 20, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1220	Analyzed:	Apr 23, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1082	Analyzed:	Apr 26, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	**6.0**	**10**
4,4'-DDE	**2.0**	**9.2**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**34**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1221	Analyzed:	Apr 24, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H002-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1222	Analyzed:	Apr 24, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1223	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	9.2
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1224	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1225	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1226	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H004-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1227	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1228	Analyzed:	Apr 23, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Duplicate RP-H004-0

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1229	Analyzed:	Apr 21, 1992
			Reported:	Apr 27, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	50	N.D.
alpha-BHC	50	N.D.
beta-BHC	50	N.D.
delta-BHC	50	N.D.
gamma-BHC (Lindane)	50	N.D.
Chlordane	1,000	N.D.
4,4'-DDD	300	N.D.
4,4'-DDE	100	N.D.
4,4'-DDT	300	N.D.
Dieldrin	100	N.D.
Endosulfan I	100	N.D.
Endosulfan II	100	N.D.
Endosulfan sulfate	300	N.D.
Endrin	100	N.D.
Endrin aldehyde	300	N.D.
Heptachlor	50	N.D.
Heptachlor expoxide	50	N.D.
Methoxychlor	1,000	N.D.
Toxaphene	4,000	N.D.
PCB-1016	1,000	N.D.
PCB-1221	4,000	N.D.
PCB-1232	1,000	N.D.
PCB-1242	1,000	N.D.
PCB-1248	1,000	N.D.
PCB-1254	1,000	3,200
PCB-1260	1,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	A2041263	Analyzed:	Apr 29, 1992
			Revised:	May 5, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	10	N.D.
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	100	N.D.
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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COPY

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H006-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1264	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H006-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1265	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames		Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H007-0.5		Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080		Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1266		Analyzed:	Apr 23, 1992
				Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**37**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2041264.ERL <3>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H007-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1267	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H007-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1268	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1269	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	100	N.D.
alpha-BHC	100	N.D.
beta-BHC	100	N.D.
delta-BHC	100	N.D.
gamma-BHC (Lindane)	100	N.D.
Chlordane	2,000	N.D.
4,4'-DDD	600	N.D.
4,4'-DDE	200	N.D.
4,4'-DDT	600	N.D.
Dieldrin	200	N.D.
Endosulfan I	200	N.D.
Endosulfan II	200	N.D.
Endosulfan sulfate	600	N.D.
Endrin	200	N.D.
Endrin aldehyde	600	N.D.
Heptachlor	100	N.D.
Heptachlor expoxide	100	N.D.
Methoxychlor	2,000	N.D.
Toxaphene	8,000	N.D.
PCB-1016	2,000	N.D.
PCB-1221	8,000	N.D.
PCB-1232	2,000	N.D.
PCB-1242	2,000	N.D.
PCB-1248	2,000	N.D.
PCB-1254	2,000	2,100
PCB-1260	2,000	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H008-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1270	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	56
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H008-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1271	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H009-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1272	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H009-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1273	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H009-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1274	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H010-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1275	Analyzed:	Apr 17, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H010-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1276	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H010-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1277	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	**6.0**	**29**
4,4'-DDE	**2.0**	**29**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H011-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1083	Analyzed:	Apr 26, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	10	12
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	100	160
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H011-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1084	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, RP-H011-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1296	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	10	N.D.
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	100	N.D.
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1085	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1282	Analyzed:	Apr 21, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**4.1**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**43**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1283	Analyzed:	Apr 24, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1284	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <6>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1285	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**2.5**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <7>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1286	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	2.4
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	22
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <8>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1287	Analyzed:	Apr 26, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	2.0	N.D.
alpha-BHC	2.0	N.D.
beta-BHC	2.0	N.D.
delta-BHC	2.0	N.D.
gamma-BHC (Lindane)	2.0	N.D.
Chlordane	40	N.D.
4,4'-DDD	12	N.D.
4,4'-DDE	4.0	N.D.
4,4'-DDT	12	N.D.
Dieldrin	4.0	N.D.
Endosulfan I	4.0	N.D.
Endosulfan II	4.0	N.D.
Endosulfan sulfate	12	N.D.
Endrin	4.0	N.D.
Endrin aldehyde	12	N.D.
Heptachlor	2.0	N.D.
Heptachlor expoxide	2.0	N.D.
Methoxychlor	40	N.D.
Toxaphene	160	N.D.
PCB-1016	40	N.D.
PCB-1221	160	N.D.
PCB-1232	40	N.D.
PCB-1242	40	N.D.
PCB-1248	40	N.D.
PCB-1254	40	N.D.
PCB-1260	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1288	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**2.4**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	N.D.
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <10>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1289	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**3.6**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**22**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <11>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1290	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	N.D.
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	**200**	**710**
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1291	Analyzed:	Apr 30, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	10	N.D.
alpha-BHC	10	N.D.
beta-BHC	10	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	10	N.D.
Chlordane	200	N.D.
4,4'-DDD	60	N.D.
4,4'-DDE	20	N.D.
4,4'-DDT	60	N.D.
Dieldrin	20	N.D.
Endosulfan I	20	N.D.
Endosulfan II	20	N.D.
Endosulfan sulfate	60	N.D.
Endrin	20	N.D.
Endrin aldehyde	60	N.D.
Heptachlor	10	N.D.
Heptachlor expoxide	10	N.D.
Methoxychlor	200	N.D.
Toxaphene	800	N.D.
PCB-1016	200	N.D.
PCB-1221	800	N.D.
PCB-1232	200	N.D.
PCB-1242	200	N.D.
PCB-1248	200	N.D.
PCB-1254	200	N.D.
PCB-1260	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1292	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	**10**	**13**
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	**100**	**220**
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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A2041263.ERL <13>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1293	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	**10**	**11**
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	**100**	**210**
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1294	Analyzed:	Apr 29, 1992
			Reported:	May 1, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	21
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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A2041263.ERL <14>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1295	Analyzed:	Apr 24, 1992
			Revised:	May 5, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	5.0	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	100	N.D.
4,4'-DDD	30	N.D.
4,4'-DDE	10	27
4,4'-DDT	30	N.D.
Dieldrin	10	N.D.
Endosulfan I	10	N.D.
Endosulfan II	10	N.D.
Endosulfan sulfate	30	N.D.
Endrin	10	N.D.
Endrin aldehyde	30	N.D.
Heptachlor	5.0	N.D.
Heptachlor expoxide	5.0	N.D.
Methoxychlor	100	N.D.
Toxaphene	400	N.D.
PCB-1016	100	N.D.
PCB-1221	400	N.D.
PCB-1232	100	N.D.
PCB-1242	100	N.D.
PCB-1248	100	N.D.
PCB-1254	100	310
PCB-1260	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1297	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	**2.0**	**3.9**
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	**20**	**50**
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2041264.ERL <20>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8080	Extracted:	Apr 16, 1992
Attention: Annie Kersting	Lab Number:	204-1298	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

ORGANOCHLORINE PESTICIDES AND PCB'S (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Aldrin	1.0	N.D.
alpha-BHC	1.0	N.D.
beta-BHC	1.0	N.D.
delta-BHC	1.0	N.D.
gamma-BHC (Lindane)	1.0	N.D.
Chlordane	20	N.D.
4,4'-DDD	6.0	N.D.
4,4'-DDE	2.0	N.D.
4,4'-DDT	6.0	N.D.
Dieldrin	2.0	N.D.
Endosulfan I	2.0	N.D.
Endosulfan II	2.0	N.D.
Endosulfan sulfate	6.0	N.D.
Endrin	2.0	N.D.
Endrin aldehyde	6.0	N.D.
Heptachlor	1.0	N.D.
Heptachlor expoxide	1.0	N.D.
Methoxychlor	20	N.D.
Toxaphene	80	N.D.
PCB-1016	20	N.D.
PCB-1221	80	N.D.
PCB-1232	20	N.D.
PCB-1242	20	N.D.
PCB-1248	20	N.D.
PCB-1254	20	26
PCB-1260	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 24, 1992
Attention: Annie Kersting	First Sample #:	A2043533	Analyzed:	Apr 28, 1992
			Revised:	May 11, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
A2043533	DC-S001-0.5	0.25	15
204-3534	DC-S001-1.0	0.25	8.9
204-3535	DC-S001-1.5	0.25	6.3
204-3536	DC-S002-0.5	0.25	11
204-3537	DC-S002-1.0	0.25	7.5
204-3538	DC-S002-1.5	0.25	6.6
204-3539	DC-S003-0.5	0.25	7.8
204-3540	DC-S003-1.0	0.25	8.9
204-3541	DC-S003-1.5	0.25	7.5
204-3542	DC-S004-0.5	0.25	22
204-3543	DC-S004-1.0	0.25	9.2
204-3544	DC-S004-1.5	0.25	11
204-3545	239-S001-0.5	0.25	12
204-3546	239-S001-1.0	0.25	13
204-3547	239-S001-1.5	0.25	5.5
204-3548	239-S002-0.5	0.25	6.3
204-3549	239-S002-1.5	0.25	6.9
204-3550	239-S002-1.5	0.25	5.8

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 10, 1992
Attention: Annie Kersting	First Sample #:	204-1081	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1081	RP-H001-0.5	0.25	9.0
204-1082	RP-H002-0.5	0.25	52
204-1083	RP-H011-0.5	0.25	17
204-1084	RP-H011-1.5	0.25	5.0
204-1085	SC-H001-0.5	0.25	13

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1183	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1183	SD-H001-1.0	0.25	86
204-1184	SD-H001-2.0	0.25	6.9
204-1185	SD-H001-2.5	0.25	3.1
204-1186	SD-H002-1.0	0.25	62
204-1187	SD-H002-1.5	0.25	8.0
204-1188	SD-H002-2.0	0.25	4.0
204-1189	SD-H003-0.5	0.25	14
204-1190	SD-H003-1.0	0.25	49
204-1191	SD-H003-2.0	0.25	6.1
204-1192	SD-H004-0.5	0.25	86

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1193	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1193	SD-H004-1.5	0.25	12
204-1194	SD-H004-2.0	0.25	6.1
204-1195	SD-H005-0.5	0.25	260
204-1196	SD-H005-1.5	0.25	51
204-1197	SD-H005-2.0	0.25	13
204-1198	SD-H006-0.5	0.25	120
204-1199	SD-H006-1.5	0.25	4.5
204-1200	SD-H006-2.0	0.25	5.9
204-1201	SD-H007-0.5	0.25	74

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1202	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1202	SD-H007-1.0	0.25	9.0
204-1203	SD-H007-1.5	0.25	7.4
204-1204	SD-H008-0.5	0.25	210
204-1205	M-H001-0.5	0.25	10
204-1206	M-H001-1.0	0.25	6.9
204-1207	M-H001-1.5	0.25	6.3
204-1208	M-H002-0.5	0.25	8.5
204-1209	M-H002-1.0	0.25	7.4
204-1210	M-H002-1.5	0.25	8.5

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1211	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1211	M-H003-0.5	0.25	8.5
204-1212	M-H003-1.5	0.25	8.5
204-1213	M-H003-2.0	0.25	7.2
204-1214	M-H004-0.5	0.25	190
204-1219	RP-H001-1.0	0.25	4.7
204-1220	RP-H001-1.5	0.25	4.7
204-1221	RP-H002-1.5	0.25	4.2
204-1222	RP-H002-2.0	0.25	3.6
204-1223	RP-H003-0.5	0.25	7.5
204-1224	RP-H003-1.5	0.25	4.0
204-1225	RP-H003-2.0	0.25	4.0
204-1226	RP-H004-0.5	0.25	8.6

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1227	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1227	RP-H004-1.5	0.25	5.9
204-1228	RP-H004-2.0	0.25	5.1
204-1229	RP-H005-0.5	0.25	220

Analytes reported as N.D. were not present above the stated limit of detection.

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2041183.ERL <10>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1263	Analyzed:	Apr 15-16, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1263	RP-H006-0.5	0.25	7.7
204-1264	RP-H006-1.5	0.25	7.7
204-1265	RP-H006-2.0	0.25	15
204-1266	RP-H007-0.5	0.25	5.5
204-1267	RP-H007-1.5	0.25	5.4
204-1268	RP-H007-2.0	0.25	5.4
204-1269	RP-H008-0.5	0.25	100
204-1270	RP-H008-1.0	0.25	6.5
204-1271	RP-H008-2.0	0.25	6.1

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1272	Analyzed:	Apr 15-16, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1272	RP-H009-0.5	0.25	9.5
204-1273	RP-H009-1.0	0.25	6.6
204-1274	RP-H009-2.0	0.25	6.1
204-1275	RP-H010-0.5	0.25	23
204-1276	RP-H010-1.0	0.25	6.3
204-1277	RP-H010-2.0	0.25	8.3
204-1282	SC-H001-1.0	0.25	17
204-1283	SC-H001-2.0	0.25	8.2
204-1284	SC-H002-0.5	0.25	14
204-1285	SC-H002.1.0	0.25	13
204-1286	SC-H002-1.5	0.25	13

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1287	Analyzed:	Apr 15-16, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1287	SC-H003-0.5	0.25	8.5
204-1288	SC-H003-1.0	0.25	7.0
204-1289	SC-H003-1.5	0.25	12
204-1292	FSDA-H002-0.5	0.25	40
204-1293	FSDA-H002-1.5	0.25	16
204-1296	RP-H011-2.0	0.25	1.9
204-1297	FSDA-H004-0.5	0.25	12
204-1298	FSDA-H004-2.0	0.25	12
204-1299	267-H001-0.5	0.25	36
204-1300	267-H001-1.5	0.25	0.93
204-1301	267-H002-0.5	0.25	4.3

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1302	Analyzed:	Apr 15-16, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1302	267-H003-0.5	0.25	3.6
204-1303	267-H003-1.5	0.25	5.2
204-1304	255-H001-0.5	0.25	7.3
204-1305	255-H001-1.5	0.25	6.4
204-1306	255-H001-2.0	0.25	8.7
204-1307	255-H002-1.5	0.25	6.4
204-1308	255-H003-0.5	0.25	7.0
204-1309	255-H003-1.0	0.25	7.0
204-1310	255-H003-1.5	0.25	7.3
204-1311	227-H001-0.5	0.25	22
204-1312	227-H001-1.0	0.25	67

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Lead by AA Furnace	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1313	Analyzed:	Apr 15-16, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Lead by AA Furnace

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1313	227-H002-0.5	0.25	3.9
204-1314	227-H002-1.5	0.25	5.8
204-1315	218-H001-0.5	0.25	130
204-1316	218-H001-1.5	0.25	6.1
204-1317	218-H002-0.5	0.25	5.2
204-1318	218-H002-1.0	0.25	380
204-1352	227-H003-0.5	0.25	2.2

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 24, 1992
Attention: Annie Kersting	First Sample #:	204-3533	Analyzed:	Apr 24, 1992
			Revised:	May 11, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-3533	DC-S001-0.5	0.010	0.067
204-3534	DC-S001-1.0	0.01	0.04
204-3535	DC-S001-1.5	0.01	0.013
204-3536	DC-S002-0.5	0.01	0.039
204-3537	DC-S002-1.0	0.01	0.05
204-3538	DC-S002-1.5	0.01	0.031
204-3539	DC-S003-0.5	0.01	0.022
204-3540	DC-S003-1.0	0.01	0.032
204-3541	DC-S003-1.5	0.01	0.031
204-3542	DC-S004-0.5	0.01	0.12
204-3543	DC-S004-1.0	0.01	0.062
204-3544	DC-S004-1.5	0.01	0.044
204-3545	239-S001-0.5	0.01	0.068
204-3546	239-S001-1.0	0.01	0.089
204-3547	239-S001-1.5	0.01	0.03
204-3548	239-S002-0.5	0.01	0.052
204-3549	239-S002-1.5	0.01	0.078
204-3550	239-S002-1.5	0.01	0.085

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 10, 1992
Attention: Annie Kersting	First Sample #:	204-1081	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1081	RP-H001-0.5	0.010	0.12
204-1082	RP-H002-0.5	0.010	0.30
204-1083	RP-H011-0.5	0.010	0.081
204-1084	RP-H011-1.5	0.010	0.12
204-1085	SC-H001-0.5	0.010	0.070

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1219	Analyzed:	Apr 15, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1219	RP-H001-1.0	0.010	0.018
204-1220	RP-H001-1.5	0.010	0.017
204-1221	RP-H002-1.5	0.010	0.018
204-1222	RP-H002-2.0	0.010	0.017
204-1223	RP-H003-0.5	0.010	0.093
204-1224	RP-H003-1.5	0.010	0.021
204-1225	RP-H003-2.0	0.010	0.018
204-1226	RP-H004-0.5	0.010	0.45
204-1227	RP-H004-1.5	0.010	0.022
204-1228	RP-H004-2.0	0.010	0.021
204-1229	RP-H005-0.5	0.010	0.23

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 16, 1992
Attention: Annie Kersting	First Sample #:	204-1263	Analyzed:	Apr 16-17, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1263	RP-H006-0.5	0.010	0.086
204-1264	RP-H006-1.5	0.010	0.068
204-1265	RP-H006-2.0	0.010	0.26
204-1266	RP-H007-0.5	0.010	0.065
204-1267	RP-H007-1.5	0.010	0.020
204-1268	RP-H007-2.0	0.010	0.020
204-1269	RP-H008-0.5	0.010	0.20
204-1270	RP-H008-1.0	0.010	0.023
204-1271	RP-H008-2.0	0.010	0.033

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 16, 1992
Attention: Annie Kersting	First Sample #:	204-1272	Analyzed:	Apr 16-17, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1272	RP-H009-0.5	0.010	0.074
204-1273	RP-H009-1.0	0.010	0.080
204-1274	RP-H009-2.0	0.010	0.042
204-1275	RP-H010-0.5	0.010	0.087
204-1276	RP-H010-1.0	0.010	0.021
204-1277	RP-H010-2.0	0.010	0.026
204-1282	SC-H001-1.0	0.010	0.17
204-1283	SC-H001-2.0	0.010	0.092
204-1284	SC-H002-0.5	0.010	0.15
204-1285	SC-H002-1.0	0.010	0.13
204-1286	SC-H002-1.5	0.010	0.15

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 16-17, 1992
Attention: Annie Kersting	First Sample #:	204-1287	Analyzed:	Apr 16-17, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1287	SC-H003-0.5	0.010	0.17
204-1288	SC-H003-1.0	0.010	0.18
204-1289	SC-H003-1.5	0.010	0.20
204-1292	FSDA-H002-0.5	0.010	0.20
204-1293	FSDA-H002-1.5	0.010	0.12
204-1296	RP-H011-2.0	0.010	0.021
204-1297	FSDA-H004-0.5	0.010	0.074
204-1298	FSDA-H004-2.0	0.010	0.19
204-1299	267-H001-0.5	0.010	0.091
204-1300	267-H001-1.5	0.010	0.087
204-1301	267-H002-0.5	0.010	0.15

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 16-17, 1992
Attention: Annie Kersting	First Sample #:	204-1302	Analyzed:	Apr 16-17, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1302	267-H003-0.5	0.010	0.093
204-1303	267-H003-1.5	0.010	0.067
204-1304	255-H001-0.5	0.010	0.059
204-1305	255-H001-1.5	0.010	0.051
204-1306	255-H001-2.0	0.010	0.057
204-1307	255-H002-1.5	0.010	0.094
204-1308	255-H003-0.5	0.010	0.057
204-1309	255-H003-1.0	0.010	0.074
204-1310	255-H003-1.5	0.010	0.049
204-1311	227-H001-0.5	0.010	0.17
204-1312	227-H001-1.0	0.010	0.054

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 16-17, 1992
Attention: Annie Kersting	First Sample #:	204-1313	Analyzed:	Apr 16-17, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1313	227-H002-0.5	0.010	0.050
204-1314	227-H002-1.5	0.010	0.057
204-1315	218-H001-0.5	0.010	0.41
204-1316	218-H001-1.5	0.010	0.082
204-1317	218-H002-0.5	0.010	0.10
204-1318	218-H002-1.0	0.010	0.045
204-1352	227-H003-0.5	0.010	0.014

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1183	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1183	SD-H001-1.0	0.010	0.13
204-1184	SD-H001-2.0	0.010	0.040
204-1185	SD-H001-2.5	0.010	0.043
204-1186	SD-H002-1.0	0.010	0.30
204-1187	SD-H002-1.5	0.010	0.48
204-1188	SD-H002-2.0	0.010	0.043
204-1189	SD-H003-0.5	0.010	0.14
204-1190	SD-H003-1.0	0.010	0.13
204-1191	SD-H003-2.0	0.010	0.042
204-1192	SD-H004-0.5	0.010	0.27

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 14, 1992
Attention: Annie Kersting	First Sample #:	204-1193	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1193	SD-H004-1.5	0.010	0.050
204-1194	SD-H004-2.0	0.010	0.042
204-1195	SD-H005-0.5	0.010	0.44
204-1196	SD-H005-1.5	0.010	0.098
204-1197	SD-H005-2.0	0.010	0.033
204-1198	SD-H006-0.5	0.010	0.20
204-1199	SD-H006-1.5	0.010	0.039
204-1200	SD-H006-2.0	0.010	0.034
204-1201	SD-H007-0.5	0.010	0.42
204-1202	SD-H007-1.0	0.010	0.031
204-1203	SD-H007-1.5	0.010	0.031

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Mercury by AA Cold Vapor	Extracted:	Apr 15, 1992
Attention: Annie Kersting	First Sample #:	204-1204	Analyzed:	Apr 15, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Mercury by AA Cold Vapor

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
204-1204	SD-H008-0.5	0.010	0.39
204-1205	M-H001-0.5	0.010	0.028
204-1206	M-H001-1.0	0.010	0.025
204-1207	M-H001-1.5	0.010	0.031
204-1208	M-H002-0.5	0.010	0.093
204-1209	M-H002-1.0	0.010	0.049
204-1210	M-H002-1.5	0.010	0.021
204-1211	M-H003-0.5	0.010	0.75
204-1212	M-H003-1.5	0.010	0.025
204-1213	M-H003-2.0	0.010	0.021
204-1214	M-H004-0.5	0.010	0.11

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1311	Revised:	May 5, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1312	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1313	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1314	Revised:	May 5, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1352	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	1,700
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3545	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3546	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3547	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3548	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 24, 1992
Attention: Annie Kersting	Lab Number:	204-3549	Reported:	Jan 7, 1900

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 24, 1992
Attention: Annie Kersting	Lab Number:	204-3550	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1304	Revised:	May 5, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
ibromochloromethane	100	N.D.
,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1305	Revised:	May 5, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 21, 1992
Attention: Annie Kersting	Lab Number:	204-1306	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 21, 1992
Attention: Annie Kersting	Lab Number:	204-1307	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 21, 1992
Attention: Annie Kersting	Lab Number:	204-1308	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 21, 1992
Attention: Annie Kersting	Lab Number:	204-1309	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 21, 1992
Attention: Annie Kersting	Lab Number:	204-1310	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3533	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3534	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3535	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3536	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3537	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3538	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3539	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3540	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3541	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3542	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3543	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3544	Reported:	Apr 28, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1215	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1216	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1217	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1218	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1278	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1279	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Background

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1280	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Bac Kground

Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1281	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1085	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1282	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1283	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1284	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1285	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1286	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 20, 1992
Attention: Annie Kersting	Lab Number:	204-1287	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1288	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1289	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1290	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1291	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1292	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1293	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1294	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1295	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 17, 1992
Attention: Annie Kersting	Lab Number:	204-1297	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8240	Analyzed:	Apr 18, 1992
Attention: Annie Kersting	Lab Number:	204-1298	Reported:	Apr 22, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acetone	500	N.D.
Benzene	100	N.D.
Bromodichloromethane	100	N.D.
Bromoform	100	N.D.
Bromomethane	100	N.D.
2-Butanone	500	N.D.
Carbon disulfide	100	N.D.
Carbon tetrachloride	100	N.D.
Chlorobenzene	100	N.D.
Chloroethane	100	N.D.
2-Chloroethyl vinyl ether	500	N.D.
Chloroform	100	N.D.
Chloromethane	100	N.D.
Dibromochloromethane	100	N.D.
1,1-Dichloroethane	100	N.D.
1,2-Dichloroethane	100	N.D.
1,1-Dichloroethene	100	N.D.
cis-1,2-Dichloroethene	100	N.D.
trans-1,2-Dichloroethene	100	N.D.
1,2-Dichloropropane	100	N.D.
cis-1,3-Dichloropropene	100	N.D.
trans-1,3-Dichloropropene	100	N.D.
Ethylbenzene	100	N.D.
2-Hexanone	500	N.D.
Methylene chloride	250	N.D.
4-Methyl-2-pentanone	500	N.D.
Styrene	100	N.D.
1,1,2,2-Tetrachloroethane	100	N.D.
Tetrachloroethene	100	N.D.
Toluene	100	N.D.
1,1,1-Trichloroethane	100	N.D.
1,1,2-Trichloroethane	100	N.D.
Trichloroethene	100	N.D.
Trichlorofluoromethane	100	N.D.
Vinyl acetate	100	N.D.
Vinyl chloride	100	N.D.
Total Xylenes	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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EPA 8270

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1311	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1311	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1312	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1312	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1313	Analyzed:	Apr 17, 1992
			Revised:	May 5, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1313	Analyzed:	Apr 17, 1992
			Reported:	May 5, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1314	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1314	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
Project Manager

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:rler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
.730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1352	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 227-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1352	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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2041304.ERL <24>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3545	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3545	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3546	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3546	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3547	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3547	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3548	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3548	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3549	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3549	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3550	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 239-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3550	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1304	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1304	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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2041304.ERL <2>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1305	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1305	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1306	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1306	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1307	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1307	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1308	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1308	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1309	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1309	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1310	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 255-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1310	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1299	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1299	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1300	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H001-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1300	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
Project Manager

2041285.ERL <30>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1301	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1301	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1302	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1302	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1303	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3544	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3544	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ar...	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1215	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1215	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1216	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1216	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1217	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1217	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1218	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1218	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1278	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1278	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1279	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1279	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1280	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	200	N.D.
Acenaphthylene	200	N.D.
Aniline	200	N.D.
Anthracene	200	N.D.
Benzidine	5,000	N.D.
Benzoic Acid	1,000	N.D.
Benzo(a)anthracene	200	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	200	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	200	N.D.
is(2-chloroethyl)ether	200	N.D.
Bis(2-chloroisopropyl)ether	200	N.D.
Bis(2-ethylhexyl)phthalate	1,000	N.D.
4-Bromophenyl phenyl ether	200	N.D.
Butyl benzyl phthalate	200	N.D.
4-Chloroaniline	200	N.D.
2-Chloronaphthalene	200	N.D.
4-Chloro-3-methylphenol	200	N.D.
2-Chlorophenol	200	N.D.
4-Chlorophenyl phenyl ether	200	N.D.
Chrysene	200	N.D.
Dibenz(a,h)anthracene	200	N.D.
Dibenzofuran	200	N.D.
Di-N-butyl phthalate	1,000	N.D.
1,3-Dichlorobenzene	200	N.D.
1,4-Dichlorobenzene	200	N.D.
1,2-Dichlorobenzene	200	N.D.
3,3-Dichlorobenzidine	1,000	N.D.
2,4-Dichlorophenol	200	N.D.
Diethyl phthalate	200	N.D.
2,4-Dimethylphenol	200	N.D.
Dimethyl phthalate	200	N.D.
4,6-Dinitro-2-methylphenol	1,000	N.D.
2,4-Dinitrophenol	1,000	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1280	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	200	N.D.
2,6-Dinitrotoluene	200	N.D.
Di-N-octyl phthalate	200	N.D.
Fluoranthene	200	N.D.
Fluorene	200	N.D.
Hexachlorobenzene	200	N.D.
Hexachlorobutadiene	200	N.D.
Hexachlorocyclopentadiene	200	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	200	N.D.
2-Methylnaphthalene	200	N.D.
-Methylphenol	200	N.D.
4-Methylphenol	200	N.D.
Naphthalene	200	N.D.
2-Nitroaniline	1,000	N.D.
3-Nitroaniline	1,000	N.D.
4-Nitroaniline	1,000	N.D.
Nitrobenzene	200	N.D.
2-Nitrophenol	200	N.D.
4-Nitrophenol	1,000	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	200	N.D.
Pentachlorophenol	1,000	N.D.
Phenanthrene	200	N.D.
Phenol	200	N.D.
Pyrene	200	N.D.
1,2,4-Trichlorobenzene	200	N.D.
2,4,5-Trichlorophenol	1,000	N.D.
2,4,6-Trichlorophenol	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1281	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 15, 1992
Attention: Annie Kersting	Lab Number:	204-1281	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton

Christine L. Middleton
Project Manager

2041288.ERL <30>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02,	ıpled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H0	ɜived:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1085	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1085	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1282	Analyzed:	Apr 14, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1282	Analyzed:	Apr 14, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
FA Fluoranthene	100	140
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	130
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1283	Analyzed:	Apr 14, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1283	Analyzed:	Apr 14, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1284	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	140
Benzo(a)pyrene	100	120
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1284	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	**100**	**100**
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	**100**	**110**
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	**100**	**140**
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1285	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1285	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	**100**	**130**
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	**100**	**110**
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1286	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	130
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	110
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1286	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	**100**	**140**
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	**100**	**120**
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1287	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	200	N.D.
Acenaphthylene	200	N.D.
Aniline	200	N.D.
Anthracene	200	N.D.
Benzidine	5,000	N.D.
Benzoic Acid	1,000	N.D.
Benzo(a)anthracene	200	N.D.
Benzo(b)fluoranthene	200	210
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	200	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	200	N.D.
Bis(2-chloroethyl)ether	200	N.D.
Bis(2-chloroisopropyl)ether	200	N.D.
Bis(2-ethylhexyl)phthalate	1,000	N.D.
4-Bromophenyl phenyl ether	200	N.D.
Butyl benzyl phthalate	200	N.D.
4-Chloroaniline	200	N.D.
2-Chloronaphthalene	200	N.D.
4-Chloro-3-methylphenol	200	N.D.
2-Chlorophenol	200	N.D.
4-Chlorophenyl phenyl ether	200	N.D.
Chrysene	200	N.D.
Dibenz(a,h)anthracene	200	N.D.
Dibenzofuran	200	N.D.
Di-N-butyl phthalate	1,000	N.D.
1,3-Dichlorobenzene	200	N.D.
1,4-Dichlorobenzene	200	N.D.
1,2-Dichlorobenzene	200	N.D.
3,3-Dichlorobenzidine	1,000	N.D.
2,4-Dichlorophenol	200	N.D.
Diethyl phthalate	200	N.D.
2,4-Dimethylphenol	200	N.D.
Dimethyl phthalate	200	N.D.
4,6-Dinitro-2-methylphenol	1,000	N.D.
2,4-Dinitrophenol	1,000	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1287	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	200	N.D.
2,6-Dinitrotoluene	200	N.D.
Di-N-octyl phthalate	200	N.D.
Fluoranthene	**200**	**210**
Fluorene	200	N.D.
Hexachlorobenzene	200	N.D.
Hexachlorobutadiene	200	N.D.
Hexachlorocyclopentadiene	200	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	200	N.D.
2-Methylnaphthalene	200	N.D.
2-Methylphenol	200	N.D.
4-Methylphenol	200	N.D.
Naphthalene	200	N.D.
2-Nitroaniline	1,000	N.D.
3-Nitroaniline	1,000	N.D.
4-Nitroaniline	1,000	N.D.
Nitrobenzene	200	N.D.
2-Nitrophenol	200	N.D.
4-Nitrophenol	1,000	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	200	N.D.
Pentachlorophenol	1,000	N.D.
Phenanthrene	200	N.D.
Phenol	200	N.D.
Pyrene	**200**	**200**
1,2,4-Trichlorobenzene	200	N.D.
2,4,5-Trichlorophenol	1,000	N.D.
2,4,6-Trichlorophenol	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1288	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1288	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1289	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	200	N.D.
Acenaphthylene	200	N.D.
Aniline	200	N.D.
Anthracene	200	N.D.
Benzidine	5,000	N.D.
Benzoic Acid	1,000	N.D.
Benzo(a)anthracene	200	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	200	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	200	N.D.
Bis(2-chloroethyl)ether	200	N.D.
Bis(2-chloroisopropyl)ether	200	N.D.
Bis(2-ethylhexyl)phthalate	1,000	N.D.
4-Bromophenyl phenyl ether	200	N.D.
Butyl benzyl phthalate	200	N.D.
4-Chloroaniline	200	N.D.
2-Chloronaphthalene	200	N.D.
4-Chloro-3-methylphenol	200	N.D.
2-Chlorophenol	200	N.D.
4-Chlorophenyl phenyl ether	200	N.D.
Chrysene	200	N.D.
Dibenz(a,h)anthracene	200	N.D.
Dibenzofuran	200	N.D.
Di-N-butyl phthalate	1,000	N.D.
1,3-Dichlorobenzene	200	N.D.
1,4-Dichlorobenzene	200	N.D.
1,2-Dichlorobenzene	200	N.D.
3,3-Dichlorobenzidine	1,000	N.D.
2,4-Dichlorophenol	200	N.D.
Diethyl phthalate	200	N.D.
2,4-Dimethylphenol	200	N.D.
Dimethyl phthalate	200	N.D.
4,6-Dinitro-2-methylphenol	1,000	N.D.
2,4-Dinitrophenol	1,000	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, SC-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1289	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	200	N.D.
2,6-Dinitrotoluene	200	N.D.
Di-N-octyl phthalate	200	N.D.
Fluoranthene	200	N.D.
Fluorene	200	N.D.
Hexachlorobenzene	200	N.D.
Hexachlorobutadiene	200	N.D.
Hexachlorocyclopentadiene	200	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	200	N.D.
2-Methylnaphthalene	200	N.D.
2-Methylphenol	200	N.D.
4-Methylphenol	200	N.D.
Naphthalene	200	N.D.
2-Nitroaniline	1,000	N.D.
3-Nitroaniline	1,000	N.D.
4-Nitroaniline	1,000	N.D.
Nitrobenzene	200	N.D.
2-Nitrophenol	200	N.D.
4-Nitrophenol	1,000	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	200	N.D.
Pentachlorophenol	1,000	N.D.
Phenanthrene	200	N.D.
Phenol	200	N.D.
Pyrene	200	N.D.
1,2,4-Trichlorobenzene	200	N.D.
2,4,5-Trichlorophenol	1,000	N.D.
2,4,6-Trichlorophenol	200	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1290	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1290	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1291	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1291	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1292	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1292	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1293	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H002-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1293	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1294	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1294	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

2041285.ERL <20>

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1295	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1295	Analyzed:	Apr 15, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1297	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1297	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
Christine L. Middleton
Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1298	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H004-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 10, 1992
Attention: Annie Kersting	Lab Number:	204-1298	Analyzed:	Apr 17, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, 267-H003-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 14, 1992
Attention: Annie Kersting	Lab Number:	204-1303	Analyzed:	Apr 16, 1992
			Reported:	Apr 22, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3533	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3533	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3534	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3534	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3535	Analyzed:	Apr 22, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S001-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3535	Analyzed:	Apr 22, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3536	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3536	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3537	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3537	Analyzed:	Apr 24, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3538	Analyzed:	Apr 22, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S002-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 22, 1992
Attention: Annie Kersting	Lab Number:	204-3538	Analyzed:	Apr 22, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3539	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3539	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton

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Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3540	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3540	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
1-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3541	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S003-1.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3541	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3542	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	**100**	**280**
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-0.5	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3542	Analyzed:	Apr 23, 1992
			Reported:	Apr 28, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
4-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton

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Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3543	Analyzed:	Apr 23, 1992
			Revised:	May 6, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	100	N.D.
Anthracene	100	N.D.
Benzidine	2,500	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	100	N.D.
Benzo(b)fluoranthene	100	N.D.
Benzo(k)fluoranthene	100	N.D.
Benzo(g,h,i)perylene	100	N.D.
Benzo(a)pyrene	100	N.D.
Benzyl alcohol	100	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	100	N.D.
Butyl benzyl phthalate	100	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	100	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	500	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	100	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	Sampled:	Apr 21, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, DC-S004-1.0	Received:	Apr 21, 1992
San Mateo, CA 94402	Analysis Method:	EPA 8270	Extracted:	Apr 23, 1992
Attention: Annie Kersting	Lab Number:	204-3543	Analyzed:	Apr 23, 1992
			Reported:	May 6, 1992

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	100	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	100	N.D.
Hexachloroethane	100	N.D.
Indeno(1,2,3-cd)pyrene	100	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	100	N.D.
-Methylphenol	100	N.D.
Naphthalene	100	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	100	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	100	N.D.
N-Nitroso-di-N-propylamine	100	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	100	N.D.
Pyrene	100	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton

Christine L. Middleton
Project Manager

EPA PRIORITY METALS

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1215	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	6.5
Arsenic	5.00	23
Beryllium	0.50	0.65
Cadmium	0.50	N.D.
Chromium	0.50	50
Copper	0.50	21
Lead	0.25	15
Mercury	0.010	0.046
Nickel	2.5	51
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	49

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

Please Note:
Lead and mercury were analyzed by AA.

2041183.ERL <15>

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1215	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.13
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

Please Note:
* -Detection Limit Raised Due to Matrix Interferences.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1216	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	N.D.
Arsenic	5.00	20
Beryllium	0.50	0.68
Cadmium	0.50	N.D.
Chromium	0.50	53
Copper	0.50	17
Lead	0.25	4.2
Mercury	0.010	0.022
Nickel	2.5	48
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	42

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
Christine L. Middleton
Project Manager

Please Note:
Lead and mercury were analyzed by AA.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H005-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1216	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.15
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1217	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	9.1
Arsenic	5.00	17
Beryllium	0.50	0.54
Cadmium	0.50	N.D.
Chromium	0.50	37
Copper	0.50	16
Lead	0.25	17
Mercury	0.010	0.072
Nickel	2.5	40
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	51

Analytes reported as N.D. were not present above the stated limit of detection.

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Lead and mercury were analyzed by AA.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1217	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.29
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1218	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	6.0
Arsenic	5.00	22
Beryllium	0.50	0.68
Cadmium	0.50	N.D.
Chromium	0.50	53
Copper	0.50	19
Lead	0.25	6.9
Mercury	0.010	0.053
Nickel	2.5	52
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	49

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H006-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1218	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.16
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1278	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	9.0
Arsenic	5.00	8.3
Beryllium	0.50	0.65
Cadmium	0.50	N.D.
Chromium	0.50	54
Copper	0.50	23
Lead	0.25	8.9
Mercury	0.010	0.094
Nickel	2.5	59
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	56

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1278	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.18
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1279	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	12
Arsenic	5.00	17
Beryllium	0.50	0.62
Cadmium	0.50	N.D.
Chromium	0.50	55
Copper	0.50	22
Lead	0.25	5.2
Mercury	0.010	0.069
Nickel	2.5	64
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	53

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H007-1.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1279	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.16
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1280	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	**5.00**	**7.6**
Arsenic	**5.00**	**6.8**
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	**0.50**	**40**
Copper	**0.50**	**19**
Lead	**0.25**	**14**
Mercury	**0.010**	**0.070**
Nickel	**2.5**	**41**
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	**0.50**	**49**

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1280	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.19
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1281	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	9.9
Arsenic	5.00	13
Beryllium	0.50	0.50
Cadmium	0.50	N.D.
Chromium	0.50	50
Copper	0.50	22
Lead	0.25	7.7
Mercury	0.010	0.091
Nickel	2.5	60
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	53

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, M-H008-1.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1281	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.21
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1290	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	N.D.
Arsenic	5.00	5.4
Beryllium	0.50	0.58
Cadmium	0.50	N.D.
Chromium	0.50	52
Copper	0.50	25
Lead	0.25	29
Mercury	0.010	0.16
Nickel	2.5	50
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	80

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1290	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.40
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H001-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1291	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	9.9
Arsenic	5.00	16
Beryllium	0.50	0.55
Cadmium	0.50	0.79
Chromium	0.50	45
Copper	0.50	20
Lead	0.25	9.9
Mercury	0.010	0.26
Nickel	2.5	48
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	59

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

Please Note:
Lead and mercury were analyzed by AA.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1294	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	**5.00**	**8.0**
Arsenic	**5.00**	**13**
Beryllium	**0.50**	**0.63**
Cadmium	0.50	N.D.
Chromium	**0.50**	**47**
Copper	**0.50**	**20**
Lead	**0.25**	**4.6**
Mercury	**0.010**	**0.10**
Nickel	**2.5**	**48**
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	**0.50**	**53**

Analytes reported as N.D. were not present above the stated limit of detection.

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Lead and mercury were analyzed by AA.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-0.5	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	204-1294	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.18
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	ICP	Analyzed:	Apr 15-16, 1992
Attention: Annie Kersting	Lab Number:	204-1295	Revised:	May 8, 1992

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.00	N.D.
Arsenic	5.00	N.D.
Beryllium	0.50	0.53
Cadmium	0.50	0.82
Chromium	0.50	57
Copper	0.50	25
Lead	0.25	29
Mercury	0.010	0.082
Nickel	2.5	56
Selenium	5.00	N.D.
Silver	0.50	N.D.
Thallium	5.00	N.D.
Zinc	0.50	85

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	#92-0008-02, Nasa Ames	Sampled:	4/6-7/92
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil, FSDA-H003-2.0	Received:	Apr 8, 1992
San Mateo, CA 94402	Method:	AA Furnace	Extracted:	4/14-15/92
Attention: Annie Kersting	Lab Number:	214-1295	Analyzed:	May 6, 1992
			Reported:	May 8, 1992

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium	0.050	0.80
Selenium	2.5 *	N.D.
Thallium	0.25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

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PERCENT MOISTURE

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 7. 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1081	Analyzed:	Apr 10, 1992
			Reported:	Apr 22, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1081	RP-H001-0.5	0.010	34
204-1082	RP-H002-0.5	0.010	49
204-1083	RP-H011-0.5	0.010	27
204-1084	RP-H011-1.5	0.010	43
204-1085	SC-H001-0.5	0.010	18

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1183	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1183	SD-H001-1.0	0.010	18
204-1184	SD-H001-2.0	0.010	17
204-1185	SD-H001-2.5	0.010	14
204-1186	SD-H002-1.0	0.010	20
204-1187	SD-H002-1.5	0.010	15
204-1188	SD-H002-2.0	0.010	14
204-1189	SD-H003-0.5	0.010	22
204-1190	SD-H003-1.0	0.010	23
204-1191	SD-H003-2.0	0.010	21
204-1192	SD-H004-0.5	0.010	22

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1193	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1193	SD-H004-1.5	0.010	21
204-1194	SD-H004-2.0	0.010	15
204-1195	SD-H005-0.5	0.010	41
204-1196	SD-H005-1.5	0.010	22
204-1197	SD-H005-2.0	0.010	20
204-1198	SD-H006-0.5	0.010	20
204-1199	SD-H006-1.5	0.010	13
204-1200	SD-H006-2.0	0.010	15
204-1201	SD-H007-0.5	0.010	22

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1202	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1202	SD-H007-1.0	0.010	21
204-1203	SD-H007-1.5	0.010	20
204-1204	SD-H008-0.5	0.010	23
204-1205	M-H001-0.5	0.010	22
204-1206	M-H001-1.0	0.010	22
204-1207	M-H001-1.5	0.010	21
204-1208	M-H002-0.5	0.010	32
204-1209	M-H002-1.0	0.010	26
204-1210	M-H002-1.5	0.010	20

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1211	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1211	M-H003-0.5	0.010	33
204-1212	M-H003-1.5	0.010	14
204-1213	M-H003-2.0	0.010	22
204-1214	M-H004-0.5	0.010	33
204-1215	M-H005-0.5	0.010	35
204-1216	M-H005-1.5	0.010	19
204-1217	M-H006.0.5	0.010	41
204-1218	M-H006.1.0	0.010	23

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	Sampled:	Apr 6, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1219	Analyzed:	Apr 10, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1219	RP-H001-1.0	0.010	34
204-1220	RP-H001-1.5	0.010	22
204-1221	RP-H002-1.5	0.010	49
204-1222	RP-H002-2.0	0.010	26
204-1223	RP-H003-0.5	0.010	32
204-1224	RP-H003-1.5	0.010	22
204-1225	RP-H003-2.0	0.010	21
204-1226	RP-H004-0.5	0.010	28
204-1227	RP-H004-1.5	0.010	24
204-1228	RP-H004-2.0	0.010	24
204-1229	RP-H005-0.5	0.010	51

Analytes reported as N.D. were not present above the stated limit of detection.

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1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1263	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1263	RP-H006-0.5	0.010	16
204-1264	RP-H006-1.5	0.010	14
204-1265	RP-H006-2.0	0.010	21
204-1266	RP-H007-0.5	0.010	14
204-1267	RP-H007-1.5	0.010	26
204-1268	RP-H007-2.0	0.010	25
204-1269	RP-H008-0.5	0.010	33
204-1270	RP-H008-1.0	0.010	25
204-1271	RP-H008-2.0	0.010	25

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1272	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1272	RP-H009-0.5	0.010	16
204-1273	RP-H009-1.0	0.010	17
204-1274	RP-H009-2.0	0.010	23
204-1275	RP-H010-0.5	0.010	27
204-1276	RP-H010-1.0	0.010	26
204-1277	RP-H010-2.0	0.010	26
204-1278	M-H007-0.5	0.010	21
204-1279	M-H007-1.0	0.010	20
204-1280	M-H008-0.5	0.010	35
204-1281	M-H008-1.5	0.010	16

Analytes reported as N.D. were not present above the stated limit of detection.

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Percent Moisture		
Attention: Annie Kersting	First Sample #:	204-1282	Analyzed:	Apr 14, 1992
			Revised:	May 8, 1992

LABORATORY ANALYSIS FOR: Percent Moisture

Sample Number	Sample Description	Detection Limit %	Sample Result %
204-1282	SC-H001-1.0	0.010	31
204-1283	SC-H001-2.0	0.010	27
204-1284	SC-H002-0.5	0.010	49
204-1285	SC-H002-1.0	0.010	46
204-1286	SC-H002-1.5	0.010	45
204-1287	SC-H003-0.5	0.010	41
204-1288	SC-H003-1.0	0.010	34
204-1289	SC-H003-1.5	0.010	39
204-1296	RP-H011-2.0	0.010	46

Analytes reported as N.D. were not present above the stated limit of detection.

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Christine L. Middleton
Project Manager

SALINITY

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	Sampled:	Apr 6, 7, 1992
1730 So. Amphlett Blvd., Suite 320	Sample Descript:	Soil	Received:	Apr 8, 1992
San Mateo, CA 94402	Analysis for:	Salinity		
Attention: Annie Kersting	First Sample #:	204-1081	Analyzed:	Apr 9, 1992
			Reported:	Apr 22, 1992

LABORATORY ANALYSIS FOR: Salinity

Sample Number	Sample Description	Detection Limit	Sample Result
204-1081	RP-H001-0.5	0.010	1.6
204-1082	RP-H002-0.5	0.010	0.99
204-1083	RP-H011-0.5	0.010	1.5
204-1084	RP-H011-1.5	0.010	8.9
204-1085	SC-H001-0.5	0.010	3.6

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

Please Note:
Salinity results do not have units.

QUALITY CONTROL

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1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA-Ames

QC Sample Group: Q2043533 -50

Reported: Apr 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Mercury	Lead
Method:	EPA 7471	EPA 7421
Analyst:	J. Martinez	S. Chin
Reporting Units:	mg/kg	mg/kg
Date Analyzed:	Apr 24, 1992	Apr 28, 1992
QC Sample #:	204-3550	204-3550
Sample Conc.:	0.085	5.8
Spike Conc. Added:	0.10	50
Conc. Matrix Spike:	0.19	52
Matrix Spike % Recovery:	105	92
Conc. Matrix Spike Dup.:	0.19	51
Matrix Spike Duplicate % Recovery:	105	90
Relative % Difference:	0.0	1.9

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Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041223-1229

Reported: Apr 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma-BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 21, 1992	Apr 21, 1992	Apr 21, 1992
QC Sample #:	BLK041892	BLK041892	BLK041892
Sample Conc.:	N.D.	N.D.	ND..
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	17	26	99
Matrix Spike Duplicate % Recovery:	85	130	124
Relative % Difference:	11	7.4	11

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$

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Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041223-1229

Reported: Apr 27, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma-BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 21, 1992	Apr 21, 1992	Apr 21, 1992
QC Sample #:	BLK041892	BLK041892	BLK041892
Sample Conc.:	N.D.	N.D.	ND..
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	17	26	99
Matrix Spike Duplicate % Recovery:	85	130	124
Relative % Difference:	11	7.4	11

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Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041081-85

Reported: Apr 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 24, 1992	Apr 24, 1992	Apr 24, 1992
QC Sample #:	PBLK042192	PBLK042192	PBLK042192
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	14	21	78
Matrix Spike Duplicate % Recovery:	70	105	98
Relative % Difference:	30	29	34

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Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041264-1318

Reported: Apr 28, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma-BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 24, 1992	Apr 24, 1992	Apr 24, 1992
QC Sample #:	PBLK042192	PBLK042192	PBLK042192
Sample Conc.:	N.D.	N.D.	ND..
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	14	21	78
Matrix Spike Duplicate % Recovery:	70	105	98
Relative % Difference:	30	29	34

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Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: #920008.02, Nasa Ames

QC Sample Group: 2043533 - 44

Reported: Apr 29, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Gamma BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D.Dreblow	D.Dreblow	D.Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 24, 1992	Apr 24, 1992	Apr 24, 1992
QC Sample #:	PBLK042192	PBLK042192	PBLK042192
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	14	21	78
Matrix Spike Duplicate % Recovery:	70	105	98
Relative % Difference:	30	29	34

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Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041183-1222

Reported: May 1, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 14, 1992	Apr 14, 1992	Apr 14, 1992
QC Sample #:	DBLK041092	DBLK041092	DBLK041092
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	15	19	75
Matrix Spike % Recovery:	75	95	94
Conc. Matrix Spike Dup.:	17	22	81
Matrix Spike Duplicate % Recovery:	85	110	101
Relative % Difference:	13	15	7.7

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Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041183-1222

Reported: May 1, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 17, 1992	Apr 17, 1992	Apr 17, 1992
QC Sample #:	BLK041092	BLK041092	BLK041092
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	13	17	66
Matrix Spike % Recovery:	65	85	83
Conc. Matrix Spike Dup.:	13	18	69
Matrix Spike Duplicate % Recovery:	65	90	86
Relative % Difference:	0.0	5.7	4.4

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Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041263-1275

Reported: May 1, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 21, 1992	Apr 21, 1992	Apr 21, 1992
QC Sample #:	BBLK041892	BBLK041892	BBLK041892
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	19	28	110
Matrix Spike % Recovery:	95	140	138
Conc. Matrix Spike Dup.:	17	26	99
Matrix Spike Duplicate % Recovery:	85	130	124
Relative % Difference:	11	7.4	11

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc.
1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041296-1318, 1352

Reported: May 1, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992
QC Sample #:	BLK041692	BLK041692	BLK041692
Sample Conc.:	ND.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	15	19	76
Matrix Spike % Recovery:	75	95	95
Conc. Matrix Spike Dup.:	13	18	67
Matrix Spike Duplicate % Recovery:	65	90	84
Relative % Difference:	14	5.4	11

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041276-1295

Reported: May 1, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	gamma - BHC	Aldrin	Dieldrin
Method:	EPA 8080	EPA 8080	EPA 8080
Analyst:	D. Dreblow	D. Dreblow	D. Dreblow
Reporting Units:	µg/kg	µg/kg	µg/kg
Date Analyzed:	May 1, 1992	May 1, 1992	May 1, 1992
QC Sample #:	GBLK041592	GBLK041592	GBLK041592
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	80
Conc. Matrix Spike:	16	16	68
Matrix Spike % Recovery:	80	80	85
Conc. Matrix Spike Dup.:	18	18	76
Matrix Spike Duplicate % Recovery:	90	90	95
Relative % Difference:	12	12	11

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Erler & Kalinowski, Inc.	Client Project ID:	920008, NASA Ames	
1730 So. Amphlett Blvd., Suite 320	Method (units):	EPA 8240 (µg/L purged)	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	G. Meyer	
Attention: Annie Kersting	QC Sample #:	BLK041792	Analyzed: Apr 17, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	43	86	44	88	2.3
Trichloroethene	N.D.	50	44	88	45	90	2.2
Benzene	N.D.	50	47	94	49	98	4.2
Toluene	N.D.	50	45	90	48	96	6.5
Chlorobenzene	N.D.	50	45	90	47	94	4.3

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	
1730 So. Amphlett Blvd., Suite 320	Method (units):	EPA 8240 (µg/L purged)	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	G. Meyer	
Attention: Annie Kersting	QC Sample #:	BLK041792	Analyzed: Apr 17, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	43	86	44	88	2.3
Trichloroethene	N.D.	50	44	88	45	90	2.2
Benzene	N.D.	50	47	94	49	98	4.2
Toluene	N.D.	50	45	90	48	96	6.5
Chlorobenzene	N.D.	50	45	90	47	94	4.3

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	
1730 So. Amphlett Blvd., Suite 320	Method (units):	EPA 8240 (µg/L purged)	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	M. Williams	
Attention: Annie Kersting	QC Sample #:	BLK041892	Analyzed: Apr 18, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	47	94	47	94	0.0
Trichloroethene	N.D.	50	47	94	48	96	2.1
Benzene	N.D.	50	50	100	51	102	2.0
Toluene	N.D.	50	50	100	51	102	2.0
Chlorobenzene	N.D.	50	50	100	51	102	2.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320	Method (units):	EPA 8240 (µg/L purged)	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	M. Williams	
Attention: Annie Kersting	QC Sample #:	BLK042092	Analyzed: Apr 20, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	48	96	47	94	2.1
Trichloroethene	N.D.	50	48	96	45	90	6.5
Benzene	N.D.	50	51	102	50	100	2.0
Toluene	N.D.	50	50	100	50	100	0.0
Chlorobenzene	N.D.	50	54	108	51	102	5.7

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc. 1730 So. Amphlett Blvd., Suite 320 San Mateo, CA 94402 Attention: Annie Kersting	Client Project ID: Method (units): Analyst(s): QC Sample #:	920008.02, NASA Ames EPA 8240 (µg/L purged) G. Meyer BLK040592	Q.C. Sample Dates Analyzed: Apr 6, 1992 Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	37	74	38	76	2.7
Trichloroethene	N.D.	50	47	94	51	102	8.2
Benzene	N.D.	50	47	94	50	100	6.2
Toluene	N.D.	50	48	96	52	104	8.0
Chlorobenzene	N.D.	50	51	102	57	114	11

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	
1730 So. Amphlett Blvd., Suite 320	Method (units):	EPA 8240 (µg/L purged)	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	S. Scott	
Attention: Annie Kersting	QC Sample #:	BLK042292	Analyzed: Apr 22, 1992
			Reported: Apr 28, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	50	38	76	42	84	10
Trichloroethene	N.D.	50	45	90	50	100	11
Benzene	N.D.	50	49	98	50	100	2.0
Toluene	N.D.	50	50	100	52	104	3.9
Chlorobenzene	N.D.	50	48	96	51	102	6.1

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	
1730 So. Amphlett Blvd., Suite 320	Method:	EPA 8270	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	N. Injejikian	Extracted: Apr 2, 1992
Attention: Annie Kersting	QC Sample #:	SBLK040792	Analyzed: Apr 11, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	79	79	72	72	9.3
2-Chlorophenol	N.D.	100	79	79	80	80	1.3
1,4-Dichloro-benzene	N.D.	50	42	84	40	80	4.9
N-Nitroso-Di-N-propylamine	N.D.	50	37	74	36	72	2.7
1,2,4-Trichloro-benzene	N.D.	50	49	98	48	96	2.1
4-Chloro-3-Methylphenol	N.D.	100	92	92	85	85	7.9
Acenaphthene	N.D.	50	41	82	41	82	0.0
4-Nitrophenol	N.D.	100	71	71	85	85	18
2,4-Dinitro-toluene	N.D.	50	47	94	50	100	6.2
Pentachloro-phenol	N.D.	100	66	66	76	76	14
Pyrene	N.D.	50	43	86	47	94	8.9

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA Ames	
1730 So. Amphlett Blvd., Suite 320	Method:	EPA 8270	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	N. Injejikian	Extracted: Apr 10, 1992
Attention: Annie Kersting	QC Sample #:	SBLK041092	Analyzed: Apr 14, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	50	43	86	47	94	8.9
2-Chlorophenol	N.D.	50	43	86	45	90	4.5
1,4-Dichloro-benzene	N.D.	25	21	84	23	92	9.1
N-Nitroso-Di-N-propylamine	N.D.	25	20	80	22	88	9.5
1,2,4-Trichloro-benzene	N.D.	25	23	92	24	96	4.3
4-Chloro-3-Methylphenol	N.D.	50	42	84	42	84	0.0
Acenaphthene	N.D.	25	21	84	23	92	9.1
4-Nitrophenol	N.D.	50	43	86	44	88	2.3
2,4-Dinitro-toluene	N.D.	25	19	76	19	76	0.0
Pentachloro-phenol	N.D.	50	36	72	45	90	22
Pyrene	N.D.	25	23	92	23	92	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320	Method:	EPA 8270	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	E. Manuel	Extracted: Apr 14, 1992
Attention: Annie Kersting	QC Sample #:	SBLK041492	Analyzed: Apr 17, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	50	43	86	41	82	4.8
2-Chlorophenol	N.D.	50	42	84	41	82	2.4
1,4-Dichloro-benzene	N.D.	25	20	80	20	80	0.0
N-Nitroso-Di-N-propylamine	N.D.	25	22	88	20	80	9.5
1,2,4-Trichloro-benzene	N.D.	25	21	84	21	84	0.0
4-Chloro-3-Methylphenol	N.D.	50	47	94	44	88	6.6
Acenaphthene	N.D.	25	21	84	20	80	4.9
4-Nitrophenol	N.D.	50	44	88	39	78	12
2,4-Dinitro-toluene	N.D.	25	21	84	19	76	10
Pentachloro-phenol	N.D.	50	35	70	30	60	15
Pyrene	N.D.	25	25	100	25	100	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320	Method:	EPA 8270	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	E. Manuel	Extracted: Apr 15, 1992
Attention: Annie Kersting	QC Sample #:	SBLK041592	Analyzed: Apr 17, 1992
			Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	84	84	84	84	0.0
2-Chlorophenol	N.D.	100	86	86	84	84	2.4
1,4-Dichloro-benzene	N.D.	50	43	86	41	82	4.8
N-Nitroso-Di-N-propylamine	N.D.	50	44	88	44	88	0.0
1,2,4-Trichloro-benzene	N.D.	50	46	92	44	88	4.4
4-Chloro-3-Methylphenol	N.D.	100	88	88	94	94	6.6
Acenaphthene	N.D.	50	44	88	42	84	4.7
4-Nitrophenol	N.D.	100	79	79	90	90	13
2,4-Dinitro-toluene	N.D.	50	43	86	44	88	2.3
Pentachloro-phenol	N.D.	100	72	72	78	78	8.0
Pyrene	N.D.	50	51	102	51	102	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Erler & Kalinowski, Inc.	Client Project ID:	920008.02, NASA-Ames	
1730 So. Amphlett Blvd., Suite 320	Method:	EPA 8270	Q.C. Sample Dates
San Mateo, CA 94402	Analyst(s):	N. Injejikian	Extracted: Apr 23, 1992
Attention: Annie Kersting	QC Sample #:	SBLK042392	Analyzed: Apr 24, 1992
			Reported: Apr 28, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
Phenol	N.D.	100	85	85	80	80	6.1
2-Chlorophenol	N.D.	100	87	87	82	82	5.9
1,4-Dichloro-benzene	N.D.	50	42	84	42	84	0.0
N-Nitroso-Di-N-propylamine	N.D.	50	40	80	39	78	2.5
1,2,4-Trichloro-benzene	N.D.	50	44	88	43	86	2.3
4-Chloro-3-Methylphenol	N.D.	100	74	74	74	74	0.0
Acenaphthene	N.D.	50	41	82	41	82	0.0
4-Nitrophenol	N.D.	100	55	55	59	59	7.0
2,4-Dinitro-toluene	N.D.	50	34	68	33	66	3.0
Pentachloro-phenol	N.D.	100	61	61	72	72	17
Pyrene	N.D.	50	43	86	41	82	4.8

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Erler & Kalinowski, Inc.
1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041183-1229

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Percent Moisture	Lead	Lead	Lead	Mercury	Mercury
Method:	EPA 160.3	EPA 7421	EPA 7421	EPA 7421	EPA 7471	EPA 7471
Analyst:	B. Samra	S. Chin	S. Chin	S. Chin	J. Martinez	J. Martinez
Reporting Units:	N.A.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 10, 1992	Apr 14, 1992	Apr 14, 1992	Apr 14, 1992	Apr 14, 1992	Apr 14, 1992
QC Sample #:	204-1229	204-1652	204-1188	204-1213	204-1192	204-1209
Sample Conc.:	51	17	4.0	7.2	0.27	0.049
Spike Conc. Added:	N.A.	25	25	25	0.10	0.10
Conc. Matrix Spike:	N.A.	41	31	34	0.37	0.16
Matrix Spike % Recovery:	N.A.	96	108	107	100	111
Conc. Matrix Spike Dup.:	51	41	31	35	0.38	0.17
Matrix Spike Duplicate % Recovery:	N.A.	96	108	111	110	121
Relative % Difference:	0.0	0.0	0.0	2.9	4.3	8.6

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

SEQUOIA ANALYTICAL
680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Erler & Kalinowski, Inc.
1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008, NASA Ames

QC Sample Group: 2041215-1218

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Antimony	Selenium	Beryllium	Cadmium	Chromium	Copper
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	M. Mistry	M. Mistry	M. Mistry	M. Mistry	M. Mistry	M. Mistry
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992
QC Sample #:	204-1219	204-1219	204-1219	204-1219	204-1219	204-1219
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	37	9.8
Spike Conc. Added:	100	100	100	100	100	100
Conc. Matrix Spike:	90	80	91	91	120	110
Matrix Spike % Recovery:	90	80	91	91	83	100
Conc. Matrix Spike Dup.:	95	82	92	93	130	110
Matrix Spike Duplicate % Recovery:	95	82	92	93	93	100
Relative % Difference:	5.4	2.5	1.1	2.2	8.0	0.0

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Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Client Project ID: 920008, NASA Ames

QC Sample Group: 2041215-1218

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Nickel	Silver	Thallium	Zinc	Arsenic
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	M. Mistry	M. Mistry	M. Mistry	M. Mistry	M. Mistry
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992
QC Sample #:	204-1219	204-1219	204-1219	204-1219	204-1219
Sample Conc.:	37	N.D.	N.D.	33	13
Spike Conc. Added:	100	100	5000	100	100
Conc. Matrix Spike:	120	90	5000	120	100
Matrix Spike % Recovery:	83	90	100	87	87
Conc. Matrix Spike Dup.:	120	91	5000	120	110
Matrix Spike Duplicate % Recovery:	83	91	100	87	97
Relative % Difference:	0.0	1.1	0.0	0.0	9.5

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041081-85

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Percent Moisture	Salinity	Lead	Mercury
Method:	EPA 160.3	SM 2520B	EPA 7421	EPA 7471
Analyst:	B. Samra	P. Penner	S. Chin	J. Martinez
Reporting Units:	N.A.	N.A.	mg/kg	mg/kg
Date Analyzed:	Apr 10, 1992	Apr 9, 1992	Apr 10, 1992	Apr 10, 1992
QC Sample #:	204-1229	204-1085	203-5262	204-1085
Sample Conc.:	51	3.6	87	0.070
Spike Conc. Added:	N.A.	N.A.	100	0.10
Conc. Matrix Spike:	N.A.	N.A.	170	0.17
Matrix Spike % Recovery:	N.A.	N.A.	83	100
Conc. Matrix Spike Dup.:	51	3.7	170	0.16
Matrix Spike Duplicate % Recovery:	N.A.	N.A.	83	90
Relative % Difference:	0.0	2.7	0.0	6.1

SEQUOIA ANALYTICAL

Christine L. Middleton
Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041263-1289, 1296

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Percent Moisture

Method:	EPA 160.3
Analyst:	N. Zahedi
Reporting Units:	N.A.
Date Analyzed:	Apr 14, 1992
QC Sample #:	204-2029

Sample Conc.:	53
Spike Conc. Added:	N.A.
Conc. Matrix Spike:	N.A.
Matrix Spike % Recovery:	N.A.
Conc. Matrix Spike Dup.:	53
Matrix Spike Duplicate % Recovery:	N.A.
Relative % Difference:	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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1730 So. Amphlett Blvd., Suite 320
San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041252, 2041263-1308

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Lead	Lead	Lead	Mercury	Mercury	Mercury
Method:	EPA 7421	EPA 7421	EPA 7421	EPA 7471	EPA 7471	EPA 7471
Analyst:	S. Chin	S. Chin	S. Chin	J. Martinez	J. Martinez	J. Martinez
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 15, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 17, 1992	Apr 16, 1992
QC Sample #:	204-1267	204-1282	204-1306	204-1293	204-1301	204-1773
Sample Conc.:	5.4	17	8.7	0.12	0.15	0.080
Spike Conc. Added:	50	50	50	0.10	0.10	0.10
Conc. Matrix Spike:	66	59	51	0.24	0.25	0.20
Matrix Spike % Recovery:	120	84	85	120	100	120
Conc. Matrix Spike Dup.:	65	59	49	0.24	0.25	0.020
Matrix Spike Duplicate % Recovery:	118	84	81	120	100	120
Relative % Difference:	1.5	0.0	4.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041278-1295

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Antimony	Selenium	Beryllium	Cadmium	Chromium	Copper
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992
QC Sample #:	204-1282	204-1282	204-1282	204-1282	204-1282	204-1282
Sample Conc.:	14	N.D.	0.56	N.D.	66	27
Spike Conc. Added:	5000	5000	500	500	500	500
Conc. Matrix Spike:	4800	5000	470	450	510	490
Matrix Spike % Recovery:	96	100	94	90	89	93
Conc. Matrix Spike Dup.:	4900	5000	470	450	510	490
Matrix Spike Duplicate % Recovery:	98	100	94	90	89	93
Relative % Difference:	2.1	0.0	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Attention: Annie Kersting

Client Project ID: 920008.02, NASA Ames

QC Sample Group: 2041278-1295

Reported: Apr 22, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Nickel	Silver	Thallium	Zinc	Arsenic
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992	Apr 16, 1992
QC Sample #:	204-1282	204-1282	204-1282	204-1282	204-1282
Sample Conc.:	65	N.D.	N.D.	84	12
Spike Conc. Added:	500	5000	5000	500	50
Conc. Matrix Spike:	490	4900	5200	520	66
Matrix Spike % Recovery:	85	98	104	87	108
Conc. Matrix Spike Dup.:	490	4900	5300	530	66
Matrix Spike Duplicate % Recovery:	85	98	106	89	108
Relative % Difference:	0.0	0.0	1.9	1.9	0.0

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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San Mateo, CA 94402
Attention: Annie Kersting

Client Project ID: #92-0008-02, Nasa Ames

QC Sample Group: 2041215 - 1295

Reported: May 8, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Selenium	Thallium
Method:	EPA 7131	EPA 7740	EPA 7841
Analyst:	F.Contreras	F.Contreras	F.Contreras
Reporting Units:	mg/kg	mg/kg	mg/kg
Date Analyzed:	May 6, 1992	May 6, 1992	May 6, 1992
QC Sample #:	204-1217	204-1217	204-1215
Sample Conc.:	0.29	N.D.	N.D.
Spike Conc. Added:	0.25	100	5.0
Conc. Matrix Spike:	0.52	90	4.1
Matrix Spike % Recovery:	92	90	82
Conc. Matrix Spike Dup.:	0.52	89	4.2
Matrix Spike Duplicate % Recovery:	92	89	84
Relative % Difference:	0.0	1.1	2.4

SEQUOIA ANALYTICAL

Christine L. Middleton
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SEQUOIA ANALYTICAL Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: _____ Level: (low/med) _____

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCEN. (µg/Kg)	MS CONCEN. (µg/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)					46-127
Heptachlor					35-130
Aldrin					34-132
Dieldrin					31-134
Endrin					42-139
4,4'-DDT					23-134

COMPOUND	SPIKE ADDED (µg/Kg)	MSD CONCEN. (µg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)					50	46-127
Heptachlor					31	35-130
Aldrin					43	34-132
Dieldrin					38	31-134
Endrin					45	42-139
4,4'-DDT					50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

824C
SOIL

med & low
matrix & blank
CLP

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: _____ Level: (low/med) _____

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene					59-172
Trichloroethene					62-137
Benzene					66-142
Toluene					59-139
Chlorobenzene					60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene					22	59-172
Trichloroethene					24	62-137
Benzene					21	66-142
Toluene					21	59-139
Chlorobenzene					21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

MMENTS: _____

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

.b Name: _____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: _____ Level:(low/med) _____

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol					26- 90
2-Chlorophenol					25-102
1,4-Dichlorobenzene					28-104
N-Nitroso-di-n-prop.(1)					41-126
1,2,4-Trichlorobenzene					38-107
4-Chloro-3-methylphenol					26-103
Acenaphthene					31-137
4-Nitrophenol					11-114
2,4-Dinitrotoluene					28- 89
Pentachlorophenol					17-109
Pyrene					35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol					35	26- 90
2-Chlorophenol					50	25-102
1,4-Dichlorobenzene					27	28-104
N-Nitroso-di-n-prop.(1)					38	41-126
1,2,4-Trichlorobenzene					23	38-107
4-Chloro-3-methylphenol					33	26-103
Acenaphthene					19	31-137
4-Nitrophenol					50	11-114
2,4-Dinitrotoluene					47	28- 89
Pentachlorophenol					47	17-109
Pyrene					36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

Under "Spike Added (SA)", enter the value (in ug/L, to one decimal place) for each analyte added to the sample. The same concentration units must be used for spiked sample results, unspiked (original sample) results, and spike added sample results. If the spike added concentration is specified in the contract, the value added and reported must be that specific concentration in appropriate units.

Under "%R", enter the value (to one decimal place) of the percent recovery for all spiked analytes computed according to Equation 2.8 in Part H, preceding.

%R must be reported, whether it is negative, positive or zero.

The values for SSR, SR, and SA must be exactly those reported on this form. A value of zero must be substituted for SSR or SR if the analyte value is less than the IDL.

Under "M", enter the method used as explained in Part C, or enter "NR" if the spike was not required.

If different samples were used for spike sample analysis of different analytes, additional FORMS V(PART 1)-IN must be submitted.

J. Duplicates [FORM VI-IN]

The duplicates form is used to report results of duplicate analyses. Duplicate analyses are required for % solids values and all analyte results.

Complete the header information according to the instructions in Part A and as follows.

Indicate the appropriate matrix, level and concentration units (ug/L for water and mg/Kg dry weight for soil) as explained in Parts A and C.

For "% Solids for Sample," enter to percent solids (as explained in Part C) for the original sample of the EPA Sample Number reported on the form. Note that this number must equal the one reported on Form I for that sample.

For "% Solids for Duplicate," enter the percent solids (as explained in Part C) for the duplicate sample of the EPA Sample Number reported on the form.

In the "EPA Sample No." box, enter the EPA Sample Number (7 spaces maximum) of the sample from which the duplicate sample results on this form were obtained. The number must be centered in the box.

Under "Control Limit", enter the CRDL (in appropriate units, ug/L for water or mg/kg dry weight basis compared to the original sample weight and percent solids) for the analyte if the sample or duplicate values were less than 5x CRDL. If the sample and duplicate values were less than the CRDL or greater than or equal to 5x CRDL, leave the field empty.

Under Sample (S), enter the original measured value (to four decimal places) for the concentration of each analyte in the sample (reported in the EPA Sample No. box) on which a Duplicate analysis was performed. Concentration units are those specified on the form. Enter any appropriate qualifier, as explained in Part C, to the "C" qualifier column immediately following the "Sample (S)" column.

Under Duplicate (D), enter the measured value (to four decimal places) for each analyte in the Duplicate sample. Concentration units are those specified on the form. Enter any appropriate qualifier, as explained in Part C, to the "C" qualifier column immediately following the "Duplicate (D)" column.

For solid samples, the concentration of the original sample must be computed using the weight and % solids of the original sample. The concentration of the duplicate sample must be computed using the weight and % solids of the duplicate sample.

Under RPD, enter the absolute value (to one decimal place) of the Relative Percent Difference for all analytes detected above the IDL in either the sample or the duplicate, computed according to the following equation:

$$RPD = \frac{|S - D|}{(S + D)/2} \times 100 \qquad (2.9)$$

The values for S and D must be exactly those reported on this form. A value of zero must be substituted for S or D if the analyte concentration is less than the IDL in either one. If the analyte concentration is less than the IDL in both S and D, leave the RPD field empty.

Under "Q", enter "*" if the duplicate analysis for the analyte is out of control. If both sample and duplicate values are greater than or equal to 5x CRDL, then the RPD must be less than or equal to 20% to be in control. If either sample or duplicate values are less than 5x CRDL, then the absolute difference between the two values must be less than the CRDL to be in control. If both values are below the CRDL, then no control limit is applicable.

Under "M", enter method used as explained in Part C.

K. Laboratory Control Sample [FORM VII-IN]

This form is used to report results for the solid and aqueous Laboratory Control Samples.

Complete the header information according to the instructions in Part A and as follows.

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

October 06, 2004

CLS Work Order #: CNI0794
COC #: 51862

Casey Fitzgerald
PAI/NASA Ames MS221-10
NASA Ames MS 221-10
Moffet Field, CA 94035-1000

Project Name: PCB SAP

Enclosed are the results of analyses for samples received by the laboratory on 09/23/04 17:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-N1-0.5 (CNI0794-01) Soil	**Sampled: 09/22/04 10:50**	**Received: 09/23/04 17:00**							
Aroclor 1016	ND	1000	µg/kg	50	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**3900**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
H0001-N2-0.5 (CNI0794-02) Soil	**Sampled: 09/22/04 10:51**	**Received: 09/23/04 17:00**							
Aroclor 1016	ND	1000	µg/kg	50	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**5000**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
H0001-S1-0.5 (CNI0794-03) Soil	**Sampled: 09/22/04 10:52**	**Received: 09/23/04 17:00**							
Aroclor 1016	ND	1000	µg/kg	50	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**4800**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-S2-0.5 (CNI0794-04) Soil Sampled: 09/22/04 10:53 Received: 09/23/04 17:00									
Aroclor 1016	ND	1000	µg/kg	50	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**3900**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
H0001-E1-0.5 (CNI0794-05) Soil Sampled: 09/22/04 10:54 Received: 09/23/04 17:00									
Aroclor 1016	ND	100	µg/kg	5	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**550**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
H0001-E2-0.5 (CNI0794-06) Soil Sampled: 09/22/04 10:55 Received: 09/23/04 17:00									
Aroclor 1016	ND	100	µg/kg	5	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**700**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-W1-0.5 (CNI0794-07) Soil Sampled: 09/22/04 10:56 Received: 09/23/04 17:00									
Aroclor 1016	ND	400	µg/kg	20	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	400	"	"	"	"	"	"	
Aroclor 1232	ND	400	"	"	"	"	"	"	
Aroclor 1242	ND	400	"	"	"	"	"	"	
Aroclor 1248	ND	400	"	"	"	"	"	"	
Aroclor 1254	ND	400	"	"	"	"	"	"	
Aroclor 1260	**2300**	400	"	"	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	
H0001-W2-0.5 (CNI0794-08) Soil Sampled: 09/22/04 10:57 Received: 09/23/04 17:00									
Aroclor 1016	ND	400	µg/kg	20	CN07518	09/28/04	09/30/04	EPA 8082A	
Aroclor 1221	ND	400	"	"	"	"	"	"	
Aroclor 1232	ND	400	"	"	"	"	"	"	
Aroclor 1242	ND	400	"	"	"	"	"	"	
Aroclor 1248	ND	400	"	"	"	"	"	"	
Aroclor 1254	ND	400	"	"	"	"	"	"	
Aroclor 1260	**2600**	400	"	"	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	
BLDGN262-S-0.5 (CNI0794-09) Soil Sampled: 09/22/04 11:33 Received: 09/23/04 17:00									
Aroclor 1016	ND	20	µg/kg	1	CN07547	09/29/04	10/04/04	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BLDGN234-S-0.5 (CNI0794-10) Soil Sampled: 09/22/04 11:41 Received: 09/23/04 17:00									
Aroclor 1016	ND	200	µg/kg	10	CN07547	09/29/04	10/04/04	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**540**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
BLDGN240-E-0.5 (CNI0794-11) Soil Sampled: 09/22/04 11:45 Received: 09/23/04 17:00									
Aroclor 1016	ND	20	µg/kg	1	CN07547	09/29/04	10/04/04	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**48**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
BLDGN215-E-0.5 (CNI0794-12) Soil Sampled: 09/22/04 11:53 Received: 09/23/04 17:00									
Aroclor 1016	ND	100	µg/kg	5	CN07547	09/29/04	10/04/04	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**300**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	

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10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BLDGN215-X-0.5 (CNI0794-13) Soil Sampled: 09/22/04 11:53 Received: 09/23/04 17:00									
Aroclor 1016	ND	20	µg/kg	1	CN07547	09/29/04	10/04/04	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CN07518 - EPA 3550A										
Blank (CN07518-BLK1)				Prepared: 09/28/04 Analyzed: 09/30/04						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CN07518-BS1)				Prepared: 09/28/04 Analyzed: 09/30/04						
Aroclor 1260	85.1	20	µg/kg	83.3		102	29-131			
LCS Dup (CN07518-BSD1)				Prepared: 09/28/04 Analyzed: 09/30/04						
Aroclor 1260	86.3	20	µg/kg	83.3		104	29-131	1.40	30	
Matrix Spike (CN07518-MS1)		**Source: CNI0794-08**		Prepared: 09/28/04 Analyzed: 09/30/04						
Aroclor 1260	1600	20	µg/kg	83.3	2600	NR	29-131			QM-07
Matrix Spike Dup (CN07518-MSD1)		**Source: CNI0794-08**		Prepared: 09/28/04 Analyzed: 09/30/04						
Aroclor 1260	1630	20	µg/kg	83.3	2600	NR	29-131	1.86	30	QM-07
Batch CN07547 - EPA 3550A										
Blank (CN07547-BLK1)				Prepared: 09/29/04 Analyzed: 10/04/04						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CN07547 - EPA 3550A										
LCS (CN07547-BS1)				Prepared: 09/29/04		Analyzed: 10/04/04				
Aroclor 1260	89.6	20	µg/kg	83.3		108	29-131			
LCS Dup (CN07547-BSD1)				Prepared: 09/29/04		Analyzed: 10/04/04				
Aroclor 1260	93.0	20	µg/kg	83.3		112	29-131	3.72	30	
Matrix Spike (CN07547-MS1)		Source: CNI0827-15		Prepared: 09/29/04		Analyzed: 10/04/04				
Aroclor 1260	ND	20	µg/kg	83.3	3400	NR	29-131			QM-10
Matrix Spike Dup (CN07547-MSD1)		Source: CNI0827-15		Prepared: 09/29/04		Analyzed: 10/04/04				
Aroclor 1260	ND	20	µg/kg	83.3	3400	NR	29-131		30	QM-10

CALIFORNIA LABORATORY SERVICES

10/06/04 13:33

PAI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: PCB SAP Project Number: PCB SAP Project Manager: Casey Fitzgerald	**CLS Work Order #: CNI0794** COC #: 51862

Notes and Definitions

QM-10	LCS/LCSD were analyzed in place of MS/MSD.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/ LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

REPORT OF FINDINGS
PCB IN SITE SOILS
Phase II

NASA Ames Research Center
Moffett Field, California

Prepared by:

Mail Stop 221-10
Moffett Field, California 94035-1000

Prepared for:

NASA Ames Research Center
Office of Environmental Services
Mail Stop 218-1
Moffett Field, California 94035-1000

July 2005

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Table 2 Soil Analytical Results, Priority Pollutant Metals

APPENDIX

Appendix A Laboratory Reports and Chains of Custody

LABORATORY ANALYTICAL DATA

Surficial and Subsurface Soil Samples

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

June 13, 2005

CLS Work Order #: COF0020
COC #: 60251

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS 221-10
Moffet Field, CA 94035-1000

Project Name: PCB Phase II SAP

Enclosed are the results of analyses for samples received by the laboratory on 06/01/05 15:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; CO F0020

LOG NO. 60251

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD, MS 221-10 NASA AMES, MOFFETT FIELD

PROJECT MANAGER: 650 604 2273

PROJECT NAME: PCB PHASE II SAP

SAMPLED BY: CNF / BDR

JOB DESCRIPTION: 0.5' SOIL SAMPLES

SITE LOCATION: FSDA

CLIENT JOB NUMBER: PCB PHASE II

DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742

☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☐ NO

GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, BREEZY, HAZY

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY

SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL. AROCLOR 1268) BY METHOD 8082	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS
052705	1205	H0001-N-0.5'	S	1	402	3	X				X	* PLEASE INCL.
	1203	H0001-NE-0.5'					X				X	AROCLOR 1268 *
	1157	H0001-E-0.5'					X				X	
	1201	H0001-SE-0.5'					X				X	
	1200	H0001-S-0.5'					X				X	
	1149	H0001-SW-0.5'					X				X	
	1146	H0001-W-0.5'					X				X	
	1152	H0001-NW-0.5'					X				X	
	1225	H0001-N2-R1-2'					X				X	INVOICE TO:
	1223	H0001-E2-R1-2'					X				X	
	1220	H0001-S2-R1-2'					X				X	
	1215	H0001-W2-R1-2'					X					P.O. #
												QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	052705 / 1228		
		6/1/05-12007		CONRADNR/CLS
	CLS	6/1/05-15004		

REC'D AT LAB BY: DATE / TIME: 6/1/05 1500

CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER

AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

06/13/05 14:15

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: PCB Phase II SAP Project Number: PCB Phase II Project Manager: Casey Fitzgerald	**CLS Work Order #: COF0020** COC #: 60251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-N-0.5' (COF0020-01) Soil Sampled: 05/27/05 12:05 Received: 06/01/05 15:00									
Aroclor 1016	ND	200	µg/kg	10	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**1600**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
H0001-NE-0.5' (COF0020-02) Soil Sampled: 05/27/05 12:03 Received: 06/01/05 15:00									
Aroclor 1016	ND	200	µg/kg	10	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**1100**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
H0001-E-0.5' (COF0020-03) Soil Sampled: 05/27/05 11:57 Received: 06/01/05 15:00									
Aroclor 1016	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**20**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
H0001-SE-0.5' (COF0020-04) Soil Sampled: 05/27/05 12:01 Received: 06/01/05 15:00									
Aroclor 1016	ND	100	µg/kg	5	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**390**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
H0001-S-0.5' (COF0020-05) Soil Sampled: 05/27/05 12:00 Received: 06/01/05 15:00									
Aroclor 1016	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	

CALIFORNIA LABORATORY SERVICES

06/13/05 14:15

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: PCB Phase II SAP Project Number: PCB Phase II Project Manager: Casey Fitzgerald	**CLS Work Order #: COF0020** COC #: 60251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-S-0.5' (COF0020-05) Soil Sampled: 05/27/05 12:00 Received: 06/01/05 15:00									
Aroclor 1221	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**110**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
H0001-SW-0.5' (COF0020-06) Soil Sampled: 05/27/05 11:49 Received: 06/01/05 15:00									
Aroclor 1016	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**93**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
H0001-W-0.5' (COF0020-07) Soil Sampled: 05/27/05 11:46 Received: 06/01/05 15:00									
Aroclor 1016	ND	200	µg/kg	10	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**1200**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
H0001-NW-0.5' (COF0020-08) Soil Sampled: 05/27/05 11:52 Received: 06/01/05 15:00									
Aroclor 1016	ND	400	µg/kg	20	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	400	"	"	"	"	"	"	
Aroclor 1232	ND	400	"	"	"	"	"	"	
Aroclor 1242	ND	400	"	"	"	"	"	"	
Aroclor 1248	ND	400	"	"	"	"	"	"	
Aroclor 1254	ND	400	"	"	"	"	"	"	
Aroclor 1260	**2300**	400	"	"	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	
H0001-N2-R1-2' (COF0020-09) Soil Sampled: 05/27/05 12:25 Received: 06/01/05 15:00									
Aroclor 1016	ND	1000	µg/kg	50	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

06/13/05 14:15

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: PCB Phase II SAP Project Number: PCB Phase II Project Manager: Casey Fitzgerald	**CLS Work Order #: COF0020** COC #: 60251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
H0001-N2-R1-2' (COF0020-09) Soil Sampled: 05/27/05 12:25 Received: 06/01/05 15:00									
Aroclor 1232	ND	1000	µg/kg	50	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**8400**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
H0001-E2-R1-2' (COF0020-10) Soil Sampled: 05/27/05 12:23 Received: 06/01/05 15:00									
Aroclor 1016	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**54**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
H0001-S2-R1-2' (COF0020-11) Soil Sampled: 05/27/05 12:20 Received: 06/01/05 15:00									
Aroclor 1016	ND	40	µg/kg	2	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**270**	40	"	"	"	"	"	"	
Aroclor 1268	ND	40	"	"	"	"	"	"	
H0001-W2-R1-2' (COF0020-12) Soil Sampled: 05/27/05 12:15 Received: 06/01/05 15:00									
Aroclor 1016	ND	20	µg/kg	1	CO04118	06/02/05	06/03/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**37**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

06/13/05 14:15

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: PCB Phase II SAP Project Number: PCB Phase II Project Manager: Casey Fitzgerald	**CLS Work Order #: COF0020** COC #: 60251

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO04118 - EPA 3550A										
Blank (CO04118-BLK1)				Prepared: 06/02/05		Analyzed: 06/03/05				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CO04118-BS1)				Prepared: 06/02/05		Analyzed: 06/03/05				
Aroclor 1260	71.2	20	µg/kg	83.3		85.5	29-131			
LCS Dup (CO04118-BSD1)				Prepared: 06/02/05		Analyzed: 06/03/05				
Aroclor 1260	72.1	20	µg/kg	83.3		86.6	29-131	1.26	30	
Matrix Spike (CO04118-MS1)		**Source: COE0861-12**		Prepared: 06/02/05		Analyzed: 06/03/05				
Aroclor 1260	177	20	µg/kg	83.3	92	102	29-131			
Matrix Spike Dup (CO04118-MSD1)		**Source: COE0861-12**		Prepared: 06/02/05		Analyzed: 06/03/05				
Aroclor 1260	180	20	µg/kg	83.3	92	106	29-131	1.68	30	

CALIFORNIA LABORATORY SERVICES

06/13/05 14:15

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: PCB Phase II SAP Project Number: PCB Phase II Project Manager: Casey Fitzgerald	**CLS Work Order #: COF0020** COC #: 60251

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

DRAFT

REPORT OF FINDINGS

FORMER SOIL FILL AREA
SUMMER 2005 SOIL INVESTIGATION

NASA Ames Research Center
Moffett Field, California

Prepared by:

Mail Stop 221-10
NASA Ames Research Center
Moffett Field, California 94035-1000

Prepared for:

NASA Ames Research Center
Office of Environmental Services
Mail Stop 218-1
Moffett Field, California 94035-1000

December 2005

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Appendix B Laboratory Data Reports

Appendix B

Laboratory Data Reports

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; C0H1032

LOG NO. 62245

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD
MS 221-10 NASA AMES
MOFFET FIELD CA 94035-1000

PROJECT MANAGER: 650 604 2753 PHONE#

PROJECT NAME: FSFA SAP

SAMPLED BY: CMF / BDR / WD

JOB DESCRIPTION: 0"-6" & 24" SAMPLES

SITE LOCATION: FSFA

CLIENT JOB NUMBER: FSFA

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742

☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, BREEZY, CLEAR

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL. AROCLOR 1268) BY METHOD 8082	DDT, DDE, DDD BY METHOD 8081	LEAD BY METHOD 6000/7000	ZINC BY METHOD 6000/7000				1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
082905	1238	PEN - 6 - 6"	SOIL	1	802	3	X	X	X	X							X	* PLEASE INCL.
	1241	PEN - 6 - 24"				3	X	X	X	X							X	AROCLOR 1268 *
	1226	PEN - 7 - 6"				3	X	X	X	X							X	
	1231	PEN - 7 - 24"				3	X	X	X	X							X	
	1219	PEN - 8 - 6"				3	X	X	X	X							X	
	1223	PEN - 8 - 24"				3	X	X	X	X							X	
	1252	PEN - 9 - 6"				3	X	X	X	X							X	
	1255	PEN - 9 - 24"				3	X	X	X	X							X	
	1326	PEN - 10 - 6"				3	X	X	X	X							X	INVOICE TO:
	1329	PEN - 10 - 24"				3	X	X	X	X							X	
	1350	PEN - 16 - 6"				3	X	X	X	X							X	
	1355	PEN - 16 - 24"				3	X	X	X	X							X	P.O. #
CMF	CMF	~~PEN - 16 - 6"~~ CMF																QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	082905 1552		
		8/30/05 - 1330H		CONRAD JR / CLS
	CLS	8/30/05 - 1700H		

REC'D AT LAB BY: DATE / TIME: 083005 1700 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURR AIR BILL #

LAB

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; _____

LOG NO. 62246

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD
MS 221-10 NASA AMES
MOFFETT FIELD CA 94035-1000

PROJECT MANAGER: 650 604 2753 PHONE#

PROJECT NAME: FSFA SAP

SAMPLED BY: CMF / BOR / WD

JOB DESCRIPTION: 0"-6" & 24" SAMPLES

SITE LOCATION: FSFA

CLIENT JOB NUMBER: FSFA

DESTINATION LABORATORY:

☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742

☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID: _____

COMPOSITE:

FIELD CONDITIONS: WARM, BREEZY, CLEAR

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (Aroclor 1260) BY METHOD 8082	DDT, DDE, DDT BY METHOD 8081	LEAD BY METHOD 6000/7000	ZINC BY METHOD 6000/7000				TURN AROUND TIME 1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
082905	1401	PEN - 17 - 6"	SOIL	1	802	3	X	X	X	X							X	* PLEASE INCL.
	1406	PEN - 17 - 24"				3	X	X	X	X							X	APOLLON 1260 *
	1408	PEN - 18 - 6"				3	X	X	X	X							X	
	1413	PEN - 18 - 24"				3	X	X	X	X							X	
	1307	PEN - 19 - 6"				3	X	X	X	X							X	
	1316	PEN - 19 - 24"				3	X	X	X	X							X	
	1337	PEN - 20 - 6"				3	X	X	X	X							X	
	1340	PEN - 20 - 24"				3	X	X	X	X							X	
	1326	PEN - 40 - 6"				3	X	X	X	X							X	INVOICE TO:
																		P.O. #
																		QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
[signature]	CASEY FITZGERALD / BAIC	08/29/05 1552	[signature]	
		8/30/05 - 1330		BONNIE JR / CLS

REC'D AT LAB BY: | DATE / TIME: | CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

September 13, 2005

CLS Work Order #: COH1032
COC #: 62245-6

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS 221-10
Moffet Field, CA 94035-1000

Project Name: FSFA SAP

Enclosed are the results of analyses for samples received by the laboratory on 08/30/05 17:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-6-6'' (COH1032-01) Soil Sampled: 08/29/05 12:38 Received: 08/30/05 17:00									
Lead	**14**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**54**	5.0	"	"	"	"	"	"	
PEN-6-24'' (COH1032-02) Soil Sampled: 08/29/05 12:41 Received: 08/30/05 17:00									
Lead	**6.6**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**52**	5.0	"	"	"	"	"	"	
PEN-7-6'' (COH1032-03) Soil Sampled: 08/29/05 12:26 Received: 08/30/05 17:00									
Lead	**18**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**97**	5.0	"	"	"	"	"	"	
PEN-7-24'' (COH1032-04) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									
Lead	**22**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**73**	5.0	"	"	"	"	"	"	
PEN-8-6'' (COH1032-05) Soil Sampled: 08/29/05 12:19 Received: 08/30/05 17:00									
Lead	**18**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-8-24'' (COH1032-06) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									
Lead	**14**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**60**	5.0	"	"	"	"	"	"	
PEN-9-6'' (COH1032-07) Soil Sampled: 08/29/05 12:52 Received: 08/30/05 17:00									
Lead	**15**	2.5	mg/kg	1	CO06707	09/06/05	09/06/05	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-9-24'' (COH1032-08) Soil Sampled: 08/29/05 12:55 Received: 08/30/05 17:00									
Lead	ND	12	mg/kg	5	CO06790	09/08/05	09/08/05	EPA 6010B	
Zinc	**43**	25	"	"	"	"	09/09/05	"	
PEN-10-6'' (COH1032-09) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Lead	**19**	12	mg/kg	5	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**71**	25	"	"	"	"	"	"	
PEN-10-24'' (COH1032-10) Soil Sampled: 08/29/05 13:29 Received: 08/30/05 17:00									
Lead	ND	12	mg/kg	5	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**61**	25	"	"	"	"	"	"	
PEN-16-6'' (COH1032-11) Soil Sampled: 08/29/05 13:50 Received: 08/30/05 17:00									
Lead	**67**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**190**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-24'' (COH1032-12) Soil Sampled: 08/29/05 13:55 Received: 08/30/05 17:00									
Lead	**55**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**140**	5.0	"	"	"	"	"	"	
PEN-17-6'' (COH1032-13) Soil Sampled: 08/29/05 14:01 Received: 08/30/05 17:00									
Lead	**11**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-17-24'' (COH1032-14) Soil Sampled: 08/29/05 14:06 Received: 08/30/05 17:00									
Lead	**3.0**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-18-6'' (COH1032-15) Soil Sampled: 08/29/05 14:08 Received: 08/30/05 17:00									
Lead	**7.0**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-18-24'' (COH1032-16) Soil Sampled: 08/29/05 14:13 Received: 08/30/05 17:00									
Lead	**37**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**300**	5.0	"	"	"	"	"	"	
PEN-19-6'' (COH1032-17) Soil Sampled: 08/29/05 13:07 Received: 08/30/05 17:00									
Lead	**12**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**100**	5.0	"	"	"	"	"	"	
PEN-19-24'' (COH1032-18) Soil Sampled: 08/29/05 13:16 Received: 08/30/05 17:00									
Lead	**37**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**100**	5.0	"	"	"	"	"	"	
PEN-20-6'' (COH1032-19) Soil Sampled: 08/29/05 13:37 Received: 08/30/05 17:00									
Lead	**4.4**	2.5	mg/kg	1	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**52**	5.0	"	"	"	"	"	"	
PEN-20-24'' (COH1032-20) Soil Sampled: 08/29/05 13:40 Received: 08/30/05 17:00									
Lead	ND	12	mg/kg	5	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**72**	25	"	"	"	"	"	"	
PEN-40-6'' (COH1032-21) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Lead	ND	12	mg/kg	5	CO06790	09/08/05	09/09/05	EPA 6010B	
Zinc	**63**	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-6-6'' (COH1032-01) Soil Sampled: 08/29/05 12:38 Received: 08/30/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.4 %*	*52-141*		"	"	"	"	
PEN-6-24'' (COH1032-02) Soil Sampled: 08/29/05 12:41 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-04*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	
PEN-7-6'' (COH1032-03) Soil Sampled: 08/29/05 12:26 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	66	µg/kg	20	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	66	"	"	"	"	"	"	
4,4´-DDT	ND	66	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-7-24'' (COH1032-04) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	330	µg/kg	100	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	330	"	"	"	"	"	"	
4,4´-DDT	ND	330	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*58.8 %*	*52-141*		"	"	"	"	
PEN-8-6'' (COH1032-05) Soil Sampled: 08/29/05 12:19 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	330	µg/kg	100	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	330	"	"	"	"	"	"	
4,4´-DDT	ND	330	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*79.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*52.9 %*	*52-141*		"	"	"	"	
PEN-8-24'' (COH1032-06) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	16000	µg/kg	5000	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	16000	"	"	"	"	"	"	
4,4´-DDT	ND	16000	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-6'' (COH1032-07) Soil Sampled: 08/29/05 12:52 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.1 %*	*52-141*		"	"	"	"	
PEN-9-24'' (COH1032-08) Soil Sampled: 08/29/05 12:55 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*71.7 %*	*52-141*		"	"	"	"	
PEN-10-6'' (COH1032-09) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*78.4 %*	*52-141*		"	"	"	"	
PEN-10-24'' (COH1032-10) Soil Sampled: 08/29/05 13:29 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*72.7 %*	*52-141*		"	"	"	"	
PEN-16-6'' (COH1032-11) Soil Sampled: 08/29/05 13:50 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	160	µg/kg	50	CO06575	08/31/05	09/06/05	EPA 8081A	
4,4´-DDE	ND	160	"	"	"	"	"	"	
4,4´-DDT	ND	160	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*157 %*	*46-139*		"	"	"	"	*S-04*
Surrogate: Decachlorobiphenyl		*246 %*	*52-141*		"	"	"	"	*S-04*
PEN-16-24'' (COH1032-12) Soil Sampled: 08/29/05 13:55 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	160	µg/kg	50	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	160	"	"	"	"	"	"	
4,4´-DDT	ND	160	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-6'' (COH1032-13) Soil Sampled: 08/29/05 14:01 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-17-24'' (COH1032-14) Soil Sampled: 08/29/05 14:06 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-18-6'' (COH1032-15) Soil Sampled: 08/29/05 14:08 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-18-24'' (COH1032-16) Soil Sampled: 08/29/05 14:13 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	
PEN-19-6'' (COH1032-17) Soil Sampled: 08/29/05 13:07 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-19-24'' (COH1032-18) Soil Sampled: 08/29/05 13:16 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	160	µg/kg	50	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	160	"	"	"	"	"	"	
4,4´-DDT	ND	160	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-20-6'' (COH1032-19) Soil Sampled: 08/29/05 13:37 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-20-24'' (COH1032-20) Soil Sampled: 08/29/05 13:40 Received: 08/30/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-40-6'' (COH1032-21) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									**R-08**
Aldrin	ND	17	µg/kg	10	CO06626	09/01/05	09/08/05	EPA 8081A	
alpha-BHC	ND	17	"	"	"	"	"	"	
beta-BHC	ND	17	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	17	"	"	"	"	"	"	
delta-BHC	ND	17	"	"	"	"	"	"	
Chlordane	ND	200	"	"	"	"	"	"	
4,4´-DDD	ND	33	"	"	"	"	"	"	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Dieldrin	ND	30	"	"	"	"	"	"	
Endosulfan I	ND	17	"	"	"	"	"	"	
Endosulfan II	ND	33	"	"	"	"	"	"	
Endosulfan sulfate	ND	33	"	"	"	"	"	"	
Endrin	ND	33	"	"	"	"	"	"	
Endrin aldehyde	ND	33	"	"	"	"	"	"	
Heptachlor	ND	17	"	"	"	"	"	"	
Heptachlor epoxide	ND	17	"	"	"	"	"	"	
Kepone	ND	25	"	"	"	"	"	"	
Methoxychlor	ND	170	"	"	"	"	"	"	
Mirex	ND	33	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-6-6'' (COH1032-01) Soil Sampled: 08/29/05 12:38 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-6-24'' (COH1032-02) Soil Sampled: 08/29/05 12:41 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-7-6'' (COH1032-03) Soil Sampled: 08/29/05 12:26 Received: 08/30/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**370**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-7-24'' (COH1032-04) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									
Aroclor 1016	ND	200	µg/kg	10	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**1700**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-8-6'' (COH1032-05) Soil Sampled: 08/29/05 12:19 Received: 08/30/05 17:00									
Aroclor 1016	ND	200	µg/kg	10	CO06597	08/31/05	09/02/05	EPA 8082A	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6'' (COH1032-05) Soil Sampled: 08/29/05 12:19 Received: 08/30/05 17:00									
Aroclor 1221	ND	200	µg/kg	10	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**1800**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-8-24'' (COH1032-06) Soil Sampled: 08/29/05 12:23 Received: 08/30/05 17:00									
Aroclor 1016	ND	20000	µg/kg	1000	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20000	"	"	"	"	"	"	
Aroclor 1232	ND	20000	"	"	"	"	"	"	
Aroclor 1242	ND	20000	"	"	"	"	"	"	
Aroclor 1248	ND	20000	"	"	"	"	"	"	
Aroclor 1254	ND	20000	"	"	"	"	"	"	
Aroclor 1260	**88000**	20000	"	"	"	"	"	"	
Aroclor 1268	ND	20000	"	"	"	"	"	"	
PEN-9-6'' (COH1032-07) Soil Sampled: 08/29/05 12:52 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**170**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-24'' (COH1032-08) Soil Sampled: 08/29/05 12:55 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**43**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-10-6'' (COH1032-09) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-10-6'' (COH1032-09) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Aroclor 1232	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**26**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-10-24'' (COH1032-10) Soil Sampled: 08/29/05 13:29 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**42**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-6'' (COH1032-11) Soil Sampled: 08/29/05 13:50 Received: 08/30/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO06597	08/31/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**570**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-16-24'' (COH1032-12) Soil Sampled: 08/29/05 13:55 Received: 08/30/05 17:00									
Aroclor 1016	ND	200	µg/kg	10	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**830**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-17-6'' (COH1032-13) Soil Sampled: 08/29/05 14:01 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-6'' (COH1032-13) Soil Sampled: 08/29/05 14:01 Received: 08/30/05 17:00									
Aroclor 1242	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**80**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-24'' (COH1032-14) Soil Sampled: 08/29/05 14:06 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**65**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-18-6'' (COH1032-15) Soil Sampled: 08/29/05 14:08 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**48**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-18-24'' (COH1032-16) Soil Sampled: 08/29/05 14:13 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**110**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-6'' (COH1032-17) Soil Sampled: 08/29/05 13:07 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-19-6'' (COH1032-17) Soil Sampled: 08/29/05 13:07 Received: 08/30/05 17:00									
Aroclor 1248	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**34**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-24'' (COH1032-18) Soil Sampled: 08/29/05 13:16 Received: 08/30/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**560**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-20-6'' (COH1032-19) Soil Sampled: 08/29/05 13:37 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-20-24'' (COH1032-20) Soil Sampled: 08/29/05 13:40 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**36**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-40-6'' (COH1032-21) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-40-6'' (COH1032-21) Soil Sampled: 08/29/05 13:26 Received: 08/30/05 17:00									
Aroclor 1254	ND	20	µg/kg	1	CO06627	09/01/05	09/02/05	EPA 8082A	
Aroclor 1260	**33**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06707 - EPA 3050B										
Blank (CO06707-BLK1)				Prepared & Analyzed: 09/06/05						
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
LCS (CO06707-BS1)				Prepared & Analyzed: 09/06/05						
Zinc	24.2	5.0	mg/kg	25.0		96.8	75-125			
Lead	25.5	2.5	"	25.0		102	75-125			
LCS Dup (CO06707-BSD1)				Prepared & Analyzed: 09/06/05						
Zinc	24.1	5.0	mg/kg	25.0		96.4	75-125	0.414	25	
Lead	24.1	2.5	"	25.0		96.4	75-125	5.65	25	
Matrix Spike (CO06707-MS1)		**Source: COH0892-01**		Prepared & Analyzed: 09/06/05						
Lead	149	2.5	mg/kg	25.0	150	NR	75-125			QM-4X
Zinc	672	5.0	"	25.0	630	168	75-125			QM-4X
Matrix Spike Dup (CO06707-MSD1)		**Source: COH0892-01**		Prepared & Analyzed: 09/06/05						
Zinc	675	5.0	mg/kg	25.0	630	180	75-125	0.445	30	QM-4X
Lead	168	2.5	"	25.0	150	72.0	75-125	12.0	30	QM-4X
Batch CO06790 - EPA 3050B										
Blank (CO06790-BLK1)				Prepared & Analyzed: 09/08/05						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CO06790-BS1)				Prepared & Analyzed: 09/08/05						
Lead	25.6	2.5	mg/kg	25.0		102	75-125			
Zinc	25.1	5.0	"	25.0		100	75-125			

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06790 - EPA 3050B										
LCS Dup (CO06790-BSD1)				Prepared: 09/08/05		Analyzed: 09/09/05				
Zinc	25.0	5.0	mg/kg	25.0		100	75-125	0.399	25	
Lead	25.4	2.5	"	25.0		102	75-125	0.784	25	
Matrix Spike (CO06790-MS1)				Prepared: 09/08/05		Analyzed: 09/09/05				
Zinc	67.2	25	mg/kg	25.0		269	75-125			QM-05
Lead	24.0	12	"	25.0		96.0	75-125			QM-05
Matrix Spike Dup (CO06790-MSD1)				Prepared: 09/08/05		Analyzed: 09/09/05				
Zinc	69.6	25	mg/kg	25.0		278	75-125	3.51	30	QM-05
Lead	27.7	12	"	25.0		111	75-125	14.3	30	QM-05

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06575 - EPA 3550A										
Blank (CO06575-BLK1)				Prepared: 08/31/05 Analyzed: 09/06/05						
Aldrin	ND	1.7	µg/kg							
alpha-BHC	ND	1.7	"							
beta-BHC	ND	1.7	"							
gamma-BHC (Lindane)	ND	1.7	"							
delta-BHC	ND	1.7	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	3.3	"							
4,4´-DDE	ND	3.3	"							
4,4´-DDT	ND	3.3	"							
Dieldrin	ND	3.0	"							
Endosulfan I	ND	1.7	"							
Endosulfan II	ND	3.3	"							
Endosulfan sulfate	ND	3.3	"							
Endrin	ND	3.3	"							
Endrin aldehyde	ND	3.3	"							
Heptachlor	ND	1.7	"							
Heptachlor epoxide	ND	1.7	"							
Kepone	ND	2.5	"							
Methoxychlor	ND	17	"							
Mirex	ND	3.3	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.57*		*"*	*8.33*		*78.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.74*		*"*	*8.33*		*117*	*52-141*			
LCS (CO06575-BS1)				Prepared: 08/31/05 Analyzed: 09/06/05						
Aldrin	3.23	1.7	µg/kg	4.17		77.5	47-132			
gamma-BHC (Lindane)	3.05	1.7	"	4.17		73.1	56-133			
4,4´-DDT	5.35	3.3	"	8.33		64.2	46-137			
Dieldrin	6.37	3.0	"	8.33		76.5	44-143			
Endrin	6.77	3.3	"	8.33		81.3	30-147			
Heptachlor	3.23	1.7	"	4.17		77.5	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.27*		*"*	*8.33*		*75.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.60*		*"*	*8.33*		*79.2*	*52-141*			

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06575 - EPA 3550A										
LCS Dup (CO06575-BSD1)				Prepared: 08/31/05		Analyzed: 09/06/05				
Aldrin	3.22	1.7	µg/kg	4.17		77.2	47-132	0.310	30	
gamma-BHC (Lindane)	3.13	1.7	"	4.17		75.1	56-133	2.59	30	
4,4´-DDT	6.08	3.3	"	8.33		73.0	46-137	12.8	30	
Dieldrin	6.32	3.0	"	8.33		75.9	44-143	0.788	30	
Endrin	6.49	3.3	"	8.33		77.9	30-147	4.22	30	
Heptachlor	3.22	1.7	"	4.17		77.2	33-148	0.310	30	
Surrogate: Tetrachloro-meta-xylene	*6.77*		*"*	*8.33*		*81.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.50*		*"*	*8.33*		*78.0*	*52-141*			
Matrix Spike (CO06575-MS1)		**Source: COH1015-06**		Prepared: 08/31/05		Analyzed: 09/06/05				
Aldrin	3.31	1.7	µg/kg	4.17	ND	79.4	47-138			
gamma-BHC (Lindane)	3.36	1.7	"	4.17	ND	80.6	38-144			
4,4´-DDT	10.1	3.3	"	8.33	ND	121	41-157			
Dieldrin	8.17	3.0	"	8.33	ND	98.1	46-155			
Endrin	7.29	3.3	"	8.33	ND	87.5	34-149			
Heptachlor	3.18	1.7	"	4.17	ND	76.3	36-155			
Surrogate: Tetrachloro-meta-xylene	*6.23*		*"*	*8.33*		*74.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.53*		*"*	*8.33*		*78.4*	*52-141*			
Matrix Spike Dup (CO06575-MSD1)		**Source: COH1015-06**		Prepared: 08/31/05		Analyzed: 09/06/05				
Aldrin	3.09	1.7	µg/kg	4.17	ND	74.1	47-138	6.88	35	
gamma-BHC (Lindane)	3.51	1.7	"	4.17	ND	84.2	38-144	4.37	35	
4,4´-DDT	9.75	3.3	"	8.33	ND	117	41-157	3.53	35	
Dieldrin	7.99	3.0	"	8.33	ND	95.9	46-155	2.23	35	
Endrin	7.17	3.3	"	8.33	ND	86.1	34-149	1.66	35	
Heptachlor	2.81	1.7	"	4.17	ND	67.4	36-155	12.4	35	
Surrogate: Tetrachloro-meta-xylene	*6.11*		*"*	*8.33*		*73.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.50*		*"*	*8.33*		*78.0*	*52-141*			

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06626 - EPA 3550A										
Blank (CO06626-BLK1)				Prepared: 09/01/05 Analyzed: 09/08/05						
Aldrin	ND	1.7	µg/kg							
alpha-BHC	ND	1.7	"							
beta-BHC	ND	1.7	"							
gamma-BHC (Lindane)	ND	1.7	"							
delta-BHC	ND	1.7	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	3.3	"							
4,4´-DDE	ND	3.3	"							
4,4´-DDT	ND	3.3	"							
Dieldrin	ND	3.0	"							
Endosulfan I	ND	1.7	"							
Endosulfan II	ND	3.3	"							
Endosulfan sulfate	ND	3.3	"							
Endrin	ND	3.3	"							
Endrin aldehyde	ND	3.3	"							
Heptachlor	ND	1.7	"							
Heptachlor epoxide	ND	1.7	"							
Kepone	ND	2.5	"							
Methoxychlor	ND	17	"							
Mirex	ND	3.3	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.80*		*"*	*8.33*		*81.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.79*		*"*	*8.33*		*81.5*	*52-141*			
LCS (CO06626-BS1)				Prepared: 09/01/05 Analyzed: 09/08/05						
Aldrin	3.18	1.7	µg/kg	4.17		76.3	47-132			
gamma-BHC (Lindane)	3.13	1.7	"	4.17		75.1	56-133			
4,4´-DDT	7.00	3.3	"	8.33		84.0	46-137			
Dieldrin	6.67	3.0	"	8.33		80.1	44-143			
Endrin	6.73	3.3	"	8.33		80.8	30-147			
Heptachlor	3.03	1.7	"	4.17		72.7	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.14*		*"*	*8.33*		*73.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.94*		*"*	*8.33*		*83.3*	*52-141*			

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06626 - EPA 3550A										
LCS Dup (CO06626-BSD1)				Prepared: 09/01/05		Analyzed: 09/08/05				
Aldrin	3.25	1.7	µg/kg	4.17		77.9	47-132	2.18	30	
gamma-BHC (Lindane)	3.13	1.7	"	4.17		75.1	56-133	0.00	30	
4,4´-DDT	6.66	3.3	"	8.33		80.0	46-137	4.98	30	
Dieldrin	6.51	3.0	"	8.33		78.2	44-143	2.43	30	
Endrin	6.61	3.3	"	8.33		79.4	30-147	1.80	30	
Heptachlor	3.04	1.7	"	4.17		72.9	33-148	0.329	30	
Surrogate: Tetrachloro-meta-xylene	*6.47*		*"*	*8.33*		*77.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.59*		*"*	*8.33*		*79.1*	*52-141*			
Matrix Spike (CO06626-MS1)		**Source: COH1032-14**		Prepared: 09/01/05		Analyzed: 09/08/05				
Aldrin	ND	17	µg/kg	4.17	ND		47-138			QM-05
gamma-BHC (Lindane)	ND	17	"	4.17	ND		38-144			QM-05
4,4´-DDT	ND	33	"	8.33	ND		41-157			QM-05
Dieldrin	ND	30	"	8.33	ND		46-155			QM-05
Endrin	ND	33	"	8.33	ND		34-149			QM-05
Heptachlor	ND	17	"	4.17	ND		36-155			QM-05
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*8.33*			*46-139*			*QM-05*
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*8.33*			*52-141*			*QM-05*
Matrix Spike Dup (CO06626-MSD1)		**Source: COH1032-14**		Prepared: 09/01/05		Analyzed: 09/08/05				
Aldrin	ND	17	µg/kg	4.17	ND		47-138		35	QM-05
gamma-BHC (Lindane)	ND	17	"	4.17	ND		38-144		35	QM-05
4,4´-DDT	ND	33	"	8.33	ND		41-157		35	QM-05
Dieldrin	ND	30	"	8.33	ND		46-155		35	QM-05
Endrin	ND	33	"	8.33	ND		34-149		35	QM-05
Heptachlor	ND	17	"	4.17	ND		36-155		35	QM-05
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*8.33*			*46-139*			*QM-05*
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*8.33*			*52-141*			*QM-05*

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06597 - EPA 3550A										
Blank (CO06597-BLK1)				Prepared: 08/31/05		Analyzed: 09/02/05				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CO06597-BS1)				Prepared: 08/31/05		Analyzed: 09/02/05				
Aroclor 1260	67.1	20	µg/kg	83.3		80.6	29-131			
LCS Dup (CO06597-BSD1)				Prepared: 08/31/05		Analyzed: 09/02/05				
Aroclor 1260	84.7	20	µg/kg	83.3		102	29-131	23.2	30	
Matrix Spike (CO06597-MS1)		**Source: COH1032-11**		Prepared: 08/31/05		Analyzed: 09/02/05				
Aroclor 1260	430	20	µg/kg	83.3	570	NR	29-131			QM-01
Matrix Spike Dup (CO06597-MSD1)		**Source: COH1032-11**		Prepared: 08/31/05		Analyzed: 09/02/05				
Aroclor 1260	426	20	µg/kg	83.3	570	NR	29-131	0.935	30	QM-01
Batch CO06627 - EPA 3550A										
Blank (CO06627-BLK1)				Prepared: 09/01/05		Analyzed: 09/02/05				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06627 - EPA 3550A										
LCS (CO06627-BS1)				Prepared: 09/01/05		Analyzed: 09/02/05				
Aroclor 1260	72.3	20	µg/kg	83.3		86.8	29-131			
LCS Dup (CO06627-BSD1)				Prepared: 09/01/05		Analyzed: 09/02/05				
Aroclor 1260	91.1	20	µg/kg	83.3		109	29-131	23.0	30	
Matrix Spike (CO06627-MS1)		**Source: COH1032-14**		Prepared: 09/01/05		Analyzed: 09/02/05				
Aroclor 1260	94.4	20	µg/kg	83.3	65	35.3	29-131			
Matrix Spike Dup (CO06627-MSD1)		**Source: COH1032-14**		Prepared: 09/01/05		Analyzed: 09/02/05				
Aroclor 1260	94.1	20	µg/kg	83.3	65	34.9	29-131	0.318	30	

CALIFORNIA LABORATORY SERVICES

09/13/05 16:42

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field CA, 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COH1032** COC #: 62245-6

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
R-08	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; CO104411

LOG NO. 62252

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD
MS 221-10 NASA AMES
MOFFETT FIELD CA 94035-1000

PROJECT MANAGER: PHONE#: 650 604 2753

PROJECT NAME: FSFA SAP

SAMPLED BY: CNF / BDR / JRL

JOB DESCRIPTION: 0"-6" & 24" SAMPLES

SITE LOCATION: FSFA

CLIENT JOB NUMBER: FSFA

DESTINATION LABORATORY:
[x] CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742

[ ] OTHER

GEOTRACKER:
EDF REPORT [ ] YES [x] NO
GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, BREEZY, CLEAR

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL. AROCLOR 1268) BY METHOD 8082	DDT, DDE, DDD BY METHOD 8081	LEAD BY METHOD 6000/7000	ZINC BY METHOD 6000/7000				1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
091205	1215	PEN-1-6"	SOIL	1	802	3	X	X	X	X							X	* PLEASE INCL.
	1217	PEN-1-24"				3	X	X	X	X							X	AROCLOR 1268 *
	1233	PEN-2-6"				3	X	X	X	X							X	
	1235	PEN-2-24"				3	X	X	X	X							X	
	1201	PEN-3-6"				3	X	X	X	X							X	
	1205	PEN-3-24"				3	X	X	X	X							X	
	1155	PEN-4-6"				3	X	X	X	X							X	
	1157	PEN-4-24"				3	X	X	X	X							X	
	1144	PEN-5-6"				3	X	X	X	X							X	INVOICE TO:
	1149	PEN-5-24"				3	X	X	X	X							X	
	1132	PEN-11-6"				3	X	X	X	X							X	
	1138	PEN-11-24"				3	X	X	X	X							X	P.O. #
	1315	PEN-12-6"				3	X	X	X	X							X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	091205 1645		
		9/13/05-1330A		Conrad / CLS
	CLS	9/13/05-1700A		

REC'D AT LAB BY: Jon R

DATE / TIME: 9-13-05 1700

CONDITIONS / COMMENTS: 12°C

SHIPPED BY: [ ] FED X [ ] UPS [x] OTHER CLS-Courier

AIR BILL #

LAB

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.; CO10441

LOG NO. 62251

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD
MS 221-10 NASA AMES
MOFFETT FIELD CA 94035-1000

PROJECT MANAGER: 650 604 2753 (PHONE#)

PROJECT NAME: FSFA SAP

SAMPLED BY: CNF / BDR / JRL

JOB DESCRIPTION: 0"-6" & 24" SAMPLES

SITE LOCATION:

CLIENT JOB NUMBER: FSFA

DESTINATION LABORATORY:
☒ CLS (916) 638-7301
3249 FITZGERALD RD.
RANCHO CORDOVA, CA.
95742

☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, BREEZY CLEAR

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY

SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PESTICIDES (INCL. APOCLORIZES) BY METHOD 8082	PCBS BY METHOD 8082	LCTD BY METHOD 6000/7000	ZINC BY METHOD 6000/7000					10 DAY	SPECIAL INSTRUCTIONS
~~091205~~	~~1330~~	~~PEN - 11 - 24"~~	~~SOIL~~	~~1~~	~~8 02~~	~~3~~	~~X~~	~~X~~	~~X~~	~~X~~					~~X~~	~~* PLETE 1-CL~~
	~~1315~~	~~PEN - 12 - 6"~~				~~3~~	~~X~~	~~X~~	~~X~~	~~X~~					~~X~~	~~APOCLOR~~
091205	1318	PEN - 12 - 24"	SOIL	1	8 02	3	X	X	X	X					X	1268 *
	1306	PEN - 13 - 6"				3	X	X	X	X					X	* PEN - 11 - 24" &
	1310	PEN - 13 - 24"				3	X	X	X	X					X	PEN - 12 - 6"
	1345	PEN - 14 - 6"				3	X	X	X	X					X	MARKED MILE -
	1354	PEN - 14 - 24"				3	X	X	X	X					X	IGNORE *
	1254	PEN - 15 - 6"				3	X	X	X	X					X	
	1259	PEN - 15 - 24"				3	X	X	X	X					X	INVOICE TO:
	1254	PEN - 41 - 6"				3	X	X	X	X					X	
	1132	PEN - 42 - 6"				3	X	X	X	X					X	

P.O. #

QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	091205 / 1645		
		9/13/05 - 1334		CONTRACT / CL
	CLS	9/13/05 - 1700		

REC'D AT LAB BY: JonR

DATE / TIME: 9-13-05 1700

CONDITIONS / COMMENTS: 12°C

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS Courier

AIR BILL #

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

September 28, 2005

CLS Work Order #: COI0441
COC #: 62252,62251

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS 221-10
Moffet Field, CA 94035-1000

Project Name: FSFA SAP

Enclosed are the results of analyses for samples received by the laboratory on 09/13/05 17:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-6'' (COI0441-01) Soil Sampled: 09/12/05 12:15 Received: 09/13/05 17:00									
Lead	**8.1**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**39**	5.0	"	"	"	"	"	"	
PEN-1-24'' (COI0441-02) Soil Sampled: 09/12/05 12:17 Received: 09/13/05 17:00									
Lead	ND	12	mg/kg	5	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**32**	25	"	"	"	"	"	"	
PEN-2-6'' (COI0441-03) Soil Sampled: 09/12/05 12:33 Received: 09/13/05 17:00									
Lead	**29**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**70**	5.0	"	"	"	"	"	"	
PEN-2-24'' (COI0441-04) Soil Sampled: 09/12/05 12:35 Received: 09/13/05 17:00									
Lead	**38**	12	mg/kg	5	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**52**	25	"	"	"	"	"	"	
PEN-3-6'' (COI0441-05) Soil Sampled: 09/12/05 12:01 Received: 09/13/05 17:00									
Lead	**18**	12	mg/kg	5	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**55**	25	"	"	"	"	"	"	
PEN-3-24'' (COI0441-06) Soil Sampled: 09/12/05 12:05 Received: 09/13/05 17:00									
Lead	**4.8**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**35**	5.0	"	"	"	"	"	"	
PEN-4-6'' (COI0441-07) Soil Sampled: 09/12/05 11:55 Received: 09/13/05 17:00									
Lead	**3.5**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**25**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-24'' (COI0441-08) Soil Sampled: 09/12/05 11:57 Received: 09/13/05 17:00									
Lead	ND	12	mg/kg	5	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**39**	25	"	"	"	"	"	"	
PEN-5-6'' (COI0441-09) Soil Sampled: 09/12/05 11:44 Received: 09/13/05 17:00									
Lead	**9.6**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-5-24'' (COI0441-10) Soil Sampled: 09/12/05 11:49 Received: 09/13/05 17:00									
Lead	**7.1**	2.5	mg/kg	1	CO07022	09/15/05	09/15/05	EPA 6010B	
Zinc	**49**	5.0	"	"	"	"	"	"	
PEN-11-6'' (COI0441-11) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									
Lead	**9.2**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**53**	5.0	"	"	"	"	"	"	
PEN-11-24'' (COI0441-12) Soil Sampled: 09/12/05 11:38 Received: 09/13/05 17:00									
Lead	**6.9**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-12-6'' (COI0441-13) Soil Sampled: 09/12/05 13:15 Received: 09/13/05 17:00									
Lead	**13**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
PEN-12-24'' (COI0441-14) Soil Sampled: 09/12/05 13:18 Received: 09/13/05 17:00									
Lead	**18**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-6'' (COI0441-15) Soil Sampled: 09/12/05 13:06 Received: 09/13/05 17:00									
Lead	**16**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**55**	5.0	"	"	"	"	"	"	
PEN-13-24'' (COI0441-16) Soil Sampled: 09/12/05 13:10 Received: 09/13/05 17:00									
Lead	**29**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**60**	5.0	"	"	"	"	"	"	
PEN-14-6'' (COI0441-17) Soil Sampled: 09/12/05 13:45 Received: 09/13/05 17:00									
Lead	**14**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-14-24'' (COI0441-18) Soil Sampled: 09/12/05 13:54 Received: 09/13/05 17:00									
Lead	**22**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**53**	5.0	"	"	"	"	"	"	
PEN-15-6'' (COI0441-19) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									
Lead	**26**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**80**	5.0	"	"	"	"	"	"	
PEN-15-24'' (COI0441-20) Soil Sampled: 09/12/05 12:59 Received: 09/13/05 17:00									
Lead	**45**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**110**	5.0	"	"	"	"	"	"	
PEN-41-6'' (COI0441-21) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									
Lead	**26**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-42-6'' (COI0441-22) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									
Lead	**7.7**	2.5	mg/kg	1	CO07081	09/19/05	09/20/05	EPA 6010B	
Zinc	**53**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-6'' (COI0441-01) Soil Sampled: 09/12/05 12:15 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.8 %*	*52-141*		"	"	"	"	
PEN-1-24'' (COI0441-02) Soil Sampled: 09/12/05 12:17 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*79.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-2-6'' (COI0441-03) Soil Sampled: 09/12/05 12:33 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	16	µg/kg	5	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	16	"	"	"	"	"	"	
4,4´-DDT	ND	16	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*61.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-2-24'' (COI0441-04) Soil Sampled: 09/12/05 12:35 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*106 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-3-6'' (COI0441-05) Soil Sampled: 09/12/05 12:01 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-3-24'' (COI0441-06) Soil Sampled: 09/12/05 12:05 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*119 %*	*52-141*		"	"	"	"	
PEN-4-6'' (COI0441-07) Soil Sampled: 09/12/05 11:55 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.4 %*	*52-141*		"	"	"	"	
PEN-4-24'' (COI0441-08) Soil Sampled: 09/12/05 11:57 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*83.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-5-6'' (COI0441-09) Soil Sampled: 09/12/05 11:44 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*83.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.8 %*	*52-141*		"	"	"	"	
PEN-5-24'' (COI0441-10) Soil Sampled: 09/12/05 11:49 Received: 09/13/05 17:00									
4,4´-DDD	ND	3.3	µg/kg	1	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	3.3	"	"	"	"	"	"	
4,4´-DDT	ND	3.3	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*79.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.0 %*	*52-141*		"	"	"	"	
PEN-11-6'' (COI0441-11) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO06992	09/14/05	09/15/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.9 %*	*52-141*		"	"	"	"	
PEN-11-24'' (COI0441-12) Soil Sampled: 09/12/05 11:38 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	16	µg/kg	5	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	16	"	"	"	"	"	"	
4,4´-DDT	ND	16	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-12-6'' (COI0441-13) Soil Sampled: 09/12/05 13:15 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	16	µg/kg	5	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	16	"	"	"	"	"	"	
4,4´-DDT	ND	16	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-12-24'' (COI0441-14) Soil Sampled: 09/12/05 13:18 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	16	µg/kg	5	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	16	"	"	"	"	"	"	
4,4´-DDT	ND	16	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*84.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*134 %*	*52-141*		"	"	"	"	
PEN-13-6'' (COI0441-15) Soil Sampled: 09/12/05 13:06 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	66	µg/kg	20	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	66	"	"	"	"	"	"	
4,4´-DDT	ND	66	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*126 %*	*52-141*		"	"	"	"	
PEN-13-24'' (COI0441-16) Soil Sampled: 09/12/05 13:10 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	66	µg/kg	20	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	66	"	"	"	"	"	"	
4,4´-DDT	ND	66	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-14-6'' (COI0441-17) Soil Sampled: 09/12/05 13:45 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	66	µg/kg	20	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	66	"	"	"	"	"	"	
4,4´-DDT	ND	66	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*
PEN-14-24'' (COI0441-18) Soil Sampled: 09/12/05 13:54 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*63.9 %*	*52-141*		"	"	"	"	
PEN-15-6'' (COI0441-19) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*71.9 %*	*52-141*		"	"	"	"	
PEN-15-24'' (COI0441-20) Soil Sampled: 09/12/05 12:59 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	160	µg/kg	50	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	160	"	"	"	"	"	"	
4,4´-DDT	ND	160	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-41-6'' (COI0441-21) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	33	µg/kg	10	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	33	"	"	"	"	"	"	
4,4´-DDT	ND	33	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*117 %*	*52-141*		"	"	"	"	
PEN-42-6'' (COI0441-22) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									**R-08**
4,4´-DDD	ND	66	µg/kg	20	CO07026	09/15/05	09/16/05	EPA 8081A	
4,4´-DDE	ND	66	"	"	"	"	"	"	
4,4´-DDT	ND	66	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*S-01*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*S-01*

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-6'' (COI0441-01) Soil Sampled: 09/12/05 12:15 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-1-24'' (COI0441-02) Soil Sampled: 09/12/05 12:17 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-6'' (COI0441-03) Soil Sampled: 09/12/05 12:33 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**76**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-2-24'' (COI0441-04) Soil Sampled: 09/12/05 12:35 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-3-6'' (COI0441-05) Soil Sampled: 09/12/05 12:01 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**25**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-3-24'' (COI0441-06) Soil Sampled: 09/12/05 12:05 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-6'' (COI0441-07) Soil Sampled: 09/12/05 11:55 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-4-24'' (COI0441-08) Soil Sampled: 09/12/05 11:57 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-5-6'' (COI0441-09) Soil Sampled: 09/12/05 11:44 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-5-24'' (COI0441-10) Soil Sampled: 09/12/05 11:49 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-6'' (COI0441-11) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO06999	09/14/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-24'' (COI0441-12) Soil Sampled: 09/12/05 11:38 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-12-6'' (COI0441-13) Soil Sampled: 09/12/05 13:15 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**77**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-12-24'' (COI0441-14) Soil Sampled: 09/12/05 13:18 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**25**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-13-6'' (COI0441-15) Soil Sampled: 09/12/05 13:06 Received: 09/13/05 17:00									
Aroclor 1016	ND	200	µg/kg	10	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**820**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-24'' (COI0441-16) Soil Sampled: 09/12/05 13:10 Received: 09/13/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**450**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-14-6'' (COI0441-17) Soil Sampled: 09/12/05 13:45 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**60**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-14-24'' (COI0441-18) Soil Sampled: 09/12/05 13:54 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-6'' (COI0441-19) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**310**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-15-24'' (COI0441-20) Soil Sampled: 09/12/05 12:59 Received: 09/13/05 17:00									
Aroclor 1016	ND	200	µg/kg	10	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**930**	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-41-6'' (COI0441-21) Soil Sampled: 09/12/05 12:54 Received: 09/13/05 17:00									
Aroclor 1016	ND	100	µg/kg	5	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**460**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-42-6'' (COI0441-22) Soil Sampled: 09/12/05 11:32 Received: 09/13/05 17:00									
Aroclor 1016	ND	20	µg/kg	1	CO07027	09/15/05	09/16/05	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO07022 - EPA 3050B										
Blank (CO07022-BLK1)				Prepared & Analyzed: 09/15/05						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CO07022-BS1)				Prepared & Analyzed: 09/15/05						
Lead	26.0	2.5	mg/kg	25.0		104	75-125			
Zinc	24.7	5.0	"	25.0		98.8	75-125			
LCS Dup (CO07022-BSD1)				Prepared & Analyzed: 09/15/05						
Zinc	24.8	5.0	mg/kg	25.0		99.2	75-125	0.404	25	
Lead	26.1	2.5	"	25.0		104	75-125	0.384	25	
Matrix Spike (CO07022-MS1)		**Source: COI0352-40**		Prepared & Analyzed: 09/15/05						
Lead	28.8	2.5	mg/kg	25.0	6.2	90.4	75-125			
Zinc	57.4	5.0	"	25.0	37	81.6	75-125			
Matrix Spike Dup (CO07022-MSD1)		**Source: COI0352-40**		Prepared & Analyzed: 09/15/05						
Lead	28.4	2.5	mg/kg	25.0	6.2	88.8	75-125	1.40	30	
Zinc	54.2	5.0	"	25.0	37	68.8	75-125	5.73	30	QM-05
Batch CO07081 - EPA 3050B										
Blank (CO07081-BLK1)				Prepared & Analyzed: 09/19/05						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CO07081-BS1)				Prepared & Analyzed: 09/19/05						
Lead	25.7	2.5	mg/kg	25.0		103	75-125			
Zinc	23.6	5.0	"	25.0		94.4	75-125			

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO07081 - EPA 3050B										
LCS Dup (CO07081-BSD1)				Prepared & Analyzed: 09/19/05						
Lead	26.7	2.5	mg/kg	25.0		107	75-125	3.82	25	
Zinc	24.1	5.0	"	25.0		96.4	75-125	2.10	25	
Matrix Spike (CO07081-MS1)		**Source: COI0577-02**		Prepared & Analyzed: 09/19/05						
Zinc	54.6	5.0	mg/kg	25.0	33	86.4	75-125			
Lead	32.0	2.5	"	25.0	8.4	94.4	75-125			
Matrix Spike Dup (CO07081-MSD1)		**Source: COI0577-02**		Prepared & Analyzed: 09/19/05						
Lead	28.3	2.5	mg/kg	25.0	8.4	79.6	75-125	12.3	30	
Zinc	51.8	5.0	"	25.0	33	75.2	75-125	5.26	30	

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06992 - LUFT-DHS GCNV										
Blank (CO06992-BLK1)				Prepared: 09/14/05 Analyzed: 09/15/05						
Aldrin	ND	1.7	µg/kg							
alpha-BHC	ND	1.7	"							
beta-BHC	ND	1.7	"							
gamma-BHC (Lindane)	ND	1.7	"							
delta-BHC	ND	1.7	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	3.3	"							
4,4´-DDE	ND	3.3	"							
4,4´-DDT	ND	3.3	"							
Dieldrin	ND	3.0	"							
Endosulfan I	ND	1.7	"							
Endosulfan II	ND	3.3	"							
Endosulfan sulfate	ND	3.3	"							
Endrin	ND	3.3	"							
Endrin aldehyde	ND	3.3	"							
Heptachlor	ND	1.7	"							
Heptachlor epoxide	ND	1.7	"							
Kepone	ND	2.5	"							
Methoxychlor	ND	17	"							
Mirex	ND	3.3	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.18*		*"*	*8.33*		*74.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.29*		*"*	*8.33*		*87.5*	*52-141*			
LCS (CO06992-BS1)				Prepared: 09/14/05 Analyzed: 09/15/05						
Aldrin	3.44	1.7	µg/kg	4.17		82.5	47-132			
gamma-BHC (Lindane)	3.32	1.7	"	4.17		79.6	56-133			
4,4´-DDT	11.2	3.3	"	8.33		134	46-137			
Dieldrin	7.37	3.0	"	8.33		88.5	44-143			
Endrin	7.75	3.3	"	8.33		93.0	30-147			
Heptachlor	3.85	1.7	"	4.17		92.3	33-148			

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06992 - LUFT-DHS GCNV										
LCS (CO06992-BS1)				Prepared: 09/14/05		Analyzed: 09/15/05				
Surrogate: Tetrachloro-meta-xylene	*6.29*		*µg/kg*	*8.33*		*75.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.01*		*"*	*8.33*		*96.2*	*52-141*			
LCS Dup (CO06992-BSD1)				Prepared: 09/14/05		Analyzed: 09/15/05				
Aldrin	3.51	1.7	µg/kg	4.17		84.2	47-132	2.01	30	
gamma-BHC (Lindane)	3.22	1.7	"	4.17		77.2	56-133	3.06	30	
4,4´-DDT	10.9	3.3	"	8.33		131	46-137	2.71	30	
Dieldrin	7.32	3.0	"	8.33		87.9	44-143	0.681	30	
Endrin	6.96	3.3	"	8.33		83.6	30-147	10.7	30	
Heptachlor	3.77	1.7	"	4.17		90.4	33-148	2.10	30	
Surrogate: Tetrachloro-meta-xylene	*6.43*		*"*	*8.33*		*77.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.43*		*"*	*8.33*		*101*	*52-141*			
Matrix Spike (CO06992-MS1)		**Source: COI0441-10**		Prepared: 09/14/05		Analyzed: 09/15/05				
Aldrin	4.01	1.7	µg/kg	4.17	ND	96.2	47-138			
gamma-BHC (Lindane)	3.22	1.7	"	4.17	ND	77.2	38-144			
4,4´-DDT	12.9	3.3	"	8.33	ND	155	41-157			
Dieldrin	6.85	3.0	"	8.33	ND	82.2	46-155			
Endrin	7.49	3.3	"	8.33	ND	89.9	34-149			
Heptachlor	4.56	1.7	"	4.17	ND	109	36-155			
Surrogate: Tetrachloro-meta-xylene	*5.95*		*"*	*8.33*		*71.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.30*		*"*	*8.33*		*87.6*	*52-141*			
Matrix Spike Dup (CO06992-MSD1)		**Source: COI0441-10**		Prepared: 09/14/05		Analyzed: 09/15/05				
Aldrin	3.40	1.7	µg/kg	4.17	ND	81.5	47-138	16.5	35	
gamma-BHC (Lindane)	3.59	1.7	"	4.17	ND	86.1	38-144	10.9	35	
4,4´-DDT	11.5	3.3	"	8.33	ND	138	41-157	11.5	35	
Dieldrin	7.07	3.0	"	8.33	ND	84.9	46-155	3.16	35	
Endrin	7.40	3.3	"	8.33	ND	88.8	34-149	1.21	35	
Heptachlor	3.99	1.7	"	4.17	ND	95.7	36-155	13.3	35	
Surrogate: Tetrachloro-meta-xylene	*6.72*		*"*	*8.33*		*80.7*	*46-139*			

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06992 - LUFT-DHS GCNV										
Matrix Spike Dup (CO06992-MSD1)		**Source: COI0441-10**		Prepared: 09/14/05		Analyzed: 09/15/05				
Surrogate: Decachlorobiphenyl	*7.25*		*µg/kg*	*8.33*		*87.0*	*52-141*			
Batch CO07026 - EPA 3550A										
Blank (CO07026-BLK1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aldrin	ND	1.7	µg/kg							
gamma-BHC (Lindane)	ND	1.7	"							
4,4´-DDD	ND	3.3	"							
4,4´-DDE	ND	3.3	"							
4,4´-DDT	ND	3.3	"							
Dieldrin	ND	3.0	"							
Endrin	ND	3.3	"							
Heptachlor	ND	1.7	"							
Surrogate: Tetrachloro-meta-xylene	*6.36*		*"*	*8.33*		*76.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.66*		*"*	*8.33*		*92.0*	*52-141*			
LCS (CO07026-BS1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aldrin	3.31	1.7	µg/kg	4.17		79.4	47-132			
gamma-BHC (Lindane)	3.23	1.7	"	4.17		77.5	56-133			
4,4´-DDT	5.08	3.3	"	8.33		61.0	46-137			
Dieldrin	7.06	3.0	"	8.33		84.8	44-143			
Endrin	7.89	3.3	"	8.33		94.7	30-147			
Heptachlor	3.44	1.7	"	4.17		82.5	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.66*		*"*	*8.33*		*80.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.57*		*"*	*8.33*		*90.9*	*52-141*			
LCS Dup (CO07026-BSD1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aldrin	3.34	1.7	µg/kg	4.17		80.1	47-132	0.902	30	
gamma-BHC (Lindane)	3.20	1.7	"	4.17		76.7	56-133	0.933	30	
4,4´-DDT	4.53	3.3	"	8.33		54.4	46-137	11.4	30	
Dieldrin	6.92	3.0	"	8.33		83.1	44-143	2.00	30	
Endrin	7.31	3.3	"	8.33		87.8	30-147	7.63	30	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO07026 - EPA 3550A										
LCS Dup (CO07026-BSD1)				Prepared: 09/15/05	Analyzed: 09/16/05					
Heptachlor	3.80	1.7	µg/kg	4.17		91.1	33-148	9.94	30	
Surrogate: Tetrachloro-meta-xylene	*6.35*		*"*	*8.33*		*76.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.25*		*"*	*8.33*		*87.0*	*52-141*			
Matrix Spike (CO07026-MS1)		**Source: COI0441-21**		Prepared: 09/15/05	Analyzed: 09/16/05					
Aldrin	4.71	17	µg/kg	4.17	ND	113	47-138			
gamma-BHC (Lindane)	4.17	17	"	4.17	ND	100	38-144			
4,4´-DDT	ND	33	"	8.33	ND		41-157			QM-05
Dieldrin	20.9	30	"	8.33	ND	251	46-155			QM-05
Endrin	28.9	33	"	8.33	ND	347	34-149			QM-05
Heptachlor	7.50	17	"	4.17	ND	180	36-155			QM-05
Surrogate: Tetrachloro-meta-xylene	*8.48*		*"*	*8.33*		*102*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.03*		*"*	*8.33*		*108*	*52-141*			
Matrix Spike Dup (CO07026-MSD1)		**Source: COI0441-21**		Prepared: 09/15/05	Analyzed: 09/16/05					
Aldrin	5.36	17	µg/kg	4.17	ND	129	47-138	12.9	35	
gamma-BHC (Lindane)	ND	17	"	4.17	ND		38-144		35	QM-05
4,4´-DDT	ND	33	"	8.33	ND		41-157		35	QM-05
Dieldrin	24.0	30	"	8.33	ND	288	46-155	13.8	35	QM-05
Endrin	30.7	33	"	8.33	ND	369	34-149	6.04	35	QM-05
Heptachlor	7.66	17	"	4.17	ND	184	36-155	2.11	35	QM-05
Surrogate: Tetrachloro-meta-xylene	*12.6*		*"*	*8.33*		*151*	*46-139*			*S-04*
Surrogate: Decachlorobiphenyl	*9.21*		*"*	*8.33*		*111*	*52-141*			

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO06999 - EPA 3550A										
Blank (CO06999-BLK1)				Prepared: 09/14/05		Analyzed: 09/16/05				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CO06999-BS1)				Prepared: 09/14/05		Analyzed: 09/16/05				
Aroclor 1260	74.3	20	µg/kg	83.3		89.2	29-131			
LCS Dup (CO06999-BSD1)				Prepared: 09/14/05		Analyzed: 09/16/05				
Aroclor 1260	76.1	20	µg/kg	83.3		91.4	29-131	2.39	30	
Matrix Spike (CO06999-MS1)		**Source: COI0441-01**		Prepared: 09/14/05		Analyzed: 09/16/05				
Aroclor 1260	65.9	20	µg/kg	83.3	ND	79.1	29-131			
Matrix Spike Dup (CO06999-MSD1)		**Source: COI0441-01**		Prepared: 09/14/05		Analyzed: 09/16/05				
Aroclor 1260	58.5	20	µg/kg	83.3	ND	70.2	29-131	11.9	30	
Batch CO07027 - EPA 3550A										
Blank (CO07027-BLK1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CO07027 - EPA 3550A										
LCS (CO07027-BS1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aroclor 1260	61.5	20	µg/kg	83.3		73.8	29-131			
LCS Dup (CO07027-BSD1)				Prepared: 09/15/05		Analyzed: 09/16/05				
Aroclor 1260	65.6	20	µg/kg	83.3		78.8	29-131	6.45	30	
Matrix Spike (CO07027-MS1)		**Source: COI0441-12**		Prepared: 09/15/05		Analyzed: 09/16/05				
Aroclor 1260	48.6	20	µg/kg	83.3	ND	58.3	29-131			
Matrix Spike Dup (CO07027-MSD1)		**Source: COI0441-12**		Prepared: 09/15/05		Analyzed: 09/16/05				
Aroclor 1260	63.1	20	µg/kg	83.3	ND	75.8	29-131	26.0	30	

CALIFORNIA LABORATORY SERVICES

09/28/05 16:07

ISSI/NASA Ames MS221-10 NASA Ames MS 221-10 Moffet Field, CA 94035-1000	Project: FSFA SAP Project Number: FSFA Project Manager: Casey Fitzgerald	**CLS Work Order #: COI0441** COC #: 62252,62251

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
R-08	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 21, 2006

CLS Work Order #: CPF0718
COC #: 63094,95,96,97,98

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: AOI 14 Phase II

Enclosed are the results of analyses for samples received by the laboratory on 06/21/06 18:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(5)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63094

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS. T20G-4 NASA Ames, Moffett Field, CA. 94035
PROJECT MANAGER: 650/604-2753 PHONE#
PROJECT NAME: AOI 14 - Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm, breezy

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclor 1268) by method 8082	DDD, DDE, DDT (Total) by method 8081A	Lead and Zinc by method 6010B/7000	TPH-D/G/SP/H/S/8 + 8015 by MTD	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	(10 DAY)	ALT. ID:
6/20/06	0855	PEN-1-4'	Soil	1	Sleeve	3	X	X	X							X	
	0910	PEN-2-4'															
	0913	PEN-2-6' ⊛															Replicate ⊛
	0921	PEN-3-4'															
	0923	PEN-3-6'															
	0933	PEN-4-4'								X	X	X					
	0936	PEN-4-6'															
	0951	PEN-5-4'															
	0954	PEN-5-6'															
	1007	PEN-6-4'															
	1010	PEN-6-6'															
	1349	PEN-7-4'															
6/20/06	1353	PEN-7-6'	Soil	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SFCC	06/20/06 1650		
		6/21/06 @ 1500H		CONRAD JR/CLS
	CLS	6/21/06 @ 1800H		

REC'D AT LAB BY: DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(4)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF 0718 LOG NO. 63095

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, M.S. T20-G-4 NASA AMES, Moffett Field, CA 94035
PROJECT MANAGER: 650/604-2753 PHONE#
PROJECT NAME: AOI 14 - Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, warm, breezy

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS: OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclor 1268) by method 8082	DDD, DDE, DDT (TOTAL) by method 8081A	Lead + Zinc by method 6010B/7000	TPH-D/G/SP4/5/8+ MTBE by SOIS	VOCs (8260)	PP13 metals	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
6/20/06	1355	PEN-7-8'	Soil	1	Sleeve	3	X	X	X							X	
	1406	PEN-8-4'															
	1412	PEN-8-6'								X	X	X					
	1411	PEN-8-8' (*)															Replicate (*)
	1415	PEN-8-10'															
	1414	PEN-8-12'															
	1021	PEN-11-4'															
	1026	PEN-11-6'															
	1027	PEN-11-8'															
	1029	PEN-11-10'															
	1029	PEN-11-12'															
	1139	PEN-13-4'															
6/20/06	1141	PEN-13-6'	Soil	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062006 / 1650		
		6/21/06 @ 1300		CONRAD JR / CLS
	CLS	6/21/06 @ 1800		

REC'D AT LAB BY: DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(3)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF-0718 LOG NO. 63096

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD, MS T206-4 NASA AMES, MOFFETT FIELD CA 94035

PROJECT MANAGER: PHONE# 650 604 2753

PROJECT NAME: AOI 14 PHASE II

SAMPLED BY: CNF / BDR

JOB DESCRIPTION:

SITE LOCATION:

CLIENT JOB NUMBER: N140-200

DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [X] NO

GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, CLEAR

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY

SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL AROCLOR 1268) BY METHOD 8082	DDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7000	TPH-DI-61-JP14/5/61-MO DI METHOD 8015M	VOCs BY METHOD 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
062005	1140	PEN-13-8'	SOIL	1	SLEEVE	3	X	X	X							X	
	1145	PEN-13-10'				3	X	X	X							X	
	1158	PEN-15-4'				3	X	X	X							X	REPLICATE *
	1203	PEN-15-6'				3	X	X	X							X	
	1212	PEN-15-10'				3	X	X	X							X	
	1214	PEN-15-12'				3	X	X	X							X	
	1508	PEN-16-4'				3	X	X	X	X	X	X				X	
	1513	PEN-16-6'				3	X	X	X							X	
	1511	PEN-16-8'				3	X	X	X							X	
	1518	PEN-16-10'				3	X	X	X							X	
	1515	PEN-16-12'				3	X	X	X							X	
	1043	PEN-21-6"				3	X	X	X							X	
	1042	PEN-21-2'				3	X	X	X							X	

INVOICE TO:

P.O. #

QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062006 1600		
		6/21/06 @ 1300H		CONRAD VR/CLS
	CLS	6/21/06 @ 1800H		

REC'D AT LAB BY: JON DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(2)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63097

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4 NASA AMES, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: WARM, CLEAR, BREEZY

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL. AROCLOR 1268) BY METHOD 8082	PDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7000	TPH-DI-EL-TPH5/8/-MO BY METHOD 8015M	VOCS BY METHOD 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / ALT. ID:
063006	1041	PEN-21-4'	SOIL	1	SLEEVE	3	X	X	X							X	
	1045	PEN-21-6'				3	X	X	X							X	
	1046	PEN-21-8'				3	X	X	X							X	
	1050	PEN-21-10'				3	X	X	X							X	
	1228	PEN-22-6"				3	X	X	X							X	
	1227	PEN-22-2'				3	X	X	X	X	X	X				X	
	1231	PEN-22-4'				3	X	X	X							X	
	1229	PEN-22-6'				3	X	X	X							X	
	1234	PEN-22-8'				3	X	X	X							X	INVOICE TO:
	1235	PEN-22-10'				3	X	X	X							X	
	1235	PEN-22-12'				3	X	X	X							X	
	1430	PEN-24-6"				3	X	X	X							X	~~ROW~~ REPLICATE *
	1428	PEN-24-2'				3	X	X	X							X	~~QUOTE #~~

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	063006 1650		
		6/21/06 @ 1300		CONRAD JR / CLS
	CLS	6/21/06 @ 1800		

REC'D AT LAB BY: Jon DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63098 (1)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4 - NASA AMES, MOFFETT FIELD CA 94035
PROJECT MANAGER: 650 604 2753 PHONE#
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF / BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☐ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL. AROCLORS) BY METHOD 8082	DDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7420	TPH-DIESEL/STB/-MO BY METHOD 8015M	VOCs BY METHOD 8260	PP METALS	10 DAY	ALT. ID
062006	1437	PEN-24-4'	SOIL	1	SLEEVE	3	X	X	X	X	X	X	X	
	1440	PEN-24-6'				3	X	X	X				X	
	1438	PEN-24-8'				3	X	X	X				X	
	1445	PEN-24-10'				3	X	X	X				X	
	1446	PEN-24-12'				3	X	X	X				X	
	1112	FSDA-HOOL-4'				3	X	X	X				X	REPLICATE X
	1114	FSDA-HOOL-6'				3	X	X	X				X	
	1115	FSDA-HOOL-8'				3	X	X	X				X	
	1117	FSDA-HOOL-10'				3	X	X	X				X	
	1118	FSDA-HOOL-12'				3	X	X	X				X	

INVOICE TO:
P.O. #:
QUOTE #:

SUSPECTED CONSTITUENTS:
PRESERVATIVES: (1) HCL (2) HNO3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062006 1650		
		6/21/06 @ 1300H		CONTRA JR/CLS
	CLS	6/21/06 @ 1800H		

RECD AT LAB BY: SONIR DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	**11**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	**29**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**51**	25	"	"	"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**28**	25	"	"	"	"	"	"	
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**34**	25	"	"	"	"	"	"	
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
Lead	**5.9**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**75**	5.0	"	"	"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	12	"	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**44**	5.0	"	"	"	"	"	"	
Copper	**19**	5.0	"	"	"	"	"	"	
Lead	ND	12	"	"	"	"	"	"	
Nickel	**47**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**40**	5.0	"	"	"	"	"	"	
Arsenic	**4.6**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	12	"	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**40**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
Lead	**6.3**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
Lead	**3.7**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
Lead	**7.1**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**70**	5.0	"	"	"	"	"	"	
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
Lead	**4.1**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**49**	5.0	"	"	"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**49**	25	"	"	"	"	"	"	
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
Lead	**3.2**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
Lead	**4.9**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
Lead	**7.0**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04702	06/23/06	06/26/06	EPA 6010B	
Beryllium	**0.31**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**37**	1.0	"	"	"	"	"	"	
Copper	**22**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Nickel	**38**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**37**	1.0	"	"	"	"	"	"	
Arsenic	**3.1**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
Lead	**2.6**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
Lead	**3.8**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
Lead	**4.5**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**64**	5.0	"	"	"	"	"	"	
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
Lead	**6.4**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	25	"	"	"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Lead	**11**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**260**	5.0	"	"	"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Lead	**2.6**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**43**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
Lead	**15**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
Lead	**9.7**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
Lead	**5.3**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
Lead	**4.2**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Lead	**21**	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**75**	25	"	"	"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
Lead	**16**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**74**	5.0	"	"	"	"	"	"	
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
Lead	**3.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
Lead	**3.4**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04709	06/23/06	06/27/06	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**22**	1.0	"	"	"	"	"	"	
Copper	**13**	1.0	"	"	"	"	"	"	
Lead	**4.3**	2.5	"	"	"	"	"	"	
Nickel	**27**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**31**	1.0	"	"	"	"	"	"	
Arsenic	**3.1**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.3**	2.5	"	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
Lead	**4.0**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**55**	5.0	"	"	"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
Lead	**5.7**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**53**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
Lead	**3.8**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									
Lead	**2.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**22**	5.0	"	"	"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
Lead	**9.8**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
Lead	**5.6**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**43**	5.0	"	"	"	"	"	"	
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**47**	25	"	"	"	"	"	"	
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
Lead	**2.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**27**	5.0	"	"	"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
Lead	**4.3**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**61**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
Lead	ND	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**26**	5.0	"	"	"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
Lead	**79**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**160**	5.0	"	"	"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04709	06/23/06	06/27/06	EPA 6010B	
Beryllium	**0.43**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**60**	1.0	"	"	"	"	"	"	
Copper	**40**	1.0	"	"	"	"	"	"	
Lead	**35**	2.5	"	"	"	"	"	"	
Nickel	**59**	1.0	"	"	"	"	"	"	
Silver	**1.0**	0.50	"	"	"	"	"	"	
Zinc	**120**	1.0	"	"	"	"	"	"	
Arsenic	**3.6**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**35**	2.5	"	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**120**	5.0	"	"	"	"	"	"	
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
Lead	**24**	12	mg/kg	5	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**140**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
Lead	**3.7**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**49**	5.0	"	"	"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
Lead	**2.9**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**36**	5.0	"	"	"	"	"	"	
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Lead	**4.4**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Lead	ND	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**35**	5.0	"	"	"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Lead	**15**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**73**	5.0	"	"	"	"	"	"	
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
Lead	**5.5**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04713	06/23/06	06/27/06	EPA 6010B	
Beryllium	**0.49**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**56**	1.0	"	"	"	"	"	"	
Copper	**28**	1.0	"	"	"	"	"	"	
Lead	**5.5**	2.5	"	"	"	"	"	"	
Nickel	**57**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**47**	1.0	"	"	"	"	"	"	
Arsenic	**3.7**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Selenium	ND	1.0	mg/kg	4	CP04690	06/23/06	06/26/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**5.5**	2.5	"	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
Lead	**3.6**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**45**	5.0	"	"	"	"	"	"	
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
Lead	**5.2**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									
Lead	**6.3**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**68**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
Lead	**9.9**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**69**	25	"	"	"	"	"	"	
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
Lead	**8.0**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**60**	5.0	"	"	"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
Lead	**2.8**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	ND	25	"	"	"	"	"	"	
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**44**	25	"	"	"	"	"	"	
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Lead	**14**	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**63**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Lead	**11**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**62**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*64.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.2 %*	*52-141*		"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*52-141*		"	"	"	"	
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*56.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*56.2 %*	*52-141*		"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*63.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*51.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*52.9 %*	*52-141*		"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*61.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*84.1 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*54.3 %*	*52-141*		"	"	"	"	
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*49.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*61.5 %*	*52-141*		"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*59.1 %*	*52-141*		"	"	"	"	
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.5 %*	*52-141*		"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.1 %*	*52-141*		"	"	"	"	
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.3 %*	*52-141*		"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*64.4 %*	*52-141*		"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.7 %*	*52-141*		"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*47.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*63.9 %*	*52-141*		"	"	"	"	
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*58.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*57.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*69.7 %*	*52-141*		"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*61.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*66.8 %*	*52-141*		"	"	"	"	
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*60.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*66.3 %*	*52-141*		"	"	"	"	
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*56.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*57.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*130 %*	*52-141*		"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.9 %*	*52-141*		"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**300**	250	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*142 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*259 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**130**	100	"	10	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*255 %*	*52-141*		"	"	"	"	*QS-4*
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*223 %*	*52-141*		"	"	"	"	*QS-4*
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*1740 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*107 %*	*52-141*		"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*102 %*	*52-141*		"	"	"	"	
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**480**	380	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*115 %*	*52-141*		"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*68.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.7 %*	*52-141*		"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**96**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*125 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*121 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*172 %*	*52-141*		"	"	"	"	*QS-4*
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*138 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*160 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*172 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*188 %*	*52-141*		"	"	"	"	*QS-4*
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*163 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*185 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**24**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**34**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**130**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**97**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**64**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**20**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**600**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**470**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**310**	40	"	2	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**1100**	200	"	10	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**280**	40	"	2	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**35**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**480**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**26**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**140**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**110**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.9 %*	*65-135*		"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.6 %*	*65-135*		"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.3 %*	*65-135*		"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.5 %*	*65-135*		"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.5 %*	*65-135*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.6 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*50-128*		"	"	"	"	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04654 - LUFT-DHS GCNV										
Blank (CP04654-BLK1)				Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
JP-5/JP-8	ND	1.0	"							
LCS (CP04654-BS1)				Prepared & Analyzed: 06/22/06						
Diesel	47.0	1.0	mg/kg	50.0		94.0	65-135			
LCS Dup (CP04654-BSD1)				Prepared & Analyzed: 06/22/06						
Diesel	44.8	1.0	mg/kg	50.0		89.6	65-135	4.79	30	
Matrix Spike (CP04654-MS1)		**Source: CPF0724-01**		Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg	50.0	ND		59-138			QM-5
Matrix Spike Dup (CP04654-MSD1)		**Source: CPF0724-01**		Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg	50.0	ND		59-138		37	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04678 - EPA 7471A										
Blank (CP04678-BLK1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	ND	0.10	mg/kg							
LCS (CP04678-BS1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.702	0.10	mg/kg	0.625		112	75-125			
LCS Dup (CP04678-BSD1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.684	0.10	mg/kg	0.625		109	75-125	2.60	25	
Matrix Spike (CP04678-MS1)		**Source: CPF0673-04**		Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.712	0.10	mg/kg	0.625	ND	114	75-125			
Matrix Spike Dup (CP04678-MSD1)		**Source: CPF0673-04**		Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.720	0.10	mg/kg	0.625	ND	115	75-125	1.12	25	
Batch CP04690 - EPA 3050B										
Blank (CP04690-BLK1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	ND	0.25	mg/kg							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CP04690-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	5.08	1.0	mg/kg	5.00		102	75-125			
Selenium	4.82	1.0	"	5.00		96.4	75-125			
Thallium	5.36	1.0	"	5.00		107	75-125			
LCS Dup (CP04690-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	5.20	1.0	mg/kg	5.00		104	75-125	2.33	25	
Selenium	5.06	1.0	"	5.00		101	75-125	4.86	25	
Thallium	5.24	1.0	"	5.00		105	75-125	2.26	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04690 - EPA 3050B										
Matrix Spike (CP04690-MS1)		**Source: CPF0718-06**		Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	7.66	1.0	mg/kg	5.00	4.6	61.2	75-125			QM-5
Selenium	4.58	1.0	"	5.00	ND	91.6	75-125			
Thallium	5.28	1.0	"	5.00	ND	106	75-125			
Matrix Spike Dup (CP04690-MSD1)		**Source: CPF0718-06**		Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	8.08	1.0	mg/kg	5.00	4.6	69.6	75-125	5.34	30	QM-5
Selenium	3.66	1.0	"	5.00	ND	73.2	75-125	22.3	30	QM-5
Thallium	4.76	1.0	"	5.00	ND	95.2	75-125	10.4	30	
Batch CP04691 - EPA 3050B										
Blank (CP04691-BLK1)				Prepared & Analyzed: 06/23/06						
Zinc	ND	5.0	mg/kg							
Antimony	ND	2.5	"							
Lead	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04691-BS1)				Prepared & Analyzed: 06/23/06						
Antimony	27.2	2.5	mg/kg	25.0		109	75-125			
Lead	28.0	2.5	"	25.0		112	75-125			
Zinc	27.5	5.0	"	25.0		110	75-125			
Beryllium	2.73	0.25	"	2.50		109	75-125			
Cadmium	2.86	0.50	"	2.50		114	75-125			
Chromium	11.3	1.0	"	10.0		113	75-125			
Copper	12.9	1.0	"	12.5		103	75-125			
Lead	28.0	2.5	"	25.0		112	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04691 - EPA 3050B										
LCS (CP04691-BS1)				Prepared & Analyzed: 06/23/06						
Nickel	27.4	1.0	mg/kg	25.0		110	75-125			
Silver	2.59	0.50	"	2.50		104	75-125			
Zinc	27.5	1.0	"	25.0		110	75-125			
LCS Dup (CP04691-BSD1)				Prepared & Analyzed: 06/23/06						
Antimony	26.5	2.5	mg/kg	25.0		106	75-125	2.61	25	
Lead	27.9	2.5	"	25.0		112	75-125	0.358	25	
Zinc	27.3	5.0	"	25.0		109	75-125	0.730	25	
Beryllium	2.75	0.25	"	2.50		110	75-125	0.730	25	
Cadmium	2.90	0.50	"	2.50		116	75-125	1.39	25	
Chromium	11.2	1.0	"	10.0		112	75-125	0.889	25	
Copper	13.1	1.0	"	12.5		105	75-125	1.54	25	
Lead	27.9	2.5	"	25.0		112	75-125	0.358	25	
Nickel	27.3	1.0	"	25.0		109	75-125	0.366	25	
Silver	2.62	0.50	"	2.50		105	75-125	1.15	25	
Zinc	27.3	1.0	"	25.0		109	75-125	0.730	25	
Matrix Spike (CP04691-MS1)		**Source: CPF0733-01**		Prepared & Analyzed: 06/23/06						
Antimony	11.4	2.5	mg/kg	25.0	ND	45.6	75-125			QM-5
Lead	1130	2.5	"	25.0	1700	NR	75-125			QM-5
Zinc	446	5.0	"	25.0	430	64.0	75-125			QM-5
Beryllium	2.76	0.25	"	2.50	0.21	102	75-125			
Cadmium	4.18	0.50	"	2.50	1.3	115	75-125			
Chromium	52.8	1.0	"	10.0	40	128	75-125			QM-5
Copper	51.5	1.0	"	12.5	36	124	75-125			
Lead	1130	2.5	"	25.0	1700	NR	75-125			QM-5
Nickel	66.7	1.0	"	25.0	41	103	75-125			
Silver	3.00	0.50	"	2.50	0.46	102	75-125			
Zinc	446	1.0	"	25.0	430	64.0	75-125			QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04691 - EPA 3050B										
Matrix Spike Dup (CP04691-MSD1)		**Source: CPF0733-01**		Prepared & Analyzed: 06/23/06						
Zinc	420	5.0	mg/kg	25.0	430	NR	75-125	6.00	30	QM-5
Antimony	11.3	2.5	"	25.0	ND	45.2	75-125	0.881	30	QM-5
Lead	1230	2.5	"	25.0	1700	NR	75-125	8.47	30	QM-5
Beryllium	2.72	0.25	"	2.50	0.21	100	75-125	1.46	30	
Cadmium	3.66	0.50	"	2.50	1.3	94.4	75-125	13.3	30	
Chromium	53.8	1.0	"	10.0	40	138	75-125	1.88	30	QM-5
Copper	54.2	1.0	"	12.5	36	146	75-125	5.11	30	QM-5
Lead	1230	2.5	"	25.0	1700	NR	75-125	8.47	30	QM-5
Nickel	66.8	1.0	"	25.0	41	103	75-125	0.150	30	
Silver	2.93	0.50	"	2.50	0.46	98.8	75-125	2.36	30	
Zinc	420	1.0	"	25.0	430	NR	75-125	6.00	30	QM-5
Batch CP04702 - EPA 3050B										
Blank (CP04702-BLK1)				Prepared: 06/23/06 Analyzed: 06/26/06						
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04702 - EPA 3050B										
LCS (CP04702-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Antimony	25.0	2.5	mg/kg	25.0		100	75-125			
Lead	26.6	2.5	"	25.0		106	75-125			
Zinc	25.6	5.0	"	25.0		102	75-125			
Beryllium	2.56	0.25	"	2.50		102	75-125			
Cadmium	2.98	0.50	"	2.50		119	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.7	1.0	"	12.5		102	75-125			
Lead	26.6	2.5	"	25.0		106	75-125			
Nickel	25.5	1.0	"	25.0		102	75-125			
Silver	2.59	0.50	"	2.50		104	75-125			
Zinc	25.6	1.0	"	25.0		102	75-125			
LCS Dup (CP04702-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Lead	26.1	2.5	mg/kg	25.0		104	75-125	1.90	25	
Antimony	24.6	2.5	"	25.0		98.4	75-125	1.61	25	
Zinc	25.5	5.0	"	25.0		102	75-125	0.391	25	
Beryllium	2.56	0.25	"	2.50		102	75-125	0.00	25	
Cadmium	2.76	0.50	"	2.50		110	75-125	7.67	25	
Chromium	10.2	1.0	"	10.0		102	75-125	1.94	25	
Copper	12.6	1.0	"	12.5		101	75-125	0.791	25	
Lead	26.1	2.5	"	25.0		104	75-125	1.90	25	
Nickel	25.3	1.0	"	25.0		101	75-125	0.787	25	
Silver	2.48	0.50	"	2.50		99.2	75-125	4.34	25	
Zinc	25.5	1.0	"	25.0		102	75-125	0.391	25	
Matrix Spike (CP04702-MS1)		**Source: CPF0718-10**		Prepared: 06/23/06		Analyzed: 06/26/06				
Antimony	4.30	2.5	mg/kg	25.0	ND	17.2	75-125			QM-5
Lead	25.3	2.5	"	25.0	3.0	89.2	75-125			
Zinc	65.0	5.0	"	25.0	41	96.0	75-125			
Beryllium	2.74	0.25	"	2.50	0.41	93.2	75-125			
Cadmium	2.70	0.50	"	2.50	ND	108	75-125			
Chromium	51.4	1.0	"	10.0	43	84.0	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04702 - EPA 3050B										
Matrix Spike (CP04702-MS1)		**Source: CPF0718-10**		Prepared: 06/23/06	Analyzed: 06/26/06					
Copper	38.4	1.0	mg/kg	12.5	24	115	75-125			
Lead	25.3	2.5	"	25.0	3.0	89.2	75-125			
Nickel	73.6	1.0	"	25.0	52	86.4	75-125			
Silver	2.64	0.50	"	2.50	0.18	98.4	75-125			
Zinc	65.0	1.0	"	25.0	41	96.0	75-125			
Matrix Spike Dup (CP04702-MSD1)		**Source: CPF0718-10**		Prepared: 06/23/06	Analyzed: 06/26/06					
Antimony	ND	2.5	mg/kg	25.0	ND		75-125		30	QM-5
Zinc	56.5	5.0	"	25.0	41	62.0	75-125	14.0	30	QM-5
Lead	23.1	2.5	"	25.0	3.0	80.4	75-125	9.09	30	
Beryllium	2.32	0.25	"	2.50	0.41	76.4	75-125	16.6	30	
Cadmium	2.26	0.50	"	2.50	ND	90.4	75-125	17.7	30	
Chromium	44.4	1.0	"	10.0	43	14.0	75-125	14.6	30	QM-5
Copper	33.0	1.0	"	12.5	24	72.0	75-125	15.1	30	QM-5
Lead	23.1	2.5	"	25.0	3.0	80.4	75-125	9.09	30	
Nickel	62.4	1.0	"	25.0	52	41.6	75-125	16.5	30	QM-5
Silver	2.42	0.50	"	2.50	0.18	89.6	75-125	8.70	30	
Zinc	56.5	1.0	"	25.0	41	62.0	75-125	14.0	30	QM-5
Batch CP04709 - EPA 3050B										
Blank (CP04709-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	ND	5.0	mg/kg							
Antimony	ND	2.5	"							
Lead	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04709 - EPA 3050B										
Blank (CP04709-BLK1)				Prepared: 06/23/06 Analyzed: 06/27/06						
Zinc	ND	1.0	mg/kg							
LCS (CP04709-BS1)				Prepared: 06/23/06 Analyzed: 06/27/06						
Zinc	23.0	5.0	mg/kg	25.0		92.0	75-125			
Lead	24.3	2.5	"	25.0		97.2	75-125			
Antimony	23.6	2.5	"	25.0		94.4	75-125			
Beryllium	2.34	0.25	"	2.50		93.6	75-125			
Cadmium	2.72	0.50	"	2.50		109	75-125			
Chromium	8.99	1.0	"	10.0		89.9	75-125			
Copper	11.8	1.0	"	12.5		94.4	75-125			
Lead	24.3	2.5	"	25.0		97.2	75-125			
Nickel	23.4	1.0	"	25.0		93.6	75-125			
Silver	2.69	0.50	"	2.50		108	75-125			
Zinc	23.0	1.0	"	25.0		92.0	75-125			
LCS Dup (CP04709-BSD1)				Prepared: 06/23/06 Analyzed: 06/27/06						
Antimony	26.0	2.5	mg/kg	25.0		104	75-125	9.68	25	
Lead	26.5	2.5	"	25.0		106	75-125	8.66	25	
Zinc	25.4	5.0	"	25.0		102	75-125	9.92	25	
Beryllium	2.59	0.25	"	2.50		104	75-125	10.1	25	
Cadmium	2.74	0.50	"	2.50		110	75-125	0.733	25	
Chromium	10.3	1.0	"	10.0		103	75-125	13.6	25	
Copper	13.0	1.0	"	12.5		104	75-125	9.68	25	
Lead	26.5	2.5	"	25.0		106	75-125	8.66	25	
Nickel	25.9	1.0	"	25.0		104	75-125	10.1	25	
Silver	2.84	0.50	"	2.50		114	75-125	5.42	25	
Zinc	25.4	1.0	"	25.0		102	75-125	9.92	25	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04709 - EPA 3050B										
Matrix Spike (CP04709-MS1)		**Source: CPF0718-30**		Prepared: 06/23/06	Analyzed: 06/27/06					
Lead	36.0	2.5	mg/kg	25.0	16	80.0	75-125			
Zinc	121	5.0	"	25.0	74	188	75-125			QM-5
Antimony	5.39	2.5	"	25.0	ND	21.6	75-125			QM-5
Beryllium	2.79	0.25	"	2.50	0.35	97.6	75-125			
Cadmium	2.80	0.50	"	2.50	0.24	102	75-125			
Chromium	60.1	1.0	"	10.0	47	131	75-125			QM-5
Copper	39.3	1.0	"	12.5	26	106	75-125			
Lead	36.0	2.5	"	25.0	16	80.0	75-125			
Nickel	74.4	1.0	"	25.0	49	102	75-125			
Silver	2.86	0.50	"	2.50	0.54	92.8	75-125			
Zinc	121	1.0	"	25.0	74	188	75-125			QM-5
Matrix Spike Dup (CP04709-MSD1)		**Source: CPF0718-30**		Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	4.82	2.5	mg/kg	25.0	ND	19.3	75-125	11.2	30	QM-5
Zinc	102	5.0	"	25.0	74	112	75-125	17.0	30	
Lead	39.4	2.5	"	25.0	16	93.6	75-125	9.02	30	
Beryllium	2.73	0.25	"	2.50	0.35	95.2	75-125	2.17	30	
Cadmium	2.54	0.50	"	2.50	0.24	92.0	75-125	9.74	30	
Chromium	51.1	1.0	"	10.0	47	41.0	75-125	16.2	30	QM-5
Copper	36.2	1.0	"	12.5	26	81.6	75-125	8.21	30	
Lead	39.4	2.5	"	25.0	16	93.6	75-125	9.02	30	
Nickel	66.4	1.0	"	25.0	49	69.6	75-125	11.4	30	QM-5
Silver	2.74	0.50	"	2.50	0.54	88.0	75-125	4.29	30	
Zinc	102	1.0	"	25.0	74	112	75-125	17.0	30	
Batch CP04713 - EPA 3050B										
Blank (CP04713-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04713 - EPA 3050B										
Blank (CP04713-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Cadmium	ND	0.50	mg/kg							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04713-BS1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Lead	24.5	2.5	mg/kg	25.0		98.0	75-125			
Zinc	25.2	5.0	"	25.0		101	75-125			
Antimony	24.6	2.5	"	25.0		98.4	75-125			
Beryllium	2.54	0.25	"	2.50		102	75-125			
Cadmium	2.70	0.50	"	2.50		108	75-125			
Chromium	10.3	1.0	"	10.0		103	75-125			
Copper	12.9	1.0	"	12.5		103	75-125			
Lead	24.5	2.5	"	25.0		98.0	75-125			
Nickel	25.7	1.0	"	25.0		103	75-125			
Silver	2.54	0.50	"	2.50		102	75-125			
Zinc	25.2	1.0	"	25.0		101	75-125			
LCS Dup (CP04713-BSD1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Lead	25.3	2.5	mg/kg	25.0		101	75-125	3.21	25	
Antimony	24.7	2.5	"	25.0		98.8	75-125	0.406	25	
Zinc	24.9	5.0	"	25.0		99.6	75-125	1.20	25	
Beryllium	2.55	0.25	"	2.50		102	75-125	0.393	25	
Cadmium	2.74	0.50	"	2.50		110	75-125	1.47	25	
Chromium	10.4	1.0	"	10.0		104	75-125	0.966	25	
Copper	12.9	1.0	"	12.5		103	75-125	0.00	25	
Lead	25.3	2.5	"	25.0		101	75-125	3.21	25	
Nickel	25.5	1.0	"	25.0		102	75-125	0.781	25	
Silver	2.67	0.50	"	2.50		107	75-125	4.99	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04713 - EPA 3050B										
LCS Dup (CP04713-BSD1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	24.9	1.0	mg/kg	25.0		99.6	75-125	1.20	25	
Matrix Spike (CP04713-MS1)		**Source: CPF0718-50**		Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	5.96	2.5	mg/kg	25.0	ND	23.8	75-125			QM-5
Zinc	72.6	5.0	"	25.0	35	150	75-125			QM-5
Lead	26.8	2.5	"	25.0	1.9	99.6	75-125			
Beryllium	2.82	0.25	"	2.50	0.41	96.4	75-125			
Cadmium	2.55	0.50	"	2.50	ND	102	75-125			
Chromium	67.0	1.0	"	10.0	49	180	75-125			QM-4X
Copper	43.7	1.0	"	12.5	26	142	75-125			QM-5
Lead	26.8	2.5	"	25.0	1.9	99.6	75-125			
Nickel	80.7	1.0	"	25.0	50	123	75-125			
Silver	2.78	0.50	"	2.50	0.32	98.4	75-125			
Zinc	72.6	1.0	"	25.0	35	150	75-125			QM-5
Matrix Spike Dup (CP04713-MSD1)		**Source: CPF0718-50**		Prepared: 06/23/06	Analyzed: 06/27/06					
Lead	26.7	2.5	mg/kg	25.0	1.9	99.2	75-125	0.374	30	
Zinc	71.4	5.0	"	25.0	35	146	75-125	1.67	30	QM-5
Antimony	4.76	2.5	"	25.0	ND	19.0	75-125	22.4	30	QM-5
Beryllium	2.77	0.25	"	2.50	0.41	94.4	75-125	1.79	30	
Cadmium	2.50	0.50	"	2.50	ND	100	75-125	1.98	30	
Chromium	66.9	1.0	"	10.0	49	179	75-125	0.149	30	QM-4X
Copper	44.0	1.0	"	12.5	26	144	75-125	0.684	30	QM-5
Lead	26.7	2.5	"	25.0	1.9	99.2	75-125	0.374	30	
Nickel	81.6	1.0	"	25.0	50	126	75-125	1.11	30	QM-5
Silver	2.84	0.50	"	2.50	0.32	101	75-125	2.14	30	
Zinc	71.4	1.0	"	25.0	35	146	75-125	1.67	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04666 - LUFT-DHS GCNV										
Blank (CP04666-BLK1)				Prepared: 06/22/06		Analyzed: 06/27/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*7.66*		*"*	*8.33*		*92.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.75*		*"*	*8.33*		*105*	*52-141*			
LCS (CP04666-BS1)				Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	9.98	1.0	µg/kg	16.7		59.8	47-132			
gamma-BHC (Lindane)	10.7	10	"	16.7		64.1	56-133			
4,4´-DDT	11.3	15	"	16.7		67.7	46-137			
Dieldrin	10.7	1.0	"	16.7		64.1	44-143			
Endrin	13.1	15	"	16.7		78.4	30-147			
Heptachlor	9.28	10	"	16.7		55.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.50*		*"*	*8.33*		*66.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.28*		*"*	*8.33*		*75.4*	*52-141*			
LCS Dup (CP04666-BSD1)				Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	8.15	1.0	µg/kg	16.7		48.8	47-132	20.2	30	
gamma-BHC (Lindane)	9.75	10	"	16.7		58.4	56-133	9.29	30	
4,4´-DDT	9.89	15	"	16.7		59.2	46-137	13.3	30	
Dieldrin	9.44	1.0	"	16.7		56.5	44-143	12.5	30	
Endrin	10.7	15	"	16.7		64.1	30-147	20.2	30	
Heptachlor	7.92	10	"	16.7		47.4	33-148	15.8	30	
Surrogate: Tetrachloro-meta-xylene	*4.26*		*"*	*8.33*		*51.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*5.56*		*"*	*8.33*		*66.7*	*52-141*			
Matrix Spike (CP04666-MS1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	7.70	5.0	µg/kg	16.7	ND	46.1	46-138			
gamma-BHC (Lindane)	8.98	50	"	16.7	ND	53.8	38-144			
4,4´-DDT	7.53	75	"	16.7	ND	45.1	41-157			
Dieldrin	8.08	5.0	"	16.7	ND	48.4	46-155			
Endrin	9.83	75	"	16.7	ND	58.9	34-149			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04666 - LUFT-DHS GCNV										
Matrix Spike (CP04666-MS1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Heptachlor	8.68	50	µg/kg	16.7	ND	52.0	36-155			
Surrogate: Tetrachloro-meta-xylene	*13.6*		*"*	*20.8*		*65.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*13.9*		*"*	*20.8*		*66.8*	*52-141*			
Matrix Spike Dup (CP04666-MSD1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	7.96	5.0	µg/kg	16.7	ND	47.7	46-138	3.32	35	
gamma-BHC (Lindane)	9.05	50	"	16.7	ND	54.2	38-144	0.776	35	
4,4´-DDT	8.42	75	"	16.7	ND	50.4	41-157	11.2	35	
Dieldrin	8.23	5.0	"	16.7	ND	49.3	46-155	1.84	35	
Endrin	11.8	75	"	16.7	ND	70.7	34-149	18.2	35	
Heptachlor	8.08	50	"	16.7	ND	48.4	36-155	7.16	35	
Surrogate: Tetrachloro-meta-xylene	*13.7*		*"*	*20.8*		*65.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*14.9*		*"*	*20.8*		*71.6*	*52-141*			
Batch CP04686 - LUFT-DHS GCNV										
Blank (CP04686-BLK1)				Prepared: 06/23/06		Analyzed: 06/27/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*3.95*		*"*	*8.33*		*47.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.75*		*"*	*8.33*		*57.0*	*52-141*			
LCS (CP04686-BS1)				Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	6.90	1.0	µg/kg	16.7		41.3	40-132			
gamma-BHC (Lindane)	8.63	10	"	16.7		51.7	50-133			
4,4´-DDT	7.73	15	"	16.7		46.3	46-137			
Dieldrin	8.06	1.0	"	16.7		48.3	44-143			
Endrin	9.32	15	"	16.7		55.8	30-147			
Heptachlor	6.94	10	"	16.7		41.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*3.89*		*"*	*8.33*		*46.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.95*		*"*	*8.33*		*59.4*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04686 - LUFT-DHS GCNV										
LCS Dup (CP04686-BSD1)				Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	7.73	1.0	µg/kg	16.7		46.3	40-132	11.3	30	
gamma-BHC (Lindane)	9.62	10	"	16.7		57.6	50-133	10.8	30	
4,4´-DDT	8.21	15	"	16.7		49.2	46-137	6.02	30	
Dieldrin	8.59	1.0	"	16.7		51.4	44-143	6.37	30	
Endrin	9.65	15	"	16.7		57.8	30-147	3.48	30	
Heptachlor	7.58	10	"	16.7		45.4	33-148	8.82	30	
Surrogate: Tetrachloro-meta-xylene	*3.85*		*"*	*8.33*		*46.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*5.10*		*"*	*8.33*		*61.2*	*52-141*			
Matrix Spike (CP04686-MS1)		**Source: CPF0718-38**		Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	7.80	5.0	µg/kg	16.7	ND	46.7	40-138			
gamma-BHC (Lindane)	9.46	50	"	16.7	ND	56.6	38-144			
4,4´-DDT	13.5	75	"	16.7	2.6	65.3	41-157			
Dieldrin	9.94	5.0	"	16.7	ND	59.5	46-155			
Endrin	11.8	75	"	16.7	ND	70.7	34-149			
Heptachlor	7.81	50	"	16.7	ND	46.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*11.6*		*"*	*20.8*		*55.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*13.8*		*"*	*20.8*		*66.3*	*52-141*			
Matrix Spike Dup (CP04686-MSD1)		**Source: CPF0718-38**		Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	10.6	5.0	µg/kg	16.7	ND	63.5	40-138	30.4	35	
gamma-BHC (Lindane)	13.5	50	"	16.7	ND	80.8	38-144	35.2	35	QR-2
4,4´-DDT	15.8	75	"	16.7	2.6	79.0	41-157	15.7	35	
Dieldrin	14.7	5.0	"	16.7	ND	88.0	46-155	38.6	35	QR-2
Endrin	17.0	75	"	16.7	ND	102	34-149	36.1	35	QR-2
Heptachlor	10.6	50	"	16.7	ND	63.5	36-155	30.3	35	
Surrogate: Tetrachloro-meta-xylene	*15.7*		*"*	*20.8*		*75.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.2*		*"*	*20.8*		*102*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04703 - LUFT-DHS GCNV										
Blank (CP04703-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*7.08*		*"*	*8.33*		*85.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.57*		*"*	*8.33*		*90.9*	*52-141*			
LCS (CP04703-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	16.2	1.0	µg/kg	16.7		97.0	47-132			
gamma-BHC (Lindane)	14.9	10	"	16.7		89.2	56-133			
4,4´-DDT	19.8	15	"	16.7		119	46-137			
Dieldrin	16.8	1.0	"	16.7		101	44-143			
Endrin	19.6	15	"	16.7		117	30-147			
Heptachlor	15.7	10	"	16.7		94.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.90*		*"*	*8.33*		*94.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.10*		*"*	*8.33*		*109*	*52-141*			
LCS Dup (CP04703-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	20.7	1.0	µg/kg	16.7		124	47-132	24.4	30	
gamma-BHC (Lindane)	20.0	10	"	16.7		120	56-133	29.2	30	
4,4´-DDT	21.8	15	"	16.7		131	46-137	9.62	30	
Dieldrin	21.6	1.0	"	16.7		129	44-143	25.0	30	
Endrin	24.0	15	"	16.7		144	30-147	20.2	30	
Heptachlor	21.3	10	"	16.7		128	33-148	30.3	30	QR-2
Surrogate: Tetrachloro-meta-xylene	*10.0*		*"*	*8.33*		*120*	*46-139*			
Surrogate: Decachlorobiphenyl	*10.8*		*"*	*8.33*		*130*	*52-141*			
Matrix Spike (CP04703-MS1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	13.7	5.0	µg/kg	16.7	ND	82.0	47-138			
gamma-BHC (Lindane)	14.2	50	"	16.7	ND	85.0	38-144			
4,4´-DDT	91.3	75	"	16.7	96	NR	41-157			QM-4X
Dieldrin	32.3	5.0	"	16.7	15	104	46-155			
Endrin	48.1	75	"	16.7	53	NR	34-149			QM-4X

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04703 - LUFT-DHS GCNV										
Matrix Spike (CP04703-MS1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Heptachlor	14.0	50	µg/kg	16.7	ND	83.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*23.8*		*"*	*20.8*		*114*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.6*		*"*	*20.8*		*99.0*	*52-141*			
Matrix Spike Dup (CP04703-MSD1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	13.4	5.0	µg/kg	16.7	ND	80.2	47-138	2.21	35	
gamma-BHC (Lindane)	13.7	50	"	16.7	ND	82.0	38-144	3.58	35	
4,4´-DDT	88.3	75	"	16.7	96	NR	41-157	3.34	35	QM-4X
Dieldrin	29.3	5.0	"	16.7	15	85.6	46-155	9.74	35	
Endrin	46.8	75	"	16.7	53	NR	34-149	2.74	35	QM-4X
Heptachlor	13.9	50	"	16.7	ND	83.2	36-155	0.717	35	
Surrogate: Tetrachloro-meta-xylene	*24.8*		*"*	*20.8*		*119*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.8*		*"*	*20.8*		*100*	*52-141*			
Batch CP04745 - LUFT-DHS GCNV										
Blank (CP04745-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*6.93*		*"*	*8.33*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.89*		*"*	*8.33*		*94.7*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
LCS (CP04745-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132			
gamma-BHC (Lindane)	14.6	10	"	16.7		87.4	56-133			
4,4´-DDT	18.4	15	"	16.7		110	46-137			
Dieldrin	16.2	1.0	"	16.7		97.0	44-143			
Endrin	18.4	15	"	16.7		110	30-147			
Heptachlor	14.7	10	"	16.7		88.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.07*		*"*	*8.33*		*84.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.57*		*"*	*8.33*		*103*	*52-141*			
LCS Dup (CP04745-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132	0.00	30	
gamma-BHC (Lindane)	15.0	10	"	16.7		89.8	56-133	2.70	30	
4,4´-DDT	16.6	15	"	16.7		99.4	46-137	10.3	30	
Dieldrin	15.4	1.0	"	16.7		92.2	44-143	5.06	30	
Endrin	16.7	15	"	16.7		100	30-147	9.69	30	
Heptachlor	14.9	10	"	16.7		89.2	33-148	1.35	30	
Surrogate: Tetrachloro-meta-xylene	*6.89*		*"*	*8.33*		*82.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.61*		*"*	*8.33*		*91.4*	*52-141*			
Matrix Spike (CP04745-MS1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.6	5.0	µg/kg	16.7	ND	87.4	47-138			
gamma-BHC (Lindane)	14.6	50	"	16.7	ND	87.4	38-144			
4,4´-DDT	61.7	75	"	16.7	57	28.1	41-157			QM-4X
Dieldrin	18.2	5.0	"	16.7	ND	109	46-155			
Endrin	30.2	75	"	16.7	15	91.0	34-149			
Heptachlor	14.5	50	"	16.7	ND	86.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*21.7*		*"*	*20.8*		*104*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.4*		*"*	*20.8*		*117*	*52-141*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04745-MSD1)		**Source: CPF0718-65**		Prepared: 06/26/06	Analyzed: 06/28/06					
Aldrin	13.9	5.0	µg/kg	16.7	ND	83.2	47-138	4.91	35	
gamma-BHC (Lindane)	13.8	50	"	16.7	ND	82.6	38-144	5.63	35	
4,4´-DDT	59.8	75	"	16.7	57	16.8	41-157	3.13	35	QM-4X
Dieldrin	17.5	5.0	"	16.7	ND	105	46-155	3.92	35	
Endrin	28.8	75	"	16.7	15	82.6	34-149	4.75	35	
Heptachlor	13.8	50	"	16.7	ND	82.6	36-155	4.95	35	
Surrogate: Tetrachloro-meta-xylene	*20.6*		*"*	*20.8*		*99.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.2*		*"*	*20.8*		*116*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04667 - LUFT-DHS GCNV										
Blank (CP04667-BLK1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04667-BS1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	77.0	20	µg/kg	83.3		92.4	29-131			
LCS Dup (CP04667-BSD1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	73.1	20	µg/kg	83.3		87.8	29-131	5.20	30	
Matrix Spike (CP04667-MS1)		**Source: CPF0718-03**		Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	31.0	20	µg/kg	83.3	ND	37.2	29-131			
Matrix Spike Dup (CP04667-MSD1)		**Source: CPF0718-03**		Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	62.4	20	µg/kg	83.3	ND	74.9	29-131	67.2	30	QR-2
Batch CP04687 - LUFT-DHS GCNV										
Blank (CP04687-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04687 - LUFT-DHS GCNV										
LCS (CP04687-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	72.6	20	µg/kg	83.3		87.2	29-131			
LCS Dup (CP04687-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	81.0	20	µg/kg	83.3		97.2	29-131	10.9	30	
Matrix Spike (CP04687-MS1)		**Source: CPF0718-35**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	83.2	20	µg/kg	83.3	11	86.7	29-131			
Matrix Spike Dup (CP04687-MSD1)		**Source: CPF0718-35**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	84.6	20	µg/kg	83.3	11	88.4	29-131	1.67	30	
Batch CP04704 - LUFT-DHS GCNV										
Blank (CP04704-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04704-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	74.3	20	µg/kg	83.3		89.2	29-131			
LCS Dup (CP04704-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	76.3	20	µg/kg	83.3		91.6	29-131	2.66	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04704 - LUFT-DHS GCNV										
Matrix Spike (CP04704-MS1)		**Source: CPF0718-49**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	62.5	20	µg/kg	83.3	ND	75.0	29-131			
Matrix Spike Dup (CP04704-MSD1)		**Source: CPF0718-49**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	65.7	20	µg/kg	83.3	ND	78.9	29-131	4.99	30	
Batch CP04746 - LUFT-DHS GCNV										
Blank (CP04746-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04746-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.3	20	µg/kg	83.3		104	29-131			
LCS Dup (CP04746-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.6	20	µg/kg	83.3		104	29-131	0.347	30	
Matrix Spike (CP04746-MS1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	249	20	µg/kg	83.3	150	119	29-131			
Matrix Spike Dup (CP04746-MSD1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	253	20	µg/kg	83.3	150	124	29-131	1.59	30	

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04790 - EPA 5030 Soil GC										
Blank (CP04790-BLK1)				Prepared: 06/26/06		Analyzed: 06/27/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0818*		*"*	*0.100*		*81.8*	*65-135*			
LCS (CP04790-BS1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.87	1.0	mg/kg	2.50		115	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0881*		*"*	*0.100*		*88.1*	*65-135*			
LCS Dup (CP04790-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.97	1.0	mg/kg	2.50		119	65-135	3.42	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0935*		*"*	*0.100*		*93.5*	*65-135*			
Matrix Spike (CP04790-MS1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.166*		*"*	*0.100*		*166*	*65-135*			*QS-4*
Matrix Spike Dup (CP04790-MSD1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124	0.00	35	
Surrogate: o-Chlorotoluene (Gas)	*0.153*		*"*	*0.100*		*153*	*65-135*			*QS-4*

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06 Analyzed: 06/26/06						
Acetone	ND	100	µg/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	10	"							
2-Butanone	ND	100	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	10	"							
o-Chlorotoluene	ND	5.0	"							
p-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06 Analyzed: 06/26/06						
1,2-Dichloropropane	ND	5.0	µg/kg							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06		Analyzed: 06/26/06				
1,2,4-Trimethylbenzene	ND	5.0	µg/kg							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
Surrogate: 1,2-Dichloroethane-d4	*50.0*		*"*	*50.0*		*100*	*50-125*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*53.4*		*"*	*50.0*		*107*	*50-128*			
LCS (CP04673-BS1)				Prepared: 06/22/06		Analyzed: 06/26/06				
Benzene	50.0	5.0	µg/kg	50.0		100	64-135			
Chlorobenzene	51.2	5.0	"	50.0		102	67-133			
1,1-Dichloroethene	47.5	5.0	"	50.0		95.0	53-137			
Toluene	50.0	5.0	"	50.0		100	61-138			
Trichloroethene	52.1	5.0	"	50.0		104	64-130			
Surrogate: 1,2-Dichloroethane-d4	*48.5*		*"*	*50.0*		*97.0*	*50-125*			
Surrogate: Toluene-d8	*50.2*		*"*	*50.0*		*100*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*49.9*		*"*	*50.0*		*99.8*	*50-128*			
LCS Dup (CP04673-BSD1)				Prepared: 06/22/06		Analyzed: 06/26/06				
Benzene	40.7	5.0	µg/kg	50.0		81.4	64-135	20.5	30	
Chlorobenzene	43.0	5.0	"	50.0		86.0	67-133	17.4	30	
1,1-Dichloroethene	45.2	5.0	"	50.0		90.4	53-137	4.96	30	
Toluene	40.9	5.0	"	50.0		81.8	61-138	20.0	30	
Trichloroethene	41.9	5.0	"	50.0		83.8	64-130	21.7	30	
Surrogate: 1,2-Dichloroethane-d4	*49.4*		*"*	*50.0*		*98.8*	*50-125*			
Surrogate: Toluene-d8	*49.9*		*"*	*50.0*		*99.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*50.4*		*"*	*50.0*		*101*	*50-128*			
Matrix Spike (CP04673-MS1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Benzene	47.4	5.0	µg/kg	50.0	ND	94.8	58-139			
Chlorobenzene	42.7	5.0	"	50.0	ND	85.4	62-134			
1,1-Dichloroethene	59.0	5.0	"	50.0	ND	118	53-152			
Toluene	45.3	5.0	"	50.0	ND	90.6	58-139			

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:33

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Matrix Spike (CP04673-MS1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Trichloroethene	42.4	5.0	µg/kg	50.0	ND	84.8	55-138			
Surrogate: 1,2-Dichloroethane-d4	*51.8*		"	*50.0*		*104*	*50-125*			
Surrogate: Toluene-d8	*49.8*		"	*50.0*		*99.6*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.7*		"	*50.0*		*105*	*50-128*			
Matrix Spike Dup (CP04673-MSD1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Benzene	42.0	5.0	µg/kg	50.0	ND	84.0	58-139	12.1	30	
Chlorobenzene	36.7	5.0	"	50.0	ND	73.4	62-134	15.1	30	
1,1-Dichloroethene	52.7	5.0	"	50.0	ND	105	53-152	11.3	30	
Toluene	40.0	5.0	"	50.0	ND	80.0	58-139	12.4	30	
Trichloroethene	38.0	5.0	"	50.0	ND	76.0	55-138	10.9	30	
Surrogate: 1,2-Dichloroethane-d4	*54.4*		"	*50.0*		*109*	*50-125*			
Surrogate: Toluene-d8	*49.0*		"	*50.0*		*98.0*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*53.4*		"	*50.0*		*107*	*50-128*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QR-2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Appendix C

Laboratory Data Reports

REVISION COVER LETTER

WORK ORDER No.: CPF0718

CLIENT: ISSI/NASA Ames MS221-10

ATTENTION: Casey Fitzgerald

PROJECT: AOI 14 Phase II

DATE: October 25, 2006

REVISION REMARKS:

Enclosed is the revised report for PCB.

We have optimized the PCB analysis to reduce overlap peak interference from adjacent Aroclor. However, the interference still exists. We use the QC qualifier, PCB-2, to indicate the problem. Since the results of Aroclor 1260 from re-quantification are not significantly different from the initial ones, only the results of Aroclor 1268 are revised. The following table lists the samples with revision.

CLS Lab ID	Original Aroclor 1268 Concentration, µg/kg	Revised Aroclor 1268 Concentration, µg/kg
CPF0718-44	ND	260
CPF0718-45	ND	200

I apologized for any inconvenience this may cause you.

Sincerely,

_____

James Liang, Ph.D.
Laboratory Director

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 14, 2006

CLS Work Order #: CPF0718
COC #: 63094,95,96,97,98

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: AOI 14 Phase II

Enclosed are the results of analyses for samples received by the laboratory on 06/21/06 18:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63094 (5)

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, Ms. T20G-4 NASA Ames, Moffett Field, CA. 94035
PROJECT MANAGER: 650/604-2753 PHONE#
PROJECT NAME: AOI 14 - Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm, breezy

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclor 1260B) by method 8082	DDD, DDE, DDT (TOTAL) by method 8081A	Lead and Zinc by method 6010B/7000	TPH-D/G/SP/H/S/8 + MTBE by 8015	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
6/20/06	0855	PEN-1-4'	Soil	1	Sleeve	3	X	X	X							X	
	0910	PEN-2-4'															
	0913	PEN-2-6' ⊛															Replicate ⊛
	0921	PEN-3-4'															
	0923	PEN-3-6'															
	0933	PEN-4-4'								X	X	X					
	0936	PEN-4-6'															
	0951	PEN-5-4'															
	0954	PEN-5-6'															
	1007	PEN-6-4'															
	1010	PEN-6-6'															
	1349	PEN-7-4'															
6/20/06	1353	PEN-7-6'	Soil	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	06/20/06 1650		
		6/21/06 @ 1500H		CONRAD JR/CLS
	CLS	6/21/06 @ 1800H		

REC'D AT LAB BY: DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(4)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF 0718 LOG NO. 63095

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, M.S. T20-G-4 NASA AMES, Moffett Field, CA 94035
PROJECT MANAGER: 650/604-2753 PHONE#
PROJECT NAME: AOI 14 - Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, warm, breezy

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclor 1268) by method 8082	DDD, DDE, DDT (TOTAL) by method 8081A	Lead + Zinc by method 6010B/7000	TPH-D/G/SP4/5/8+ MTBE by SOIS	VOCs (8260)	PP13 metals	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
6/20/06	1355	PEN-7-8'	Soil	1	Sleeve	3	X	X	X							X	
	1406	PEN-8-4'															
	1412	PEN-8-6'								X	X	X					
	1411	PEN-8-8' (*)															Replicate (*)
	1415	PEN-8-10'															
	1414	PEN-8-12'															
	1021	PEN-11-4'															
	1026	PEN-11-6'															
	1027	PEN-11-8'															
	1029	PEN-11-10'															
	1029	PEN-11-12'															
	1139	PEN-13-4'															
6/20/06	1141	PEN-13-6'	Soil	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062006 / 1650		
		6/21/06 @ 1300		CONRAD JR / CLS
	CLS	6/21/06 @ 1800		

REC'D AT LAB BY: DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(3)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF-0718 LOG NO. 63096

REPORT TO:

NAME AND ADDRESS: CASEY FITZGERALD, MS T206-4 NASA AMES, MOFFETT FIELD CA 94035

PROJECT MANAGER: PHONE# 650 604 2753

PROJECT NAME: AOI 14 PHASE II

SAMPLED BY: CNF / BDR

JOB DESCRIPTION:

SITE LOCATION:

CLIENT JOB NUMBER: N140-200

DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [X] NO

GLOBAL ID:

COMPOSITE:

FIELD CONDITIONS: WARM, CLEAR

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL AROCLOR 1268) BY METHOD 8082	DDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7000	TPH-DI-EL-JP14/15/61-MO DI METHOD 8015M	VOCs BY METHOD 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
062005	1140	PEN-13-8'	SOIL	1	SLEEVE	3	X	X	X							X	
	1145	PEN-13-10'				3	X	X	X							X	
	1158	PEN-15-4'				3	X	X	X							X	REPLICATE *
	1203	PEN-15-6'				3	X	X	X							X	
	1212	PEN-15-10'				3	X	X	X							X	
	1214	PEN-15-12'				3	X	X	X							X	
	1508	PEN-16-4'				3	X	X	X	X	X	X				X	
	1513	PEN-16-6'				3	X	X	X							X	
	1511	PEN-16-8'				3	X	X	X							X	
	1518	PEN-16-10'				3	X	X	X							X	
	1515	PEN-16-12'				3	X	X	X							X	
	1043	PEN-21-6"				3	X	X	X							X	
	1042	PEN-21-2'				3	X	X	X							X	

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

INVOICE TO:

P.O. #

QUOTE #

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062006 1600		
		6/21/06 @ 1300H		CONRAD VR/CLS
	CLS	6/21/06 @ 1800H		

REC'D AT LAB BY: JON DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

(2)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63097

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4 NASA AMES, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: WARM, CLEAR, BREEZY

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL. AROCLOR 1268) BY METHOD 8082	PDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7000	TPH-DI-EL-TPH5/8/-MO BY METHOD 8015M	VOCS BY METHOD 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / ALT. ID:
063006	1041	PEN-21-4'	SOIL	1	SLEEVE	3	X	X	X							X	
	1045	PEN-21-6'				3	X	X	X							X	
	1046	PEN-21-8'				3	X	X	X							X	
	1050	PEN-21-10'				3	X	X	X							X	
	1228	PEN-22-6"				3	X	X	X							X	
	1227	PEN-22-2'				3	X	X	X	X	X	X				X	
	1231	PEN-22-4'				3	X	X	X							X	
	1229	PEN-22-6'				3	X	X	X							X	
	1234	PEN-22-8'				3	X	X	X							X	INVOICE TO:
	1235	PEN-22-10'				3	X	X	X							X	
	1235	PEN-22-12'				3	X	X	X							X	
	1430	PEN-24-6"				3	X	X	X							X	~~ROW~~ REPLICATE *
	1428	PEN-24-2'				3	X	X	X							X	~~QUOTE #~~

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	063006 1650		
		6/21/06 @ 1300		CONRAD JR / CLS
	CLS	6/21/06 @ 1800		

REC'D AT LAB BY: DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0718 LOG NO. 63098 (1)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4 - NASA AMES, MOFFETT FIELD CA 94035
PROJECT MANAGER: 650 604 2753 PHONE#
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF / BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☐ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (INCL. AROCLORS) BY METHOD 8082	DDD, DDE, DDT (TOTAL) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7420	TPH-D/16/TPH5/18/-MO BY METHOD 8015M	VOCs BY METHOD 8260	PP METALS	10 DAY	ALT. ID
062006	1437	PEN-24-4'	SOIL	1	SLEEVE	3	X	X	X	X	X	X	X	
	1440	PEN-24-6'				3	X	X	X				X	
	1438	PEN-24-8'				3	X	X	X				X	
	1445	PEN-24-10'				3	X	X	X				X	
	1446	PEN-24-12'				3	X	X	X				X	
	1112	FSDA-HOCL-4'				3	X	X	X				X	REPLICATE X
	1114	FSDA-HOCL-6'				3	X	X	X				X	
	1115	FSDA-HOCL-8'				3	X	X	X				X	
	1117	FSDA-HOCL-10'				3	X	X	X				X	
	1118	FSDA-HOCL-12'				3	X	X	X				X	

INVOICE TO:
P.O. #:
QUOTE #:

SUSPECTED CONSTITUENTS:
PRESERVATIVES: (1) HCL (2) HNO3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062006 1650		
		6/21/06 @ 1300H		CONTRA JR/CLS
	CLS	6/21/06 @ 1800H		

RECD AT LAB BY: JON R DATE / TIME: 6-21-6 1800 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	**11**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Diesel	ND	1.0	mg/kg	1	CP04654	06/22/06	06/22/06	EPA 8015M	
Motor Oil	**29**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**51**	25	"	"	"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**28**	25	"	"	"	"	"	"	
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**34**	25	"	"	"	"	"	"	
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
Lead	**5.9**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**75**	5.0	"	"	"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	12	"	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**44**	5.0	"	"	"	"	"	"	
Copper	**19**	5.0	"	"	"	"	"	"	
Lead	ND	12	"	"	"	"	"	"	
Nickel	**47**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**40**	5.0	"	"	"	"	"	"	
Arsenic	**4.6**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	12	"	5	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**40**	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
Lead	**6.3**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
Lead	**3.7**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
Lead	**7.1**	2.5	mg/kg	1	CP04691	06/23/06	06/23/06	EPA 6010B	
Zinc	**70**	5.0	"	"	"	"	"	"	
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
Lead	**4.1**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**49**	5.0	"	"	"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**49**	25	"	"	"	"	"	"	
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
Lead	**3.2**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
Lead	**4.9**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
Lead	**7.0**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04702	06/23/06	06/26/06	EPA 6010B	
Beryllium	**0.31**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**37**	1.0	"	"	"	"	"	"	
Copper	**22**	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	"	"	"	"	"	
Nickel	**38**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**37**	1.0	"	"	"	"	"	"	
Arsenic	**3.1**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	2.5	"	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
Lead	**2.6**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
Lead	**3.8**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
Lead	**4.5**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**64**	5.0	"	"	"	"	"	"	
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
Lead	**6.4**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	25	"	"	"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Lead	**11**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**260**	5.0	"	"	"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Lead	**2.6**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**43**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:15

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
Lead	**15**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
Lead	**9.7**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
Lead	**5.3**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
Lead	**4.2**	2.5	mg/kg	1	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Lead	**21**	12	mg/kg	5	CP04702	06/23/06	06/26/06	EPA 6010B	
Zinc	**75**	25	"	"	"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
Lead	**16**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**74**	5.0	"	"	"	"	"	"	
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
Lead	**3.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
Lead	**3.4**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04709	06/23/06	06/27/06	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**22**	1.0	"	"	"	"	"	"	
Copper	**13**	1.0	"	"	"	"	"	"	
Lead	**4.3**	2.5	"	"	"	"	"	"	
Nickel	**27**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**31**	1.0	"	"	"	"	"	"	
Arsenic	**3.1**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.3**	2.5	"	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
Lead	**4.0**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**55**	5.0	"	"	"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
Lead	**5.7**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**53**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
Lead	**3.8**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									
Lead	**2.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**22**	5.0	"	"	"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
Lead	**9.8**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
Lead	**5.6**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**43**	5.0	"	"	"	"	"	"	
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**47**	25	"	"	"	"	"	"	
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
Lead	**2.5**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**27**	5.0	"	"	"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
Lead	**4.3**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**61**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
Lead	ND	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**26**	5.0	"	"	"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
Lead	**79**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**160**	5.0	"	"	"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04709	06/23/06	06/27/06	EPA 6010B	
Beryllium	**0.43**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**60**	1.0	"	"	"	"	"	"	
Copper	**40**	1.0	"	"	"	"	"	"	
Lead	**35**	2.5	"	"	"	"	"	"	
Nickel	**59**	1.0	"	"	"	"	"	"	
Silver	**1.0**	0.50	"	"	"	"	"	"	
Zinc	**120**	1.0	"	"	"	"	"	"	
Arsenic	**3.6**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**35**	2.5	"	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**120**	5.0	"	"	"	"	"	"	
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
Lead	**24**	12	mg/kg	5	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**140**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
Lead	**3.7**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**49**	5.0	"	"	"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
Lead	**2.9**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**36**	5.0	"	"	"	"	"	"	
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Lead	**4.4**	2.5	mg/kg	1	CP04709	06/23/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Lead	ND	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**35**	5.0	"	"	"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Lead	**15**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**73**	5.0	"	"	"	"	"	"	
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
Lead	**5.5**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Mercury	ND	0.10	mg/kg	1	CP04678	06/22/06	06/23/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04713	06/23/06	06/27/06	EPA 6010B	
Beryllium	**0.49**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**56**	1.0	"	"	"	"	"	"	
Copper	**28**	1.0	"	"	"	"	"	"	
Lead	**5.5**	2.5	"	"	"	"	"	"	
Nickel	**57**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**47**	1.0	"	"	"	"	"	"	
Arsenic	**3.7**	1.0	"	4	CP04690	06/23/06	06/26/06	EPA 7000	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Selenium	ND	1.0	mg/kg	4	CP04690	06/23/06	06/26/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**5.5**	2.5	"	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
Lead	**3.6**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**45**	5.0	"	"	"	"	"	"	
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
Lead	**5.2**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**59**	5.0	"	"	"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									
Lead	**6.3**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
Lead	**3.0**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**68**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
Lead	**9.9**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**69**	25	"	"	"	"	"	"	
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
Lead	**8.0**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**60**	5.0	"	"	"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
Lead	**2.8**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	ND	25	"	"	"	"	"	"	
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**44**	25	"	"	"	"	"	"	
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Lead	**14**	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**63**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Lead	**11**	2.5	mg/kg	1	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Lead	ND	12	mg/kg	5	CP04713	06/23/06	06/27/06	EPA 6010B	
Zinc	**62**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*64.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.2 %*	*52-141*		"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*52-141*		"	"	"	"	
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*56.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*56.2 %*	*52-141*		"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*63.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*51.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*52.9 %*	*52-141*		"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*61.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*84.1 %*	*52-141*		"	"	"	"	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*54.3 %*	*52-141*		"	"	"	"	
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*49.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*61.5 %*	*52-141*		"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*59.1 %*	*52-141*		"	"	"	"	
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.5 %*	*52-141*		"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04666	06/22/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.1 %*	*52-141*		"	"	"	"	
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.3 %*	*52-141*		"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*64.4 %*	*52-141*		"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.7 %*	*52-141*		"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*47.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*63.9 %*	*52-141*		"	"	"	"	
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*58.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*57.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*69.7 %*	*52-141*		"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*61.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*66.8 %*	*52-141*		"	"	"	"	
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*60.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*66.3 %*	*52-141*		"	"	"	"	
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*56.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*57.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*74.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04686	06/23/06	06/27/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*130 %*	*52-141*		"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.9 %*	*52-141*		"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**300**	250	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*142 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*259 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**130**	100	"	10	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*255 %*	*52-141*		"	"	"	"	*QS-4*
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*223 %*	*52-141*		"	"	"	"	*QS-4*
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*1740 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*107 %*	*52-141*		"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*102 %*	*52-141*		"	"	"	"	
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**480**	380	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*115 %*	*52-141*		"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*52-141*		"	"	"	"	
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*68.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.7 %*	*52-141*		"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04703	06/23/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**96**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*125 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*121 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*172 %*	*52-141*		"	"	"	"	*QS-4*
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*138 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*160 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*172 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*188 %*	*52-141*		"	"	"	"	*QS-4*
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*106 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*163 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*185 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-1-4' (CPF0718-01) Soil Sampled: 06/20/06 08:55 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-4' (CPF0718-02) Soil Sampled: 06/20/06 09:10 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-6' (CPF0718-03) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-3-4' (CPF0718-04) Soil Sampled: 06/20/06 09:21 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-3-6' (CPF0718-05) Soil Sampled: 06/20/06 09:23 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-6' (CPF0718-07) Soil Sampled: 06/20/06 09:36 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-5-4' (CPF0718-08) Soil Sampled: 06/20/06 09:51 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-5-6' (CPF0718-09) Soil Sampled: 06/20/06 09:54 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-6-4' (CPF0718-10) Soil Sampled: 06/20/06 10:07 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-6-6' (CPF0718-11) Soil Sampled: 06/20/06 10:10 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-7-4' (CPF0718-12) Soil Sampled: 06/20/06 13:49 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**24**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-7-6' (CPF0718-13) Soil Sampled: 06/20/06 13:53 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-7-8' (CPF0718-14) Soil Sampled: 06/20/06 13:55 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-4' (CPF0718-15) Soil Sampled: 06/20/06 14:06 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**34**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-8' (CPF0718-17) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-8-10' (CPF0718-18) Soil Sampled: 06/20/06 14:15 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-12' (CPF0718-19) Soil Sampled: 06/20/06 14:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-4' (CPF0718-20) Soil Sampled: 06/20/06 10:21 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04667	06/22/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-6' (CPF0718-21) Soil Sampled: 06/20/06 10:26 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-11-8' (CPF0718-22) Soil Sampled: 06/20/06 10:27 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-10' (CPF0718-23) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-11-12' (CPF0718-24) Soil Sampled: 06/20/06 10:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-4' (CPF0718-25) Soil Sampled: 06/20/06 11:39 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-13-6' (CPF0718-26) Soil Sampled: 06/20/06 11:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**130**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-13-8' (CPF0718-27) Soil Sampled: 06/20/06 11:40 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-13-10' (CPF0718-28) Soil Sampled: 06/20/06 11:45 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-4' (CPF0718-29) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-6' (CPF0718-30) Soil Sampled: 06/20/06 12:03 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**97**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-15-10' (CPF0718-31) Soil Sampled: 06/20/06 12:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-12' (CPF0718-32) Soil Sampled: 06/20/06 12:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**64**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-6' (CPF0718-34) Soil Sampled: 06/20/06 15:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-8' (CPF0718-35) Soil Sampled: 06/20/06 15:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-16-10' (CPF0718-36) Soil Sampled: 06/20/06 15:18 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**20**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-12' (CPF0718-37) Soil Sampled: 06/20/06 15:15 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-21-6'' (CPF0718-38) Soil Sampled: 06/20/06 10:43 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-2' (CPF0718-39) Soil Sampled: 06/20/06 10:42 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-4' (CPF0718-40) Soil Sampled: 06/20/06 10:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04687	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-6' (CPF0718-41) Soil Sampled: 06/20/06 10:45 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-21-8' (CPF0718-42) Soil Sampled: 06/20/06 10:46 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-21-10' (CPF0718-43) Soil Sampled: 06/20/06 10:50 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-6'' (CPF0718-44) Soil Sampled: 06/20/06 12:28 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**600**	100	"	5	"	"	"	"	PCB-2
Aroclor 1268	**260**	100	"	"	"	"	"	"	PCB-1, PCB-2
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**470**	100	"	5	"	"	"	"	PCB-2
Aroclor 1268	**200**	100	"	"	"	"	"	"	PCB-1, PCB-2

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-4' (CPF0718-46) Soil Sampled: 06/20/06 12:31 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-6' (CPF0718-47) Soil Sampled: 06/20/06 12:29 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-22-8' (CPF0718-48) Soil Sampled: 06/20/06 12:34 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-10' (CPF0718-49) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-22-12' (CPF0718-50) Soil Sampled: 06/20/06 12:35 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6'' (CPF0718-51) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**310**	40	"	2	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-2' (CPF0718-52) Soil Sampled: 06/20/06 14:28 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**1100**	200	"	10	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6' (CPF0718-54) Soil Sampled: 06/20/06 14:41 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-8' (CPF0718-55) Soil Sampled: 06/20/06 14:38 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-10' (CPF0718-56) Soil Sampled: 06/20/06 14:45 Received: 06/21/06 18:00									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-24-12' (CPF0718-57) Soil Sampled: 06/20/06 14:46 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-4' (CPF0718-58) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**280**	40	"	2	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
FSDA-H001-6' (CPF0718-59) Soil Sampled: 06/20/06 11:14 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**35**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
FSDA-H001-8' (CPF0718-60) Soil Sampled: 06/20/06 11:15 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04704	06/23/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**480**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-10' (CPF0718-61) Soil Sampled: 06/20/06 11:17 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**26**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
FSDA-H001-12' (CPF0718-62) Soil Sampled: 06/20/06 11:18 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-2-6' REP (CPF0718-63) Soil Sampled: 06/20/06 09:13 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-8' REP (CPF0718-64) Soil Sampled: 06/20/06 14:11 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-15-4' REP (CPF0718-65) Soil Sampled: 06/20/06 11:58 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**140**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-24-6'' REP (CPF0718-66) Soil Sampled: 06/20/06 14:30 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSDA-H001-4' REP (CPF0718-67) Soil Sampled: 06/20/06 11:12 Received: 06/21/06 18:00									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**110**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.9 %*	*65-135*		"	"	"	"	
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.6 %*	*65-135*		"	"	"	"	
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.3 %*	*65-135*		"	"	"	"	
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.5 %*	*65-135*		"	"	"	"	
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.5 %*	*65-135*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-4-4' (CPF0718-06) Soil Sampled: 06/20/06 09:33 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-8-6' (CPF0718-16) Soil Sampled: 06/20/06 14:12 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-16-4' (CPF0718-33) Soil Sampled: 06/20/06 15:08 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-22-2' (CPF0718-45) Soil Sampled: 06/20/06 12:27 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/26/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*111 %*	*50-128*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
Acetone	ND	100	µg/kg	1	CP04673	06/22/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-24-4' (CPF0718-53) Soil Sampled: 06/20/06 14:33 Received: 06/21/06 18:00									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04673	06/22/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*99.6 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*50-128*		"	"	"	"	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04654 - LUFT-DHS GCNV										
Blank (CP04654-BLK1)				Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
JP-5/JP-8	ND	1.0	"							
LCS (CP04654-BS1)				Prepared & Analyzed: 06/22/06						
Diesel	47.0	1.0	mg/kg	50.0		94.0	65-135			
LCS Dup (CP04654-BSD1)				Prepared & Analyzed: 06/22/06						
Diesel	44.8	1.0	mg/kg	50.0		89.6	65-135	4.79	30	
Matrix Spike (CP04654-MS1)		**Source: CPF0724-01**		Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg	50.0	ND		59-138			QM-5
Matrix Spike Dup (CP04654-MSD1)		**Source: CPF0724-01**		Prepared & Analyzed: 06/22/06						
Diesel	ND	1.0	mg/kg	50.0	ND		59-138		37	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04678 - EPA 7471A										
Blank (CP04678-BLK1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	ND	0.10	mg/kg							
LCS (CP04678-BS1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.702	0.10	mg/kg	0.625		112	75-125			
LCS Dup (CP04678-BSD1)				Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.684	0.10	mg/kg	0.625		109	75-125	2.60	25	
Matrix Spike (CP04678-MS1)		**Source: CPF0673-04**		Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.712	0.10	mg/kg	0.625	ND	114	75-125			
Matrix Spike Dup (CP04678-MSD1)		**Source: CPF0673-04**		Prepared: 06/22/06		Analyzed: 06/23/06				
Mercury	0.720	0.10	mg/kg	0.625	ND	115	75-125	1.12	25	
Batch CP04690 - EPA 3050B										
Blank (CP04690-BLK1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	ND	0.25	mg/kg							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CP04690-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	5.08	1.0	mg/kg	5.00		102	75-125			
Selenium	4.82	1.0	"	5.00		96.4	75-125			
Thallium	5.36	1.0	"	5.00		107	75-125			
LCS Dup (CP04690-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	5.20	1.0	mg/kg	5.00		104	75-125	2.33	25	
Selenium	5.06	1.0	"	5.00		101	75-125	4.86	25	
Thallium	5.24	1.0	"	5.00		105	75-125	2.26	25	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04690 - EPA 3050B										
Matrix Spike (CP04690-MS1)		**Source: CPF0718-06**		Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	7.66	1.0	mg/kg	5.00	4.6	61.2	75-125			QM-5
Selenium	4.58	1.0	"	5.00	ND	91.6	75-125			
Thallium	5.28	1.0	"	5.00	ND	106	75-125			
Matrix Spike Dup (CP04690-MSD1)		**Source: CPF0718-06**		Prepared: 06/23/06		Analyzed: 06/26/06				
Arsenic	8.08	1.0	mg/kg	5.00	4.6	69.6	75-125	5.34	30	QM-5
Selenium	3.66	1.0	"	5.00	ND	73.2	75-125	22.3	30	QM-5
Thallium	4.76	1.0	"	5.00	ND	95.2	75-125	10.4	30	
Batch CP04691 - EPA 3050B										
Blank (CP04691-BLK1)				Prepared & Analyzed: 06/23/06						
Antimony	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
Lead	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04691-BS1)				Prepared & Analyzed: 06/23/06						
Zinc	27.5	5.0	mg/kg	25.0		110	75-125			
Lead	28.0	2.5	"	25.0		112	75-125			
Antimony	27.2	2.5	"	25.0		109	75-125			
Beryllium	2.73	0.25	"	2.50		109	75-125			
Cadmium	2.86	0.50	"	2.50		114	75-125			
Chromium	11.3	1.0	"	10.0		113	75-125			
Copper	12.9	1.0	"	12.5		103	75-125			
Lead	28.0	2.5	"	25.0		112	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04691 - EPA 3050B										
LCS (CP04691-BS1)				Prepared & Analyzed: 06/23/06						
Nickel	27.4	1.0	mg/kg	25.0		110	75-125			
Silver	2.59	0.50	"	2.50		104	75-125			
Zinc	27.5	1.0	"	25.0		110	75-125			
LCS Dup (CP04691-BSD1)				Prepared & Analyzed: 06/23/06						
Lead	27.9	2.5	mg/kg	25.0		112	75-125	0.358	25	
Zinc	27.3	5.0	"	25.0		109	75-125	0.730	25	
Antimony	26.5	2.5	"	25.0		106	75-125	2.61	25	
Beryllium	2.75	0.25	"	2.50		110	75-125	0.730	25	
Cadmium	2.90	0.50	"	2.50		116	75-125	1.39	25	
Chromium	11.2	1.0	"	10.0		112	75-125	0.889	25	
Copper	13.1	1.0	"	12.5		105	75-125	1.54	25	
Lead	27.9	2.5	"	25.0		112	75-125	0.358	25	
Nickel	27.3	1.0	"	25.0		109	75-125	0.366	25	
Silver	2.62	0.50	"	2.50		105	75-125	1.15	25	
Zinc	27.3	1.0	"	25.0		109	75-125	0.730	25	
Matrix Spike (CP04691-MS1)		**Source: CPF0733-01**		Prepared & Analyzed: 06/23/06						
Zinc	446	5.0	mg/kg	25.0	430	64.0	75-125			QM-5
Lead	1130	2.5	"	25.0	1700	NR	75-125			QM-5
Antimony	11.4	2.5	"	25.0	ND	45.6	75-125			QM-5
Beryllium	2.76	0.25	"	2.50	0.21	102	75-125			
Cadmium	4.18	0.50	"	2.50	1.3	115	75-125			
Chromium	52.8	1.0	"	10.0	40	128	75-125			QM-5
Copper	51.5	1.0	"	12.5	36	124	75-125			
Lead	1130	2.5	"	25.0	1700	NR	75-125			QM-5
Nickel	66.7	1.0	"	25.0	41	103	75-125			
Silver	3.00	0.50	"	2.50	0.46	102	75-125			
Zinc	446	1.0	"	25.0	430	64.0	75-125			QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04691 - EPA 3050B										
Matrix Spike Dup (CP04691-MSD1)		**Source: CPF0733-01**		Prepared & Analyzed: 06/23/06						
Antimony	11.3	2.5	mg/kg	25.0	ND	45.2	75-125	0.881	30	QM-5
Lead	1230	2.5	"	25.0	1700	NR	75-125	8.47	30	QM-5
Zinc	420	5.0	"	25.0	430	NR	75-125	6.00	30	QM-5
Beryllium	2.72	0.25	"	2.50	0.21	100	75-125	1.46	30	
Cadmium	3.66	0.50	"	2.50	1.3	94.4	75-125	13.3	30	
Chromium	53.8	1.0	"	10.0	40	138	75-125	1.88	30	QM-5
Copper	54.2	1.0	"	12.5	36	146	75-125	5.11	30	QM-5
Lead	1230	2.5	"	25.0	1700	NR	75-125	8.47	30	QM-5
Nickel	66.8	1.0	"	25.0	41	103	75-125	0.150	30	
Silver	2.93	0.50	"	2.50	0.46	98.8	75-125	2.36	30	
Zinc	420	1.0	"	25.0	430	NR	75-125	6.00	30	QM-5
Batch CP04702 - EPA 3050B										
Blank (CP04702-BLK1)				Prepared: 06/23/06 Analyzed: 06/26/06						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04702 - EPA 3050B										
LCS (CP04702-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Lead	26.6	2.5	mg/kg	25.0		106	75-125			
Zinc	25.6	5.0	"	25.0		102	75-125			
Antimony	25.0	2.5	"	25.0		100	75-125			
Beryllium	2.56	0.25	"	2.50		102	75-125			
Cadmium	2.98	0.50	"	2.50		119	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.7	1.0	"	12.5		102	75-125			
Lead	26.6	2.5	"	25.0		106	75-125			
Nickel	25.5	1.0	"	25.0		102	75-125			
Silver	2.59	0.50	"	2.50		104	75-125			
Zinc	25.6	1.0	"	25.0		102	75-125			
LCS Dup (CP04702-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Lead	26.1	2.5	mg/kg	25.0		104	75-125	1.90	25	
Zinc	25.5	5.0	"	25.0		102	75-125	0.391	25	
Antimony	24.6	2.5	"	25.0		98.4	75-125	1.61	25	
Beryllium	2.56	0.25	"	2.50		102	75-125	0.00	25	
Cadmium	2.76	0.50	"	2.50		110	75-125	7.67	25	
Chromium	10.2	1.0	"	10.0		102	75-125	1.94	25	
Copper	12.6	1.0	"	12.5		101	75-125	0.791	25	
Lead	26.1	2.5	"	25.0		104	75-125	1.90	25	
Nickel	25.3	1.0	"	25.0		101	75-125	0.787	25	
Silver	2.48	0.50	"	2.50		99.2	75-125	4.34	25	
Zinc	25.5	1.0	"	25.0		102	75-125	0.391	25	
Matrix Spike (CP04702-MS1)		**Source: CPF0718-10**		Prepared: 06/23/06		Analyzed: 06/26/06				
Antimony	4.30	2.5	mg/kg	25.0	ND	17.2	75-125			QM-5
Lead	25.3	2.5	"	25.0	3.0	89.2	75-125			
Zinc	65.0	5.0	"	25.0	41	96.0	75-125			
Beryllium	2.74	0.25	"	2.50	0.41	93.2	75-125			
Cadmium	2.70	0.50	"	2.50	ND	108	75-125			
Chromium	51.4	1.0	"	10.0	43	84.0	75-125			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04702 - EPA 3050B										
Matrix Spike (CP04702-MS1)		**Source: CPF0718-10**		Prepared: 06/23/06	Analyzed: 06/26/06					
Copper	38.4	1.0	mg/kg	12.5	24	115	75-125			
Lead	25.3	2.5	"	25.0	3.0	89.2	75-125			
Nickel	73.6	1.0	"	25.0	52	86.4	75-125			
Silver	2.64	0.50	"	2.50	0.18	98.4	75-125			
Zinc	65.0	1.0	"	25.0	41	96.0	75-125			
Matrix Spike Dup (CP04702-MSD1)		**Source: CPF0718-10**		Prepared: 06/23/06	Analyzed: 06/26/06					
Zinc	56.5	5.0	mg/kg	25.0	41	62.0	75-125	14.0	30	QM-5
Lead	23.1	2.5	"	25.0	3.0	80.4	75-125	9.09	30	
Antimony	ND	2.5	"	25.0	ND		75-125		30	QM-5
Beryllium	2.32	0.25	"	2.50	0.41	76.4	75-125	16.6	30	
Cadmium	2.26	0.50	"	2.50	ND	90.4	75-125	17.7	30	
Chromium	44.4	1.0	"	10.0	43	14.0	75-125	14.6	30	QM-5
Copper	33.0	1.0	"	12.5	24	72.0	75-125	15.1	30	QM-5
Lead	23.1	2.5	"	25.0	3.0	80.4	75-125	9.09	30	
Nickel	62.4	1.0	"	25.0	52	41.6	75-125	16.5	30	QM-5
Silver	2.42	0.50	"	2.50	0.18	89.6	75-125	8.70	30	
Zinc	56.5	1.0	"	25.0	41	62.0	75-125	14.0	30	QM-5
Batch CP04709 - EPA 3050B										
Blank (CP04709-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	ND	2.5	mg/kg							
Lead	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04709 - EPA 3050B										
Blank (CP04709-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	ND	1.0	mg/kg							
LCS (CP04709-BS1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	23.6	2.5	mg/kg	25.0		94.4	75-125			
Lead	24.3	2.5	"	25.0		97.2	75-125			
Zinc	23.0	5.0	"	25.0		92.0	75-125			
Beryllium	2.34	0.25	"	2.50		93.6	75-125			
Cadmium	2.72	0.50	"	2.50		109	75-125			
Chromium	8.99	1.0	"	10.0		89.9	75-125			
Copper	11.8	1.0	"	12.5		94.4	75-125			
Lead	24.3	2.5	"	25.0		97.2	75-125			
Nickel	23.4	1.0	"	25.0		93.6	75-125			
Silver	2.69	0.50	"	2.50		108	75-125			
Zinc	23.0	1.0	"	25.0		92.0	75-125			
LCS Dup (CP04709-BSD1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	25.4	5.0	mg/kg	25.0		102	75-125	9.92	25	
Lead	26.5	2.5	"	25.0		106	75-125	8.66	25	
Antimony	26.0	2.5	"	25.0		104	75-125	9.68	25	
Beryllium	2.59	0.25	"	2.50		104	75-125	10.1	25	
Cadmium	2.74	0.50	"	2.50		110	75-125	0.733	25	
Chromium	10.3	1.0	"	10.0		103	75-125	13.6	25	
Copper	13.0	1.0	"	12.5		104	75-125	9.68	25	
Lead	26.5	2.5	"	25.0		106	75-125	8.66	25	
Nickel	25.9	1.0	"	25.0		104	75-125	10.1	25	
Silver	2.84	0.50	"	2.50		114	75-125	5.42	25	
Zinc	25.4	1.0	"	25.0		102	75-125	9.92	25	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04709 - EPA 3050B										
Matrix Spike (CP04709-MS1)		**Source: CPF0718-30**		Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	121	5.0	mg/kg	25.0	74	188	75-125			QM-5
Lead	36.0	2.5	"	25.0	16	80.0	75-125			
Antimony	5.39	2.5	"	25.0	ND	21.6	75-125			QM-5
Beryllium	2.79	0.25	"	2.50	0.35	97.6	75-125			
Cadmium	2.80	0.50	"	2.50	0.24	102	75-125			
Chromium	60.1	1.0	"	10.0	47	131	75-125			QM-5
Copper	39.3	1.0	"	12.5	26	106	75-125			
Lead	36.0	2.5	"	25.0	16	80.0	75-125			
Nickel	74.4	1.0	"	25.0	49	102	75-125			
Silver	2.86	0.50	"	2.50	0.54	92.8	75-125			
Zinc	121	1.0	"	25.0	74	188	75-125			QM-5
Matrix Spike Dup (CP04709-MSD1)		**Source: CPF0718-30**		Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	4.82	2.5	mg/kg	25.0	ND	19.3	75-125	11.2	30	QM-5
Zinc	102	5.0	"	25.0	74	112	75-125	17.0	30	
Lead	39.4	2.5	"	25.0	16	93.6	75-125	9.02	30	
Beryllium	2.73	0.25	"	2.50	0.35	95.2	75-125	2.17	30	
Cadmium	2.54	0.50	"	2.50	0.24	92.0	75-125	9.74	30	
Chromium	51.1	1.0	"	10.0	47	41.0	75-125	16.2	30	QM-5
Copper	36.2	1.0	"	12.5	26	81.6	75-125	8.21	30	
Lead	39.4	2.5	"	25.0	16	93.6	75-125	9.02	30	
Nickel	66.4	1.0	"	25.0	49	69.6	75-125	11.4	30	QM-5
Silver	2.74	0.50	"	2.50	0.54	88.0	75-125	4.29	30	
Zinc	102	1.0	"	25.0	74	112	75-125	17.0	30	
Batch CP04713 - EPA 3050B										
Blank (CP04713-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Lead	ND	2.5	mg/kg							
Antimony	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04713 - EPA 3050B										
Blank (CP04713-BLK1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Cadmium	ND	0.50	mg/kg							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04713-BS1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	24.6	2.5	mg/kg	25.0		98.4	75-125			
Zinc	25.2	5.0	"	25.0		101	75-125			
Lead	24.5	2.5	"	25.0		98.0	75-125			
Beryllium	2.54	0.25	"	2.50		102	75-125			
Cadmium	2.70	0.50	"	2.50		108	75-125			
Chromium	10.3	1.0	"	10.0		103	75-125			
Copper	12.9	1.0	"	12.5		103	75-125			
Lead	24.5	2.5	"	25.0		98.0	75-125			
Nickel	25.7	1.0	"	25.0		103	75-125			
Silver	2.54	0.50	"	2.50		102	75-125			
Zinc	25.2	1.0	"	25.0		101	75-125			
LCS Dup (CP04713-BSD1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	24.9	5.0	mg/kg	25.0		99.6	75-125	1.20	25	
Antimony	24.7	2.5	"	25.0		98.8	75-125	0.406	25	
Lead	25.3	2.5	"	25.0		101	75-125	3.21	25	
Beryllium	2.55	0.25	"	2.50		102	75-125	0.393	25	
Cadmium	2.74	0.50	"	2.50		110	75-125	1.47	25	
Chromium	10.4	1.0	"	10.0		104	75-125	0.966	25	
Copper	12.9	1.0	"	12.5		103	75-125	0.00	25	
Lead	25.3	2.5	"	25.0		101	75-125	3.21	25	
Nickel	25.5	1.0	"	25.0		102	75-125	0.781	25	
Silver	2.67	0.50	"	2.50		107	75-125	4.99	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04713 - EPA 3050B										
LCS Dup (CP04713-BSD1)				Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	24.9	1.0	mg/kg	25.0		99.6	75-125	1.20	25	
Matrix Spike (CP04713-MS1)		**Source: CPF0718-50**		Prepared: 06/23/06	Analyzed: 06/27/06					
Antimony	5.96	2.5	mg/kg	25.0	ND	23.8	75-125			QM-5
Lead	26.8	2.5	"	25.0	1.9	99.6	75-125			
Zinc	72.6	5.0	"	25.0	35	150	75-125			QM-5
Beryllium	2.82	0.25	"	2.50	0.41	96.4	75-125			
Cadmium	2.55	0.50	"	2.50	ND	102	75-125			
Chromium	67.0	1.0	"	10.0	49	180	75-125			QM-4X
Copper	43.7	1.0	"	12.5	26	142	75-125			QM-5
Lead	26.8	2.5	"	25.0	1.9	99.6	75-125			
Nickel	80.7	1.0	"	25.0	50	123	75-125			
Silver	2.78	0.50	"	2.50	0.32	98.4	75-125			
Zinc	72.6	1.0	"	25.0	35	150	75-125			QM-5
Matrix Spike Dup (CP04713-MSD1)		**Source: CPF0718-50**		Prepared: 06/23/06	Analyzed: 06/27/06					
Zinc	71.4	5.0	mg/kg	25.0	35	146	75-125	1.67	30	QM-5
Antimony	4.76	2.5	"	25.0	ND	19.0	75-125	22.4	30	QM-5
Lead	26.7	2.5	"	25.0	1.9	99.2	75-125	0.374	30	
Beryllium	2.77	0.25	"	2.50	0.41	94.4	75-125	1.79	30	
Cadmium	2.50	0.50	"	2.50	ND	100	75-125	1.98	30	
Chromium	66.9	1.0	"	10.0	49	179	75-125	0.149	30	QM-4X
Copper	44.0	1.0	"	12.5	26	144	75-125	0.684	30	QM-5
Lead	26.7	2.5	"	25.0	1.9	99.2	75-125	0.374	30	
Nickel	81.6	1.0	"	25.0	50	126	75-125	1.11	30	QM-5
Silver	2.84	0.50	"	2.50	0.32	101	75-125	2.14	30	
Zinc	71.4	1.0	"	25.0	35	146	75-125	1.67	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04666 - LUFT-DHS GCNV										
Blank (CP04666-BLK1)				Prepared: 06/22/06		Analyzed: 06/27/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*7.66*		*"*	*8.33*		*92.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.75*		*"*	*8.33*		*105*	*52-141*			
LCS (CP04666-BS1)				Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	9.98	1.0	µg/kg	16.7		59.8	47-132			
gamma-BHC (Lindane)	10.7	10	"	16.7		64.1	56-133			
4,4´-DDT	11.3	15	"	16.7		67.7	46-137			
Dieldrin	10.7	1.0	"	16.7		64.1	44-143			
Endrin	13.1	15	"	16.7		78.4	30-147			
Heptachlor	9.28	10	"	16.7		55.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.50*		*"*	*8.33*		*66.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.28*		*"*	*8.33*		*75.4*	*52-141*			
LCS Dup (CP04666-BSD1)				Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	8.15	1.0	µg/kg	16.7		48.8	47-132	20.2	30	
gamma-BHC (Lindane)	9.75	10	"	16.7		58.4	56-133	9.29	30	
4,4´-DDT	9.89	15	"	16.7		59.2	46-137	13.3	30	
Dieldrin	9.44	1.0	"	16.7		56.5	44-143	12.5	30	
Endrin	10.7	15	"	16.7		64.1	30-147	20.2	30	
Heptachlor	7.92	10	"	16.7		47.4	33-148	15.8	30	
Surrogate: Tetrachloro-meta-xylene	*4.26*		*"*	*8.33*		*51.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*5.56*		*"*	*8.33*		*66.7*	*52-141*			
Matrix Spike (CP04666-MS1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	7.70	5.0	µg/kg	16.7	ND	46.1	46-138			
gamma-BHC (Lindane)	8.98	50	"	16.7	ND	53.8	38-144			
4,4´-DDT	7.53	75	"	16.7	ND	45.1	41-157			
Dieldrin	8.08	5.0	"	16.7	ND	48.4	46-155			
Endrin	9.83	75	"	16.7	ND	58.9	34-149			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04666 - LUFT-DHS GCNV										
Matrix Spike (CP04666-MS1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Heptachlor	8.68	50	µg/kg	16.7	ND	52.0	36-155			
Surrogate: Tetrachloro-meta-xylene	*13.6*		*"*	*20.8*		*65.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*13.9*		*"*	*20.8*		*66.8*	*52-141*			
Matrix Spike Dup (CP04666-MSD1)		**Source: CPF0718-02**		Prepared: 06/22/06		Analyzed: 06/27/06				
Aldrin	7.96	5.0	µg/kg	16.7	ND	47.7	46-138	3.32	35	
gamma-BHC (Lindane)	9.05	50	"	16.7	ND	54.2	38-144	0.776	35	
4,4´-DDT	8.42	75	"	16.7	ND	50.4	41-157	11.2	35	
Dieldrin	8.23	5.0	"	16.7	ND	49.3	46-155	1.84	35	
Endrin	11.8	75	"	16.7	ND	70.7	34-149	18.2	35	
Heptachlor	8.08	50	"	16.7	ND	48.4	36-155	7.16	35	
Surrogate: Tetrachloro-meta-xylene	*13.7*		*"*	*20.8*		*65.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*14.9*		*"*	*20.8*		*71.6*	*52-141*			
Batch CP04686 - LUFT-DHS GCNV										
Blank (CP04686-BLK1)				Prepared: 06/23/06		Analyzed: 06/27/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*3.95*		*"*	*8.33*		*47.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.75*		*"*	*8.33*		*57.0*	*52-141*			
LCS (CP04686-BS1)				Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	6.90	1.0	µg/kg	16.7		41.3	40-132			
gamma-BHC (Lindane)	8.63	10	"	16.7		51.7	50-133			
4,4´-DDT	7.73	15	"	16.7		46.3	46-137			
Dieldrin	8.06	1.0	"	16.7		48.3	44-143			
Endrin	9.32	15	"	16.7		55.8	30-147			
Heptachlor	6.94	10	"	16.7		41.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*3.89*		*"*	*8.33*		*46.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.95*		*"*	*8.33*		*59.4*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04686 - LUFT-DHS GCNV										
LCS Dup (CP04686-BSD1)				Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	7.73	1.0	µg/kg	16.7		46.3	40-132	11.3	30	
gamma-BHC (Lindane)	9.62	10	"	16.7		57.6	50-133	10.8	30	
4,4´-DDT	8.21	15	"	16.7		49.2	46-137	6.02	30	
Dieldrin	8.59	1.0	"	16.7		51.4	44-143	6.37	30	
Endrin	9.65	15	"	16.7		57.8	30-147	3.48	30	
Heptachlor	7.58	10	"	16.7		45.4	33-148	8.82	30	
Surrogate: Tetrachloro-meta-xylene	*3.85*		*"*	*8.33*		*46.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*5.10*		*"*	*8.33*		*61.2*	*52-141*			
Matrix Spike (CP04686-MS1)		**Source: CPF0718-38**		Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	7.80	5.0	µg/kg	16.7	ND	46.7	40-138			
gamma-BHC (Lindane)	9.46	50	"	16.7	ND	56.6	38-144			
4,4´-DDT	13.5	75	"	16.7	2.6	65.3	41-157			
Dieldrin	9.94	5.0	"	16.7	ND	59.5	46-155			
Endrin	11.8	75	"	16.7	ND	70.7	34-149			
Heptachlor	7.81	50	"	16.7	ND	46.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*11.6*		*"*	*20.8*		*55.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*13.8*		*"*	*20.8*		*66.3*	*52-141*			
Matrix Spike Dup (CP04686-MSD1)		**Source: CPF0718-38**		Prepared: 06/23/06		Analyzed: 06/27/06				
Aldrin	10.6	5.0	µg/kg	16.7	ND	63.5	40-138	30.4	35	
gamma-BHC (Lindane)	13.5	50	"	16.7	ND	80.8	38-144	35.2	35	QR-2
4,4´-DDT	15.8	75	"	16.7	2.6	79.0	41-157	15.7	35	
Dieldrin	14.7	5.0	"	16.7	ND	88.0	46-155	38.6	35	QR-2
Endrin	17.0	75	"	16.7	ND	102	34-149	36.1	35	QR-2
Heptachlor	10.6	50	"	16.7	ND	63.5	36-155	30.3	35	
Surrogate: Tetrachloro-meta-xylene	*15.7*		*"*	*20.8*		*75.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.2*		*"*	*20.8*		*102*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04703 - LUFT-DHS GCNV										
Blank (CP04703-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*7.08*		*"*	*8.33*		*85.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.57*		*"*	*8.33*		*90.9*	*52-141*			
LCS (CP04703-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	16.2	1.0	µg/kg	16.7		97.0	47-132			
gamma-BHC (Lindane)	14.9	10	"	16.7		89.2	56-133			
4,4´-DDT	19.8	15	"	16.7		119	46-137			
Dieldrin	16.8	1.0	"	16.7		101	44-143			
Endrin	19.6	15	"	16.7		117	30-147			
Heptachlor	15.7	10	"	16.7		94.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.90*		*"*	*8.33*		*94.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.10*		*"*	*8.33*		*109*	*52-141*			
LCS Dup (CP04703-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	20.7	1.0	µg/kg	16.7		124	47-132	24.4	30	
gamma-BHC (Lindane)	20.0	10	"	16.7		120	56-133	29.2	30	
4,4´-DDT	21.8	15	"	16.7		131	46-137	9.62	30	
Dieldrin	21.6	1.0	"	16.7		129	44-143	25.0	30	
Endrin	24.0	15	"	16.7		144	30-147	20.2	30	
Heptachlor	21.3	10	"	16.7		128	33-148	30.3	30	QR-2
Surrogate: Tetrachloro-meta-xylene	*10.0*		*"*	*8.33*		*120*	*46-139*			
Surrogate: Decachlorobiphenyl	*10.8*		*"*	*8.33*		*130*	*52-141*			
Matrix Spike (CP04703-MS1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	13.7	5.0	µg/kg	16.7	ND	82.0	47-138			
gamma-BHC (Lindane)	14.2	50	"	16.7	ND	85.0	38-144			
4,4´-DDT	91.3	75	"	16.7	96	NR	41-157			QM-4X
Dieldrin	32.3	5.0	"	16.7	15	104	46-155			
Endrin	48.1	75	"	16.7	53	NR	34-149			QM-4X

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04703 - LUFT-DHS GCNV										
Matrix Spike (CP04703-MS1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Heptachlor	14.0	50	µg/kg	16.7	ND	83.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*23.8*		*"*	*20.8*		*114*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.6*		*"*	*20.8*		*99.0*	*52-141*			
Matrix Spike Dup (CP04703-MSD1)		**Source: CPF0718-60**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aldrin	13.4	5.0	µg/kg	16.7	ND	80.2	47-138	2.21	35	
gamma-BHC (Lindane)	13.7	50	"	16.7	ND	82.0	38-144	3.58	35	
4,4´-DDT	88.3	75	"	16.7	96	NR	41-157	3.34	35	QM-4X
Dieldrin	29.3	5.0	"	16.7	15	85.6	46-155	9.74	35	
Endrin	46.8	75	"	16.7	53	NR	34-149	2.74	35	QM-4X
Heptachlor	13.9	50	"	16.7	ND	83.2	36-155	0.717	35	
Surrogate: Tetrachloro-meta-xylene	*24.8*		*"*	*20.8*		*119*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.8*		*"*	*20.8*		*100*	*52-141*			
Batch CP04745 - LUFT-DHS GCNV										
Blank (CP04745-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*6.93*		*"*	*8.33*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.89*		*"*	*8.33*		*94.7*	*52-141*			

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
LCS (CP04745-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132			
gamma-BHC (Lindane)	14.6	10	"	16.7		87.4	56-133			
4,4´-DDT	18.4	15	"	16.7		110	46-137			
Dieldrin	16.2	1.0	"	16.7		97.0	44-143			
Endrin	18.4	15	"	16.7		110	30-147			
Heptachlor	14.7	10	"	16.7		88.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.07*		*"*	*8.33*		*84.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.57*		*"*	*8.33*		*103*	*52-141*			
LCS Dup (CP04745-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132	0.00	30	
gamma-BHC (Lindane)	15.0	10	"	16.7		89.8	56-133	2.70	30	
4,4´-DDT	16.6	15	"	16.7		99.4	46-137	10.3	30	
Dieldrin	15.4	1.0	"	16.7		92.2	44-143	5.06	30	
Endrin	16.7	15	"	16.7		100	30-147	9.69	30	
Heptachlor	14.9	10	"	16.7		89.2	33-148	1.35	30	
Surrogate: Tetrachloro-meta-xylene	*6.89*		*"*	*8.33*		*82.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.61*		*"*	*8.33*		*91.4*	*52-141*			
Matrix Spike (CP04745-MS1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.6	5.0	µg/kg	16.7	ND	87.4	47-138			
gamma-BHC (Lindane)	14.6	50	"	16.7	ND	87.4	38-144			
4,4´-DDT	61.7	75	"	16.7	57	28.1	41-157			QM-4X
Dieldrin	18.2	5.0	"	16.7	ND	109	46-155			
Endrin	30.2	75	"	16.7	15	91.0	34-149			
Heptachlor	14.5	50	"	16.7	ND	86.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*21.7*		*"*	*20.8*		*104*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.4*		*"*	*20.8*		*117*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04745-MSD1)		**Source: CPF0718-65**		Prepared: 06/26/06	Analyzed: 06/28/06					
Aldrin	13.9	5.0	µg/kg	16.7	ND	83.2	47-138	4.91	35	
gamma-BHC (Lindane)	13.8	50	"	16.7	ND	82.6	38-144	5.63	35	
4,4´-DDT	59.8	75	"	16.7	57	16.8	41-157	3.13	35	QM-4X
Dieldrin	17.5	5.0	"	16.7	ND	105	46-155	3.92	35	
Endrin	28.8	75	"	16.7	15	82.6	34-149	4.75	35	
Heptachlor	13.8	50	"	16.7	ND	82.6	36-155	4.95	35	
Surrogate: Tetrachloro-meta-xylene	*20.6*		*"*	*20.8*		*99.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.2*		*"*	*20.8*		*116*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04667 - LUFT-DHS GCNV										
Blank (CP04667-BLK1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04667-BS1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	77.0	20	µg/kg	83.3		92.4	29-131			
LCS Dup (CP04667-BSD1)				Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	73.1	20	µg/kg	83.3		87.8	29-131	5.20	30	
Matrix Spike (CP04667-MS1)		**Source: CPF0718-03**		Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	31.0	20	µg/kg	83.3	ND	37.2	29-131			
Matrix Spike Dup (CP04667-MSD1)		**Source: CPF0718-03**		Prepared: 06/22/06		Analyzed: 06/28/06				
Aroclor 1260	62.4	20	µg/kg	83.3	ND	74.9	29-131	67.2	30	QR-2
Batch CP04687 - LUFT-DHS GCNV										
Blank (CP04687-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04687 - LUFT-DHS GCNV										
LCS (CP04687-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	72.6	20	µg/kg	83.3		87.2	29-131			
LCS Dup (CP04687-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	81.0	20	µg/kg	83.3		97.2	29-131	10.9	30	
Matrix Spike (CP04687-MS1)		**Source: CPF0718-35**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	83.2	20	µg/kg	83.3	11	86.7	29-131			
Matrix Spike Dup (CP04687-MSD1)		**Source: CPF0718-35**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	84.6	20	µg/kg	83.3	11	88.4	29-131	1.67	30	
Batch CP04704 - LUFT-DHS GCNV										
Blank (CP04704-BLK1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04704-BS1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	74.3	20	µg/kg	83.3		89.2	29-131			
LCS Dup (CP04704-BSD1)				Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	76.3	20	µg/kg	83.3		91.6	29-131	2.66	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04704 - LUFT-DHS GCNV										
Matrix Spike (CP04704-MS1)		**Source: CPF0718-49**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	62.5	20	µg/kg	83.3	ND	75.0	29-131			
Matrix Spike Dup (CP04704-MSD1)		**Source: CPF0718-49**		Prepared: 06/23/06		Analyzed: 06/28/06				
Aroclor 1260	65.7	20	µg/kg	83.3	ND	78.9	29-131	4.99	30	
Batch CP04746 - LUFT-DHS GCNV										
Blank (CP04746-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04746-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.3	20	µg/kg	83.3		104	29-131			
LCS Dup (CP04746-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.6	20	µg/kg	83.3		104	29-131	0.347	30	
Matrix Spike (CP04746-MS1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	249	20	µg/kg	83.3	150	119	29-131			
Matrix Spike Dup (CP04746-MSD1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	253	20	µg/kg	83.3	150	124	29-131	1.59	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04790 - EPA 5030 Soil GC										
Blank (CP04790-BLK1)				Prepared: 06/26/06		Analyzed: 06/27/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0818*		*"*	*0.100*		*81.8*	*65-135*			
LCS (CP04790-BS1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.87	1.0	mg/kg	2.50		115	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0881*		*"*	*0.100*		*88.1*	*65-135*			
LCS Dup (CP04790-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.97	1.0	mg/kg	2.50		119	65-135	3.42	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0935*		*"*	*0.100*		*93.5*	*65-135*			
Matrix Spike (CP04790-MS1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.166*		*"*	*0.100*		*166*	*65-135*			*QS-4*
Matrix Spike Dup (CP04790-MSD1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124	0.00	35	
Surrogate: o-Chlorotoluene (Gas)	*0.153*		*"*	*0.100*		*153*	*65-135*			*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06 Analyzed: 06/26/06						
Acetone	ND	100	µg/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	10	"							
2-Butanone	ND	100	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	10	"							
o-Chlorotoluene	ND	5.0	"							
p-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06 Analyzed: 06/26/06						
1,2-Dichloropropane	ND	5.0	µg/kg							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Blank (CP04673-BLK1)				Prepared: 06/22/06		Analyzed: 06/26/06				
1,2,4-Trimethylbenzene	ND	5.0	µg/kg							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
Surrogate: 1,2-Dichloroethane-d4	*50.0*		*"*	*50.0*		*100*	*50-125*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*53.4*		*"*	*50.0*		*107*	*50-128*			
LCS (CP04673-BS1)				Prepared: 06/22/06		Analyzed: 06/26/06				
Benzene	50.0	5.0	µg/kg	50.0		100	64-135			
Chlorobenzene	51.2	5.0	"	50.0		102	67-133			
1,1-Dichloroethene	47.5	5.0	"	50.0		95.0	53-137			
Toluene	50.0	5.0	"	50.0		100	61-138			
Trichloroethene	52.1	5.0	"	50.0		104	64-130			
Surrogate: 1,2-Dichloroethane-d4	*48.5*		*"*	*50.0*		*97.0*	*50-125*			
Surrogate: Toluene-d8	*50.2*		*"*	*50.0*		*100*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*49.9*		*"*	*50.0*		*99.8*	*50-128*			
LCS Dup (CP04673-BSD1)				Prepared: 06/22/06		Analyzed: 06/26/06				
Benzene	40.7	5.0	µg/kg	50.0		81.4	64-135	20.5	30	
Chlorobenzene	43.0	5.0	"	50.0		86.0	67-133	17.4	30	
1,1-Dichloroethene	45.2	5.0	"	50.0		90.4	53-137	4.96	30	
Toluene	40.9	5.0	"	50.0		81.8	61-138	20.0	30	
Trichloroethene	41.9	5.0	"	50.0		83.8	64-130	21.7	30	
Surrogate: 1,2-Dichloroethane-d4	*49.4*		*"*	*50.0*		*98.8*	*50-125*			
Surrogate: Toluene-d8	*49.9*		*"*	*50.0*		*99.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*50.4*		*"*	*50.0*		*101*	*50-128*			
Matrix Spike (CP04673-MS1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Benzene	47.4	5.0	µg/kg	50.0	ND	94.8	58-139			
Chlorobenzene	42.7	5.0	"	50.0	ND	85.4	62-134			
1,1-Dichloroethene	59.0	5.0	"	50.0	ND	118	53-152			
Toluene	45.3	5.0	"	50.0	ND	90.6	58-139			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04673 - EPA 5030 Soil MS										
Matrix Spike (CP04673-MS1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Trichloroethene	42.4	5.0	µg/kg	50.0	ND	84.8	55-138			
Surrogate: 1,2-Dichloroethane-d4	*51.8*		"	*50.0*		*104*	*50-125*			
Surrogate: Toluene-d8	*49.8*		"	*50.0*		*99.6*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.7*		"	*50.0*		*105*	*50-128*			
Matrix Spike Dup (CP04673-MSD1)		**Source: CPF0718-33**		Prepared: 06/22/06		Analyzed: 06/27/06				
Benzene	42.0	5.0	µg/kg	50.0	ND	84.0	58-139	12.1	30	
Chlorobenzene	36.7	5.0	"	50.0	ND	73.4	62-134	15.1	30	
1,1-Dichloroethene	52.7	5.0	"	50.0	ND	105	53-152	11.3	30	
Toluene	40.0	5.0	"	50.0	ND	80.0	58-139	12.4	30	
Trichloroethene	38.0	5.0	"	50.0	ND	76.0	55-138	10.9	30	
Surrogate: 1,2-Dichloroethane-d4	*54.4*		"	*50.0*		*109*	*50-125*			
Surrogate: Toluene-d8	*49.0*		"	*50.0*		*98.0*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*53.4*		"	*50.0*		*107*	*50-128*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0718**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 63094,95,96,97,98

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QR-2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PCB-2	Adjacent Aroclors have overlap peaks which cause interferences. The detected concentration is greater than the estimated interferences; therefore, the detected result is reported even though it is probably biased high..
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 21, 2006

CLS Work Order #: CPF0748
COC #: 71131,32,33,25,26,27

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: AOI 14 Phase II

Enclosed are the results of analyses for samples received by the laboratory on 06/22/06 15:22. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(1)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71131

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS T20G-4 NASA AMES, Moffett Field, CA 94035
PROJECT MANAGER: PHONE#: 650-604-2053
PROJECT NAME: AOI 14-Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm-HOT! Breezy PM.

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incld. Aroclor 1268) by method 8082	DDD, DDE, DDT (TOTAL) by method 8081A	Lead + Zinc by method 6010B/7000	TPH-D/G/SP415/8+1MO BY METHOD 8015	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
6-21-06	1250	PEN-9-4'	SOIL	1	Sleeve	3	X	X	X							X	
	1253	PEN-9-6'															
	1252	PEN-9-8'															
	1256	PEN-9-10'								X	X	X					
	1255	PEN-9-12'															
	1300	PEN-9-14'															
	1259	PEN-9-16'															
	1111	PEN-17-4' ⊗															⊗ Replicate
	1140	PEN-17-6'															
	1135	PEN-17-8'															
	1143	PEN-17-10'															
	1142	PEN-17-12'															
6-21-06	1158	PEN-19-4'	SOIL	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

SPECIAL INSTRUCTIONS OR

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062106 1814		
		6/22/06 @ 1400H		CONRAD JR/CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: DATE / TIME: 6-22-6 1430 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(2)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71132

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS T20G-4 NASA Ames, Moffett Field, CA 94035
PHONE#: 650/604-2053
PROJECT MANAGER:
PROJECT NAME: AOI 14-PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742
☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm - HOT! Breezy PM.

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY
SPECIAL INSTRUCTIONS: OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (Aroclor 1268) by Method 8082	DDD, DDE, DDT (TOTAL) by Method 8081A	Lead + Zinc by Method 6010B/7000	TPH6-D-TPH15/8 + MO by Method 8015	VOCs (8260)	PP-13 metals	10 DAY	
6-21-06	1157	PEN-19-6'	Soil	1	Sleeve	3	X	X	X				X	
	1200	PEN-19-10 ⊛												⊛ Replicate
	1204	PEN-19-12'												
	0921	PEN-25-0'												
	0919	PEN-25-2'												
	0918	PEN-25-4'												
	0927	PEN-25-6'												
	0924	PEN-25-8'												
	0929	PEN-25-10'												INVOICE TO:
	0928	PEN-25-12'								X	X	X		
	0930	PEN-25-14'												
	0955	PEN-26-0'												P.O. #
6-21-06	0952	PEN-26-2'	SOIL	1	SLEEVE	3	X	X	X				X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	6/22/06 1514		
		6/22/06 @ 1400H		CONRAD JR/CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: Jon R DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(3)

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0748 LOG NO. 71133

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS-T20G-4 NASA Ames, Moffett Field, CA. 94035
PROJECT MANAGER: 650.604/2053 PHONE#
PROJECT NAME: AOI 14-PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm-HOT! Breezy-PM.

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY (circled)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (Field Analysis) by Method 8082	DDD, DDE, DDT (TOTAL) by Method 8081A	Lead + Zinc by Method 6010B/7000	TPH-GID/TPH-SID/TPH-MO by Method 8015	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	10 DAY	
6/21/06	0942	PEN-26-4'	SOIL	1	Sleeve	3	X	X	X							X	
	0955	PEN-26-6'															
	0954	PEN-26-8'															
	1003	PEN-26-10'															⊛ Replicate
	1000	PEN-26-12' *															
	1028	PEN-27-0'															
	1027	PEN-27-2'															
	1025	PEN-27-4'															
	1031	PEN-27-6'															
	1029	PEN-27-8'								X	X	X					
	1034	PEN-27-10'															
	1032	PEN-27-12'															
6/21/06	1038	PEN-27-14'	SOIL	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1514		
		6/21/06 @ 1400		CONRAD JR / CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: JON R DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project: AOI 14 Phase II
Project Number: N140-200
Project Manager: Casey Fitzgerald

CLS Work Order #: CPF0748
COC #: 71131,32,33,25,26,27

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71125 (4)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (EPA 8082 AROCLOR/PCB) AT METHOD 8082	PCBs, DDT, DDE (TOTAL) AT METHOD 8081A	LEAD AT EPA 6010B/7000	TPH-D/-G/-MO BY 8015M	VOCs BY 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
062106	1037	PEN-27-16'	SOIL	1	SLEEVE	3	X	X	X							X	
	1051	PEN-28-6"				3	X	X	X							X	
	1050	PEN-28-2'				3	X	X	X							X	
	1055	PEN-28-4'				3	X	X	X							X	REPLICATE X
	1054	PEN-28-6'				3	X	X	X							X	
	1053	PEN-28-8'				3	X	X	X							X	
	1059	PEN-28-10'				3	X	X	X							X	
	1102	PEN-28-12'				3	X	X	X							X	
	1118	PEN-29-6"				3	X	X	X							X	
	1117	PEN-29-2'				3	X	X	X	X	X	X				X	
	1115	PEN-29-4'				3	X	X	X							X	
	1122	PEN-29-6'				3	X	X	X							X	
	1121	PEN-29-8				3	X	X	X							X	

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

INVOICE TO:
P.O. #
QUOTE #

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1514		
		6/22/06 @ 1404		CONRAD JR / CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: JOM DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS_Contrels AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(5)

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0748 LOG NO. 71126

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20-G-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL. AROCLORS 1293) BY 8082	ODD, DOE, DOT (NAT) BY 8021B	LEAD & ZINC BY 6010B/7000	TPH-D/-G/-TPH/S/B/-MO BY 8015M	VOCS BY 8260	PP METALS	TURN AROUND TIME 1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
062106	1124	PEN-29-10'	SOIL	1	SLEEVE	2	X	X	X							X	
	1222	PEN-30-6"				3	X	X	X							X	REPLICATE *
	1222	PEN-30-2'				2	X	X	X							X	
	1226	PEN-30-4'				3	X	X	X							X	
	1227	PEN-30-6'				3	X	X	X							X	
	1225	PEN-30-8'				3	X	X	X							X	
	1232	PEN-30-10'				3	X	X	X	X	X	X				X	
	1230	PEN-30-12'				3	X	X	X							X	
	1234	PEN-30-14'				3	X	X	X							X	INVOICE TO:
	1236	PEN-30-16'				3	X	X	X							X	
	1324	PEN-32-6"				3	X	X	X							X	
	1322	PEN-32-2'				3	X	X	X							X	P.O. #
	1321	PEN-32-4'				2	X	X	X							X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062206 1514		
		6/22/06 @ 1400		CONRADIR/CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71127 (6)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20B-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE#: 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL AROCLORS) BY METHOD 8082	PAH, DDE, DDT (NOTAC) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7421	VOCS BY 8260	PP METALS	TPH-D/-G/-T/E-MO BY 8015M	10 DAY	
062106	1327	PEN-32-6'	SOIL	1	SLEEVE	3	X	X	X	X	X	X	X	
	1325	PEN-32-8'				3	X	X	X				X	
	1329	PEN-32-10'				3	X	X	X				X	
	1328	PEN-32-12'				3	X	X	X				X	
	1332	PEN-32-14'				3	X	X	X				X	
	1350	PEN-33-6"				3	X	X	X				X	REPLICATE X
	1343	PEN-33-2'				3	X	X	X				X	
	1342	PEN-33-4'				3	X	X	X				X	
	1353	PEN-33-6'				3	X	X	X				X	
	1351	PEN-33-8'				3	X	X	X				X	
	1355	PEN-33-10'				3	X	X	X				X	
	1354	PEN-33-12'				3	X	X	X				X	
	1358	PEN-33-14'				3	X	X	X				X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1574		
		6/22/06 @ 1400H		CONRADE / CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-Courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:56

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**27**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**10**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Diesel	ND	10	mg/kg	10	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**400**	10	"	"	"	"	"	"	
JP-5/JP-8	ND	10	"	"	"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**43**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:56

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
Lead	**21**	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**60**	25	"	"	"	"	"	"	
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**97**	5.0	"	"	"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
Lead	**3.2**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**32**	5.0	"	"	"	"	"	"	
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04748	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.38**	0.25	"	"	"	"	"	"	
Cadmium	**15**	0.50	"	"	"	"	"	"	
Chromium	**56**	1.0	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	"	"	"	"	"	
Nickel	**55**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**44**	1.0	"	"	"	"	"	"	
Arsenic	**9.3**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**43**	25	"	"	"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									
Lead	**2.7**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**22**	5.0	"	"	"	"	"	"	
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
Lead	**5.0**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**42**	5.0	"	"	"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Lead	**7.8**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Lead	**7.1**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
Lead	**12**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									
Lead	**23**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**61**	25	"	"	"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**37**	25	"	"	"	"	"	"	
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Lead	**4.6**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Lead	**4.4**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**94**	5.0	"	"	"	"	"	"	
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
Lead	**49**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**95**	5.0	"	"	"	"	"	"	
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
Lead	**9.2**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**52**	5.0	"	"	"	"	"	"	
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Mercury	**0.17**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04759	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.61**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**70**	1.0	"	"	"	"	"	"	
Copper	**34**	1.0	"	"	"	"	"	"	
Lead	**9.6**	2.5	"	"	"	"	"	"	
Nickel	**73**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**65**	1.0	"	"	"	"	"	"	
Arsenic	**4.7**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Selenium	ND	1.0	mg/kg	4	CP04786	06/27/06	06/27/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**9.6**	2.5	"	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**65**	5.0	"	"	"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
Lead	**17**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**66**	25	"	"	"	"	"	"	
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
Lead	**11**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**70**	5.0	"	"	"	"	"	"	
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
Lead	**21**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**68**	5.0	"	"	"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**60**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
Lead	**9.8**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**76**	5.0	"	"	"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									
Lead	**7.4**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Lead	**7.9**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Lead	**9.2**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
Lead	**13**	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**87**	25	"	"	"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	25	"	"	"	"	"	"	
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**18**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	25	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Mercury	**0.16**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04759	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.58**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**60**	1.0	"	"	"	"	"	"	
Copper	**29**	1.0	"	"	"	"	"	"	
Lead	**5.1**	2.5	"	"	"	"	"	"	
Nickel	**56**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**48**	1.0	"	"	"	"	"	"	
Arsenic	**4.1**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**5.1**	2.5	"	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**52**	25	"	"	"	"	"	"	
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									
Lead	**12**	2.5	mg/kg	1	CP04749	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									
Lead	**14**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**33**	5.0	"	"	"	"	"	"	
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
Lead	**5.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
Lead	**4.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
Lead	**19**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**75**	25	"	"	"	"	"	"	
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Lead	**8.1**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**34**	5.0	"	"	"	"	"	"	
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Lead	**9.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
Lead	**31**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**130**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**74**	25	"	"	"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**83**	25	"	"	"	"	"	"	
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**78**	25	"	"	"	"	"	"	
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
Lead	**18**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**130**	25	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Mercury	**0.11**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	12	"	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**110**	5.0	"	"	"	"	"	"	
Copper	**57**	5.0	"	"	"	"	"	"	
Lead	**15**	12	"	"	"	"	"	"	
Nickel	**120**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**110**	5.0	"	"	"	"	"	"	
Arsenic	**2.8**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**15**	12	"	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**110**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**84**	25	"	"	"	"	"	"	
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
Lead	**140**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**110**	25	"	"	"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
Lead	**13**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**94**	25	"	"	"	"	"	"	
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**83**	25	"	"	"	"	"	"	
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**90**	25	"	"	"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**91**	25	"	"	"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	**24**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**70**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
Lead	**31**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**58**	5.0	"	"	"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
Lead	**67**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**58**	25	"	"	"	"	06/29/06	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
Lead	**5.4**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04787	06/27/06	06/28/06	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**35**	1.0	"	"	"	"	"	"	
Copper	**25**	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	"	"	"	"	"	
Nickel	**47**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**38**	1.0	"	"	"	"	"	"	
Arsenic	**3.4**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									
Lead	**4.3**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									
Lead	**4.5**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**33**	5.0	"	"	"	"	"	"	
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
Lead	**3.0**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
Lead	**9.6**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
Lead	**55**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**62**	25	"	"	"	"	06/29/06	"	
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
Lead	**12**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**74**	25	"	"	"	"	06/29/06	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Mercury	**0.11**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04787	06/27/06	06/29/06	EPA 6010B	
Beryllium	ND	1.2	"	5	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**58**	5.0	"	"	"	"	"	"	
Copper	**26**	5.0	"	"	"	"	"	"	
Lead	ND	12	"	"	"	"	"	"	
Nickel	**60**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**49**	5.0	"	"	"	"	"	"	
Arsenic	**4.1**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Selenium	ND	1.0	mg/kg	4	CP04786	06/27/06	06/27/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	12	"	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**49**	25	"	"	"	"	06/29/06	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
Lead	**6.2**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**58**	5.0	"	"	"	"	"	"	
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
Lead	**4.5**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
Lead	**25**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
Lead	**8.3**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**66**	5.0	"	"	"	"	"	"	
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**40**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
Lead	**24**	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**64**	25	"	"	"	"	"	"	
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
Lead	**45**	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**68**	25	"	"	"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									
Lead	**10**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**91**	5.0	"	"	"	"	"	"	
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									
Lead	**19**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									
Lead	**7.9**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**71**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**1900**	1500	"	100	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*119 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*142 %*	*52-141*		"	"	"	"	*QS-4*
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*117 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*139 %*	*52-141*		"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*128 %*	*52-141*		"	"	"	"	
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*52-141*		"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.5 %*	*52-141*		"	"	"	"	
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*163 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*171 %*	*52-141*		"	"	"	"	*QS-4*
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*234 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*135 %*	*52-141*		"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*77.7 %*	*52-141*		"	"	"	"	
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*137 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*147 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*114 %*	*52-141*		"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*60.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*132 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*131 %*	*52-141*		"	"	"	"	
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*106 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*110 %*	*52-141*		"	"	"	"	
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*126 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*122 %*	*52-141*		"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*125 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*196 %*	*52-141*		"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*130 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*133 %*	*52-141*		"	"	"	"	
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**35000**	35000	"	5000	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.7 %*	*52-141*		"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**140**	120	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.9 %*	*52-141*		"	"	"	"	
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*52-141*		"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*70.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**16000**	15000	"	1000	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.9 %*	*52-141*		"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*48.1 %*	*45-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*46.8 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.0 %*		*52-141*	"	"	"	"	
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*55.8 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.0 %*		*52-141*	"	"	"	"	
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86.1 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*		*52-141*	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.2 %*		*52-141*	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.1 %*	*52-141*		"	"	"	"	
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.0 %*	*52-141*		"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*39.0 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*38.0 %*	*52-141*		"	"	"	"	*QS-4*
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.7 %*	*52-141*		"	"	"	"	
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*101 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**93**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**460**	380	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*84.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**79**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.1 %*	*52-141*		"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*85.6 %*	*52-141*		"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.5 %*	*52-141*		"	"	"	"	
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.2 %*	*52-141*		"	"	"	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.0 %*	*52-141*		"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*175 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*135 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*129 %*	*52-141*		"	"	"	"	
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*120 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*123 %*	*52-141*		"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*129 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*128 %*	*52-141*		"	"	"	"	
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.8 %*	*52-141*		"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	**190**	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	**180**	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*1520 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*114 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	1000	µg/kg	50	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**9600**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**52**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**88**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	**190**	20	"	"	"	"	"	"	
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	10	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**57**	20	"	1	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**99**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
Aroclor 1016	ND	10000	µg/kg	500	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	10000	"	"	"	"	"	"	
Aroclor 1232	ND	10000	"	"	"	"	"	"	
Aroclor 1242	ND	10000	"	"	"	"	"	"	
Aroclor 1248	ND	10000	"	"	"	"	"	"	
Aroclor 1254	ND	10000	"	"	"	"	"	"	
Aroclor 1260	**180000**	20000	"	1000	"	"	"	"	
Aroclor 1268	ND	20000	"	"	"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**65**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**670**	100	"	5	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**630**	100	"	5	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**48**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	10000	µg/kg	500	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	10000	"	"	"	"	"	"	
Aroclor 1232	ND	10000	"	"	"	"	"	"	
Aroclor 1242	ND	10000	"	"	"	"	"	"	
Aroclor 1248	ND	10000	"	"	"	"	"	"	
Aroclor 1254	ND	10000	"	"	"	"	"	"	
Aroclor 1260	**52000**	10000	"	"	"	"	"	"	
Aroclor 1268	ND	10000	"	"	"	"	"	"	
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**94**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**200**	40	"	"	"	"	"	"	
Aroclor 1268	ND	40	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**78**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**64**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**66**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**360**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**420**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	400	µg/kg	20	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	400	"	"	"	"	"	"	
Aroclor 1232	ND	400	"	"	"	"	"	"	
Aroclor 1242	ND	400	"	"	"	"	"	"	
Aroclor 1248	ND	400	"	"	"	"	"	"	
Aroclor 1254	ND	400	"	"	"	"	"	"	
Aroclor 1260	**2000**	400	"	"	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**380**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**32**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**77**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**23**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**39**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**54**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**550**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**84**	40	"	"	"	"	"	"	
Aroclor 1268	**460**	40	"	"	"	"	"	"	PCB-1

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**56**	40	"	"	"	"	"	"	
Aroclor 1268	**780**	100	"	5	"	"	"	"	PCB-1
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									**QRL-8**
Aroclor 1016	ND	1000	µg/kg	50	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	ND	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.8 %*	*65-135*		"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.7 %*	*65-135*		"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.7 %*	*65-135*		"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.7 %*	*65-135*		"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.0 %*	*65-135*		"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.5 %*	*65-135*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*133 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*131 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*100 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*134 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.4 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*129 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.8 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*149 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.8 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*147 %*	*50-128*		"	"	"	"	*QS-HI*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*131 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*100 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04706 - LUFT-DHS GCNV										
Blank (CP04706-BLK1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
Kerosene	ND	1.0	"							
LCS (CP04706-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	47.6	1.0	mg/kg	50.0		95.2	65-135			
LCS Dup (CP04706-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	45.3	1.0	mg/kg	50.0		90.6	65-135	4.95	30	
Matrix Spike (CP04706-MS1)		**Source: CPF0750-01**		Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	43.8	1.0	mg/kg	50.0	13	61.6	59-138			
Matrix Spike Dup (CP04706-MSD1)		**Source: CPF0750-01**		Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	43.8	1.0	mg/kg	50.0	13	61.6	59-138	0.00	37	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04748 - EPA 3050B										
Blank (CP04748-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04748-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	26.0	2.5	mg/kg	25.0		104	75-125			
Lead	26.5	2.5	"	25.0		106	75-125			
Zinc	26.4	5.0	"	25.0		106	75-125			
Beryllium	2.71	0.25	"	2.50		108	75-125			
Cadmium	2.86	0.50	"	2.50		114	75-125			
Chromium	11.2	1.0	"	10.0		112	75-125			
Copper	13.9	1.0	"	12.5		111	75-125			
Lead	26.5	2.5	"	25.0		106	75-125			
Nickel	26.9	1.0	"	25.0		108	75-125			
Silver	2.76	0.50	"	2.50		110	75-125			
Zinc	26.4	1.0	"	25.0		106	75-125			
LCS Dup (CP04748-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	26.0	2.5	mg/kg	25.0		104	75-125	0.00	25	
Lead	26.4	2.5	"	25.0		106	75-125	0.378	25	
Zinc	26.2	5.0	"	25.0		105	75-125	0.760	25	
Beryllium	2.70	0.25	"	2.50		108	75-125	0.370	25	
Cadmium	2.66	0.50	"	2.50		106	75-125	7.25	25	
Chromium	10.9	1.0	"	10.0		109	75-125	2.71	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04748 - EPA 3050B										
LCS Dup (CP04748-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	13.8	1.0	mg/kg	12.5		110	75-125	0.722	25	
Lead	26.4	2.5	"	25.0		106	75-125	0.378	25	
Nickel	26.7	1.0	"	25.0		107	75-125	0.746	25	
Silver	2.70	0.50	"	2.50		108	75-125	2.20	25	
Zinc	26.2	1.0	"	25.0		105	75-125	0.760	25	
Matrix Spike (CP04748-MS1)		**Source: CPF0748-01**		Prepared: 06/26/06		Analyzed: 06/27/06				
Lead	42.0	12	mg/kg	25.0	21	84.0	75-125			
Antimony	ND	12	"	25.0	ND		75-125			QM-5
Zinc	79.7	25	"	25.0	60	78.8	75-125			
Beryllium	30.5	1.2	"	2.50	0.61	NR	75-125			QM-5
Cadmium	2.42	2.5	"	2.50	ND	96.8	75-125			
Chromium	69.6	5.0	"	10.0	60	96.0	75-125			
Copper	39.3	5.0	"	12.5	32	58.4	75-125			QM-5
Lead	42.0	12	"	25.0	21	84.0	75-125			
Nickel	75.8	5.0	"	25.0	56	79.2	75-125			
Silver	2.85	2.5	"	2.50	ND	114	75-125			
Zinc	79.7	5.0	"	25.0	60	78.8	75-125			
Matrix Spike Dup (CP04748-MSD1)		**Source: CPF0748-01**		Prepared: 06/26/06		Analyzed: 06/27/06				
Antimony	ND	12	mg/kg	25.0	ND		75-125		30	QM-5
Lead	46.6	12	"	25.0	21	102	75-125	10.4	30	
Zinc	81.1	25	"	25.0	60	84.4	75-125	1.74	30	
Beryllium	3.09	1.2	"	2.50	0.61	99.2	75-125	163	30	QM-5
Cadmium	2.02	2.5	"	2.50	ND	80.8	75-125	18.0	30	
Chromium	70.5	5.0	"	10.0	60	105	75-125	1.28	30	
Copper	40.3	5.0	"	12.5	32	66.4	75-125	2.51	30	QM-5
Lead	46.6	12	"	25.0	21	102	75-125	10.4	30	
Nickel	94.6	5.0	"	25.0	56	154	75-125	22.1	30	QM-5
Silver	2.98	2.5	"	2.50	ND	119	75-125	4.46	30	
Zinc	81.1	5.0	"	25.0	60	84.4	75-125	1.74	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04749 - EPA 3050B										
Blank (CP04749-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04749-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Lead	25.6	2.5	mg/kg	25.0		102	75-125			
Zinc	25.2	5.0	"	25.0		101	75-125			
Antimony	24.5	2.5	"	25.0		98.0	75-125			
Beryllium	2.55	0.25	"	2.50		102	75-125			
Cadmium	2.55	0.50	"	2.50		102	75-125			
Chromium	10.5	1.0	"	10.0		105	75-125			
Copper	13.1	1.0	"	12.5		105	75-125			
Lead	25.6	2.5	"	25.0		102	75-125			
Nickel	25.0	1.0	"	25.0		100	75-125			
Silver	2.62	0.50	"	2.50		105	75-125			
Zinc	25.2	1.0	"	25.0		101	75-125			
LCS Dup (CP04749-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	24.3	2.5	mg/kg	25.0		97.2	75-125	0.820	25	
Zinc	24.7	5.0	"	25.0		98.8	75-125	2.00	25	
Lead	24.3	2.5	"	25.0		97.2	75-125	5.21	25	
Beryllium	2.50	0.25	"	2.50		100	75-125	1.98	25	
Cadmium	2.36	0.50	"	2.50		94.4	75-125	7.74	25	
Chromium	10.7	1.0	"	10.0		107	75-125	1.89	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04749 - EPA 3050B										
LCS Dup (CP04749-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	12.9	1.0	mg/kg	12.5		103	75-125	1.54	25	
Lead	24.3	2.5	"	25.0		97.2	75-125	5.21	25	
Nickel	24.5	1.0	"	25.0		98.0	75-125	2.02	25	
Silver	2.56	0.50	"	2.50		102	75-125	2.32	25	
Zinc	24.7	1.0	"	25.0		98.8	75-125	2.00	25	
Matrix Spike (CP04749-MS1)		**Source: CPF0748-41**		Prepared: 06/26/06		Analyzed: 06/29/06				
Lead	12.2	2.5	mg/kg	25.0	12	0.800	75-125			QM-5
Antimony	ND	2.5	"	25.0	ND		75-125			QM-5
Zinc	27.8	5.0	"	25.0	54	NR	75-125			QM-5
Beryllium	1.05	0.25	"	2.50	0.50	22.0	75-125			QM-5
Cadmium	0.860	0.50	"	2.50	0.22	25.6	75-125			QM-5
Chromium	26.2	1.0	"	10.0	63	NR	75-125			QM-5
Copper	13.2	1.0	"	12.5	26	NR	75-125			QM-5
Lead	12.2	2.5	"	25.0	12	0.800	75-125			QM-5
Nickel	26.2	1.0	"	25.0	46	NR	75-125			QM-5
Silver	1.04	0.50	"	2.50	0.26	31.2	75-125			QM-5
Zinc	27.8	1.0	"	25.0	54	NR	75-125			QM-5
Matrix Spike Dup (CP04749-MSD1)		**Source: CPF0748-41**		Prepared: 06/26/06		Analyzed: 06/29/06				
Antimony	ND	2.5	mg/kg	25.0	ND		75-125		30	QM-5
Lead	11.0	2.5	"	25.0	12	NR	75-125	10.3	30	QM-5
Zinc	25.3	5.0	"	25.0	54	NR	75-125	9.42	30	QM-5
Beryllium	0.980	0.25	"	2.50	0.50	19.2	75-125	6.90	30	QM-5
Cadmium	0.945	0.50	"	2.50	0.22	29.0	75-125	9.42	30	QM-5
Chromium	24.6	1.0	"	10.0	63	NR	75-125	6.30	30	QM-5
Copper	12.3	1.0	"	12.5	26	NR	75-125	7.06	30	QM-5
Lead	11.0	2.5	"	25.0	12	NR	75-125	10.3	30	QM-5
Nickel	24.6	1.0	"	25.0	46	NR	75-125	6.30	30	QM-5
Silver	0.880	0.50	"	2.50	0.26	24.8	75-125	16.7	30	QM-5
Zinc	25.3	1.0	"	25.0	54	NR	75-125	9.42	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04759 - EPA 3050B										
Blank (CP04759-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	ND	2.5	mg/kg							
Lead	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04759-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	23.7	2.5	mg/kg	25.0		94.8	75-125			
Zinc	25.0	5.0	"	25.0		100	75-125			
Lead	24.4	2.5	"	25.0		97.6	75-125			
Beryllium	2.49	0.25	"	2.50		99.6	75-125			
Cadmium	2.53	0.50	"	2.50		101	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.4	1.0	"	12.5		99.2	75-125			
Lead	24.4	2.5	"	25.0		97.6	75-125			
Nickel	24.3	1.0	"	25.0		97.2	75-125			
Silver	2.52	0.50	"	2.50		101	75-125			
Zinc	25.0	1.0	"	25.0		100	75-125			
LCS Dup (CP04759-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	22.5	2.5	mg/kg	25.0		90.0	75-125	5.19	25	
Lead	21.6	2.5	"	25.0		86.4	75-125	12.2	25	
Zinc	23.2	5.0	"	25.0		92.8	75-125	7.47	25	
Beryllium	2.40	0.25	"	2.50		96.0	75-125	3.68	25	
Cadmium	2.38	0.50	"	2.50		95.2	75-125	6.11	25	
Chromium	9.33	1.0	"	10.0		93.3	75-125	10.8	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04759 - EPA 3050B										
LCS Dup (CP04759-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	12.2	1.0	mg/kg	12.5		97.6	75-125	1.63	25	
Lead	21.6	2.5	"	25.0		86.4	75-125	12.2	25	
Nickel	22.2	1.0	"	25.0		88.8	75-125	9.03	25	
Silver	2.35	0.50	"	2.50		94.0	75-125	6.98	25	
Zinc	23.2	1.0	"	25.0		92.8	75-125	7.47	25	
Matrix Spike (CP04759-MS1)		**Source: CPF0748-21**		Prepared: 06/26/06		Analyzed: 06/27/06				
Zinc	71.6	5.0	mg/kg	25.0	52	78.4	75-125			
Antimony	2.70	2.5	"	25.0	ND	10.8	75-125			QM-5
Lead	28.2	2.5	"	25.0	9.2	76.0	75-125			
Beryllium	2.52	0.25	"	2.50	0.53	79.6	75-125			
Cadmium	2.14	0.50	"	2.50	ND	85.6	75-125			
Chromium	64.0	1.0	"	10.0	56	80.0	75-125			
Copper	42.9	1.0	"	12.5	33	79.2	75-125			
Lead	28.2	2.5	"	25.0	9.2	76.0	75-125			
Nickel	69.9	1.0	"	25.0	50	79.6	75-125			
Silver	2.32	0.50	"	2.50	0.46	74.4	75-125			QM-5
Zinc	71.6	1.0	"	25.0	52	78.4	75-125			
Matrix Spike Dup (CP04759-MSD1)		**Source: CPF0748-21**		Prepared: 06/26/06		Analyzed: 06/27/06				
Antimony	2.08	2.5	mg/kg	25.0	ND	8.32	75-125	25.9	30	QM-5
Lead	9.96	2.5	"	25.0	9.2	3.04	75-125	95.6	30	QM-5
Zinc	45.5	5.0	"	25.0	52	NR	75-125	44.6	30	QM-5
Beryllium	1.42	0.25	"	2.50	0.53	35.6	75-125	55.8	30	QM-5
Cadmium	1.03	0.50	"	2.50	ND	41.2	75-125	70.0	30	QM-5
Chromium	40.8	1.0	"	10.0	56	NR	75-125	44.3	30	QM-5
Copper	25.3	1.0	"	12.5	33	NR	75-125	51.6	30	QM-5
Lead	9.96	2.5	"	25.0	9.2	3.04	75-125	95.6	30	QM-5
Nickel	43.8	1.0	"	25.0	50	NR	75-125	45.9	30	QM-5
Silver	1.42	0.50	"	2.50	0.46	38.4	75-125	48.1	30	QM-5
Zinc	45.5	1.0	"	25.0	52	NR	75-125	44.6	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04786 - EPA 3050B										
Blank (CP04786-BLK1)				Prepared & Analyzed: 06/27/06						
Arsenic	ND	0.25	mg/kg							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CP04786-BS1)				Prepared & Analyzed: 06/27/06						
Arsenic	5.30	1.0	mg/kg	5.00		106	75-125			
Selenium	4.78	1.0	"	5.00		95.6	75-125			
Thallium	4.44	1.0	"	5.00		88.8	75-125			
LCS Dup (CP04786-BSD1)				Prepared & Analyzed: 06/27/06						
Arsenic	5.16	1.0	mg/kg	5.00		103	75-125	2.68	25	
Selenium	4.74	1.0	"	5.00		94.8	75-125	0.840	25	
Thallium	5.12	1.0	"	5.00		102	75-125	14.2	25	
Matrix Spike (CP04786-MS1)		**Source: CPF0844-01**		Prepared & Analyzed: 06/27/06						
Arsenic	9.02	1.0	mg/kg	5.00	7.2	36.4	75-125			QM-5
Selenium	2.88	1.0	"	5.00	ND	57.6	75-125			QM-5
Thallium	4.86	1.0	"	5.00	ND	97.2	75-125			
Matrix Spike Dup (CP04786-MSD1)		**Source: CPF0844-01**		Prepared & Analyzed: 06/27/06						
Arsenic	11.2	1.0	mg/kg	5.00	7.2	80.0	75-125	21.6	30	
Selenium	2.66	1.0	"	5.00	ND	53.2	75-125	7.94	30	QM-5
Thallium	5.32	1.0	"	5.00	ND	106	75-125	9.04	30	
Batch CP04787 - EPA 3050B										
Blank (CP04787-BLK1)				Prepared: 06/27/06 Analyzed: 06/28/06						
Lead	ND	2.5	mg/kg							
Antimony	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04787 - EPA 3050B										
Blank (CP04787-BLK1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Lead	ND	2.5	mg/kg							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04787-BS1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Antimony	24.3	2.5	mg/kg	25.0		97.2	75-125			
Zinc	24.9	5.0	"	25.0		99.6	75-125			
Lead	25.5	2.5	"	25.0		102	75-125			
Beryllium	2.47	0.25	"	2.50		98.8	75-125			
Cadmium	2.68	0.50	"	2.50		107	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.6	1.0	"	12.5		101	75-125			
Lead	25.5	2.5	"	25.0		102	75-125			
Nickel	25.7	1.0	"	25.0		103	75-125			
Silver	2.55	0.50	"	2.50		102	75-125			
Zinc	24.9	1.0	"	25.0		99.6	75-125			
LCS Dup (CP04787-BSD1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Antimony	25.6	2.5	mg/kg	25.0		102	75-125	5.21	25	
Lead	26.1	2.5	"	25.0		104	75-125	2.33	25	
Zinc	25.5	5.0	"	25.0		102	75-125	2.38	25	
Beryllium	2.50	0.25	"	2.50		100	75-125	1.21	25	
Cadmium	2.80	0.50	"	2.50		112	75-125	4.38	25	
Chromium	10.3	1.0	"	10.0		103	75-125	0.966	25	
Copper	12.7	1.0	"	12.5		102	75-125	0.791	25	
Lead	26.1	2.5	"	25.0		104	75-125	2.33	25	
Nickel	26.1	1.0	"	25.0		104	75-125	1.54	25	
Silver	2.62	0.50	"	2.50		105	75-125	2.71	25	
Zinc	25.5	1.0	"	25.0		102	75-125	2.38	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04787 - EPA 3050B										
Matrix Spike (CP04787-MS1)		**Source: CPF0844-01**		Prepared: 06/27/06	Analyzed: 06/28/06					
Antimony	4.85	2.5	mg/kg	25.0	ND	19.4	75-125			QM-5
Lead	38.9	2.5	"	25.0	34	19.6	75-125			QM-5
Zinc	99.8	5.0	"	25.0	65	139	75-125			QM-5
Beryllium	2.96	0.25	"	2.50	0.65	92.4	75-125			
Cadmium	2.61	0.50	"	2.50	0.28	93.2	75-125			
Chromium	20.9	1.0	"	10.0	13	79.0	75-125			
Copper	31.9	1.0	"	12.5	29	23.2	75-125			QM-5
Lead	38.9	2.5	"	25.0	34	19.6	75-125			QM-5
Nickel	36.1	1.0	"	25.0	13	92.4	75-125			
Silver	2.94	0.50	"	2.50	1.1	73.6	75-125			QM-5
Zinc	99.8	1.0	"	25.0	65	139	75-125			QM-5
Matrix Spike Dup (CP04787-MSD1)		**Source: CPF0844-01**		Prepared: 06/27/06	Analyzed: 06/28/06					
Zinc	90.0	5.0	mg/kg	25.0	65	100	75-125	10.3	30	
Lead	48.2	2.5	"	25.0	34	56.8	75-125	21.4	30	QM-5
Antimony	5.07	2.5	"	25.0	ND	20.3	75-125	4.44	30	QM-5
Beryllium	3.02	0.25	"	2.50	0.65	94.8	75-125	2.01	30	
Cadmium	2.62	0.50	"	2.50	0.28	93.6	75-125	0.382	30	
Chromium	19.5	1.0	"	10.0	13	65.0	75-125	6.93	30	QM-5
Copper	35.4	1.0	"	12.5	29	51.2	75-125	10.4	30	QM-5
Lead	48.2	2.5	"	25.0	34	56.8	75-125	21.4	30	QM-5
Nickel	35.9	1.0	"	25.0	13	91.6	75-125	0.556	30	
Silver	3.14	0.50	"	2.50	1.1	81.6	75-125	6.58	30	
Zinc	90.0	1.0	"	25.0	65	100	75-125	10.3	30	
Batch CP04789 - EPA 7471A										
Blank (CP04789-BLK1)				Prepared & Analyzed: 06/27/06						
Mercury	ND	0.10	mg/kg							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04789 - EPA 7471A										
LCS (CP04789-BS1)				Prepared & Analyzed: 06/27/06						
Mercury	0.709	0.10	mg/kg	0.625		113	75-125			
LCS Dup (CP04789-BSD1)				Prepared & Analyzed: 06/27/06						
Mercury	0.708	0.10	mg/kg	0.625		113	75-125	0.141	25	
Matrix Spike (CP04789-MS1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.748	0.10	mg/kg	0.625	ND	120	75-125			
Matrix Spike Dup (CP04789-MSD1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.736	0.10	mg/kg	0.625	ND	118	75-125	1.62	25	
Batch CP04822 - EPA 3050B										
Blank (CP04822-BLK1)				Prepared & Analyzed: 06/28/06						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CP04822-BS1)				Prepared & Analyzed: 06/28/06						
Lead	26.2	2.5	mg/kg	25.0		105	75-125			
Zinc	26.6	5.0	"	25.0		106	75-125			
LCS Dup (CP04822-BSD1)				Prepared & Analyzed: 06/28/06						
Lead	27.1	2.5	mg/kg	25.0		108	75-125	3.38	25	
Zinc	26.7	5.0	"	25.0		107	75-125	0.375	25	
Matrix Spike (CP04822-MS1)		**Source: CPF0747-26**		Prepared & Analyzed: 06/28/06						
Zinc	73.6	5.0	mg/kg	25.0	ND	294	75-125			QM-5
Lead	42.6	2.5	"	25.0	26	66.4	75-125			QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04822 - EPA 3050B										
Matrix Spike Dup (CP04822-MSD1)		**Source: CPF0747-26**		Prepared & Analyzed: 06/28/06						
Zinc	75.1	5.0	mg/kg	25.0	ND	300	75-125	2.02	30	QM-5
Lead	47.0	2.5	"	25.0	26	84.0	75-125	9.82	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Blank (CP04745-BLK1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*6.93*		*"*	*8.33*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.89*		*"*	*8.33*		*94.7*	*52-141*			
LCS (CP04745-BS1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132			
gamma-BHC (Lindane)	14.6	10	"	16.7		87.4	56-133			
4,4´-DDT	18.4	15	"	16.7		110	46-137			
Dieldrin	16.2	1.0	"	16.7		97.0	44-143			
Endrin	18.4	15	"	16.7		110	30-147			
Heptachlor	14.7	10	"	16.7		88.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.07*		*"*	*8.33*		*84.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.57*		*"*	*8.33*		*103*	*52-141*			
LCS Dup (CP04745-BSD1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132	0.00	30	
gamma-BHC (Lindane)	15.0	10	"	16.7		89.8	56-133	2.70	30	
4,4´-DDT	16.6	15	"	16.7		99.4	46-137	10.3	30	
Dieldrin	15.4	1.0	"	16.7		92.2	44-143	5.06	30	
Endrin	16.7	15	"	16.7		100	30-147	9.69	30	
Heptachlor	14.9	10	"	16.7		89.2	33-148	1.35	30	
Surrogate: Tetrachloro-meta-xylene	*6.89*		*"*	*8.33*		*82.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.61*		*"*	*8.33*		*91.4*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Matrix Spike (CP04745-MS1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.6	5.0	µg/kg	16.7	ND	87.4	47-138			
gamma-BHC (Lindane)	14.6	50	"	16.7	ND	87.4	38-144			
4,4´-DDT	61.7	75	"	16.7	57	28.1	41-157			QM-4X
Dieldrin	18.2	5.0	"	16.7	ND	109	46-155			
Endrin	30.2	75	"	16.7	15	91.0	34-149			
Heptachlor	14.5	50	"	16.7	ND	86.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*21.7*		*"*	*20.8*		*104*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.4*		*"*	*20.8*		*117*	*52-141*			
Matrix Spike Dup (CP04745-MSD1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	13.9	5.0	µg/kg	16.7	ND	83.2	47-138	4.91	35	
gamma-BHC (Lindane)	13.8	50	"	16.7	ND	82.6	38-144	5.63	35	
4,4´-DDT	59.8	75	"	16.7	57	16.8	41-157	3.13	35	QM-4X
Dieldrin	17.5	5.0	"	16.7	ND	105	46-155	3.92	35	
Endrin	28.8	75	"	16.7	15	82.6	34-149	4.75	35	
Heptachlor	13.8	50	"	16.7	ND	82.6	36-155	4.95	35	
Surrogate: Tetrachloro-meta-xylene	*20.6*		*"*	*20.8*		*99.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.2*		*"*	*20.8*		*116*	*52-141*			
Batch CP04792 - LUFT-DHS GCNV										
Blank (CP04792-BLK1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*12.0*		*"*	*16.7*		*71.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*12.2*		*"*	*16.7*		*73.1*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04792 - LUFT-DHS GCNV										
LCS (CP04792-BS1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	14.2	1.0	µg/kg	16.7		85.0	47-132			
gamma-BHC (Lindane)	15.8	10	"	16.7		94.6	56-133			
4,4´-DDT	12.9	15	"	16.7		77.2	46-137			
Dieldrin	14.9	1.0	"	16.7		89.2	44-143			
Endrin	16.9	15	"	16.7		101	30-147			
Heptachlor	14.0	10	"	16.7		83.8	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.26*		*"*	*8.33*		*75.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.40*		*"*	*8.33*		*88.8*	*52-141*			
LCS Dup (CP04792-BSD1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	15.0	1.0	µg/kg	16.7		89.8	47-132	5.48	30	
gamma-BHC (Lindane)	16.4	10	"	16.7		98.2	56-133	3.73	30	
4,4´-DDT	14.1	15	"	16.7		84.4	46-137	8.89	30	
Dieldrin	16.7	1.0	"	16.7		100	44-143	11.4	30	
Endrin	18.4	15	"	16.7		110	30-147	8.50	30	
Heptachlor	14.5	10	"	16.7		86.8	33-148	3.51	30	
Surrogate: Tetrachloro-meta-xylene	*6.68*		*"*	*8.33*		*80.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.14*		*"*	*8.33*		*97.7*	*52-141*			
Matrix Spike (CP04792-MS1)		**Source: CPF0748-33**		Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	12.8	5.0	µg/kg	16.7	ND	76.6	47-138			
gamma-BHC (Lindane)	17.9	50	"	16.7	ND	107	38-144			
4,4´-DDT	13.3	75	"	16.7	ND	79.6	41-157			
Dieldrin	17.0	5.0	"	16.7	ND	102	46-155			
Endrin	17.4	75	"	16.7	ND	104	34-149			
Heptachlor	12.4	50	"	16.7	ND	74.3	36-155			
Surrogate: Tetrachloro-meta-xylene	*12.6*		*"*	*20.8*		*60.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*27.3*		*"*	*20.8*		*131*	*52-141*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04792 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04792-MSD1)		**Source: CPF0748-33**		Prepared: 06/27/06	Analyzed: 06/28/06					
Aldrin	12.7	5.0	µg/kg	16.7	ND	76.0	47-138	0.784	35	
gamma-BHC (Lindane)	18.0	50	"	16.7	ND	108	38-144	0.557	35	
4,4´-DDT	14.9	75	"	16.7	ND	89.2	41-157	11.3	35	
Dieldrin	16.6	5.0	"	16.7	ND	99.4	46-155	2.38	35	
Endrin	16.3	75	"	16.7	ND	97.6	34-149	6.53	35	
Heptachlor	12.5	50	"	16.7	ND	74.9	36-155	0.803	35	
Surrogate: Tetrachloro-meta-xylene	*13.3*		*"*	*20.8*		*63.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*27.6*		*"*	*20.8*		*133*	*52-141*			
Batch CP04810 - LUFT-DHS GCNV										
Blank (CP04810-BLK1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*4.35*		*"*	*8.33*		*52.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.68*		*"*	*8.33*		*92.2*	*52-141*			
LCS (CP04810-BS1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	11.8	1.0	µg/kg	16.7		70.7	47-132			
gamma-BHC (Lindane)	12.7	10	"	16.7		76.0	56-133			
4,4´-DDT	14.4	15	"	16.7		86.2	46-137			
Dieldrin	12.7	1.0	"	16.7		76.0	44-143			
Endrin	13.2	15	"	16.7		79.0	30-147			
Heptachlor	12.4	10	"	16.7		74.3	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.84*		*"*	*8.33*		*70.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.19*		*"*	*8.33*		*86.3*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04810 - LUFT-DHS GCNV										
LCS Dup (CP04810-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	9.89	1.0	µg/kg	16.7		59.2	47-132	17.6	30	
gamma-BHC (Lindane)	12.3	10	"	16.7		73.7	56-133	3.20	30	
4,4´-DDT	14.6	15	"	16.7		87.4	46-137	1.38	30	
Dieldrin	12.7	1.0	"	16.7		76.0	44-143	0.00	30	
Endrin	13.3	15	"	16.7		79.6	30-147	0.755	30	
Heptachlor	10.4	10	"	16.7		62.3	33-148	17.5	30	
Surrogate: Tetrachloro-meta-xylene	*4.46*		*"*	*8.33*		*53.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.31*		*"*	*8.33*		*87.8*	*52-141*			
Matrix Spike (CP04810-MS1)		**Source: CPF0748-41**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	ND	5.0	µg/kg	16.7	ND		47-138			QM-5
gamma-BHC (Lindane)	ND	50	"	16.7	ND		38-144			QM-5
4,4´-DDT	ND	75	"	16.7	ND		41-157			QM-5
Dieldrin	ND	5.0	"	16.7	ND		46-155			QM-5
Endrin	ND	75	"	16.7	ND		34-149			QM-5
Heptachlor	1070	50	"	16.7	ND	NR	36-155			QM-5
Surrogate: Tetrachloro-meta-xylene	*21.1*		*"*	*20.8*		*101*	*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			*QM-5*
Matrix Spike Dup (CP04810-MSD1)		**Source: CPF0748-41**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	ND	5.0	µg/kg	16.7	ND		47-138		35	QM-5
gamma-BHC (Lindane)	ND	50	"	16.7	ND		38-144		35	QM-5
4,4´-DDT	ND	75	"	16.7	ND		41-157		35	QM-5
Dieldrin	ND	5.0	"	16.7	ND		46-155		35	QM-5
Endrin	ND	75	"	16.7	ND		34-149		35	QM-5
Heptachlor	1590	50	"	16.7	ND	NR	36-155	39.1	35	QM-5
Surrogate: Tetrachloro-meta-xylene	*1990*		*"*	*20.8*		*NR*	*46-139*			*QM-5*
Surrogate: Decachlorobiphenyl	*41.8*		*"*	*20.8*		*201*	*52-141*			*QM-5*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04835 - LUFT-DHS GCNV										
Blank (CP04835-BLK1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*4.59*		*"*	*8.33*		*55.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.46*		*"*	*8.33*		*53.5*	*52-141*			
LCS (CP04835-BS1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	16.6	1.0	µg/kg	16.7		99.4	47-132			
gamma-BHC (Lindane)	16.3	10	"	16.7		97.6	56-133			
4,4´-DDT	12.5	15	"	16.7		74.9	46-137			
Dieldrin	15.5	1.0	"	16.7		92.8	44-143			
Endrin	16.9	15	"	16.7		101	30-147			
Heptachlor	16.6	10	"	16.7		99.4	33-148			
Surrogate: Tetrachloro-meta-xylene	*9.46*		*"*	*8.33*		*114*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.51*		*"*	*8.33*		*90.2*	*52-141*			
LCS Dup (CP04835-BSD1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	16.1	1.0	µg/kg	16.7		96.4	47-132	3.06	30	
gamma-BHC (Lindane)	16.4	10	"	16.7		98.2	56-133	0.612	30	
4,4´-DDT	12.8	15	"	16.7		76.6	46-137	2.37	30	
Dieldrin	15.3	1.0	"	16.7		91.6	44-143	1.30	30	
Endrin	16.8	15	"	16.7		101	30-147	0.593	30	
Heptachlor	16.0	10	"	16.7		95.8	33-148	3.68	30	
Surrogate: Tetrachloro-meta-xylene	*8.77*		*"*	*8.33*		*105*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.49*		*"*	*8.33*		*89.9*	*52-141*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04835 - LUFT-DHS GCNV										
Matrix Spike (CP04835-MS1)		**Source: CPF0748-68**		Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	11.5	5.0	µg/kg	16.7	ND	68.9	47-138			
gamma-BHC (Lindane)	12.5	50	"	16.7	ND	74.9	38-144			
4,4´-DDT	366	75	"	16.7	ND	NR	41-157			QM-4X
Dieldrin	32.6	5.0	"	16.7	ND	195	46-155			QM-4X
Endrin	160	75	"	16.7	ND	958	34-149			QM-4X
Heptachlor	12.5	50	"	16.7	ND	74.9	36-155			
Surrogate: Tetrachloro-meta-xylene	*18.5*		*"*	*20.8*		*88.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*18.2*		*"*	*20.8*		*87.5*	*52-141*			
Matrix Spike Dup (CP04835-MSD1)		**Source: CPF0748-68**		Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	10.8	5.0	µg/kg	16.7	ND	64.7	47-138	6.28	35	
gamma-BHC (Lindane)	11.6	50	"	16.7	ND	69.5	38-144	7.47	35	
4,4´-DDT	357	75	"	16.7	ND	NR	41-157	2.49	35	QM-4X
Dieldrin	38.8	5.0	"	16.7	ND	232	46-155	17.4	35	QM-4X
Endrin	156	75	"	16.7	ND	934	34-149	2.53	35	QM-4X
Heptachlor	11.6	50	"	16.7	ND	69.5	36-155	7.47	35	
Surrogate: Tetrachloro-meta-xylene	*17.3*		*"*	*20.8*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*16.8*		*"*	*20.8*		*80.8*	*52-141*			
Batch CP04844 - LUFT-DHS GCNV										
Blank (CP04844-BLK1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	8.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04844 - LUFT-DHS GCNV										
Blank (CP04844-BLK1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Endosulfan I	ND	15	µg/kg							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	10	"							
Heptachlor epoxide	ND	4.0	"							
Kepone	ND	10	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.27*		*"*	*8.33*		*75.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.01*		*"*	*8.33*		*72.1*	*52-141*			
LCS (CP04844-BS1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Aldrin	14.2	1.0	µg/kg	16.7		85.0	47-132			
gamma-BHC (Lindane)	16.7	10	"	16.7		100	56-133			
4,4´-DDT	12.2	15	"	16.7		73.1	46-137			
Dieldrin	14.7	1.0	"	16.7		88.0	44-143			
Endrin	15.9	15	"	16.7		95.2	30-147			
Heptachlor	14.2	10	"	16.7		85.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.86*		*"*	*8.33*		*94.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.02*		*"*	*8.33*		*96.3*	*52-141*			
LCS Dup (CP04844-BSD1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Aldrin	11.5	1.0	µg/kg	16.7		68.9	47-132	21.0	30	
gamma-BHC (Lindane)	12.4	10	"	16.7		74.3	56-133	29.6	30	
4,4´-DDT	8.73	15	"	16.7		52.3	46-137	33.2	30	QR-2
Dieldrin	11.2	1.0	"	16.7		67.1	44-143	27.0	30	
Endrin	11.8	15	"	16.7		70.7	30-147	29.6	30	
Heptachlor	11.3	10	"	16.7		67.7	33-148	22.7	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04844 - LUFT-DHS GCNV										
LCS Dup (CP04844-BSD1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Surrogate: Tetrachloro-meta-xylene	*6.31*		*µg/kg*	*8.33*		*75.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.09*		*"*	*8.33*		*73.1*	*52-141*			
Matrix Spike (CP04844-MS1)		**Source: CPF0748-82**		Prepared: 06/28/06	Analyzed: 06/29/06					**QM-5**
Aldrin	ND	50	µg/kg	16.7	ND		47-138			
gamma-BHC (Lindane)	ND	500	"	16.7	ND		38-144			
4,4´-DDT	181	750	"	16.7	180	5.99	41-157			
Dieldrin	ND	50	"	16.7	ND		46-155			
Endrin	36.2	750	"	16.7	ND	217	34-149			
Heptachlor	ND	500	"	16.7	ND		36-155			
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*20.8*			*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			
Matrix Spike Dup (CP04844-MSD1)		**Source: CPF0748-82**		Prepared: 06/28/06	Analyzed: 06/29/06					**QM-5**
Aldrin	ND	50	µg/kg	16.7	ND		47-138		35	
gamma-BHC (Lindane)	ND	500	"	16.7	ND		38-144		35	
4,4´-DDT	161	750	"	16.7	180	NR	41-157	11.7	35	
Dieldrin	ND	50	"	16.7	ND		46-155		35	
Endrin	ND	750	"	16.7	ND		34-149		35	
Heptachlor	ND	500	"	16.7	ND		36-155		35	
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*20.8*			*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			
Batch CP04851 - LUFT-DHS GCNV										
Blank (CP04851-BLK1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Blank (CP04851-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Heptachlor	ND	10	µg/kg							
Surrogate: Tetrachloro-meta-xylene	*6.23*		*"*	*8.33*		*74.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.06*		*"*	*8.33*		*84.8*	*52-141*			
LCS (CP04851-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	10.8	1.0	µg/kg	16.7		64.7	47-132			
gamma-BHC (Lindane)	11.9	10	"	16.7		71.3	56-133			
4,4´-DDT	10.3	15	"	16.7		61.7	46-137			
Dieldrin	11.9	1.0	"	16.7		71.3	44-143			
Endrin	11.0	15	"	16.7		65.9	30-147			
Heptachlor	10.9	10	"	16.7		65.3	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.48*		*"*	*8.33*		*65.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.29*		*"*	*8.33*		*75.5*	*52-141*			
LCS Dup (CP04851-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	11.2	1.0	µg/kg	16.7		67.1	47-132	3.64	30	
gamma-BHC (Lindane)	12.2	10	"	16.7		73.1	56-133	2.49	30	
4,4´-DDT	11.0	15	"	16.7		65.9	46-137	6.57	30	
Dieldrin	12.4	1.0	"	16.7		74.3	44-143	4.12	30	
Endrin	11.5	15	"	16.7		68.9	30-147	4.44	30	
Heptachlor	10.9	10	"	16.7		65.3	33-148	0.00	30	
Surrogate: Tetrachloro-meta-xylene	*5.67*		*"*	*8.33*		*68.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.43*		*"*	*8.33*		*77.2*	*52-141*			
Matrix Spike (CP04851-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	9.35	10	µg/kg	16.7	ND	56.0	47-138			
gamma-BHC (Lindane)	10.5	100	"	16.7	ND	62.9	38-144			
4,4´-DDT	124	150	"	16.7	65	353	41-157			QM-4X
Dieldrin	18.2	10	"	16.7	ND	109	46-155			
Endrin	37.9	150	"	16.7	ND	227	34-149			QM-4X
Heptachlor	9.95	100	"	16.7	ND	59.6	36-155			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Matrix Spike (CP04851-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Surrogate: Tetrachloro-meta-xylene	*15.5*		*µg/kg*	*20.8*		*74.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.3*		*"*	*20.8*		*102*	*52-141*			
Matrix Spike Dup (CP04851-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	8.96	10	µg/kg	16.7	ND	53.7	47-138	4.26	35	
gamma-BHC (Lindane)	9.44	100	"	16.7	ND	56.5	38-144	10.6	35	
4,4´-DDT	106	150	"	16.7	65	246	41-157	15.7	35	QM-4X
Dieldrin	15.6	10	"	16.7	ND	93.4	46-155	15.4	35	
Endrin	33.7	150	"	16.7	ND	202	34-149	11.7	35	QM-4X
Heptachlor	9.52	100	"	16.7	ND	57.0	36-155	4.42	35	
Surrogate: Tetrachloro-meta-xylene	*14.6*		*"*	*20.8*		*70.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.1*		*"*	*20.8*		*101*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04746 - LUFT-DHS GCNV										
Blank (CP04746-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04746-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.3	20	µg/kg	83.3		104	29-131			
LCS Dup (CP04746-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.6	20	µg/kg	83.3		104	29-131	0.347	30	
Matrix Spike (CP04746-MS1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	249	20	µg/kg	83.3	150	119	29-131			
Matrix Spike Dup (CP04746-MSD1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	253	20	µg/kg	83.3	150	124	29-131	1.59	30	
Batch CP04793 - LUFT-DHS GCNV										
Blank (CP04793-BLK1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04793 - LUFT-DHS GCNV										
LCS (CP04793-BS1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	61.0	20	µg/kg	83.3		73.2	29-131			
LCS Dup (CP04793-BSD1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	61.1	20	µg/kg	83.3		73.3	29-131	0.164	30	
Matrix Spike (CP04793-MS1)		**Source: CPF0748-25**		Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	64.9	20	µg/kg	83.3	ND	77.9	29-131			
Matrix Spike Dup (CP04793-MSD1)		**Source: CPF0748-25**		Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	67.6	20	µg/kg	83.3	ND	81.2	29-131	4.08	30	
Batch CP04811 - LUFT-DHS GCNV										
Blank (CP04811-BLK1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04811-BS1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	84.4	20	µg/kg	83.3		101	29-131			
LCS Dup (CP04811-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	82.3	20	µg/kg	83.3		98.8	29-131	2.52	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04811 - LUFT-DHS GCNV										
Matrix Spike (CP04811-MS1)		**Source: CPF0748-37**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	79800	10000	µg/kg	83.3	52000	NR	29-131			QM-4X
Matrix Spike Dup (CP04811-MSD1)		**Source: CPF0748-37**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	137000	10000	µg/kg	83.3	52000	NR	29-131	52.8	30	QM-4X
Batch CP04836 - LUFT-DHS GCNV										
Blank (CP04836-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04836-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	72.0	20	µg/kg	83.3		86.4	29-131			
LCS Dup (CP04836-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	75.5	20	µg/kg	83.3		90.6	29-131	4.75	30	
Matrix Spike (CP04836-MS1)		**Source: CPF0748-68**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	194	20	µg/kg	83.3	16	214	29-131			QM-5
Matrix Spike Dup (CP04836-MSD1)		**Source: CPF0748-68**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	192	20	µg/kg	83.3	16	211	29-131	1.04	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04845 - LUFT-DHS GCNV										
Blank (CP04845-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04845-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	64.5	20	µg/kg	83.3		77.4	29-131			
LCS Dup (CP04845-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	64.3	20	µg/kg	83.3		77.2	29-131	0.311	30	
Matrix Spike (CP04845-MS1)		**Source: CPF0748-80**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	4000	400	µg/kg	83.3	550	NR	29-131			QM-5
Matrix Spike Dup (CP04845-MSD1)		**Source: CPF0748-80**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	3780	400	µg/kg	83.3	550	NR	29-131	5.66	30	QM-5
Batch CP04852 - LUFT-DHS GCNV										
Blank (CP04852-BLK1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04852 - LUFT-DHS GCNV										
LCS (CP04852-BS1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	91.1	20	µg/kg	83.3		109	29-131			
LCS Dup (CP04852-BSD1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	94.7	20	µg/kg	83.3		114	29-131	3.88	30	
Matrix Spike (CP04852-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1400	20	µg/kg	83.3	160	NR	29-131			QM-4X
Matrix Spike Dup (CP04852-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1500	20	µg/kg	83.3	160	NR	29-131	6.90	30	QM-4X

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04790 - EPA 5030 Soil GC										
Blank (CP04790-BLK1)				Prepared: 06/26/06		Analyzed: 06/27/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0818*		*"*	*0.100*		*81.8*	*65-135*			
LCS (CP04790-BS1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.87	1.0	mg/kg	2.50		115	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0881*		*"*	*0.100*		*88.1*	*65-135*			
LCS Dup (CP04790-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.97	1.0	mg/kg	2.50		119	65-135	3.42	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0935*		*"*	*0.100*		*93.5*	*65-135*			
Matrix Spike (CP04790-MS1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.166*		*"*	*0.100*		*166*	*65-135*			*QS-4*
Matrix Spike Dup (CP04790-MSD1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124	0.00	35	
Surrogate: o-Chlorotoluene (Gas)	*0.153*		*"*	*0.100*		*153*	*65-135*			*QS-4*
Batch CP04803 - EPA 5030 Soil GC										
Blank (CP04803-BLK1)				Prepared: 06/27/06		Analyzed: 06/28/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0896*		*"*	*0.100*		*89.6*	*65-135*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04803 - EPA 5030 Soil GC										
LCS (CP04803-BS1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.31	1.0	mg/kg	2.50		92.4	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.101*		*"*	*0.100*		*101*	*65-135*			
LCS Dup (CP04803-BSD1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.91	1.0	mg/kg	2.50		116	65-135	23.0	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0948*		*"*	*0.100*		*94.8*	*65-135*			
Matrix Spike (CP04803-MS1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.56	1.0	mg/kg	2.50	ND	102	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0921*		*"*	*0.100*		*92.1*	*65-135*			
Matrix Spike Dup (CP04803-MSD1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.81	1.0	mg/kg	2.50	ND	112	63-124	9.31	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0927*		*"*	*0.100*		*92.7*	*65-135*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
Acetone	ND	100	µg/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	10	"							
2-Butanone	ND	100	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	10	"							
o-Chlorotoluene	ND	5.0	"							
p-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2-Dichloropropane	ND	5.0	µg/kg							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2,4-Trimethylbenzene	ND	5.0	µg/kg							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
Surrogate: 1,2-Dichloroethane-d4	*54.8*		*"*	*50.0*		*110*	*50-125*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.9*		*"*	*50.0*		*106*	*50-128*			
LCS (CP04785-BS1)				Prepared & Analyzed: 06/27/06						
Benzene	51.0	5.0	µg/kg	50.0		102	64-135			
Chlorobenzene	51.8	5.0	"	50.0		104	67-133			
1,1-Dichloroethene	50.6	5.0	"	50.0		101	53-137			
Toluene	51.3	5.0	"	50.0		103	61-138			
Trichloroethene	50.9	5.0	"	50.0		102	64-130			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.0*		*101*	*50-125*			
Surrogate: Toluene-d8	*50.3*		*"*	*50.0*		*101*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*49.0*		*"*	*50.0*		*98.0*	*50-128*			
LCS Dup (CP04785-BSD1)				Prepared & Analyzed: 06/27/06						
Benzene	47.4	5.0	µg/kg	50.0		94.8	64-135	7.32	30	
Chlorobenzene	49.7	5.0	"	50.0		99.4	67-133	4.14	30	
1,1-Dichloroethene	55.5	5.0	"	50.0		111	53-137	9.24	30	
Toluene	47.6	5.0	"	50.0		95.2	61-138	7.48	30	
Trichloroethene	44.5	5.0	"	50.0		89.0	64-130	13.4	30	
Surrogate: 1,2-Dichloroethane-d4	*50.9*		*"*	*50.0*		*102*	*50-125*			
Surrogate: Toluene-d8	*49.0*		*"*	*50.0*		*98.0*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.4*		*"*	*50.0*		*105*	*50-128*			
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06 Analyzed: 06/28/06						
Benzene	49.1	5.0	µg/kg	50.0	ND	98.2	58-139			
Chlorobenzene	46.1	5.0	"	50.0	ND	92.2	62-134			
1,1-Dichloroethene	69.8	5.0	"	50.0	ND	140	53-152			
Toluene	47.6	5.0	"	50.0	ND	95.2	58-139			

CALIFORNIA LABORATORY SERVICES

 07/21/06 09:56

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Trichloroethene	44.4	5.0	µg/kg	50.0	ND	88.8	55-138			
Surrogate: 1,2-Dichloroethane-d4	*61.5*		"	*50.0*		*123*	*50-125*			
Surrogate: Toluene-d8	*48.2*		"	*50.0*		*96.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*55.2*		"	*50.0*		*110*	*50-128*			
Matrix Spike Dup (CP04785-MSD1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Benzene	44.3	5.0	µg/kg	50.0	ND	88.6	58-139	10.3	30	
Chlorobenzene	37.8	5.0	"	50.0	ND	75.6	62-134	19.8	30	
1,1-Dichloroethene	63.6	5.0	"	50.0	ND	127	53-152	9.30	30	
Toluene	40.8	5.0	"	50.0	ND	81.6	58-139	15.4	30	
Trichloroethene	39.1	5.0	"	50.0	ND	78.2	55-138	12.7	30	
Surrogate: 1,2-Dichloroethane-d4	*62.9*		"	*50.0*		*126*	*50-125*			*A-COM*
Surrogate: Toluene-d8	*48.7*		"	*50.0*		*97.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*56.0*		"	*50.0*		*112*	*50-128*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Notes and Definitions

QS-HI	Surrogate recovery was greater than the upper control limit. A reanalysis was not performed since the analytes associated with the surrogate were not detected.
QS-6	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QRL-8	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QR-2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
A-COM	The surrogate recovery was slightly above the criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

REVISION COVER LETTER

WORK ORDER No.: CPF0748

CLIENT: ISSI/NASA Ames MS221-10

ATTENTION: Casey Fitzgerald

PROJECT: AOI 14 Phase II

DATE: October 27, 2006

REVISION REMARKS:

Enclosed is the revised report for PCB.

We have optimized the PCB analysis to reduce overlap peak interference from adjacent Aroclor. However, the interference still exists. We use the QC qualifier, PCB-2, to indicate the problem. Since the results of Aroclor 1260 from re-quantification are not significantly different from the initial ones, only the results of Aroclor 1268 are revised. The following table lists the samples with revision.

CLS Lab ID	Original Aroclor 1268 Concentration, µg/kg	Revised Aroclor 1268 Concentration, µg/kg
CPF0748-19	ND	26
CPF0748-20	190	ND
CPF0748-48	ND	26
CPF0748-81	460	120
CPF0748-82	780	ND

I apologized for any inconvenience this may have caused you.

Sincerely,

_____

James Liang, Ph.D.
Laboratory Director

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 14, 2006

CLS Work Order #: CPF0748
COC #: 71131,32,33,25,26,27

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: AOI 14 Phase II

Enclosed are the results of analyses for samples received by the laboratory on 06/22/06 15:22. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:20

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(1)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71131

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS T20G-4 NASA AMES, Moffett Field, CA 94035
PROJECT MANAGER: PHONE#: 650-604-2053
PROJECT NAME: AOI 14-Phase II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm-HOT! Breezy PM.

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incld. Aroclor 1268) by method 8082	DDD, DDE, DDT (TOTAL) by method 8081A	Lead + Zinc by method 6010B/7000	TPH-D/G/FP 418.1/8015 by method 8015	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / ALT. ID:
6-21-06	1250	PEN-9-4'	SOIL	1	Sleeve	3	X	X	X							X	
	1253	PEN-9-6'															
	1252	PEN-9-8'															
	1256	PEN-9-10'								X	X	X					
	1255	PEN-9-12'															
	1300	PEN-9-14'															
	1259	PEN-9-16'															
	1111	PEN-17-4' ⊗															⊗ Replicate
	1140	PEN-17-6'															
	1135	PEN-17-8'															
	1143	PEN-17-10'															
	1142	PEN-17-12'															
6-21-06	1158	PEN-19-4'	SOIL	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062106 1814		
		6/22/06 @ 1400H		CONRAD JR/CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: DATE / TIME: 6-22-6 1430 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71132 (2)

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS T20G-4 NASA Ames, Moffett Field, CA 94035
PHONE#: 650/604-2053
PROJECT MANAGER:
PROJECT NAME: AOI 14-PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742
OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm - HOT! Breezy PM.

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (Aroclor 1268) by Method 8082	DDD, DDE, DDT (Total) by Method 8081A	Lead + Zinc by Method 6010B/7000	TPH G-D-MO by Method 8015	VOCs (8260)	PP-13 metals	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
6-21-06	1157	PEN-19-6'	Soil	1	Sleeve	3	X	X	X							X	
	1200	PEN-19-10 ⊛															⊛ Replicate
	1204	PEN-19-12'															
	0921	PEN-25-0'															
	0919	PEN-25-2'															
	0918	PEN-25-4'															
	0927	PEN-25-6'															
	0924	PEN-25-8'															
	0929	PEN-25-10'															INVOICE TO:
	0928	PEN-25-12'															
	0930	PEN-25-14'															
	0955	PEN-26-0'															P.O. #
6-21-06	0952	PEN-26-2'	SOIL	1	SLEEVE	3	X	X	X							X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	6/22/06 1514		
		6/22/06 @ 1400H		CONRAD JR/CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: Jon R DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(3)

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0748 LOG NO. 71133

REPORT TO:
NAME AND ADDRESS: Casey Fitzgerald, MS-T20G-4 NASA Ames, Moffett Field, CA. 94035
PROJECT MANAGER: 650.604/2053 PHONE#
PROJECT NAME: AOI 14-PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
☐ OTHER

GEOTRACKER:
EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, Warm-HOT! Breezy-PM.

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY (circled)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (Field Analysis) by Method 8082	DDD, DDE, DDT (TOTAL) by Method 8081A	Lead + Zinc by Method 6010B/7000	TPH-GID/TPH-SID/TPH-MO by Method 8015	VOCs (8260)	PP-13 Metals	1 DAY	2 DAY	5 DAY	10 DAY	
6/21/06	0942	PEN-26-4'	SOIL	1	Sleeve	3	X	X	X							X	
	0955	PEN-26-6'															
	0954	PEN-26-8'															
	1003	PEN-26-10'															⊛ Replicate
	1000	PEN-26-12' *															
	1028	PEN-27-0'															
	1027	PEN-27-2'															
	1025	PEN-27-4'															
	1031	PEN-27-6'															
	1029	PEN-27-8'								X	X	X					
	1034	PEN-27-10'															
	1032	PEN-27-12'															
6/21/06	1038	PEN-27-14'	SOIL	1	Sleeve	3	X	X	X							X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1514		
		6/21/06 @ 1400		CONRAD JR / CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: JOHN DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project: AOI 14 Phase II
Project Number: N140-200
Project Manager: Casey Fitzgerald

CLS Work Order #: CPF0748
COC #: 71131,32,33,25,26,27

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71125 (4)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / (10 DAY)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (EPA 8082 AROCLOR/PCB) BY METHOD 8082	PCBs, DDT, DDE (TOTAL) BY METHOD 8081A	CLP 4 PEST CLP 8081A	TPH-D/-G/-MO BY 8015M	VOCs BY 8260	PP METALS	10 DAY	ALT. ID
062106	1037	PEN-27-16'	SOIL	1	SLEEVE	3	X	X	X				X	
	1051	PEN-28-6"				3	X	X	X				X	
	1050	PEN-28-2'				3	X	X	X				X	
	1055	PEN-28-4'				3	X	X	X				X	REPLICATE X
	1054	PEN-28-6'				3	X	X	X				X	
	1053	PEN-28-8'				3	X	X	X				X	
	1059	PEN-28-10'				3	X	X	X				X	
	1102	PEN-28-12'				3	X	X	X				X	
	1118	PEN-29-6"				3	X	X	X				X	
	1117	PEN-29-2'				3	X	X	X	X	X	X	X	
	1115	PEN-29-4'				3	X	X	X				X	
	1122	PEN-29-6'				3	X	X	X				X	
	1121	PEN-29-8				3	X	X	X				X	

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

INVOICE TO:
P.O. #
QUOTE #

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1514		
		6/22/06 @ 1404		CONRAD JR / CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: JOM DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS_Contrels AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

(5)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0748 LOG NO. 71126

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20-G-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclor 1293) BY 8082	ODD, DOE, DOT (NAT) BY 8021B	LEAD & ZINC BY 6010B/7000	TPH-D/-G/-TPH/S/B/-MTBE BY 8015M	VOCs BY 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / ALT. ID:
062106	1124	PEN-29-10'	SOIL	1	SLEEVE	2	X	X	X							X	
	1222	PEN-30-6"				3	X	X	X							X	REPLICATE *
	1222	PEN-30-2'				2	X	X	X							X	
	1226	PEN-30-4'				3	X	X	X							X	
	1227	PEN-30-6'				3	X	X	X							X	
	1225	PEN-30-8'				3	X	X	X							X	
	1232	PEN-30-10'				3	X	X	X	X	X	X				X	
	1230	PEN-30-12'				3	X	X	X							X	
	1234	PEN-30-14'				3	X	X	X							X	
	1236	PEN-30-16'				3	X	X	X							X	
	1324	PEN-32-6"				3	X	X	X							X	
	1322	PEN-32-2'				3	X	X	X							X	
	1321	PEN-32-4'				2	X	X	X							X	

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

INVOICE TO:
P.O. #
QUOTE #

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD/SAIC	062206 1514		
		6/22/06 @ 1400		CONTRADUR/CLS
	CLS	6/22/06 @ 1730		

REC'D AT LAB BY: DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0748 LOG NO. 71127 (6)

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20B-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE#: 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742
OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL AROCLORS) BY METHOD 8082	PAH, DDE, DDT (NOTAC) BY METHOD 8081A	LEAD & ZINC BY METHOD 6010B/7421	VOCS BY 8260	PP METALS	TPH-D/-G/-T/E-MO BY 8015M	10 DAY	
062106	1327	PEN-32-6'	SOIL	1	SLEEVE	3	X	X	X	X	X	X	X	
	1325	PEN-32-8'				3	X	X	X				X	
	1329	PEN-32-10'				3	X	X	X				X	
	1328	PEN-32-12'				3	X	X	X				X	
	1332	PEN-32-14'				3	X	X	X				X	
	1350	PEN-33-6"				3	X	X	X				X	REPLICATE X
	1343	PEN-33-2'				3	X	X	X				X	
	1342	PEN-33-4'				3	X	X	X				X	
	1353	PEN-33-6'				3	X	X	X				X	
	1351	PEN-33-8'				3	X	X	X				X	
	1355	PEN-33-10'				3	X	X	X				X	
	1354	PEN-33-12'				3	X	X	X				X	
	1358	PEN-33-14'				3	X	X	X				X	

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062106 1574		
		6/22/06 @ 1400H		CONRAD JR / CLS
	CLS	6/22/06 @ 1730H		

REC'D AT LAB BY: JON DATE / TIME: 6-22-6 1730 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-Courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:20

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**27**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**10**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Diesel	ND	10	mg/kg	10	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**400**	10	"	"	"	"	"	"	
JP-5/JP-8	ND	10	"	"	"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Diesel	ND	1.0	mg/kg	1	CP04706	06/23/06	06/26/06	EPA 8015M	
Motor Oil	**43**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
Lead	**21**	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**60**	25	"	"	"	"	"	"	
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**97**	5.0	"	"	"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
Lead	**3.2**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**32**	5.0	"	"	"	"	"	"	
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04748	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.38**	0.25	"	"	"	"	"	"	
Cadmium	**15**	0.50	"	"	"	"	"	"	
Chromium	**56**	1.0	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	"	"	"	"	"	
Nickel	**55**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**44**	1.0	"	"	"	"	"	"	
Arsenic	**9.3**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**43**	25	"	"	"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									
Lead	**2.7**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**22**	5.0	"	"	"	"	"	"	
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
Lead	**5.0**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**42**	5.0	"	"	"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Lead	**7.8**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Lead	**7.1**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
Lead	**12**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									
Lead	**23**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**61**	25	"	"	"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**37**	25	"	"	"	"	"	"	
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Lead	**4.6**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Lead	**4.4**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**41**	5.0	"	"	"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**94**	5.0	"	"	"	"	"	"	
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
Lead	**49**	2.5	mg/kg	1	CP04748	06/26/06	06/27/06	EPA 6010B	
Zinc	**95**	5.0	"	"	"	"	"	"	
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
Lead	**9.2**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**52**	5.0	"	"	"	"	"	"	
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	ND	5.0	"	"	"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Mercury	**0.17**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04759	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.61**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**70**	1.0	"	"	"	"	"	"	
Copper	**34**	1.0	"	"	"	"	"	"	
Lead	**9.6**	2.5	"	"	"	"	"	"	
Nickel	**73**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**65**	1.0	"	"	"	"	"	"	
Arsenic	**4.7**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Selenium	ND	1.0	mg/kg	4	CP04786	06/27/06	06/27/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**9.6**	2.5	"	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**65**	5.0	"	"	"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
Lead	**17**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**66**	25	"	"	"	"	"	"	
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
Lead	**11**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**70**	5.0	"	"	"	"	"	"	
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
Lead	**21**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**68**	5.0	"	"	"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**60**	25	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
Lead	**9.8**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**76**	5.0	"	"	"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									
Lead	**7.4**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Lead	**7.9**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**57**	5.0	"	"	"	"	"	"	
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Lead	**9.2**	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**67**	5.0	"	"	"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
Lead	**13**	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**87**	25	"	"	"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	25	"	"	"	"	"	"	
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**18**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	25	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Mercury	**0.16**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04759	06/26/06	06/27/06	EPA 6010B	
Beryllium	**0.58**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**60**	1.0	"	"	"	"	"	"	
Copper	**29**	1.0	"	"	"	"	"	"	
Lead	**5.1**	2.5	"	"	"	"	"	"	
Nickel	**56**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**48**	1.0	"	"	"	"	"	"	
Arsenic	**4.1**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**5.1**	2.5	"	1	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04759	06/26/06	06/27/06	EPA 6010B	
Zinc	**52**	25	"	"	"	"	"	"	
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									
Lead	**12**	2.5	mg/kg	1	CP04749	06/26/06	06/27/06	EPA 6010B	
Zinc	**54**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									
Lead	**14**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**33**	5.0	"	"	"	"	"	"	
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
Lead	**5.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
Lead	**4.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**51**	5.0	"	"	"	"	"	"	
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
Lead	**19**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**75**	25	"	"	"	"	"	"	
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Lead	**8.1**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**34**	5.0	"	"	"	"	"	"	
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Lead	**9.0**	2.5	mg/kg	1	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
Lead	**31**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**130**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**74**	25	"	"	"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**83**	25	"	"	"	"	"	"	
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**78**	25	"	"	"	"	"	"	
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
Lead	**18**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**130**	25	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Mercury	**0.11**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	12	"	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Beryllium	ND	1.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**110**	5.0	"	"	"	"	"	"	
Copper	**57**	5.0	"	"	"	"	"	"	
Lead	**15**	12	"	"	"	"	"	"	
Nickel	**120**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**110**	5.0	"	"	"	"	"	"	
Arsenic	**2.8**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**15**	12	"	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**110**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**84**	25	"	"	"	"	"	"	
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
Lead	**140**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**110**	25	"	"	"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
Lead	**13**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**94**	25	"	"	"	"	"	"	
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**83**	25	"	"	"	"	"	"	
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**90**	25	"	"	"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**91**	25	"	"	"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Lead	**24**	12	mg/kg	5	CP04749	06/26/06	06/29/06	EPA 6010B	
Zinc	**70**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
Lead	**31**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**58**	5.0	"	"	"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
Lead	**67**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**58**	25	"	"	"	"	06/29/06	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
Lead	**5.4**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04787	06/27/06	06/28/06	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**35**	1.0	"	"	"	"	"	"	
Copper	**25**	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	"	"	"	"	"	
Nickel	**47**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**38**	1.0	"	"	"	"	"	"	
Arsenic	**3.4**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**4.6**	2.5	"	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									
Lead	**4.3**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									
Lead	**4.5**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**33**	5.0	"	"	"	"	"	"	
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
Lead	**3.0**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
Lead	**9.6**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
Lead	**55**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**62**	25	"	"	"	"	06/29/06	"	
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
Lead	**12**	12	mg/kg	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**74**	25	"	"	"	"	06/29/06	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Mercury	**0.11**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04787	06/27/06	06/29/06	EPA 6010B	
Beryllium	ND	1.2	"	5	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Chromium	**58**	5.0	"	"	"	"	"	"	
Copper	**26**	5.0	"	"	"	"	"	"	
Lead	ND	12	"	"	"	"	"	"	
Nickel	**60**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**49**	5.0	"	"	"	"	"	"	
Arsenic	**4.1**	1.0	"	4	CP04786	06/27/06	06/27/06	EPA 7000	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Selenium	ND	1.0	mg/kg	4	CP04786	06/27/06	06/27/06	EPA 7000	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	12	"	5	CP04787	06/27/06	06/29/06	EPA 6010B	
Zinc	**49**	25	"	"	"	"	06/29/06	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
Lead	**6.2**	2.5	mg/kg	1	CP04787	06/27/06	06/28/06	EPA 6010B	
Zinc	**58**	5.0	"	"	"	"	"	"	
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
Lead	**4.5**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
Lead	**25**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**62**	5.0	"	"	"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
Lead	**8.3**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**66**	5.0	"	"	"	"	"	"	
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**40**	25	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Lead	ND	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**45**	25	"	"	"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
Lead	**24**	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**64**	25	"	"	"	"	"	"	
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
Lead	**45**	12	mg/kg	5	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**68**	25	"	"	"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									
Lead	**10**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**91**	5.0	"	"	"	"	"	"	
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									
Lead	**19**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									
Lead	**7.9**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									
Lead	**29**	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**71**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									
Lead	ND	2.5	mg/kg	1	CP04822	06/28/06	06/28/06	EPA 6010B	
Zinc	**40**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**1900**	1500	"	100	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*119 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*142 %*	*52-141*		"	"	"	"	*QS-4*
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*117 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*139 %*	*52-141*		"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*128 %*	*52-141*		"	"	"	"	
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*107 %*	*52-141*		"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.5 %*	*52-141*		"	"	"	"	
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*88.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04745	06/26/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*163 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*171 %*	*52-141*		"	"	"	"	*QS-4*
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*234 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*135 %*	*52-141*		"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*77.7 %*	*52-141*		"	"	"	"	
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*137 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*147 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*114 %*	*52-141*		"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*60.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*132 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*131 %*	*52-141*		"	"	"	"	
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*106 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*110 %*	*52-141*		"	"	"	"	
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*105 %*	*52-141*		"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*126 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*122 %*	*52-141*		"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*125 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*196 %*	*52-141*		"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*130 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*133 %*	*52-141*		"	"	"	"	
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*71.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**35000**	35000	"	5000	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.7 %*	*52-141*		"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**140**	120	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04792	06/27/06	06/28/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.9 %*	*52-141*		"	"	"	"	
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*52-141*		"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*70.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	150	µg/kg	10	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**16000**	15000	"	1000	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.9 %*	*52-141*		"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*48.1 %*	*45-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*46.8 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.0 %*		*52-141*	"	"	"	"	
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*55.8 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.0 %*		*52-141*	"	"	"	"	
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86.1 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*		*52-141*	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*		*46-139*	"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.2 %*		*52-141*	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.1 %*	*52-141*		"	"	"	"	
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*50.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.0 %*	*52-141*		"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*39.0 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*38.0 %*	*52-141*		"	"	"	"	*QS-4*
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04810	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.7 %*	*52-141*		"	"	"	"	
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*101 %*	*52-141*		"	"	"	"	

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**93**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**460**	380	"	25	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*84.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**79**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.1 %*	*52-141*		"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.0 %*	*52-141*		"	"	"	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*85.6 %*	*52-141*		"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*76.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.6 %*	*52-141*		"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.5 %*	*52-141*		"	"	"	"	
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.2 %*	*52-141*		"	"	"	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04835	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.0 %*	*52-141*		"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*175 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*135 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*129 %*	*52-141*		"	"	"	"	
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*120 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*123 %*	*52-141*		"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*129 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*128 %*	*52-141*		"	"	"	"	
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.8 %*	*52-141*		"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	**190**	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	**180**	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04844	06/28/06	06/29/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-6*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-6*
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*1520 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*114 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-4' (CPF0748-01) Soil Sampled: 06/21/06 12:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	1000	µg/kg	50	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	**9600**	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
PEN-9-6' (CPF0748-02) Soil Sampled: 06/21/06 12:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**52**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-8' (CPF0748-03) Soil Sampled: 06/21/06 12:52 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-12' (CPF0748-05) Soil Sampled: 06/21/06 12:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-9-14' (CPF0748-06) Soil Sampled: 06/21/06 13:00 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-16' (CPF0748-07) Soil Sampled: 06/21/06 12:59 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-4' (CPF0748-08) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-4' REP (CPF0748-09) Soil Sampled: 06/21/06 11:11 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-6' (CPF0748-10) Soil Sampled: 06/21/06 11:40 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-8' (CPF0748-11) Soil Sampled: 06/21/06 11:35 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-17-10' (CPF0748-12) Soil Sampled: 06/21/06 11:43 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17-12' (CPF0748-13) Soil Sampled: 06/21/06 11:42 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04746	06/26/06	06/28/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-19-14' (CPF0748-14) Soil Sampled: 06/21/06 11:58 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-19-6' (CPF0748-15) Soil Sampled: 06/21/06 11:57 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-19-10' (CPF0748-16) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-10' REP (CPF0748-17) Soil Sampled: 06/21/06 12:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-19-12' (CPF0748-18) Soil Sampled: 06/21/06 12:04 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-0' (CPF0748-19) Soil Sampled: 06/21/06 09:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**88**	20	"	"	"	"	"	"	
Aroclor 1268	**26**	20	"	"	"	"	"	"	PCB-1, PCB-2
PEN-25-2' (CPF0748-20) Soil Sampled: 06/21/06 09:19 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-4' (CPF0748-21) Soil Sampled: 06/21/06 09:18 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-6' (CPF0748-22) Soil Sampled: 06/21/06 09:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-8' (CPF0748-23) Soil Sampled: 06/21/06 09:24 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-25-10' (CPF0748-24) Soil Sampled: 06/21/06 09:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	10	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-25-14' (CPF0748-26) Soil Sampled: 06/21/06 09:30 Received: 06/22/06 15:22									
Aroclor 1016	ND	200	µg/kg	10	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**57**	20	"	1	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-26-0' (CPF0748-27) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**99**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-2' (CPF0748-28) Soil Sampled: 06/21/06 09:52 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-26-4' (CPF0748-29) Soil Sampled: 06/21/06 09:47 Received: 06/22/06 15:22									
Aroclor 1016	ND	10000	µg/kg	500	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	10000	"	"	"	"	"	"	
Aroclor 1232	ND	10000	"	"	"	"	"	"	
Aroclor 1242	ND	10000	"	"	"	"	"	"	
Aroclor 1248	ND	10000	"	"	"	"	"	"	
Aroclor 1254	ND	10000	"	"	"	"	"	"	
Aroclor 1260	**180000**	20000	"	1000	"	"	"	"	
Aroclor 1268	ND	20000	"	"	"	"	"	"	
PEN-26-6' (CPF0748-30) Soil Sampled: 06/21/06 09:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**65**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-8' (CPF0748-31) Soil Sampled: 06/21/06 09:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**670**	100	"	5	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-26-10' (CPF0748-32) Soil Sampled: 06/21/06 10:03 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**630**	100	"	5	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-26-12' (CPF0748-33) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04793	06/27/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-26-12' REP (CPF0748-34) Soil Sampled: 06/21/06 10:00 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-0' (CPF0748-35) Soil Sampled: 06/21/06 10:28 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**48**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-2' (CPF0748-36) Soil Sampled: 06/21/06 10:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-4' (CPF0748-37) Soil Sampled: 06/21/06 10:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	10000	µg/kg	500	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	10000	"	"	"	"	"	"	
Aroclor 1232	ND	10000	"	"	"	"	"	"	
Aroclor 1242	ND	10000	"	"	"	"	"	"	
Aroclor 1248	ND	10000	"	"	"	"	"	"	
Aroclor 1254	ND	10000	"	"	"	"	"	"	
Aroclor 1260	**52000**	10000	"	"	"	"	"	"	
Aroclor 1268	ND	10000	"	"	"	"	"	"	
PEN-27-6' (CPF0748-38) Soil Sampled: 06/21/06 10:31 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-10' (CPF0748-40) Soil Sampled: 06/21/06 10:34 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**94**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-27-12' (CPF0748-41) Soil Sampled: 06/21/06 10:32 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-27-14' (CPF0748-42) Soil Sampled: 06/21/06 10:38 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-16' (CPF0748-43) Soil Sampled: 06/21/06 10:37 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-6' (CPF0748-44) Soil Sampled: 06/21/06 10:51 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-2' (CPF0748-45) Soil Sampled: 06/21/06 10:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**200**	40	"	"	"	"	"	"	
Aroclor 1268	ND	40	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-4' (CPF0748-46) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-4' REP (CPF0748-47) Soil Sampled: 06/21/06 10:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-6' (CPF0748-48) Soil Sampled: 06/21/06 10:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**78**	20	"	"	"	"	"	"	
Aroclor 1268	**26**	20	"	"	"	"	"	"	PCB-1, PCB-2

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-28-8' (CPF0748-49) Soil Sampled: 06/21/06 10:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-10' (CPF0748-50) Soil Sampled: 06/21/06 10:59 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-28-12' (CPF0748-51) Soil Sampled: 06/21/06 11:02 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-6' (CPF0748-52) Soil Sampled: 06/21/06 11:18 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**64**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04811	06/28/06	06/29/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**66**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-4' (CPF0748-54) Soil Sampled: 06/21/06 11:15 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-6' (CPF0748-55) Soil Sampled: 06/21/06 11:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-8' (CPF0748-56) Soil Sampled: 06/21/06 11:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-29-10' (CPF0748-57) Soil Sampled: 06/21/06 11:24 Received: 06/22/06 15:22									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-6'' (CPF0748-58) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**360**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-6'' REP (CPF0748-59) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**420**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-2' (CPF0748-60) Soil Sampled: 06/21/06 12:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	400	µg/kg	20	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	400	"	"	"	"	"	"	
Aroclor 1232	ND	400	"	"	"	"	"	"	
Aroclor 1242	ND	400	"	"	"	"	"	"	
Aroclor 1248	ND	400	"	"	"	"	"	"	
Aroclor 1254	ND	400	"	"	"	"	"	"	
Aroclor 1260	**2000**	400	"	"	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-4' (CPF0748-61) Soil Sampled: 06/21/06 12:26 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**380**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-30-6' (CPF0748-62) Soil Sampled: 06/21/06 12:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**32**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-8' (CPF0748-63) Soil Sampled: 06/21/06 12:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**77**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-12' (CPF0748-65) Soil Sampled: 06/21/06 12:30 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-30-14' (CPF0748-66) Soil Sampled: 06/21/06 12:34 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-16' (CPF0748-67) Soil Sampled: 06/21/06 12:36 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-6'' (CPF0748-68) Soil Sampled: 06/21/06 13:24 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-2' (CPF0748-69) Soil Sampled: 06/21/06 13:22 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**23**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-4' (CPF0748-70) Soil Sampled: 06/21/06 13:21 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-8' (CPF0748-72) Soil Sampled: 06/21/06 13:25 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-10' (CPF0748-73) Soil Sampled: 06/21/06 13:29 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04836	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**39**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-12' (CPF0748-74) Soil Sampled: 06/21/06 13:28 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-32-14' (CPF0748-75) Soil Sampled: 06/21/06 13:32 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-6'' (CPF0748-76) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-6'' REP (CPF0748-77) Soil Sampled: 06/21/06 13:50 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-2' (CPF0748-78) Soil Sampled: 06/21/06 13:43 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-4' (CPF0748-79) Soil Sampled: 06/21/06 13:42 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**54**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-6' (CPF0748-80) Soil Sampled: 06/21/06 13:53 Received: 06/22/06 15:22									
Aroclor 1016	ND	100	µg/kg	5	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**550**	100	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	"	"	"	"	"	
PEN-33-8' (CPF0748-81) Soil Sampled: 06/21/06 13:51 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**84**	40	"	"	"	"	"	"	
Aroclor 1268	**120**	40	"	"	"	"	"	"	PCB-1

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-33-10' (CPF0748-82) Soil Sampled: 06/21/06 13:55 Received: 06/22/06 15:22									
Aroclor 1016	ND	40	µg/kg	2	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**56**	40	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	5	"	"	"	"	
PEN-33-12' (CPF0748-83) Soil Sampled: 06/21/06 13:54 Received: 06/22/06 15:22									
Aroclor 1016	ND	20	µg/kg	1	CP04845	06/28/06	06/30/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-33-14' (CPF0748-84) Soil Sampled: 06/21/06 13:58 Received: 06/22/06 15:22									**QRL-8**
Aroclor 1016	ND	1000	µg/kg	50	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	ND	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.8 %*	*65-135*		"	"	"	"	
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.7 %*	*65-135*		"	"	"	"	
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89.7 %*	*65-135*		"	"	"	"	
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04790	06/26/06	06/27/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.7 %*	*65-135*		"	"	"	"	
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.0 %*	*65-135*		"	"	"	"	
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*88.5 %*	*65-135*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-9-10' (CPF0748-04) Soil Sampled: 06/21/06 12:56 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*133 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-25-12' (CPF0748-25) Soil Sampled: 06/21/06 09:28 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*131 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*100 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-27-8' (CPF0748-39) Soil Sampled: 06/21/06 10:29 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*134 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.4 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-29-2' (CPF0748-53) Soil Sampled: 06/21/06 11:17 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*129 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.8 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-30-10' (CPF0748-64) Soil Sampled: 06/21/06 12:32 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*149 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.8 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*147 %*	*50-128*		"	"	"	"	*QS-HI*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-32-6' (CPF0748-71) Soil Sampled: 06/21/06 13:27 Received: 06/22/06 15:22									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*131 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*100 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04706 - LUFT-DHS GCNV										
Blank (CP04706-BLK1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
Kerosene	ND	1.0	"							
LCS (CP04706-BS1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	47.6	1.0	mg/kg	50.0		95.2	65-135			
LCS Dup (CP04706-BSD1)				Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	45.3	1.0	mg/kg	50.0		90.6	65-135	4.95	30	
Matrix Spike (CP04706-MS1)		**Source: CPF0750-01**		Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	43.8	1.0	mg/kg	50.0	13	61.6	59-138			
Matrix Spike Dup (CP04706-MSD1)		**Source: CPF0750-01**		Prepared: 06/23/06		Analyzed: 06/26/06				
Diesel	43.8	1.0	mg/kg	50.0	13	61.6	59-138	0.00	37	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04748 - EPA 3050B										
Blank (CP04748-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04748-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	26.0	2.5	mg/kg	25.0		104	75-125			
Zinc	26.4	5.0	"	25.0		106	75-125			
Lead	26.5	2.5	"	25.0		106	75-125			
Beryllium	2.71	0.25	"	2.50		108	75-125			
Cadmium	2.86	0.50	"	2.50		114	75-125			
Chromium	11.2	1.0	"	10.0		112	75-125			
Copper	13.9	1.0	"	12.5		111	75-125			
Lead	26.5	2.5	"	25.0		106	75-125			
Nickel	26.9	1.0	"	25.0		108	75-125			
Silver	2.76	0.50	"	2.50		110	75-125			
Zinc	26.4	1.0	"	25.0		106	75-125			
LCS Dup (CP04748-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Lead	26.4	2.5	mg/kg	25.0		106	75-125	0.378	25	
Antimony	26.0	2.5	"	25.0		104	75-125	0.00	25	
Zinc	26.2	5.0	"	25.0		105	75-125	0.760	25	
Beryllium	2.70	0.25	"	2.50		108	75-125	0.370	25	
Cadmium	2.66	0.50	"	2.50		106	75-125	7.25	25	
Chromium	10.9	1.0	"	10.0		109	75-125	2.71	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04748 - EPA 3050B										
LCS Dup (CP04748-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	13.8	1.0	mg/kg	12.5		110	75-125	0.722	25	
Lead	26.4	2.5	"	25.0		106	75-125	0.378	25	
Nickel	26.7	1.0	"	25.0		107	75-125	0.746	25	
Silver	2.70	0.50	"	2.50		108	75-125	2.20	25	
Zinc	26.2	1.0	"	25.0		105	75-125	0.760	25	
Matrix Spike (CP04748-MS1)		**Source: CPF0748-01**		Prepared: 06/26/06		Analyzed: 06/27/06				
Zinc	79.7	25	mg/kg	25.0	60	78.8	75-125			
Lead	42.0	12	"	25.0	21	84.0	75-125			
Antimony	ND	12	"	25.0	ND		75-125			QM-5
Beryllium	30.5	1.2	"	2.50	0.61	NR	75-125			QM-5
Cadmium	2.42	2.5	"	2.50	ND	96.8	75-125			
Chromium	69.6	5.0	"	10.0	60	96.0	75-125			
Copper	39.3	5.0	"	12.5	32	58.4	75-125			QM-5
Lead	42.0	12	"	25.0	21	84.0	75-125			
Nickel	75.8	5.0	"	25.0	56	79.2	75-125			
Silver	2.85	2.5	"	2.50	ND	114	75-125			
Zinc	79.7	5.0	"	25.0	60	78.8	75-125			
Matrix Spike Dup (CP04748-MSD1)		**Source: CPF0748-01**		Prepared: 06/26/06		Analyzed: 06/27/06				
Zinc	81.1	25	mg/kg	25.0	60	84.4	75-125	1.74	30	
Lead	46.6	12	"	25.0	21	102	75-125	10.4	30	
Antimony	ND	12	"	25.0	ND		75-125		30	QM-5
Beryllium	3.09	1.2	"	2.50	0.61	99.2	75-125	163	30	QM-5
Cadmium	2.02	2.5	"	2.50	ND	80.8	75-125	18.0	30	
Chromium	70.5	5.0	"	10.0	60	105	75-125	1.28	30	
Copper	40.3	5.0	"	12.5	32	66.4	75-125	2.51	30	QM-5
Lead	46.6	12	"	25.0	21	102	75-125	10.4	30	
Nickel	94.6	5.0	"	25.0	56	154	75-125	22.1	30	QM-5
Silver	2.98	2.5	"	2.50	ND	119	75-125	4.46	30	
Zinc	81.1	5.0	"	25.0	60	84.4	75-125	1.74	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04749 - EPA 3050B										
Blank (CP04749-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
Lead	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04749-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Lead	25.6	2.5	mg/kg	25.0		102	75-125			
Zinc	25.2	5.0	"	25.0		101	75-125			
Antimony	24.5	2.5	"	25.0		98.0	75-125			
Beryllium	2.55	0.25	"	2.50		102	75-125			
Cadmium	2.55	0.50	"	2.50		102	75-125			
Chromium	10.5	1.0	"	10.0		105	75-125			
Copper	13.1	1.0	"	12.5		105	75-125			
Lead	25.6	2.5	"	25.0		102	75-125			
Nickel	25.0	1.0	"	25.0		100	75-125			
Silver	2.62	0.50	"	2.50		105	75-125			
Zinc	25.2	1.0	"	25.0		101	75-125			
LCS Dup (CP04749-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Lead	24.3	2.5	mg/kg	25.0		97.2	75-125	5.21	25	
Antimony	24.3	2.5	"	25.0		97.2	75-125	0.820	25	
Zinc	24.7	5.0	"	25.0		98.8	75-125	2.00	25	
Beryllium	2.50	0.25	"	2.50		100	75-125	1.98	25	
Cadmium	2.36	0.50	"	2.50		94.4	75-125	7.74	25	
Chromium	10.7	1.0	"	10.0		107	75-125	1.89	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04749 - EPA 3050B										
LCS Dup (CP04749-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	12.9	1.0	mg/kg	12.5		103	75-125	1.54	25	
Lead	24.3	2.5	"	25.0		97.2	75-125	5.21	25	
Nickel	24.5	1.0	"	25.0		98.0	75-125	2.02	25	
Silver	2.56	0.50	"	2.50		102	75-125	2.32	25	
Zinc	24.7	1.0	"	25.0		98.8	75-125	2.00	25	
Matrix Spike (CP04749-MS1)		**Source: CPF0748-41**		Prepared: 06/26/06		Analyzed: 06/29/06				
Lead	12.2	2.5	mg/kg	25.0	12	0.800	75-125			QM-5
Zinc	27.8	5.0	"	25.0	54	NR	75-125			QM-5
Antimony	ND	2.5	"	25.0	ND		75-125			QM-5
Beryllium	1.05	0.25	"	2.50	0.50	22.0	75-125			QM-5
Cadmium	0.860	0.50	"	2.50	0.22	25.6	75-125			QM-5
Chromium	26.2	1.0	"	10.0	63	NR	75-125			QM-5
Copper	13.2	1.0	"	12.5	26	NR	75-125			QM-5
Lead	12.2	2.5	"	25.0	12	0.800	75-125			QM-5
Nickel	26.2	1.0	"	25.0	46	NR	75-125			QM-5
Silver	1.04	0.50	"	2.50	0.26	31.2	75-125			QM-5
Zinc	27.8	1.0	"	25.0	54	NR	75-125			QM-5
Matrix Spike Dup (CP04749-MSD1)		**Source: CPF0748-41**		Prepared: 06/26/06		Analyzed: 06/29/06				
Lead	11.0	2.5	mg/kg	25.0	12	NR	75-125	10.3	30	QM-5
Zinc	25.3	5.0	"	25.0	54	NR	75-125	9.42	30	QM-5
Antimony	ND	2.5	"	25.0	ND		75-125		30	QM-5
Beryllium	0.980	0.25	"	2.50	0.50	19.2	75-125	6.90	30	QM-5
Cadmium	0.945	0.50	"	2.50	0.22	29.0	75-125	9.42	30	QM-5
Chromium	24.6	1.0	"	10.0	63	NR	75-125	6.30	30	QM-5
Copper	12.3	1.0	"	12.5	26	NR	75-125	7.06	30	QM-5
Lead	11.0	2.5	"	25.0	12	NR	75-125	10.3	30	QM-5
Nickel	24.6	1.0	"	25.0	46	NR	75-125	6.30	30	QM-5
Silver	0.880	0.50	"	2.50	0.26	24.8	75-125	16.7	30	QM-5
Zinc	25.3	1.0	"	25.0	54	NR	75-125	9.42	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04759 - EPA 3050B										
Blank (CP04759-BLK1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	ND	2.5	mg/kg							
Lead	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04759-BS1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	23.7	2.5	mg/kg	25.0		94.8	75-125			
Zinc	25.0	5.0	"	25.0		100	75-125			
Lead	24.4	2.5	"	25.0		97.6	75-125			
Beryllium	2.49	0.25	"	2.50		99.6	75-125			
Cadmium	2.53	0.50	"	2.50		101	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.4	1.0	"	12.5		99.2	75-125			
Lead	24.4	2.5	"	25.0		97.6	75-125			
Nickel	24.3	1.0	"	25.0		97.2	75-125			
Silver	2.52	0.50	"	2.50		101	75-125			
Zinc	25.0	1.0	"	25.0		100	75-125			
LCS Dup (CP04759-BSD1)				Prepared: 06/26/06 Analyzed: 06/27/06						
Antimony	22.5	2.5	mg/kg	25.0		90.0	75-125	5.19	25	
Lead	21.6	2.5	"	25.0		86.4	75-125	12.2	25	
Zinc	23.2	5.0	"	25.0		92.8	75-125	7.47	25	
Beryllium	2.40	0.25	"	2.50		96.0	75-125	3.68	25	
Cadmium	2.38	0.50	"	2.50		95.2	75-125	6.11	25	
Chromium	9.33	1.0	"	10.0		93.3	75-125	10.8	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04759 - EPA 3050B										
LCS Dup (CP04759-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Copper	12.2	1.0	mg/kg	12.5		97.6	75-125	1.63	25	
Lead	21.6	2.5	"	25.0		86.4	75-125	12.2	25	
Nickel	22.2	1.0	"	25.0		88.8	75-125	9.03	25	
Silver	2.35	0.50	"	2.50		94.0	75-125	6.98	25	
Zinc	23.2	1.0	"	25.0		92.8	75-125	7.47	25	
Matrix Spike (CP04759-MS1)		**Source: CPF0748-21**		Prepared: 06/26/06		Analyzed: 06/27/06				
Lead	28.2	2.5	mg/kg	25.0	9.2	76.0	75-125			
Zinc	71.6	5.0	"	25.0	52	78.4	75-125			
Antimony	2.70	2.5	"	25.0	ND	10.8	75-125			QM-5
Beryllium	2.52	0.25	"	2.50	0.53	79.6	75-125			
Cadmium	2.14	0.50	"	2.50	ND	85.6	75-125			
Chromium	64.0	1.0	"	10.0	56	80.0	75-125			
Copper	42.9	1.0	"	12.5	33	79.2	75-125			
Lead	28.2	2.5	"	25.0	9.2	76.0	75-125			
Nickel	69.9	1.0	"	25.0	50	79.6	75-125			
Silver	2.32	0.50	"	2.50	0.46	74.4	75-125			QM-5
Zinc	71.6	1.0	"	25.0	52	78.4	75-125			
Matrix Spike Dup (CP04759-MSD1)		**Source: CPF0748-21**		Prepared: 06/26/06		Analyzed: 06/27/06				
Antimony	2.08	2.5	mg/kg	25.0	ND	8.32	75-125	25.9	30	QM-5
Lead	9.96	2.5	"	25.0	9.2	3.04	75-125	95.6	30	QM-5
Zinc	45.5	5.0	"	25.0	52	NR	75-125	44.6	30	QM-5
Beryllium	1.42	0.25	"	2.50	0.53	35.6	75-125	55.8	30	QM-5
Cadmium	1.03	0.50	"	2.50	ND	41.2	75-125	70.0	30	QM-5
Chromium	40.8	1.0	"	10.0	56	NR	75-125	44.3	30	QM-5
Copper	25.3	1.0	"	12.5	33	NR	75-125	51.6	30	QM-5
Lead	9.96	2.5	"	25.0	9.2	3.04	75-125	95.6	30	QM-5
Nickel	43.8	1.0	"	25.0	50	NR	75-125	45.9	30	QM-5
Silver	1.42	0.50	"	2.50	0.46	38.4	75-125	48.1	30	QM-5
Zinc	45.5	1.0	"	25.0	52	NR	75-125	44.6	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04786 - EPA 3050B										
Blank (CP04786-BLK1)				Prepared & Analyzed: 06/27/06						
Arsenic	ND	0.25	mg/kg							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CP04786-BS1)				Prepared & Analyzed: 06/27/06						
Arsenic	5.30	1.0	mg/kg	5.00		106	75-125			
Selenium	4.78	1.0	"	5.00		95.6	75-125			
Thallium	4.44	1.0	"	5.00		88.8	75-125			
LCS Dup (CP04786-BSD1)				Prepared & Analyzed: 06/27/06						
Arsenic	5.16	1.0	mg/kg	5.00		103	75-125	2.68	25	
Selenium	4.74	1.0	"	5.00		94.8	75-125	0.840	25	
Thallium	5.12	1.0	"	5.00		102	75-125	14.2	25	
Matrix Spike (CP04786-MS1)		**Source: CPF0844-01**		Prepared & Analyzed: 06/27/06						
Arsenic	9.02	1.0	mg/kg	5.00	7.2	36.4	75-125			QM-5
Selenium	2.88	1.0	"	5.00	ND	57.6	75-125			QM-5
Thallium	4.86	1.0	"	5.00	ND	97.2	75-125			
Matrix Spike Dup (CP04786-MSD1)		**Source: CPF0844-01**		Prepared & Analyzed: 06/27/06						
Arsenic	11.2	1.0	mg/kg	5.00	7.2	80.0	75-125	21.6	30	
Selenium	2.66	1.0	"	5.00	ND	53.2	75-125	7.94	30	QM-5
Thallium	5.32	1.0	"	5.00	ND	106	75-125	9.04	30	
Batch CP04787 - EPA 3050B										
Blank (CP04787-BLK1)				Prepared: 06/27/06 Analyzed: 06/28/06						
Lead	ND	2.5	mg/kg							
Antimony	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04787 - EPA 3050B										
Blank (CP04787-BLK1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Lead	ND	2.5	mg/kg							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04787-BS1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Zinc	24.9	5.0	mg/kg	25.0		99.6	75-125			
Antimony	24.3	2.5	"	25.0		97.2	75-125			
Lead	25.5	2.5	"	25.0		102	75-125			
Beryllium	2.47	0.25	"	2.50		98.8	75-125			
Cadmium	2.68	0.50	"	2.50		107	75-125			
Chromium	10.4	1.0	"	10.0		104	75-125			
Copper	12.6	1.0	"	12.5		101	75-125			
Lead	25.5	2.5	"	25.0		102	75-125			
Nickel	25.7	1.0	"	25.0		103	75-125			
Silver	2.55	0.50	"	2.50		102	75-125			
Zinc	24.9	1.0	"	25.0		99.6	75-125			
LCS Dup (CP04787-BSD1)				Prepared: 06/27/06	Analyzed: 06/28/06					
Antimony	25.6	2.5	mg/kg	25.0		102	75-125	5.21	25	
Lead	26.1	2.5	"	25.0		104	75-125	2.33	25	
Zinc	25.5	5.0	"	25.0		102	75-125	2.38	25	
Beryllium	2.50	0.25	"	2.50		100	75-125	1.21	25	
Cadmium	2.80	0.50	"	2.50		112	75-125	4.38	25	
Chromium	10.3	1.0	"	10.0		103	75-125	0.966	25	
Copper	12.7	1.0	"	12.5		102	75-125	0.791	25	
Lead	26.1	2.5	"	25.0		104	75-125	2.33	25	
Nickel	26.1	1.0	"	25.0		104	75-125	1.54	25	
Silver	2.62	0.50	"	2.50		105	75-125	2.71	25	
Zinc	25.5	1.0	"	25.0		102	75-125	2.38	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04787 - EPA 3050B										
Matrix Spike (CP04787-MS1)		**Source: CPF0844-01**		Prepared: 06/27/06	Analyzed: 06/28/06					
Antimony	4.85	2.5	mg/kg	25.0	ND	19.4	75-125			QM-5
Lead	38.9	2.5	"	25.0	34	19.6	75-125			QM-5
Zinc	99.8	5.0	"	25.0	65	139	75-125			QM-5
Beryllium	2.96	0.25	"	2.50	0.65	92.4	75-125			
Cadmium	2.61	0.50	"	2.50	0.28	93.2	75-125			
Chromium	20.9	1.0	"	10.0	13	79.0	75-125			
Copper	31.9	1.0	"	12.5	29	23.2	75-125			QM-5
Lead	38.9	2.5	"	25.0	34	19.6	75-125			QM-5
Nickel	36.1	1.0	"	25.0	13	92.4	75-125			
Silver	2.94	0.50	"	2.50	1.1	73.6	75-125			QM-5
Zinc	99.8	1.0	"	25.0	65	139	75-125			QM-5
Matrix Spike Dup (CP04787-MSD1)		**Source: CPF0844-01**		Prepared: 06/27/06	Analyzed: 06/28/06					
Zinc	90.0	5.0	mg/kg	25.0	65	100	75-125	10.3	30	
Lead	48.2	2.5	"	25.0	34	56.8	75-125	21.4	30	QM-5
Antimony	5.07	2.5	"	25.0	ND	20.3	75-125	4.44	30	QM-5
Beryllium	3.02	0.25	"	2.50	0.65	94.8	75-125	2.01	30	
Cadmium	2.62	0.50	"	2.50	0.28	93.6	75-125	0.382	30	
Chromium	19.5	1.0	"	10.0	13	65.0	75-125	6.93	30	QM-5
Copper	35.4	1.0	"	12.5	29	51.2	75-125	10.4	30	QM-5
Lead	48.2	2.5	"	25.0	34	56.8	75-125	21.4	30	QM-5
Nickel	35.9	1.0	"	25.0	13	91.6	75-125	0.556	30	
Silver	3.14	0.50	"	2.50	1.1	81.6	75-125	6.58	30	
Zinc	90.0	1.0	"	25.0	65	100	75-125	10.3	30	
Batch CP04789 - EPA 7471A										
Blank (CP04789-BLK1)				Prepared & Analyzed: 06/27/06						
Mercury	ND	0.10	mg/kg							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04789 - EPA 7471A										
LCS (CP04789-BS1)				Prepared & Analyzed: 06/27/06						
Mercury	0.709	0.10	mg/kg	0.625		113	75-125			
LCS Dup (CP04789-BSD1)				Prepared & Analyzed: 06/27/06						
Mercury	0.708	0.10	mg/kg	0.625		113	75-125	0.141	25	
Matrix Spike (CP04789-MS1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.748	0.10	mg/kg	0.625	ND	120	75-125			
Matrix Spike Dup (CP04789-MSD1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.736	0.10	mg/kg	0.625	ND	118	75-125	1.62	25	
Batch CP04822 - EPA 3050B										
Blank (CP04822-BLK1)				Prepared & Analyzed: 06/28/06						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CP04822-BS1)				Prepared & Analyzed: 06/28/06						
Lead	26.2	2.5	mg/kg	25.0		105	75-125			
Zinc	26.6	5.0	"	25.0		106	75-125			
LCS Dup (CP04822-BSD1)				Prepared & Analyzed: 06/28/06						
Lead	27.1	2.5	mg/kg	25.0		108	75-125	3.38	25	
Zinc	26.7	5.0	"	25.0		107	75-125	0.375	25	
Matrix Spike (CP04822-MS1)		**Source: CPF0747-26**		Prepared & Analyzed: 06/28/06						
Zinc	73.6	5.0	mg/kg	25.0	ND	294	75-125			QM-5
Lead	42.6	2.5	"	25.0	26	66.4	75-125			QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04822 - EPA 3050B										
Matrix Spike Dup (CP04822-MSD1)		**Source: CPF0747-26**		Prepared & Analyzed: 06/28/06						
Zinc	75.1	5.0	mg/kg	25.0	ND	300	75-125	2.02	30	QM-5
Lead	47.0	2.5	"	25.0	26	84.0	75-125	9.82	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Blank (CP04745-BLK1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*6.93*		*"*	*8.33*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.89*		*"*	*8.33*		*94.7*	*52-141*			
LCS (CP04745-BS1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132			
gamma-BHC (Lindane)	14.6	10	"	16.7		87.4	56-133			
4,4´-DDT	18.4	15	"	16.7		110	46-137			
Dieldrin	16.2	1.0	"	16.7		97.0	44-143			
Endrin	18.4	15	"	16.7		110	30-147			
Heptachlor	14.7	10	"	16.7		88.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.07*		*"*	*8.33*		*84.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.57*		*"*	*8.33*		*103*	*52-141*			
LCS Dup (CP04745-BSD1)				Prepared: 06/26/06 Analyzed: 06/28/06						
Aldrin	14.5	1.0	µg/kg	16.7		86.8	47-132	0.00	30	
gamma-BHC (Lindane)	15.0	10	"	16.7		89.8	56-133	2.70	30	
4,4´-DDT	16.6	15	"	16.7		99.4	46-137	10.3	30	
Dieldrin	15.4	1.0	"	16.7		92.2	44-143	5.06	30	
Endrin	16.7	15	"	16.7		100	30-147	9.69	30	
Heptachlor	14.9	10	"	16.7		89.2	33-148	1.35	30	
Surrogate: Tetrachloro-meta-xylene	*6.89*		*"*	*8.33*		*82.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.61*		*"*	*8.33*		*91.4*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04745 - LUFT-DHS GCNV										
Matrix Spike (CP04745-MS1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	14.6	5.0	µg/kg	16.7	ND	87.4	47-138			
gamma-BHC (Lindane)	14.6	50	"	16.7	ND	87.4	38-144			
4,4´-DDT	61.7	75	"	16.7	57	28.1	41-157			QM-4X
Dieldrin	18.2	5.0	"	16.7	ND	109	46-155			
Endrin	30.2	75	"	16.7	15	91.0	34-149			
Heptachlor	14.5	50	"	16.7	ND	86.8	36-155			
Surrogate: Tetrachloro-meta-xylene	*21.7*		*"*	*20.8*		*104*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.4*		*"*	*20.8*		*117*	*52-141*			
Matrix Spike Dup (CP04745-MSD1)		**Source: CPF0718-65**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aldrin	13.9	5.0	µg/kg	16.7	ND	83.2	47-138	4.91	35	
gamma-BHC (Lindane)	13.8	50	"	16.7	ND	82.6	38-144	5.63	35	
4,4´-DDT	59.8	75	"	16.7	57	16.8	41-157	3.13	35	QM-4X
Dieldrin	17.5	5.0	"	16.7	ND	105	46-155	3.92	35	
Endrin	28.8	75	"	16.7	15	82.6	34-149	4.75	35	
Heptachlor	13.8	50	"	16.7	ND	82.6	36-155	4.95	35	
Surrogate: Tetrachloro-meta-xylene	*20.6*		*"*	*20.8*		*99.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.2*		*"*	*20.8*		*116*	*52-141*			
Batch CP04792 - LUFT-DHS GCNV										
Blank (CP04792-BLK1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*12.0*		*"*	*16.7*		*71.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*12.2*		*"*	*16.7*		*73.1*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04792 - LUFT-DHS GCNV										
LCS (CP04792-BS1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	14.2	1.0	µg/kg	16.7		85.0	47-132			
gamma-BHC (Lindane)	15.8	10	"	16.7		94.6	56-133			
4,4´-DDT	12.9	15	"	16.7		77.2	46-137			
Dieldrin	14.9	1.0	"	16.7		89.2	44-143			
Endrin	16.9	15	"	16.7		101	30-147			
Heptachlor	14.0	10	"	16.7		83.8	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.26*		*"*	*8.33*		*75.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.40*		*"*	*8.33*		*88.8*	*52-141*			
LCS Dup (CP04792-BSD1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	15.0	1.0	µg/kg	16.7		89.8	47-132	5.48	30	
gamma-BHC (Lindane)	16.4	10	"	16.7		98.2	56-133	3.73	30	
4,4´-DDT	14.1	15	"	16.7		84.4	46-137	8.89	30	
Dieldrin	16.7	1.0	"	16.7		100	44-143	11.4	30	
Endrin	18.4	15	"	16.7		110	30-147	8.50	30	
Heptachlor	14.5	10	"	16.7		86.8	33-148	3.51	30	
Surrogate: Tetrachloro-meta-xylene	*6.68*		*"*	*8.33*		*80.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.14*		*"*	*8.33*		*97.7*	*52-141*			
Matrix Spike (CP04792-MS1)		**Source: CPF0748-33**		Prepared: 06/27/06		Analyzed: 06/28/06				
Aldrin	12.8	5.0	µg/kg	16.7	ND	76.6	47-138			
gamma-BHC (Lindane)	17.9	50	"	16.7	ND	107	38-144			
4,4´-DDT	13.3	75	"	16.7	ND	79.6	41-157			
Dieldrin	17.0	5.0	"	16.7	ND	102	46-155			
Endrin	17.4	75	"	16.7	ND	104	34-149			
Heptachlor	12.4	50	"	16.7	ND	74.3	36-155			
Surrogate: Tetrachloro-meta-xylene	*12.6*		*"*	*20.8*		*60.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*27.3*		*"*	*20.8*		*131*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04792 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04792-MSD1)		**Source: CPF0748-33**		Prepared: 06/27/06	Analyzed: 06/28/06					
Aldrin	12.7	5.0	µg/kg	16.7	ND	76.0	47-138	0.784	35	
gamma-BHC (Lindane)	18.0	50	"	16.7	ND	108	38-144	0.557	35	
4,4´-DDT	14.9	75	"	16.7	ND	89.2	41-157	11.3	35	
Dieldrin	16.6	5.0	"	16.7	ND	99.4	46-155	2.38	35	
Endrin	16.3	75	"	16.7	ND	97.6	34-149	6.53	35	
Heptachlor	12.5	50	"	16.7	ND	74.9	36-155	0.803	35	
Surrogate: Tetrachloro-meta-xylene	*13.3*		*"*	*20.8*		*63.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*27.6*		*"*	*20.8*		*133*	*52-141*			
Batch CP04810 - LUFT-DHS GCNV										
Blank (CP04810-BLK1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*4.35*		*"*	*8.33*		*52.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.68*		*"*	*8.33*		*92.2*	*52-141*			
LCS (CP04810-BS1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	11.8	1.0	µg/kg	16.7		70.7	47-132			
gamma-BHC (Lindane)	12.7	10	"	16.7		76.0	56-133			
4,4´-DDT	14.4	15	"	16.7		86.2	46-137			
Dieldrin	12.7	1.0	"	16.7		76.0	44-143			
Endrin	13.2	15	"	16.7		79.0	30-147			
Heptachlor	12.4	10	"	16.7		74.3	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.84*		*"*	*8.33*		*70.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.19*		*"*	*8.33*		*86.3*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04810 - LUFT-DHS GCNV										
LCS Dup (CP04810-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	9.89	1.0	µg/kg	16.7		59.2	47-132	17.6	30	
gamma-BHC (Lindane)	12.3	10	"	16.7		73.7	56-133	3.20	30	
4,4´-DDT	14.6	15	"	16.7		87.4	46-137	1.38	30	
Dieldrin	12.7	1.0	"	16.7		76.0	44-143	0.00	30	
Endrin	13.3	15	"	16.7		79.6	30-147	0.755	30	
Heptachlor	10.4	10	"	16.7		62.3	33-148	17.5	30	
Surrogate: Tetrachloro-meta-xylene	*4.46*		*"*	*8.33*		*53.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.31*		*"*	*8.33*		*87.8*	*52-141*			
Matrix Spike (CP04810-MS1)		**Source: CPF0748-41**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	ND	5.0	µg/kg	16.7	ND		47-138			QM-5
gamma-BHC (Lindane)	ND	50	"	16.7	ND		38-144			QM-5
4,4´-DDT	ND	75	"	16.7	ND		41-157			QM-5
Dieldrin	ND	5.0	"	16.7	ND		46-155			QM-5
Endrin	ND	75	"	16.7	ND		34-149			QM-5
Heptachlor	1070	50	"	16.7	ND	NR	36-155			QM-5
Surrogate: Tetrachloro-meta-xylene	*21.1*		*"*	*20.8*		*101*	*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			*QM-5*
Matrix Spike Dup (CP04810-MSD1)		**Source: CPF0748-41**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aldrin	ND	5.0	µg/kg	16.7	ND		47-138		35	QM-5
gamma-BHC (Lindane)	ND	50	"	16.7	ND		38-144		35	QM-5
4,4´-DDT	ND	75	"	16.7	ND		41-157		35	QM-5
Dieldrin	ND	5.0	"	16.7	ND		46-155		35	QM-5
Endrin	ND	75	"	16.7	ND		34-149		35	QM-5
Heptachlor	1590	50	"	16.7	ND	NR	36-155	39.1	35	QM-5
Surrogate: Tetrachloro-meta-xylene	*1990*		*"*	*20.8*		*NR*	*46-139*			*QM-5*
Surrogate: Decachlorobiphenyl	*41.8*		*"*	*20.8*		*201*	*52-141*			*QM-5*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04835 - LUFT-DHS GCNV										
Blank (CP04835-BLK1)				Prepared: 06/28/06 Analyzed: 06/30/06						
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endrin	ND	15	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*4.59*		*"*	*8.33*		*55.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*4.46*		*"*	*8.33*		*53.5*	*52-141*			
LCS (CP04835-BS1)				Prepared: 06/28/06 Analyzed: 06/30/06						
Aldrin	16.6	1.0	µg/kg	16.7		99.4	47-132			
gamma-BHC (Lindane)	16.3	10	"	16.7		97.6	56-133			
4,4´-DDT	12.5	15	"	16.7		74.9	46-137			
Dieldrin	15.5	1.0	"	16.7		92.8	44-143			
Endrin	16.9	15	"	16.7		101	30-147			
Heptachlor	16.6	10	"	16.7		99.4	33-148			
Surrogate: Tetrachloro-meta-xylene	*9.46*		*"*	*8.33*		*114*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.51*		*"*	*8.33*		*90.2*	*52-141*			
LCS Dup (CP04835-BSD1)				Prepared: 06/28/06 Analyzed: 06/30/06						
Aldrin	16.1	1.0	µg/kg	16.7		96.4	47-132	3.06	30	
gamma-BHC (Lindane)	16.4	10	"	16.7		98.2	56-133	0.612	30	
4,4´-DDT	12.8	15	"	16.7		76.6	46-137	2.37	30	
Dieldrin	15.3	1.0	"	16.7		91.6	44-143	1.30	30	
Endrin	16.8	15	"	16.7		101	30-147	0.593	30	
Heptachlor	16.0	10	"	16.7		95.8	33-148	3.68	30	
Surrogate: Tetrachloro-meta-xylene	*8.77*		*"*	*8.33*		*105*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.49*		*"*	*8.33*		*89.9*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04835 - LUFT-DHS GCNV										
Matrix Spike (CP04835-MS1)		**Source: CPF0748-68**		Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	11.5	5.0	µg/kg	16.7	ND	68.9	47-138			
gamma-BHC (Lindane)	12.5	50	"	16.7	ND	74.9	38-144			
4,4´-DDT	366	75	"	16.7	ND	NR	41-157			QM-4X
Dieldrin	32.6	5.0	"	16.7	ND	195	46-155			QM-4X
Endrin	160	75	"	16.7	ND	958	34-149			QM-4X
Heptachlor	12.5	50	"	16.7	ND	74.9	36-155			
Surrogate: Tetrachloro-meta-xylene	*18.5*		*"*	*20.8*		*88.9*	*46-139*			
Surrogate: Decachlorobiphenyl	*18.2*		*"*	*20.8*		*87.5*	*52-141*			
Matrix Spike Dup (CP04835-MSD1)		**Source: CPF0748-68**		Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	10.8	5.0	µg/kg	16.7	ND	64.7	47-138	6.28	35	
gamma-BHC (Lindane)	11.6	50	"	16.7	ND	69.5	38-144	7.47	35	
4,4´-DDT	357	75	"	16.7	ND	NR	41-157	2.49	35	QM-4X
Dieldrin	38.8	5.0	"	16.7	ND	232	46-155	17.4	35	QM-4X
Endrin	156	75	"	16.7	ND	934	34-149	2.53	35	QM-4X
Heptachlor	11.6	50	"	16.7	ND	69.5	36-155	7.47	35	
Surrogate: Tetrachloro-meta-xylene	*17.3*		*"*	*20.8*		*83.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*16.8*		*"*	*20.8*		*80.8*	*52-141*			
Batch CP04844 - LUFT-DHS GCNV										
Blank (CP04844-BLK1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	8.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04844 - LUFT-DHS GCNV										
Blank (CP04844-BLK1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Endosulfan I	ND	15	µg/kg							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	10	"							
Heptachlor epoxide	ND	4.0	"							
Kepone	ND	10	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.27*		*"*	*8.33*		*75.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.01*		*"*	*8.33*		*72.1*	*52-141*			
LCS (CP04844-BS1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Aldrin	14.2	1.0	µg/kg	16.7		85.0	47-132			
gamma-BHC (Lindane)	16.7	10	"	16.7		100	56-133			
4,4´-DDT	12.2	15	"	16.7		73.1	46-137			
Dieldrin	14.7	1.0	"	16.7		88.0	44-143			
Endrin	15.9	15	"	16.7		95.2	30-147			
Heptachlor	14.2	10	"	16.7		85.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.86*		*"*	*8.33*		*94.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.02*		*"*	*8.33*		*96.3*	*52-141*			
LCS Dup (CP04844-BSD1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Aldrin	11.5	1.0	µg/kg	16.7		68.9	47-132	21.0	30	
gamma-BHC (Lindane)	12.4	10	"	16.7		74.3	56-133	29.6	30	
4,4´-DDT	8.73	15	"	16.7		52.3	46-137	33.2	30	QR-2
Dieldrin	11.2	1.0	"	16.7		67.1	44-143	27.0	30	
Endrin	11.8	15	"	16.7		70.7	30-147	29.6	30	
Heptachlor	11.3	10	"	16.7		67.7	33-148	22.7	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04844 - LUFT-DHS GCNV										
LCS Dup (CP04844-BSD1)				Prepared: 06/28/06	Analyzed: 06/29/06					
Surrogate: Tetrachloro-meta-xylene	*6.31*		*µg/kg*	*8.33*		*75.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.09*		*"*	*8.33*		*73.1*	*52-141*			
Matrix Spike (CP04844-MS1)		**Source: CPF0748-82**		Prepared: 06/28/06	Analyzed: 06/29/06					**QM-5**
Aldrin	ND	50	µg/kg	16.7	ND		47-138			
gamma-BHC (Lindane)	ND	500	"	16.7	ND		38-144			
4,4´-DDT	181	750	"	16.7	180	5.99	41-157			
Dieldrin	ND	50	"	16.7	ND		46-155			
Endrin	36.2	750	"	16.7	ND	217	34-149			
Heptachlor	ND	500	"	16.7	ND		36-155			
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*20.8*			*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			
Matrix Spike Dup (CP04844-MSD1)		**Source: CPF0748-82**		Prepared: 06/28/06	Analyzed: 06/29/06					**QM-5**
Aldrin	ND	50	µg/kg	16.7	ND		47-138		35	
gamma-BHC (Lindane)	ND	500	"	16.7	ND		38-144		35	
4,4´-DDT	161	750	"	16.7	180	NR	41-157	11.7	35	
Dieldrin	ND	50	"	16.7	ND		46-155		35	
Endrin	ND	750	"	16.7	ND		34-149		35	
Heptachlor	ND	500	"	16.7	ND		36-155		35	
Surrogate: Tetrachloro-meta-xylene	*0.00*		*"*	*20.8*			*46-139*			
Surrogate: Decachlorobiphenyl	*0.00*		*"*	*20.8*			*52-141*			
Batch CP04851 - LUFT-DHS GCNV										
Blank (CP04851-BLK1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Blank (CP04851-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Heptachlor	ND	10	µg/kg							
Surrogate: Tetrachloro-meta-xylene	*6.23*		*"*	*8.33*		*74.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.06*		*"*	*8.33*		*84.8*	*52-141*			
LCS (CP04851-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	10.8	1.0	µg/kg	16.7		64.7	47-132			
gamma-BHC (Lindane)	11.9	10	"	16.7		71.3	56-133			
4,4´-DDT	10.3	15	"	16.7		61.7	46-137			
Dieldrin	11.9	1.0	"	16.7		71.3	44-143			
Endrin	11.0	15	"	16.7		65.9	30-147			
Heptachlor	10.9	10	"	16.7		65.3	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.48*		*"*	*8.33*		*65.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.29*		*"*	*8.33*		*75.5*	*52-141*			
LCS Dup (CP04851-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	11.2	1.0	µg/kg	16.7		67.1	47-132	3.64	30	
gamma-BHC (Lindane)	12.2	10	"	16.7		73.1	56-133	2.49	30	
4,4´-DDT	11.0	15	"	16.7		65.9	46-137	6.57	30	
Dieldrin	12.4	1.0	"	16.7		74.3	44-143	4.12	30	
Endrin	11.5	15	"	16.7		68.9	30-147	4.44	30	
Heptachlor	10.9	10	"	16.7		65.3	33-148	0.00	30	
Surrogate: Tetrachloro-meta-xylene	*5.67*		*"*	*8.33*		*68.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.43*		*"*	*8.33*		*77.2*	*52-141*			
Matrix Spike (CP04851-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	9.35	10	µg/kg	16.7	ND	56.0	47-138			
gamma-BHC (Lindane)	10.5	100	"	16.7	ND	62.9	38-144			
4,4´-DDT	124	150	"	16.7	65	353	41-157			QM-4X
Dieldrin	18.2	10	"	16.7	ND	109	46-155			
Endrin	37.9	150	"	16.7	ND	227	34-149			QM-4X
Heptachlor	9.95	100	"	16.7	ND	59.6	36-155			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Matrix Spike (CP04851-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Surrogate: Tetrachloro-meta-xylene	*15.5*		*µg/kg*	*20.8*		*74.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.3*		*"*	*20.8*		*102*	*52-141*			
Matrix Spike Dup (CP04851-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	8.96	10	µg/kg	16.7	ND	53.7	47-138	4.26	35	
gamma-BHC (Lindane)	9.44	100	"	16.7	ND	56.5	38-144	10.6	35	
4,4´-DDT	106	150	"	16.7	65	246	41-157	15.7	35	QM-4X
Dieldrin	15.6	10	"	16.7	ND	93.4	46-155	15.4	35	
Endrin	33.7	150	"	16.7	ND	202	34-149	11.7	35	QM-4X
Heptachlor	9.52	100	"	16.7	ND	57.0	36-155	4.42	35	
Surrogate: Tetrachloro-meta-xylene	*14.6*		*"*	*20.8*		*70.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.1*		*"*	*20.8*		*101*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04746 - LUFT-DHS GCNV										
Blank (CP04746-BLK1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04746-BS1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.3	20	µg/kg	83.3		104	29-131			
LCS Dup (CP04746-BSD1)				Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	86.6	20	µg/kg	83.3		104	29-131	0.347	30	
Matrix Spike (CP04746-MS1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	249	20	µg/kg	83.3	150	119	29-131			
Matrix Spike Dup (CP04746-MSD1)		**Source: CPF0718-66**		Prepared: 06/26/06		Analyzed: 06/28/06				
Aroclor 1260	253	20	µg/kg	83.3	150	124	29-131	1.59	30	
Batch CP04793 - LUFT-DHS GCNV										
Blank (CP04793-BLK1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04793 - LUFT-DHS GCNV										
LCS (CP04793-BS1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	61.0	20	µg/kg	83.3		73.2	29-131			
LCS Dup (CP04793-BSD1)				Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	61.1	20	µg/kg	83.3		73.3	29-131	0.164	30	
Matrix Spike (CP04793-MS1)		**Source: CPF0748-25**		Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	64.9	20	µg/kg	83.3	ND	77.9	29-131			
Matrix Spike Dup (CP04793-MSD1)		**Source: CPF0748-25**		Prepared: 06/27/06		Analyzed: 06/29/06				
Aroclor 1260	67.6	20	µg/kg	83.3	ND	81.2	29-131	4.08	30	
Batch CP04811 - LUFT-DHS GCNV										
Blank (CP04811-BLK1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04811-BS1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	84.4	20	µg/kg	83.3		101	29-131			
LCS Dup (CP04811-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	82.3	20	µg/kg	83.3		98.8	29-131	2.52	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04811 - LUFT-DHS GCNV										
Matrix Spike (CP04811-MS1)		**Source: CPF0748-37**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	79800	10000	µg/kg	83.3	52000	NR	29-131			QM-4X
Matrix Spike Dup (CP04811-MSD1)		**Source: CPF0748-37**		Prepared: 06/28/06		Analyzed: 06/29/06				
Aroclor 1260	137000	10000	µg/kg	83.3	52000	NR	29-131	52.8	30	QM-4X
Batch CP04836 - LUFT-DHS GCNV										
Blank (CP04836-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04836-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	72.0	20	µg/kg	83.3		86.4	29-131			
LCS Dup (CP04836-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	75.5	20	µg/kg	83.3		90.6	29-131	4.75	30	
Matrix Spike (CP04836-MS1)		**Source: CPF0748-68**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	194	20	µg/kg	83.3	16	214	29-131			QM-5
Matrix Spike Dup (CP04836-MSD1)		**Source: CPF0748-68**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	192	20	µg/kg	83.3	16	211	29-131	1.04	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04845 - LUFT-DHS GCNV										
Blank (CP04845-BLK1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04845-BS1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	64.5	20	µg/kg	83.3		77.4	29-131			
LCS Dup (CP04845-BSD1)				Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	64.3	20	µg/kg	83.3		77.2	29-131	0.311	30	
Matrix Spike (CP04845-MS1)		**Source: CPF0748-80**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	4000	400	µg/kg	83.3	550	NR	29-131			QM-5
Matrix Spike Dup (CP04845-MSD1)		**Source: CPF0748-80**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aroclor 1260	3780	400	µg/kg	83.3	550	NR	29-131	5.66	30	QM-5
Batch CP04852 - LUFT-DHS GCNV										
Blank (CP04852-BLK1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04852 - LUFT-DHS GCNV										
LCS (CP04852-BS1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	91.1	20	µg/kg	83.3		109	29-131			
LCS Dup (CP04852-BSD1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	94.7	20	µg/kg	83.3		114	29-131	3.88	30	
Matrix Spike (CP04852-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1400	20	µg/kg	83.3	160	NR	29-131			QM-4X
Matrix Spike Dup (CP04852-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1500	20	µg/kg	83.3	160	NR	29-131	6.90	30	QM-4X

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04790 - EPA 5030 Soil GC										
Blank (CP04790-BLK1)				Prepared: 06/26/06		Analyzed: 06/27/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0818*		*"*	*0.100*		*81.8*	*65-135*			
LCS (CP04790-BS1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.87	1.0	mg/kg	2.50		115	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0881*		*"*	*0.100*		*88.1*	*65-135*			
LCS Dup (CP04790-BSD1)				Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	2.97	1.0	mg/kg	2.50		119	65-135	3.42	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0935*		*"*	*0.100*		*93.5*	*65-135*			
Matrix Spike (CP04790-MS1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.166*		*"*	*0.100*		*166*	*65-135*			*QS-4*
Matrix Spike Dup (CP04790-MSD1)		**Source: CPF0719-05**		Prepared: 06/26/06		Analyzed: 06/27/06				
Gasoline	3.20	1.0	mg/kg	2.50	0.61	104	63-124	0.00	35	
Surrogate: o-Chlorotoluene (Gas)	*0.153*		*"*	*0.100*		*153*	*65-135*			*QS-4*
Batch CP04803 - EPA 5030 Soil GC										
Blank (CP04803-BLK1)				Prepared: 06/27/06		Analyzed: 06/28/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0896*		*"*	*0.100*		*89.6*	*65-135*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04803 - EPA 5030 Soil GC										
LCS (CP04803-BS1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.31	1.0	mg/kg	2.50		92.4	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.101*		*"*	*0.100*		*101*	*65-135*			
LCS Dup (CP04803-BSD1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.91	1.0	mg/kg	2.50		116	65-135	23.0	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0948*		*"*	*0.100*		*94.8*	*65-135*			
Matrix Spike (CP04803-MS1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.56	1.0	mg/kg	2.50	ND	102	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0921*		*"*	*0.100*		*92.1*	*65-135*			
Matrix Spike Dup (CP04803-MSD1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.81	1.0	mg/kg	2.50	ND	112	63-124	9.31	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0927*		*"*	*0.100*		*92.7*	*65-135*			

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:20

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
Acetone	ND	100	µg/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	10	"							
2-Butanone	ND	100	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	10	"							
o-Chlorotoluene	ND	5.0	"							
p-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2-Dichloropropane	ND	5.0	µg/kg							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:20

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2,4-Trimethylbenzene	ND	5.0	µg/kg							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
Surrogate: 1,2-Dichloroethane-d4	*54.8*		*"*	*50.0*		*110*	*50-125*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.9*		*"*	*50.0*		*106*	*50-128*			
LCS (CP04785-BS1)				Prepared & Analyzed: 06/27/06						
Benzene	51.0	5.0	µg/kg	50.0		102	64-135			
Chlorobenzene	51.8	5.0	"	50.0		104	67-133			
1,1-Dichloroethene	50.6	5.0	"	50.0		101	53-137			
Toluene	51.3	5.0	"	50.0		103	61-138			
Trichloroethene	50.9	5.0	"	50.0		102	64-130			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.0*		*101*	*50-125*			
Surrogate: Toluene-d8	*50.3*		*"*	*50.0*		*101*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*49.0*		*"*	*50.0*		*98.0*	*50-128*			
LCS Dup (CP04785-BSD1)				Prepared & Analyzed: 06/27/06						
Benzene	47.4	5.0	µg/kg	50.0		94.8	64-135	7.32	30	
Chlorobenzene	49.7	5.0	"	50.0		99.4	67-133	4.14	30	
1,1-Dichloroethene	55.5	5.0	"	50.0		111	53-137	9.24	30	
Toluene	47.6	5.0	"	50.0		95.2	61-138	7.48	30	
Trichloroethene	44.5	5.0	"	50.0		89.0	64-130	13.4	30	
Surrogate: 1,2-Dichloroethane-d4	*50.9*		*"*	*50.0*		*102*	*50-125*			
Surrogate: Toluene-d8	*49.0*		*"*	*50.0*		*98.0*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.4*		*"*	*50.0*		*105*	*50-128*			
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06	Analyzed: 06/28/06					
Benzene	49.1	5.0	µg/kg	50.0	ND	98.2	58-139			
Chlorobenzene	46.1	5.0	"	50.0	ND	92.2	62-134			
1,1-Dichloroethene	69.8	5.0	"	50.0	ND	140	53-152			
Toluene	47.6	5.0	"	50.0	ND	95.2	58-139			

CALIFORNIA LABORATORY SERVICES

 11/14/06 15:20

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Trichloroethene	44.4	5.0	µg/kg	50.0	ND	88.8	55-138			
Surrogate: 1,2-Dichloroethane-d4	*61.5*		"	*50.0*		*123*	*50-125*			
Surrogate: Toluene-d8	*48.2*		"	*50.0*		*96.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*55.2*		"	*50.0*		*110*	*50-128*			
Matrix Spike Dup (CP04785-MSD1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Benzene	44.3	5.0	µg/kg	50.0	ND	88.6	58-139	10.3	30	
Chlorobenzene	37.8	5.0	"	50.0	ND	75.6	62-134	19.8	30	
1,1-Dichloroethene	63.6	5.0	"	50.0	ND	127	53-152	9.30	30	
Toluene	40.8	5.0	"	50.0	ND	81.6	58-139	15.4	30	
Trichloroethene	39.1	5.0	"	50.0	ND	78.2	55-138	12.7	30	
Surrogate: 1,2-Dichloroethane-d4	*62.9*		"	*50.0*		*126*	*50-125*			*A-COM*
Surrogate: Toluene-d8	*48.7*		"	*50.0*		*97.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*56.0*		"	*50.0*		*112*	*50-128*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0748**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71131,32,33,25,26,27

Notes and Definitions

QS-HI	Surrogate recovery was greater than the upper control limit. A reanalysis was not performed since the analytes associated with the surrogate were not detected.
QS-6	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QRL-8	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QR-2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PCB-2	Adjacent Aroclors have overlap peaks which cause interferences. The detected concentration is greater than the estimated interferences; therefore, the detected result is reported even though it is probably biased high..
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
A-COM	The surrogate recovery was slightly above the criteria.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 20, 2006

CLS Work Order #: CPF0799
COC #: 71134,35,36,37,38,39

Casey Fitzgerald
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: AOI 14 Phase II

Enclosed are the results of analyses for samples received by the laboratory on 06/23/06 15:50. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

(1)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF 0799 LOG NO. 71134

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20 6-4, MOFFETT FIELD CA
PROJECT MANAGER: 650 604 2753 PHONE#
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF / BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [X] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: HOT

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. 1260) AZ BOBZ	DDD, DDE, DDT (incl. BT BOBIA	LEAD & ZINC BT 6010B/7000	TPH-D/-D/-TPH/Motor BT 8015M	VOCs BY 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
062206	1040	PEN-23-6"	SOIL	1	SLEEVE	3	X	X	X							X	
	1039	PEN-23-2'				3	X	X	X							X	
	1045	PEN-23-4'				3	X	X	X	X	X	X				X	
	1043	PEN-23-6'				3	X	X	X							X	
	1048	PEN-23-10'				3	X	X	X							X	
	1045	PEN-23-12'				3	X	X	X							X	
	0919	PEN-34-6"				3	X	X	X							X	
	0918	PEN-34-2'				3	X	X	X							X	PLEASE RUN PUP
	0922	PEN-34-4'				3	X	X	X							X	INVOICE TO:
	0923	PEN-34-6'				3	X	X	X							X	
	0920	PEN-34-8'				3	X	X	X							X	
	0927	PEN-34-10'				3	X	X	X							X	P.O. #
	0925	PEN-34-12'				3	X	X	X							X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062206 1470		
		6/23/06 @ 0930		Conrad Jr/CLS
	CLS	6/23/06 @ 1550		

RECD AT LAB BY: JONR DATE / TIME: 6-23-6 1550 CONDITIONS / COMMENTS:

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

(2)

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0799 LOG NO. 71135

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T206-4, MOFFETT FIELD
PROJECT MANAGER: 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: ENF / BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: HOT

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBS (INCL 1260) BY 8082	DDD, DDE, DDT (TOTAL) BY 8081A	LEAD & ZINC BY 6010/7420	TPH-DIESEL/JP4/JET FUEL BY 8015M	VOCS BY 8260	TP METALS	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
062206	0955	PEN-35-6"	SOIL	1	SLEEVE	3	X	X	X	X	X	X				X	
	0954	PEN-35-2'				3	X	X	X							X	
	1000	PEN-35-4'				3	X	X	X							X	
	1002	PEN-35-6'				3	X	X	X							X	
	0959	PEN-35-8'				3	X	X	X							X	
	1005	PEN-35-10'				3	X	X	X							X	PLEASE RUN DUP
	1003	PEN-35-12'				3	X	X	X							X	
	0856	PEN-36-6"				3	X	X	X							X	
	0854	PEN-36-2'				3	X	X	X							X	INVOICE TO:
	0959	PEN-36-4'				3	X	X	X							X	
	0901	PEN-36-6'				3	X	X	X							X	
	0857	PEN-36-8'				3	X	X	X							X	P.O. #
	0903	PEN-36-10'				3	X	X	X							X	QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD	062206 1430		
		6/23/06 @ 1274		Conrad Jr / CLS
	CLS	6/23/06 @ 15:00		

REC'D AT LAB BY: DATE / TIME: 6-23-6 1559 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FEDEX ☐ UPS ☒ OTHER CLS-Courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

(3)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF 0799 LOG NO. 71136

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T206-4, MOFFETT FIELD CA
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMI-/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: HOT

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. Aroclors 8082 BY 8082)	PCBs (Congeners) BY 8082	Lead & Zinc BY 6020/7000	TPH-D/-G/-Ext/-Ref/-MO BY 8015M	VOCs BY 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY
062206	0902	PEN-36-12'	SOIL	1	SLEEVE	3	X	X	X							X
	0905	PEN-36-14'				3	X	X	X							X
	1119	N217-1-6"				3	X	X	X							X
	1121	N217-1-2'				3	X	X	X							X
	1117	N217-1-4'				3	X	X	X							X
	1132	N217-2-6"				3	X	X	X							X
	1139	N217-2-2'				3	X	X	X	X	X	X				X
	1139	N217-2-4'				3	X	X	X							X
	1243	N217-6-6"				3	X	X	X							X
	1245	N217-6-2'				3	X	X	X							X
	1241	N217-6-4'				3	X	X	X							X
	1248	N217-6-6'				3	X	X	X							X
	1246	N217-6-8'				3	X	X	X							X

INVOICE TO: PLEASE RUN DUP
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD	062206 1430		
		6/23/06 @1754		Centrage/CLS
	CLS	6/23/06 @1550H		

REC'D AT LAB BY: Sam DATE / TIME: 6-23-6 15:50 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-Courier AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project: AOI 14 Phase II
Project Number: N140-200
Project Manager: Casey Fitzgerald

CLS Work Order #: CPF0799
COC #: 71134,35,36,37,38,39

(4)

CLS - Labs CHAIN OF CUSTODY CLS ID No.; CPF0799 LOG NO. 71137

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T200-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: BRO BOY PHONE#: 2713
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF / BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER:
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [X] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: HOT

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY (circled)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	Lead, Zinc (EPA 6020)	Oil, Grease (EPA 1664)	Lead & Zinc by 6020	EPA-01-CT-TPH-M (8015)	VOCs 8260	PP METALS	10 DAY	ALT. ID:
062206	1250	N217-6-10'	SOIL	1	SLEEVE	3	X	X	X				X	
	1249	N217-6-12'				3	X	X	X				X	
	1320	N217-7-6"				3	X	X	X	X	X	X	X	
	1322	N217-7-2'				3	X	X	X				X	
	1318	N217-7-4'				3	X	X	X				X	
	1324	N217-7-6'				3	X	X	X				X	
	1323	N217-7-8'				3	X	X	X				X	PLEASE RUN DUP.
	1327	N217-7-10'				3	X	X	X				X	
	1326	N217-7-12'				3	X	X	X				X	
	1007	PEN-35-14'				3	X	X	X					

INVOICE TO:
P.O. #:
QUOTE #:

SUSPECTED CONSTITUENTS:
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD	062206 1430		
	CLS	6/23/06 @ 1324		CONTRACTOR/CLS
		6/23/06 @ 1550		

RECV'D AT LAB BY: SON
DATE / TIME: 6-23-6 1559
CONDITIONS / COMMENTS:
SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER
AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

(5)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0799 LOG NO. 71138

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, MS T20G-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: PHONE# 650 604 2753
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CNF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: WARM, BREEZY, HAZY

TURN AROUND TIME: 1 DAY, 2 DAY, 5 DAY, 10 DAY (circled)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. 1268) BY 8082	ODD, DDE, DDT (total) BY 8081A	LEAD & ZINC BY 6010B/7000	TPH-D/-G/-JP4/5/8/-MO BY 8015M	VOCs BY 8260	PP METALS	1 DAY	2 DAY	5 DAY	10 DAY	ALT. ID:
062306	0835	N217-3-6"	SOIL	1	SLEEVE	3	X	X	X							X	
	0837	N217-3-2'				3	X	X	X							X	
	0834	N217-3-4'				3	X	X	X							X	
	0840	N217-3-6'				3	X	X	X							X	PLEASE RUN DUP *
	0838	N217-3-8'				3	X	X	X							X	
	0843	N217-3-10'				3	X	X	X							X	
	0855	N217-4-6"				3	X	X	X	X	X	X				X	
	0856	N217-4-2'				3	X	X	X							X	
	0852	N217-4-4'				3	X	X	X							X	
	0859	N217-4-6'				3	X	X	X							X	
	0858	N217-4-8'				3	X	X	X							X	
	0901	N217-4-10'				3	X	X	X							X	
	0910	N217-5-6"				3	X	X	X							X	

LAB

INVOICE TO:
P.O. #
QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062306 1223		CONRADIR / CLS
	CLS	6/23/06 @ 1550		

REC'D AT LAB BY: JONR DATE / TIME: 6-23-6 1550 CONDITIONS / COMMENTS:

SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

CALIFORNIA LABORATORY SERVICES

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

(6)

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CPF0799 LOG NO. 71139

REPORT TO:
NAME AND ADDRESS: CASEY FITZGERALD, NS T206-4, MOFFETT FIELD CA 94035
PROJECT MANAGER: 650 604 2773 PHONE#
PROJECT NAME: AOI 14 PHASE II
SAMPLED BY: CMF/BDR
JOB DESCRIPTION:
SITE LOCATION:

CLIENT JOB NUMBER: N140-200
DESTINATION LABORATORY: ☒ CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 ☐ OTHER

GEOTRACKER: EDF REPORT ☐ YES ☒ NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: WARM, BREEZY, HAZY

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY (10 DAY circled)
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl 1268) BY 8082	PAD, DDE, DDT (total) BY 8081A	LEAD & ZINC BY 6010B/7000	10 DAY
062306	0911	N217-5-2'	SOIL	1	SLEEVE	3	X	X	X	X
	0909	N217-5-4'				3	X	X	X	X
	0917	N217-5-8'				3	X	X	X	X
	0914	N217-5-10'				3	X	X	X	X
	0920	N217-5-12'				3	X	X	X	X

INVOICE TO:
P.O. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
	CASEY FITZGERALD / SAIC	062306 / 1223		CONRAD JR / CLS
		6/23/06 @ 1550		

REC'D AT LAB BY: JONR DATE / TIME: 6-23-6 1550 CONDITIONS / COMMENTS:
SHIPPED BY: ☐ FED X ☐ UPS ☒ OTHER CLS-COURIER AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 07/20/06 12:04

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Diesel	ND	1.0	mg/kg	1	CP04841	06/28/06	06/29/06	EPA 8015M	
Motor Oil	**29**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
Diesel	ND	1.0	mg/kg	1	CP04841	06/28/06	06/29/06	EPA 8015M	
Motor Oil	**20**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Diesel	ND	1.0	mg/kg	1	CP04841	06/28/06	06/29/06	EPA 8015M	
Motor Oil	**33**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
Diesel	ND	1.0	mg/kg	1	CP04841	06/28/06	06/29/06	EPA 8015M	
Motor Oil	ND	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
Diesel	ND	1.0	mg/kg	1	CP04841	06/28/06	06/29/06	EPA 8015M	
Motor Oil	**80**	1.0	"	"	"	"	"	"	
JP-5/JP-8	ND	1.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-6'' (CPF0799-01) Soil Sampled: 06/22/06 10:40 Received: 06/23/06 15:50									
Lead	**36**	2.5	mg/kg	1	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**100**	5.0	"	"	"	"	"	"	
PEN-23-2' (CPF0799-02) Soil Sampled: 06/22/06 10:39 Received: 06/23/06 15:50									
Lead	**42**	12	mg/kg	5	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**91**	25	"	"	"	"	"	"	
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Mercury	**0.32**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	2.5	"	"	CP04857	06/28/06	06/29/06	EPA 6010B	
Beryllium	**0.36**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**55**	1.0	"	"	"	"	"	"	
Copper	**31**	1.0	"	"	"	"	"	"	
Lead	**48**	2.5	"	"	"	"	"	"	
Nickel	**43**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**89**	1.0	"	"	"	"	"	"	
Arsenic	**6.5**	1.0	"	4	CP04856	06/28/06	06/29/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	**48**	2.5	"	1	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**89**	5.0	"	"	"	"	"	"	
PEN-23-6' (CPF0799-04) Soil Sampled: 06/22/06 10:43 Received: 06/23/06 15:50									
Lead	**23**	2.5	mg/kg	1	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**60**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-10' (CPF0799-05) Soil Sampled: 06/22/06 10:48 Received: 06/23/06 15:50									
Lead	**23**	2.5	mg/kg	1	CP04857	06/28/06	06/30/06	EPA 6010B	
Zinc	**64**	5.0	"	"	"	"	06/30/06	"	
PEN-23-12' (CPF0799-06) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Lead	**3.9**	2.5	mg/kg	1	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**35**	5.0	"	"	"	"	"	"	
PEN-34-6'' (CPF0799-07) Soil Sampled: 06/22/06 09:19 Received: 06/23/06 15:50									
Lead	**12**	2.5	mg/kg	1	CP04857	06/28/06	06/29/06	EPA 6010B	
Zinc	**61**	5.0	"	"	"	"	"	"	
PEN-34-2' (CPF0799-08) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Lead	**17**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**88**	15	"	"	"	"	"	"	
PEN-34-2' DUP (CPF0799-09) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Lead	**21**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**91**	15	"	"	"	"	"	"	
PEN-34-4' (CPF0799-10) Soil Sampled: 06/22/06 09:22 Received: 06/23/06 15:50									
Lead	**36**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**82**	15	"	"	"	"	"	"	
PEN-34-6' (CPF0799-11) Soil Sampled: 06/22/06 09:23 Received: 06/23/06 15:50									
Lead	**11**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**54**	15	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-8' (CPF0799-12) Soil Sampled: 06/22/06 09:20 Received: 06/23/06 15:50									
Lead	**15**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**52**	15	"	"	"	"	"	"	
PEN-34-10' (CPF0799-13) Soil Sampled: 06/22/06 09:27 Received: 06/23/06 15:50									
Lead	**53**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**53**	15	"	"	"	"	"	"	
PEN-34-12' (CPF0799-14) Soil Sampled: 06/22/06 09:25 Received: 06/23/06 15:50									
Lead	**12**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**33**	15	"	"	"	"	"	"	
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
Mercury	**0.11**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	7.5	"	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Beryllium	ND	0.75	"	"	"	"	"	"	
Cadmium	ND	1.5	"	"	"	"	"	"	
Chromium	**59**	3.0	"	"	"	"	"	"	
Copper	**33**	3.0	"	"	"	"	"	"	
Lead	ND	7.5	"	"	"	"	"	"	
Nickel	**60**	3.0	"	"	"	"	"	"	
Silver	ND	1.5	"	"	"	"	"	"	
Zinc	**70**	3.0	"	"	"	"	"	"	
Arsenic	**4.8**	1.0	"	4	CP04856	06/28/06	06/29/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	7.5	"	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**70**	15	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-2' (CPF0799-16) Soil Sampled: 06/22/06 09:54 Received: 06/23/06 15:50									
Lead	**11**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**53**	15	"	"	"	"	"	"	
PEN-35-4' (CPF0799-17) Soil Sampled: 06/22/06 10:00 Received: 06/23/06 15:50									
Lead	**9.8**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**80**	15	"	"	"	"	"	"	
PEN-35-6' (CPF0799-18) Soil Sampled: 06/22/06 10:02 Received: 06/23/06 15:50									
Lead	**210**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**54**	15	"	"	"	"	"	"	
PEN-35-8' (CPF0799-19) Soil Sampled: 06/22/06 09:59 Received: 06/23/06 15:50									
Lead	**10**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**54**	15	"	"	"	"	"	"	
PEN-35-10' (CPF0799-20) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Lead	**26**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**54**	15	"	"	"	"	"	"	
PEN-35-10' DUP (CPF0799-21) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Lead	**24**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**57**	15	"	"	"	"	"	"	
PEN-35-12' (CPF0799-22) Soil Sampled: 06/22/06 10:03 Received: 06/23/06 15:50									
Lead	**7.6**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**71**	15	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 07/20/06 12:04

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-6'' (CPF0799-23) Soil Sampled: 06/22/06 08:56 Received: 06/23/06 15:50									
Lead	**15**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**95**	15	"	"	"	"	"	"	
PEN-36-2' (CPF0799-24) Soil Sampled: 06/22/06 08:54 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**39**	15	"	"	"	"	"	"	
PEN-36-4' (CPF0799-25) Soil Sampled: 06/22/06 08:59 Received: 06/23/06 15:50									
Lead	**18**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**84**	15	"	"	"	"	"	"	
PEN-36-6' (CPF0799-26) Soil Sampled: 06/22/06 09:01 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**57**	15	"	"	"	"	"	"	
PEN-36-8' (CPF0799-27) Soil Sampled: 06/22/06 08:57 Received: 06/23/06 15:50									
Lead	**29**	7.5	mg/kg	3	CP04870	06/29/06	06/29/06	EPA 6010B	
Zinc	**65**	15	"	"	"	"	"	"	
PEN-36-10' (CPF0799-28) Soil Sampled: 06/22/06 09:03 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**39**	15	"	"	"	"	"	"	
PEN-36-12' (CPF0799-29) Soil Sampled: 06/22/06 09:02 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**74**	15	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-14' (CPF0799-30) Soil Sampled: 06/22/06 09:05 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**41**	15	"	"	"	"	"	"	
N217-1-6'' (CPF0799-31) Soil Sampled: 06/22/06 11:19 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**49**	15	"	"	"	"	"	"	
N217-1-2' (CPF0799-32) Soil Sampled: 06/22/06 11:21 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**39**	15	"	"	"	"	"	"	
N217-1-4' (CPF0799-33) Soil Sampled: 06/22/06 11:17 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**37**	15	"	"	"	"	"	"	
N217-2-6'' (CPF0799-34) Soil Sampled: 06/22/06 11:32 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**37**	15	"	"	"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	7.5	"	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Beryllium	ND	0.75	"	"	"	"	"	"	
Cadmium	ND	1.5	"	"	"	"	"	"	
Chromium	**20**	3.0	"	"	"	"	"	"	
Copper	**9.3**	3.0	"	"	"	"	"	"	
Lead	ND	7.5	"	"	"	"	"	"	
Nickel	**30**	3.0	"	"	"	"	"	"	
Silver	ND	1.5	"	"	"	"	"	"	
Zinc	**24**	3.0	"	"	"	"	"	"	
Arsenic	**2.6**	1.0	"	4	CP04856	06/28/06	06/29/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	7.5	"	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**24**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2-4' (CPF0799-36) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**42**	15	"	"	"	"	"	"	
N217-6-6'' (CPF0799-37) Soil Sampled: 06/22/06 12:43 Received: 06/23/06 15:50									
Lead	**14**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**68**	15	"	"	"	"	"	"	
N217-6-2' (CPF0799-38) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Lead	**9.3**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**59**	15	"	"	"	"	"	"	
N217-6-2' DUP (CPF0799-39) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Lead	**12**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**58**	15	"	"	"	"	"	"	
N217-6-4' (CPF0799-40) Soil Sampled: 06/22/06 12:41 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**57**	15	"	"	"	"	"	"	
N217-6-6' (CPF0799-41) Soil Sampled: 06/22/06 12:48 Received: 06/23/06 15:50									
Lead	**13**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**48**	15	"	"	"	"	"	"	
N217-6-8' (CPF0799-42) Soil Sampled: 06/22/06 12:46 Received: 06/23/06 15:50									
Lead	**280**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**53**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-10' (CPF0799-43) Soil Sampled: 06/22/06 12:50 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**36**	15	"	"	"	"	"	"	
N217-6-12' (CPF0799-44) Soil Sampled: 06/22/06 12:49 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**38**	15	"	"	"	"	"	"	
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
Mercury	ND	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	7.5	"	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Beryllium	ND	0.75	"	"	"	"	"	"	
Cadmium	ND	1.5	"	"	"	"	"	"	
Chromium	**61**	3.0	"	"	"	"	"	"	
Copper	**30**	3.0	"	"	"	"	"	"	
Lead	ND	7.5	"	"	"	"	"	"	
Nickel	**62**	3.0	"	"	"	"	"	"	
Silver	ND	1.5	"	"	"	"	"	"	
Zinc	**56**	3.0	"	"	"	"	"	"	
Arsenic	**3.9**	1.0	"	4	CP04856	06/28/06	06/29/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	7.5	"	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**56**	15	"	"	"	"	"	"	
N217-7-2' (CPF0799-46) Soil Sampled: 06/22/06 13:22 Received: 06/23/06 15:50									
Lead	**9.6**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**58**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-4' (CPF0799-47) Soil Sampled: 06/22/06 13:18 Received: 06/23/06 15:50									
Lead	**11**	7.5	mg/kg	3	CP04872	06/29/06	06/29/06	EPA 6010B	
Zinc	**48**	15	"	"	"	"	"	"	
N217-7-6' (CPF0799-48) Soil Sampled: 06/22/06 13:24 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**56**	15	"	"	"	"	"	"	
N217-7-8' (CPF0799-49) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**66**	15	"	"	"	"	"	"	
N217-7-8' DUP (CPF0799-50) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Lead	**8.7**	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**65**	15	"	"	"	"	"	"	
N217-7-10' (CPF0799-51) Soil Sampled: 06/22/06 13:27 Received: 06/23/06 15:50									
Lead	**7.6**	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**61**	15	"	"	"	"	"	"	
N217-7-12' (CPF0799-52) Soil Sampled: 06/22/06 13:26 Received: 06/23/06 15:50									
Lead	**9.3**	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**68**	15	"	"	"	"	"	"	
PEN-35-14' (CPF0799-53) Soil Sampled: 06/22/06 10:07 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**51**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-6'' (CPF0799-54) Soil Sampled: 06/23/06 08:35 Received: 06/23/06 15:50									
Lead	ND	12	mg/kg	5	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**55**	25	"	"	"	"	"	"	
N217-3-2' (CPF0799-55) Soil Sampled: 06/23/06 08:37 Received: 06/23/06 15:50									
Lead	**14**	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**52**	15	"	"	"	"	"	"	
N217-3-4' (CPF0799-56) Soil Sampled: 06/23/06 08:34 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**27**	15	"	"	"	"	"	"	
N217-3-6' (CPF0799-57) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**67**	15	"	"	"	"	"	"	
N217-3-6' DUP (CPF0799-58) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**65**	15	"	"	"	"	"	"	
N217-3-8' (CPF0799-59) Soil Sampled: 06/23/06 08:38 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**48**	15	"	"	"	"	"	"	
N217-3-10' (CPF0799-60) Soil Sampled: 06/23/06 08:43 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**40**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
Mercury	**0.25**	0.10	mg/kg	1	CP04789	06/27/06	06/27/06	EPA 7471A	
Antimony	ND	7.5	"	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Beryllium	ND	0.75	"	"	"	"	"	"	
Cadmium	ND	1.5	"	"	"	"	"	"	
Chromium	**22**	3.0	"	"	"	"	"	"	
Copper	**17**	3.0	"	"	"	"	"	"	
Lead	ND	7.5	"	"	"	"	"	"	
Nickel	**27**	3.0	"	"	"	"	"	"	
Silver	ND	1.5	"	"	"	"	"	"	
Zinc	**36**	3.0	"	"	"	"	"	"	
Arsenic	**1.7**	1.0	"	4	CP04856	06/28/06	06/29/06	EPA 7000	
Selenium	ND	1.0	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Lead	ND	7.5	"	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**70**	15	"	"	"	"	"	"	
N217-4-2' (CPF0799-62) Soil Sampled: 06/23/06 08:56 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**63**	15	"	"	"	"	"	"	
N217-4-4' (CPF0799-63) Soil Sampled: 06/23/06 08:52 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**34**	15	"	"	"	"	"	"	
N217-4-6' (CPF0799-64) Soil Sampled: 06/23/06 08:59 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**45**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-8' (CPF0799-65) Soil Sampled: 06/23/06 08:58 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04892	06/29/06	06/29/06	EPA 6010B	
Zinc	**47**	15	"	"	"	"	"	"	
N217-4-10' (CPF0799-66) Soil Sampled: 06/23/06 09:01 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**40**	15	"	"	"	"	"	"	
N217-5-6'' (CPF0799-67) Soil Sampled: 06/23/06 09:10 Received: 06/23/06 15:50									
Lead	ND	12	mg/kg	5	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**54**	25	"	"	"	"	"	"	
N217-5-2' (CPF0799-68) Soil Sampled: 06/23/06 09:11 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**49**	15	"	"	"	"	"	"	
N217-5-4' (CPF0799-69) Soil Sampled: 06/23/06 09:09 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**58**	15	"	"	"	"	"	"	
N217-5-8' (CPF0799-70) Soil Sampled: 06/23/06 09:17 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**49**	15	"	"	"	"	"	"	
N217-5-10' (CPF0799-71) Soil Sampled: 06/23/06 09:14 Received: 06/23/06 15:50									
Lead	**10**	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**81**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-12' (CPF0799-72) Soil Sampled: 06/23/06 09:20 Received: 06/23/06 15:50									
Lead	ND	7.5	mg/kg	3	CP04912	06/30/06	06/30/06	EPA 6010B	
Zinc	**35**	15	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-6'' (CPF0799-01) Soil Sampled: 06/22/06 10:40 Received: 06/23/06 15:50									**A-COM**
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	
PEN-23-2' (CPF0799-02) Soil Sampled: 06/22/06 10:39 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*52-141*		"	"	"	"	
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN-23-6' (CPF0799-04) Soil Sampled: 06/22/06 10:43 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-10' (CPF0799-05) Soil Sampled: 06/22/06 10:48 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	
PEN-23-12' (CPF0799-06) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
PEN-34-6'' (CPF0799-07) Soil Sampled: 06/22/06 09:19 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**82**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
PEN-34-2' (CPF0799-08) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*168 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*157 %*	*52-141*		"	"	"	"	*QS-4*

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-2' DUP (CPF0799-09) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*154 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*140 %*	*52-141*		"	"	"	"	
PEN-34-4' (CPF0799-10) Soil Sampled: 06/22/06 09:22 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*52-141*		"	"	"	"	
PEN-34-6' (CPF0799-11) Soil Sampled: 06/22/06 09:23 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	**87**	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*131 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*127 %*	*52-141*		"	"	"	"	
PEN-34-8' (CPF0799-12) Soil Sampled: 06/22/06 09:20 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*150 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*142 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-10' (CPF0799-13) Soil Sampled: 06/22/06 09:27 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*135 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*158 %*	*52-141*		"	"	"	"	*QS-4*
PEN-34-12' (CPF0799-14) Soil Sampled: 06/22/06 09:25 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*52-141*		"	"	"	"	
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*160 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*148 %*	*52-141*		"	"	"	"	*QS-4*
PEN-35-2' (CPF0799-16) Soil Sampled: 06/22/06 09:54 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**78**	70	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*165 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*162 %*	*52-141*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-4' (CPF0799-17) Soil Sampled: 06/22/06 10:00 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**200**	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*117 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*116 %*	*52-141*		"	"	"	"	
PEN-35-6' (CPF0799-18) Soil Sampled: 06/22/06 10:02 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*68.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-35-8' (CPF0799-19) Soil Sampled: 06/22/06 09:59 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04851	06/28/06	06/30/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.0 %*	*52-141*		"	"	"	"	
PEN-35-10' (CPF0799-20) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.1 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-10' DUP (CPF0799-21) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*68.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*44.8 %*	*52-141*		"	"	"	"	*QS-1*
PEN-35-12' (CPF0799-22) Soil Sampled: 06/22/06 10:03 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.6 %*	*52-141*		"	"	"	"	
PEN-36-6'' (CPF0799-23) Soil Sampled: 06/22/06 08:56 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.2 %*	*52-141*		"	"	"	"	
PEN-36-2' (CPF0799-24) Soil Sampled: 06/22/06 08:54 Received: 06/23/06 15:50									
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	**450**	400	"	40	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*69.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-4' (CPF0799-25) Soil Sampled: 06/22/06 08:59 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.0 %*	*52-141*		"	"	"	"	
PEN-36-6' (CPF0799-26) Soil Sampled: 06/22/06 09:01 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*113 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
PEN-36-8' (CPF0799-27) Soil Sampled: 06/22/06 08:57 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*111 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.2 %*	*52-141*		"	"	"	"	
PEN-36-10' (CPF0799-28) Soil Sampled: 06/22/06 09:03 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-12' (CPF0799-29) Soil Sampled: 06/22/06 09:02 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*194 %*	*46-139*		"	"	"	"	*QS-2*
Surrogate: Decachlorobiphenyl		*79.8 %*	*52-141*		"	"	"	"	
PEN-36-14' (CPF0799-30) Soil Sampled: 06/22/06 09:05 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*113 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*52-141*		"	"	"	"	
N217-1-6'' (CPF0799-31) Soil Sampled: 06/22/06 11:19 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*103 %*	*52-141*		"	"	"	"	
N217-1-2' (CPF0799-32) Soil Sampled: 06/22/06 11:21 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-1-4' (CPF0799-33) Soil Sampled: 06/22/06 11:17 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*102 %*	*52-141*		"	"	"	"	
N217-2-6'' (CPF0799-34) Soil Sampled: 06/22/06 11:32 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.3 %*	*52-141*		"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.4 %*	*52-141*		"	"	"	"	
N217-2-4' (CPF0799-36) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*91.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-6'' (CPF0799-37) Soil Sampled: 06/22/06 12:43 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*104 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.4 %*	*52-141*		"	"	"	"	
N217-6-2' (CPF0799-38) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*102 %*	*52-141*		"	"	"	"	
N217-6-2' DUP (CPF0799-39) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04882	06/29/06	07/06/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.2 %*	*52-141*		"	"	"	"	
N217-6-4' (CPF0799-40) Soil Sampled: 06/22/06 12:41 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*117 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*131 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-6' (CPF0799-41) Soil Sampled: 06/22/06 12:48 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.0 %*	*52-141*		"	"	"	"	
N217-6-8' (CPF0799-42) Soil Sampled: 06/22/06 12:46 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*107 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.9 %*	*52-141*		"	"	"	"	
N217-6-10' (CPF0799-43) Soil Sampled: 06/22/06 12:50 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.5 %*	*52-141*		"	"	"	"	
N217-6-12' (CPF0799-44) Soil Sampled: 06/22/06 12:49 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04904	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*91.3 %*	*52-141*		"	"	"	"	
N217-7-2' (CPF0799-46) Soil Sampled: 06/22/06 13:22 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*107 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.0 %*	*52-141*		"	"	"	"	
N217-7-4' (CPF0799-47) Soil Sampled: 06/22/06 13:18 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-1*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-1*
N217-7-6' (CPF0799-48) Soil Sampled: 06/22/06 13:24 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	750	µg/kg	50	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	750	"	"	"	"	"	"	
4,4´-DDT	ND	750	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*%*	*46-139*		"	"	"	"	*QS-1*
Surrogate: Decachlorobiphenyl		*%*	*52-141*		"	"	"	"	*QS-1*

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-8' (CPF0799-49) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*109 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.5 %*	*52-141*		"	"	"	"	
N217-7-8' DUP (CPF0799-50) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.2 %*	*52-141*		"	"	"	"	
N217-7-10' (CPF0799-51) Soil Sampled: 06/22/06 13:27 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*116 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.8 %*	*52-141*		"	"	"	"	
N217-7-12' (CPF0799-52) Soil Sampled: 06/22/06 13:26 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*118 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.9 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-14' (CPF0799-53) Soil Sampled: 06/22/06 10:07 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*142 %*	*46-139*		"	"	"	"	*QS-4*
Surrogate: Decachlorobiphenyl		*84.6 %*	*52-141*		"	"	"	"	
N217-3-6'' (CPF0799-54) Soil Sampled: 06/23/06 08:35 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	300	µg/kg	20	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	300	"	"	"	"	"	"	
4,4´-DDT	ND	300	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.0 %*	*52-141*		"	"	"	"	
N217-3-2' (CPF0799-55) Soil Sampled: 06/23/06 08:37 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.0 %*	*52-141*		"	"	"	"	
N217-3-4' (CPF0799-56) Soil Sampled: 06/23/06 08:34 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*105 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-6' (CPF0799-57) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.3 %*	*52-141*		"	"	"	"	
N217-3-6' DUP (CPF0799-58) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*72.6 %*	*52-141*		"	"	"	"	
N217-3-8' (CPF0799-59) Soil Sampled: 06/23/06 08:38 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.2 %*	*52-141*		"	"	"	"	
N217-3-10' (CPF0799-60) Soil Sampled: 06/23/06 08:43 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*91.3 %*	*52-141*		"	"	"	"	
N217-4-2' (CPF0799-62) Soil Sampled: 06/23/06 08:56 Received: 06/23/06 15:50									
4,4´-DDD	ND	75	µg/kg	5	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*70.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
N217-4-4' (CPF0799-63) Soil Sampled: 06/23/06 08:52 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*119 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*103 %*	*52-141*		"	"	"	"	
N217-4-6' (CPF0799-64) Soil Sampled: 06/23/06 08:59 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04935	06/30/06	07/07/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*98.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-8' (CPF0799-65) Soil Sampled: 06/23/06 08:58 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.7 %*	*52-141*		"	"	"	"	
N217-4-10' (CPF0799-66) Soil Sampled: 06/23/06 09:01 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*79.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*64.4 %*	*52-141*		"	"	"	"	
N217-5-6'' (CPF0799-67) Soil Sampled: 06/23/06 09:10 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*114 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.0 %*	*52-141*		"	"	"	"	
N217-5-2' (CPF0799-68) Soil Sampled: 06/23/06 09:11 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.7 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-4' (CPF0799-69) Soil Sampled: 06/23/06 09:09 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*102 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.9 %*	*52-141*		"	"	"	"	
N217-5-8' (CPF0799-70) Soil Sampled: 06/23/06 09:17 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*103 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.2 %*	*52-141*		"	"	"	"	
N217-5-10' (CPF0799-71) Soil Sampled: 06/23/06 09:14 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*71.6 %*	*52-141*		"	"	"	"	
N217-5-12' (CPF0799-72) Soil Sampled: 06/23/06 09:20 Received: 06/23/06 15:50									**QRL-8**
4,4´-DDD	ND	150	µg/kg	10	CP04906	06/30/06	07/08/06	EPA 8081A	
4,4´-DDE	ND	150	"	"	"	"	"	"	
4,4´-DDT	ND	150	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*115 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*95.2 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-6'' (CPF0799-01) Soil Sampled: 06/22/06 10:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-2' (CPF0799-02) Soil Sampled: 06/22/06 10:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**180**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**170**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-6' (CPF0799-04) Soil Sampled: 06/22/06 10:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**46**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-10' (CPF0799-05) Soil Sampled: 06/22/06 10:48 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-12' (CPF0799-06) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-6'' (CPF0799-07) Soil Sampled: 06/22/06 09:19 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	PCB-1
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-2' (CPF0799-08) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	**130**	40	"	2	"	"	"	"	A-COMc, PCB-1
PEN-34-2' DUP (CPF0799-09) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**130**	20	"	"	"	"	"	"	
Aroclor 1268	**140**	100	"	5	"	"	"	"	PCB-1, A-COMc

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-4' (CPF0799-10) Soil Sampled: 06/22/06 09:22 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**50**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-6' (CPF0799-11) Soil Sampled: 06/22/06 09:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-8' (CPF0799-12) Soil Sampled: 06/22/06 09:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**27**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-10' (CPF0799-13) Soil Sampled: 06/22/06 09:27 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-12' (CPF0799-14) Soil Sampled: 06/22/06 09:25 Received: 06/23/06 15:50									
Aroclor 1016	ND	200	µg/kg	10	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**94**	20	"	1	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**57**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-2' (CPF0799-16) Soil Sampled: 06/22/06 09:54 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**200**	20	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	5	"	"	"	"	
PEN-35-4' (CPF0799-17) Soil Sampled: 06/22/06 10:00 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**970**	200	"	10	"	"	"	"	
Aroclor 1268	**440**	200	"	"	"	"	"	"	A-COMc, PCB-1
PEN-35-6' (CPF0799-18) Soil Sampled: 06/22/06 10:02 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-8' (CPF0799-19) Soil Sampled: 06/22/06 09:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-10' (CPF0799-20) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-10' DUP (CPF0799-21) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**90**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-12' (CPF0799-22) Soil Sampled: 06/22/06 10:03 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-6'' (CPF0799-23) Soil Sampled: 06/22/06 08:56 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**49**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-2' (CPF0799-24) Soil Sampled: 06/22/06 08:54 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**1500**	400	"	20	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-4' (CPF0799-25) Soil Sampled: 06/22/06 08:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**140**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-6' (CPF0799-26) Soil Sampled: 06/22/06 09:01 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-8' (CPF0799-27) Soil Sampled: 06/22/06 08:57 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-10' (CPF0799-28) Soil Sampled: 06/22/06 09:03 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**36**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-12' (CPF0799-29) Soil Sampled: 06/22/06 09:02 Received: 06/23/06 15:50									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	
Aroclor 1268	ND	200	"	"	"	"	"	"	
PEN-36-14' (CPF0799-30) Soil Sampled: 06/22/06 09:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**31**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-1-6'' (CPF0799-31) Soil Sampled: 06/22/06 11:19 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-1-2' (CPF0799-32) Soil Sampled: 06/22/06 11:21 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-1-4' (CPF0799-33) Soil Sampled: 06/22/06 11:17 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2-6'' (CPF0799-34) Soil Sampled: 06/22/06 11:32 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-2-4' (CPF0799-36) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-6'' (CPF0799-37) Soil Sampled: 06/22/06 12:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**26**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-2' (CPF0799-38) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**27**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-2' DUP (CPF0799-39) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-4' (CPF0799-40) Soil Sampled: 06/22/06 12:41 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-6' (CPF0799-41) Soil Sampled: 06/22/06 12:48 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-8' (CPF0799-42) Soil Sampled: 06/22/06 12:46 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**450**	100	"	5	"	"	"	"	PCB-1
Aroclor 1268	**170**	100	"	"	"	"	"	"	PCB-1, A-COMc

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-10' (CPF0799-43) Soil Sampled: 06/22/06 12:50 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-12' (CPF0799-44) Soil Sampled: 06/22/06 12:49 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-2' (CPF0799-46) Soil Sampled: 06/22/06 13:22 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**90**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-4' (CPF0799-47) Soil Sampled: 06/22/06 13:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**80**	20	"	"	"	"	"	"	PCB-1
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-6' (CPF0799-48) Soil Sampled: 06/22/06 13:24 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-8' (CPF0799-49) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-8' DUP (CPF0799-50) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-10' (CPF0799-51) Soil Sampled: 06/22/06 13:27 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-12' (CPF0799-52) Soil Sampled: 06/22/06 13:26 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-14' (CPF0799-53) Soil Sampled: 06/22/06 10:07 Received: 06/23/06 15:50									**QRL-5**
Aroclor 1016	ND	1000	µg/kg	50	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	ND	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
N217-3-6'' (CPF0799-54) Soil Sampled: 06/23/06 08:35 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-2' (CPF0799-55) Soil Sampled: 06/23/06 08:37 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-4' (CPF0799-56) Soil Sampled: 06/23/06 08:34 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-6' (CPF0799-57) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-6' DUP (CPF0799-58) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-8' (CPF0799-59) Soil Sampled: 06/23/06 08:38 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-10' (CPF0799-60) Soil Sampled: 06/23/06 08:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-2' (CPF0799-62) Soil Sampled: 06/23/06 08:56 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-4' (CPF0799-63) Soil Sampled: 06/23/06 08:52 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6' (CPF0799-64) Soil Sampled: 06/23/06 08:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-8' (CPF0799-65) Soil Sampled: 06/23/06 08:58 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-10' (CPF0799-66) Soil Sampled: 06/23/06 09:01 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-6'' (CPF0799-67) Soil Sampled: 06/23/06 09:10 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-2' (CPF0799-68) Soil Sampled: 06/23/06 09:11 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-4' (CPF0799-69) Soil Sampled: 06/23/06 09:09 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-8' (CPF0799-70) Soil Sampled: 06/23/06 09:17 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-10' (CPF0799-71) Soil Sampled: 06/23/06 09:14 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-12' (CPF0799-72) Soil Sampled: 06/23/06 09:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.5 %*	*65-135*		"	"	"	"	
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*84.0 %*	*65-135*		"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.8 %*	*65-135*		"	"	"	"	
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*85.0 %*	*65-135*		"	"	"	"	
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
JP-4	ND	1.0	mg/kg	1	CP04803	06/27/06	06/28/06	EPA 8015M	
Gasoline	ND	1.0	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*86.4 %*	*65-135*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*	*50-125*		"	"	"	"	
Surrogate: Toluene-d8		*97.0 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-6'' (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*135 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*100 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*128 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.8 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*110 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project:	AOI 14 Phase II	
NASA Ames MS T20-G	Project Number:	N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager:	Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-6'' (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*128 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*98.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
Acetone	ND	100	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
o-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
p-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane (Freon 12)	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-6'' (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
cis-1,3-Dichloropropene	ND	5.0	µg/kg	1	CP04785	06/27/06	06/27/06	EPA 8260B	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	50	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*133 %*	*50-125*		"	"	"	"	*QS-HI*
Surrogate: Toluene-d8		*94.2 %*	*62-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*120 %*	*50-128*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04841 - CA LUFT - orb shaker										
Blank (CP04841-BLK1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Hydraulic Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
Kerosene	ND	1.0	"							
JP-5/JP-8	ND	1.0	"							
LCS (CP04841-BS1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Diesel	52.2	1.0	mg/kg	50.0		104	65-135			
LCS Dup (CP04841-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Diesel	52.5	1.0	mg/kg	50.0		105	65-135	0.573	30	
Matrix Spike (CP04841-MS1)		**Source: CPF0799-61**		Prepared: 06/28/06		Analyzed: 06/29/06				
Diesel	93.8	1.0	mg/kg	50.0	ND	188	59-138			QM-5
Matrix Spike Dup (CP04841-MSD1)		**Source: CPF0799-61**		Prepared: 06/28/06		Analyzed: 06/29/06				
Diesel	95.5	1.0	mg/kg	50.0	ND	191	59-138	1.80	37	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04789 - EPA 7471A										
Blank (CP04789-BLK1)				Prepared & Analyzed: 06/27/06						
Mercury	ND	0.10	mg/kg							
LCS (CP04789-BS1)				Prepared & Analyzed: 06/27/06						
Mercury	0.709	0.10	mg/kg	0.625		113	75-125			
LCS Dup (CP04789-BSD1)				Prepared & Analyzed: 06/27/06						
Mercury	0.708	0.10	mg/kg	0.625		113	75-125	0.141	25	
Matrix Spike (CP04789-MS1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.748	0.10	mg/kg	0.625	ND	120	75-125			
Matrix Spike Dup (CP04789-MSD1)		**Source: CPF0678-04**		Prepared & Analyzed: 06/27/06						
Mercury	0.736	0.10	mg/kg	0.625	ND	118	75-125	1.62	25	
Batch CP04856 - EPA 3050B										
Blank (CP04856-BLK1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Arsenic	ND	0.25	mg/kg							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CP04856-BS1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Arsenic	4.82	1.0	mg/kg	5.00		96.4	75-125			
Selenium	4.72	1.0	"	5.00		94.4	75-125			
Thallium	4.50	1.0	"	5.00		90.0	75-125			
LCS Dup (CP04856-BSD1)				Prepared: 06/28/06 Analyzed: 06/29/06						
Arsenic	5.02	1.0	mg/kg	5.00		100	75-125	4.07	25	
Selenium	5.14	1.0	"	5.00		103	75-125	8.52	25	
Thallium	4.78	1.0	"	5.00		95.6	75-125	6.03	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04856 - EPA 3050B										
Matrix Spike (CP04856-MS1)		**Source: CPF0557-01**		Prepared: 06/28/06		Analyzed: 06/29/06				
Arsenic	6.06	1.0	mg/kg	5.00	1.4	93.2	75-125			
Selenium	1.96	1.0	"	5.00	ND	39.2	75-125			QM-5
Thallium	4.66	1.0	"	5.00	ND	93.2	75-125			
Matrix Spike Dup (CP04856-MSD1)		**Source: CPF0557-01**		Prepared: 06/28/06		Analyzed: 06/29/06				
Arsenic	5.68	1.0	mg/kg	5.00	1.4	85.6	75-125	6.47	30	
Selenium	2.72	1.0	"	5.00	ND	54.4	75-125	32.5	30	QM-5
Thallium	5.06	1.0	"	5.00	ND	101	75-125	8.23	30	
Batch CP04857 - EPA 3050B										
Blank (CP04857-BLK1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Lead	ND	2.5	mg/kg							
Antimony	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04857-BS1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Antimony	25.1	2.5	mg/kg	25.0		100	75-125			
Lead	25.2	2.5	"	25.0		101	75-125			
Zinc	24.2	5.0	"	25.0		96.8	75-125			
Beryllium	2.46	0.25	"	2.50		98.4	75-125			
Cadmium	2.64	0.50	"	2.50		106	75-125			
Chromium	11.0	1.0	"	10.0		110	75-125			
Copper	12.6	1.0	"	12.5		101	75-125			
Lead	25.2	2.5	"	25.0		101	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04857 - EPA 3050B										
LCS (CP04857-BS1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Nickel	25.1	1.0	mg/kg	25.0		100	75-125			
Silver	2.50	0.50	"	2.50		100	75-125			
Zinc	24.2	1.0	"	25.0		96.8	75-125			
LCS Dup (CP04857-BSD1)				Prepared: 06/28/06		Analyzed: 06/29/06				
Lead	25.3	2.5	mg/kg	25.0		101	75-125	0.396	25	
Antimony	26.4	2.5	"	25.0		106	75-125	5.05	25	
Zinc	24.8	5.0	"	25.0		99.2	75-125	2.45	25	
Beryllium	2.53	0.25	"	2.50		101	75-125	2.81	25	
Cadmium	2.75	0.50	"	2.50		110	75-125	4.08	25	
Chromium	11.8	1.0	"	10.0		118	75-125	7.02	25	
Copper	12.8	1.0	"	12.5		102	75-125	1.57	25	
Lead	25.3	2.5	"	25.0		101	75-125	0.396	25	
Nickel	25.6	1.0	"	25.0		102	75-125	1.97	25	
Silver	2.43	0.50	"	2.50		97.2	75-125	2.84	25	
Zinc	24.8	1.0	"	25.0		99.2	75-125	2.45	25	
Matrix Spike (CP04857-MS1)		**Source: CPF0557-01**		Prepared: 06/28/06		Analyzed: 06/29/06				
Lead	397	2.5	mg/kg	25.0	360	148	75-125			QM-5
Antimony	18.4	2.5	"	25.0	ND	73.6	75-125			QM-5
Zinc	235	5.0	"	25.0	210	100	75-125			
Beryllium	2.45	0.25	"	2.50	ND	98.0	75-125			
Cadmium	4.08	0.50	"	2.50	1.8	91.2	75-125			
Chromium	131	1.0	"	10.0	110	210	75-125			QM-5
Copper	25.1	1.0	"	12.5	13	96.8	75-125			
Lead	397	2.5	"	25.0	360	148	75-125			QM-5
Nickel	30.8	1.0	"	25.0	6.7	96.4	75-125			
Silver	2.85	0.50	"	2.50	0.40	98.0	75-125			
Zinc	235	1.0	"	25.0	210	100	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04857 - EPA 3050B										
Matrix Spike Dup (CP04857-MSD1)		**Source: CPF0557-01**		Prepared: 06/28/06	Analyzed: 06/29/06					
Zinc	241	5.0	mg/kg	25.0	210	124	75-125	2.52	30	
Lead	375	2.5	"	25.0	360	60.0	75-125	5.70	30	QM-5
Antimony	23.6	2.5	"	25.0	ND	94.4	75-125	24.8	30	
Beryllium	2.49	0.25	"	2.50	ND	99.6	75-125	1.62	30	
Cadmium	4.20	0.50	"	2.50	1.8	96.0	75-125	2.90	30	
Chromium	111	1.0	"	10.0	110	10.0	75-125	16.5	30	QM-5
Copper	27.3	1.0	"	12.5	13	114	75-125	8.40	30	
Lead	375	2.5	"	25.0	360	60.0	75-125	5.70	30	QM-5
Nickel	31.6	1.0	"	25.0	6.7	99.6	75-125	2.56	30	
Silver	2.69	0.50	"	2.50	0.40	91.6	75-125	5.78	30	
Zinc	241	1.0	"	25.0	210	124	75-125	2.52	30	
Batch CP04870 - EPA 3050B										
Blank (CP04870-BLK1)				Prepared & Analyzed: 06/29/06						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
Antimony	ND	2.5	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04870 - EPA 3050B										
LCS (CP04870-BS1)				Prepared & Analyzed: 06/29/06						
Zinc	24.6	5.0	mg/kg	25.0		98.4	75-125			
Lead	25.4	2.5	"	25.0		102	75-125			
Antimony	25.6	2.5	"	25.0		102	75-125			
Beryllium	2.47	0.25	"	2.50		98.8	75-125			
Cadmium	2.82	0.50	"	2.50		113	75-125			
Chromium	10.3	1.0	"	10.0		103	75-125			
Copper	12.5	1.0	"	12.5		100	75-125			
Lead	25.4	2.5	"	25.0		102	75-125			
Nickel	25.5	1.0	"	25.0		102	75-125			
Silver	2.57	0.50	"	2.50		103	75-125			
Zinc	24.6	1.0	"	25.0		98.4	75-125			
LCS Dup (CP04870-BSD1)				Prepared & Analyzed: 06/29/06						
Antimony	25.2	2.5	mg/kg	25.0		101	75-125	1.57	25	
Zinc	24.8	5.0	"	25.0		99.2	75-125	0.810	25	
Lead	25.6	2.5	"	25.0		102	75-125	0.784	25	
Beryllium	2.48	0.25	"	2.50		99.2	75-125	0.404	25	
Cadmium	2.86	0.50	"	2.50		114	75-125	1.41	25	
Chromium	10.2	1.0	"	10.0		102	75-125	0.976	25	
Copper	12.5	1.0	"	12.5		100	75-125	0.00	25	
Lead	25.6	2.5	"	25.0		102	75-125	0.784	25	
Nickel	25.2	1.0	"	25.0		101	75-125	1.18	25	
Silver	2.52	0.50	"	2.50		101	75-125	1.96	25	
Zinc	24.8	1.0	"	25.0		99.2	75-125	0.810	25	
Matrix Spike (CP04870-MS1)		**Source: CPF0799-08**		Prepared & Analyzed: 06/29/06						
Antimony	ND	7.5	mg/kg	25.0	ND		75-125			QM-5
Zinc	118	15	"	25.0	88	120	75-125			
Lead	37.8	7.5	"	25.0	17	83.2	75-125			
Beryllium	2.81	0.75	"	2.50	0.36	98.0	75-125			
Cadmium	3.22	1.5	"	2.50	ND	129	75-125			QM-5
Chromium	74.0	3.0	"	10.0	62	120	75-125			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04870 - EPA 3050B										
Matrix Spike (CP04870-MS1)		**Source: CPF0799-08**		Prepared & Analyzed: 06/29/06						
Copper	41.2	3.0	mg/kg	12.5	28	106	75-125			
Lead	37.8	7.5	"	25.0	17	83.2	75-125			
Nickel	79.2	3.0	"	25.0	51	113	75-125			
Silver	2.67	1.5	"	2.50	0.62	82.0	75-125			
Zinc	118	3.0	"	25.0	88	120	75-125			
Matrix Spike Dup (CP04870-MSD1)		**Source: CPF0799-08**		Prepared & Analyzed: 06/29/06						
Zinc	122	15	mg/kg	25.0	88	136	75-125	3.33	30	QM-5
Lead	43.9	7.5	"	25.0	17	108	75-125	14.9	30	
Antimony	ND	7.5	"	25.0	ND		75-125		30	QM-5
Beryllium	2.80	0.75	"	2.50	0.36	97.6	75-125	0.357	30	
Cadmium	3.34	1.5	"	2.50	ND	134	75-125	3.66	30	QM-5
Chromium	82.7	3.0	"	10.0	62	207	75-125	11.1	30	QM-5
Copper	41.8	3.0	"	12.5	28	110	75-125	1.45	30	
Lead	43.9	7.5	"	25.0	17	108	75-125	14.9	30	
Nickel	81.9	3.0	"	25.0	51	124	75-125	3.35	30	
Silver	2.90	1.5	"	2.50	0.62	91.2	75-125	8.26	30	
Zinc	122	3.0	"	25.0	88	136	75-125	3.33	30	QM-5
Batch CP04872 - EPA 3050B										
Blank (CP04872-BLK1)				Prepared & Analyzed: 06/29/06						
Lead	ND	2.5	mg/kg							
Antimony	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04872 - EPA 3050B										
Blank (CP04872-BLK1)				Prepared & Analyzed: 06/29/06						
Zinc	ND	1.0	mg/kg							
LCS (CP04872-BS1)				Prepared & Analyzed: 06/29/06						
Zinc	25.1	5.0	mg/kg	25.0		100	75-125			
Lead	25.8	2.5	"	25.0		103	75-125			
Antimony	25.2	2.5	"	25.0		101	75-125			
Beryllium	2.50	0.25	"	2.50		100	75-125			
Cadmium	2.76	0.50	"	2.50		110	75-125			
Chromium	10.6	1.0	"	10.0		106	75-125			
Copper	12.6	1.0	"	12.5		101	75-125			
Lead	25.8	2.5	"	25.0		103	75-125			
Nickel	25.5	1.0	"	25.0		102	75-125			
Silver	2.56	0.50	"	2.50		102	75-125			
Zinc	25.1	1.0	"	25.0		100	75-125			
LCS Dup (CP04872-BSD1)				Prepared & Analyzed: 06/29/06						
Antimony	25.5	2.5	mg/kg	25.0		102	75-125	1.18	25	
Lead	25.2	2.5	"	25.0		101	75-125	2.35	25	
Zinc	25.0	5.0	"	25.0		100	75-125	0.399	25	
Beryllium	2.48	0.25	"	2.50		99.2	75-125	0.803	25	
Cadmium	2.76	0.50	"	2.50		110	75-125	0.00	25	
Chromium	10.1	1.0	"	10.0		101	75-125	4.83	25	
Copper	12.5	1.0	"	12.5		100	75-125	0.797	25	
Lead	25.2	2.5	"	25.0		101	75-125	2.35	25	
Nickel	25.3	1.0	"	25.0		101	75-125	0.787	25	
Silver	2.48	0.50	"	2.50		99.2	75-125	3.17	25	
Zinc	25.0	1.0	"	25.0		100	75-125	0.399	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04872 - EPA 3050B										
Matrix Spike (CP04872-MS1)		**Source: CPF0799-28**		Prepared & Analyzed: 06/29/06						
Zinc	72.3	15	mg/kg	25.0	39	133	75-125			QM-5
Antimony	ND	7.5	"	25.0	ND		75-125			QM-5
Lead	31.6	7.5	"	25.0	3.5	112	75-125			
Beryllium	2.80	0.75	"	2.50	0.39	96.4	75-125			
Cadmium	2.74	1.5	"	2.50	ND	110	75-125			
Chromium	59.2	3.0	"	10.0	37	222	75-125			QM-5
Copper	41.6	3.0	"	12.5	20	173	75-125			QM-5
Lead	31.6	7.5	"	25.0	3.5	112	75-125			
Nickel	73.1	3.0	"	25.0	40	132	75-125			QM-5
Silver	2.66	1.5	"	2.50	ND	106	75-125			
Zinc	72.3	3.0	"	25.0	39	133	75-125			QM-5
Matrix Spike Dup (CP04872-MSD1)		**Source: CPF0799-28**		Prepared & Analyzed: 06/29/06						
Zinc	67.5	15	mg/kg	25.0	39	114	75-125	6.87	30	
Lead	28.2	7.5	"	25.0	3.5	98.8	75-125	11.4	30	
Antimony	7.05	7.5	"	25.0	ND	28.2	75-125		30	QM-5
Beryllium	2.74	0.75	"	2.50	0.39	94.0	75-125	2.17	30	
Cadmium	2.61	1.5	"	2.50	ND	104	75-125	4.86	30	
Chromium	64.1	3.0	"	10.0	37	271	75-125	7.95	30	QM-5
Copper	37.2	3.0	"	12.5	20	138	75-125	11.2	30	QM-5
Lead	28.2	7.5	"	25.0	3.5	98.8	75-125	11.4	30	
Nickel	75.9	3.0	"	25.0	40	144	75-125	3.76	30	QM-5
Silver	2.88	1.5	"	2.50	ND	115	75-125	7.94	30	
Zinc	67.5	3.0	"	25.0	39	114	75-125	6.87	30	
Batch CP04892 - EPA 3050B										
Blank (CP04892-BLK1)				Prepared & Analyzed: 06/29/06						
Antimony	ND	2.5	mg/kg							
Lead	ND	2.5	"							
Zinc	ND	5.0	"							
Beryllium	ND	0.25	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04892 - EPA 3050B										
Blank (CP04892-BLK1)				Prepared & Analyzed: 06/29/06						
Cadmium	ND	0.50	mg/kg							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							
Zinc	ND	1.0	"							
LCS (CP04892-BS1)				Prepared & Analyzed: 06/29/06						
Antimony	20.3	2.5	mg/kg	25.0		81.2	75-125			
Zinc	26.7	5.0	"	25.0		107	75-125			
Lead	25.7	2.5	"	25.0		103	75-125			
Beryllium	2.51	0.25	"	2.50		100	75-125			
Cadmium	2.83	0.50	"	2.50		113	75-125			
Chromium	10.1	1.0	"	10.0		101	75-125			
Copper	12.4	1.0	"	12.5		99.2	75-125			
Lead	25.7	2.5	"	25.0		103	75-125			
Nickel	25.2	1.0	"	25.0		101	75-125			
Silver	2.32	0.50	"	2.50		92.8	75-125			
Zinc	26.7	1.0	"	25.0		107	75-125			
LCS Dup (CP04892-BSD1)				Prepared & Analyzed: 06/29/06						
Lead	25.6	2.5	mg/kg	25.0		102	75-125	0.390	25	
Antimony	16.3	2.5	"	25.0		65.2	75-125	21.9	25	A-COMb
Zinc	27.0	5.0	"	25.0		108	75-125	1.12	25	
Beryllium	2.53	0.25	"	2.50		101	75-125	0.794	25	
Cadmium	2.77	0.50	"	2.50		111	75-125	2.14	25	
Chromium	10.3	1.0	"	10.0		103	75-125	1.96	25	
Copper	12.6	1.0	"	12.5		101	75-125	1.60	25	
Lead	25.6	2.5	"	25.0		102	75-125	0.390	25	
Nickel	25.5	1.0	"	25.0		102	75-125	1.18	25	
Silver	2.36	0.50	"	2.50		94.4	75-125	1.71	25	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04892 - EPA 3050B										
LCS Dup (CP04892-BSD1)				Prepared & Analyzed: 06/29/06						
Zinc	27.0	1.0	mg/kg	25.0		108	75-125	1.12	25	
Matrix Spike (CP04892-MS1)		**Source: CPF0799-48**		Prepared & Analyzed: 06/29/06						
Antimony	ND	7.5	mg/kg	25.0	ND		75-125			QM-5
Lead	33.6	7.5	"	25.0	7.4	105	75-125			
Zinc	100	15	"	25.0	56	176	75-125			QM-5
Beryllium	3.02	0.75	"	2.50	0.47	102	75-125			
Cadmium	3.20	1.5	"	2.50	0.68	101	75-125			
Chromium	104	3.0	"	10.0	87	170	75-125			QM-5
Copper	44.4	3.0	"	12.5	29	123	75-125			
Lead	33.6	7.5	"	25.0	7.4	105	75-125			
Nickel	178	3.0	"	25.0	120	232	75-125			QM-5
Silver	2.44	1.5	"	2.50	ND	97.6	75-125			
Zinc	100	3.0	"	25.0	56	176	75-125			QM-5
Matrix Spike Dup (CP04892-MSD1)		**Source: CPF0799-48**		Prepared & Analyzed: 06/29/06						
Lead	37.2	7.5	mg/kg	25.0	7.4	119	75-125	10.2	30	
Zinc	96.5	15	"	25.0	56	162	75-125	3.56	30	QM-5
Antimony	9.78	7.5	"	25.0	ND	39.1	75-125		30	QM-5
Beryllium	3.33	0.75	"	2.50	0.47	114	75-125	9.76	30	
Cadmium	3.46	1.5	"	2.50	0.68	111	75-125	7.81	30	
Chromium	114	3.0	"	10.0	87	270	75-125	9.17	30	QM-5
Copper	50.2	3.0	"	12.5	29	170	75-125	12.3	30	QM-5
Lead	37.2	7.5	"	25.0	7.4	119	75-125	10.2	30	
Nickel	217	3.0	"	25.0	120	388	75-125	19.7	30	QM-5
Silver	3.20	1.5	"	2.50	ND	128	75-125	27.0	30	QM-5
Zinc	96.5	3.0	"	25.0	56	162	75-125	3.56	30	QM-5

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04912 - EPA 3050B										
Blank (CP04912-BLK1)				Prepared & Analyzed: 06/30/06						
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CP04912-BS1)				Prepared & Analyzed: 06/30/06						
Lead	26.2	2.5	mg/kg	25.0		105	75-125			
Zinc	24.8	5.0	"	25.0		99.2	75-125			
LCS Dup (CP04912-BSD1)				Prepared & Analyzed: 06/30/06						
Zinc	25.2	5.0	mg/kg	25.0		101	75-125	1.60	25	
Lead	25.4	2.5	"	25.0		102	75-125	3.10	25	
Matrix Spike (CP04912-MS1)		**Source: CPF0898-01**		Prepared & Analyzed: 06/30/06						
Lead	338	2.5	mg/kg	25.0	350	NR	75-125			QM-4X
Zinc	240	5.0	"	25.0	230	40.0	75-125			QM-4X
Matrix Spike Dup (CP04912-MSD1)		**Source: CPF0898-01**		Prepared & Analyzed: 06/30/06						
Zinc	247	5.0	mg/kg	25.0	230	68.0	75-125	2.87	30	QM-5
Lead	554	2.5	"	25.0	350	816	75-125	48.4	30	QM-5

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Blank (CP04851-BLK1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	ND	1.0	µg/kg							
gamma-BHC (Lindane)	ND	10	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Heptachlor	ND	10	"							
Surrogate: Tetrachloro-meta-xylene	*6.23*		*"*	*8.33*		*74.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.06*		*"*	*8.33*		*84.8*	*52-141*			
LCS (CP04851-BS1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	10.8	1.0	µg/kg	16.7		64.7	47-132			
gamma-BHC (Lindane)	11.9	10	"	16.7		71.3	56-133			
4,4´-DDT	10.3	15	"	16.7		61.7	46-137			
Dieldrin	11.9	1.0	"	16.7		71.3	44-143			
Endrin	11.0	15	"	16.7		65.9	30-147			
Heptachlor	10.9	10	"	16.7		65.3	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.48*		*"*	*8.33*		*65.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.29*		*"*	*8.33*		*75.5*	*52-141*			
LCS Dup (CP04851-BSD1)				Prepared: 06/28/06	Analyzed: 06/30/06					
Aldrin	11.2	1.0	µg/kg	16.7		67.1	47-132	3.64	30	
gamma-BHC (Lindane)	12.2	10	"	16.7		73.1	56-133	2.49	30	
4,4´-DDT	11.0	15	"	16.7		65.9	46-137	6.57	30	
Dieldrin	12.4	1.0	"	16.7		74.3	44-143	4.12	30	
Endrin	11.5	15	"	16.7		68.9	30-147	4.44	30	
Heptachlor	10.9	10	"	16.7		65.3	33-148	0.00	30	
Surrogate: Tetrachloro-meta-xylene	*5.67*		*"*	*8.33*		*68.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.43*		*"*	*8.33*		*77.2*	*52-141*			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04851 - LUFT-DHS GCNV										
Matrix Spike (CP04851-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	9.35	10	µg/kg	16.7	ND	56.0	47-138			
gamma-BHC (Lindane)	10.5	100	"	16.7	ND	62.9	38-144			
4,4´-DDT	124	150	"	16.7	65	353	41-157			QM-4X
Dieldrin	18.2	10	"	16.7	ND	109	46-155			
Endrin	37.9	150	"	16.7	ND	227	34-149			QM-4X
Heptachlor	9.95	100	"	16.7	ND	59.6	36-155			
Surrogate: Tetrachloro-meta-xylene	*15.5*		*"*	*20.8*		*74.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.3*		*"*	*20.8*		*102*	*52-141*			
Matrix Spike Dup (CP04851-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 06/30/06				
Aldrin	8.96	10	µg/kg	16.7	ND	53.7	47-138	4.26	35	
gamma-BHC (Lindane)	9.44	100	"	16.7	ND	56.5	38-144	10.6	35	
4,4´-DDT	106	150	"	16.7	65	246	41-157	15.7	35	QM-4X
Dieldrin	15.6	10	"	16.7	ND	93.4	46-155	15.4	35	
Endrin	33.7	150	"	16.7	ND	202	34-149	11.7	35	QM-4X
Heptachlor	9.52	100	"	16.7	ND	57.0	36-155	4.42	35	
Surrogate: Tetrachloro-meta-xylene	*14.6*		*"*	*20.8*		*70.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.1*		*"*	*20.8*		*101*	*52-141*			
Batch CP04882 - LUFT-DHS GCNV										
Blank (CP04882-BLK1)				Prepared: 06/29/06		Analyzed: 07/06/06				
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*8.47*		*"*	*8.33*		*102*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.70*		*"*	*8.33*		*104*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04882 - LUFT-DHS GCNV										
LCS (CP04882-BS1)				Prepared: 06/29/06		Analyzed: 07/06/06				
Aldrin	16.8	1.0	µg/kg	16.7		101	47-132			
gamma-BHC (Lindane)	17.9	10	"	16.7		107	56-133			
4,4´-DDT	19.3	15	"	16.7		116	46-137			
Dieldrin	17.3	1.0	"	16.7		104	44-143			
Endrin	18.5	15	"	16.7		111	30-147			
Heptachlor	17.7	10	"	16.7		106	33-148			
Surrogate: Tetrachloro-meta-xylene	*8.75*		*"*	*8.33*		*105*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.37*		*"*	*8.33*		*112*	*52-141*			
LCS Dup (CP04882-BSD1)				Prepared: 06/29/06		Analyzed: 07/06/06				
Aldrin	17.5	1.0	µg/kg	16.7		105	47-132	4.08	30	
gamma-BHC (Lindane)	18.3	10	"	16.7		110	56-133	2.21	30	
4,4´-DDT	18.9	15	"	16.7		113	46-137	2.09	30	
Dieldrin	17.7	1.0	"	16.7		106	44-143	2.29	30	
Endrin	18.6	15	"	16.7		111	30-147	0.539	30	
Heptachlor	18.2	10	"	16.7		109	33-148	2.79	30	
Surrogate: Tetrachloro-meta-xylene	*9.52*		*"*	*8.33*		*114*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.61*		*"*	*8.33*		*115*	*52-141*			
Matrix Spike (CP04882-MS1)		**Source: CPF0799-24**		Prepared: 06/29/06		Analyzed: 07/06/06				
Aldrin	15.9	10	µg/kg	16.7	ND	95.2	47-138			
gamma-BHC (Lindane)	13.5	100	"	16.7	ND	80.8	38-144			
4,4´-DDT	1740	150	"	16.7	450	NR	41-157			QM-4X
Dieldrin	124	10	"	16.7	ND	743	46-155			QM-5
Endrin	794	150	"	16.7	220	NR	34-149			QM-4X
Heptachlor	17.0	100	"	16.7	ND	102	36-155			
Surrogate: Tetrachloro-meta-xylene	*23.0*		*"*	*20.8*		*111*	*46-139*			
Surrogate: Decachlorobiphenyl	*16.4*		*"*	*20.8*		*78.8*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04882 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04882-MSD1)		**Source: CPF0799-24**		Prepared: 06/29/06	Analyzed: 07/06/06					
Aldrin	14.4	10	µg/kg	16.7	ND	86.2	47-138	9.90	35	
gamma-BHC (Lindane)	ND	100	"	16.7	ND		38-144		35	QM-5
4,4´-DDT	1660	150	"	16.7	450	NR	41-157	4.71	35	QM-4X
Dieldrin	108	10	"	16.7	ND	647	46-155	13.8	35	QM-5
Endrin	743	150	"	16.7	220	NR	34-149	6.64	35	QM-4X
Heptachlor	15.0	100	"	16.7	ND	89.8	36-155	12.5	35	
Surrogate: Tetrachloro-meta-xylene	*20.8*		*"*	*20.8*		*100*	*46-139*			
Surrogate: Decachlorobiphenyl	*15.1*		*"*	*20.8*		*72.6*	*52-141*			
Batch CP04904 - LUFT-DHS GCNV										
Blank (CP04904-BLK1)				Prepared: 06/30/06	Analyzed: 07/07/06					
Pentachloronitrobenzene	ND	2.0	µg/kg							
Aldrin	ND	1.0	"							
alpha-BHC	ND	8.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	10	"							
Heptachlor epoxide	ND	4.0	"							
Kepone	ND	10	"							
Methoxychlor	ND	15	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04904 - LUFT-DHS GCNV										
Blank (CP04904-BLK1)				Prepared: 06/30/06		Analyzed: 07/07/06				
Mirex	ND	10	µg/kg							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*8.56*		*"*	*8.33*		*103*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.65*		*"*	*8.33*		*116*	*52-141*			
LCS (CP04904-BS1)				Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	16.4	1.0	µg/kg	16.7		98.2	47-132			
gamma-BHC (Lindane)	18.0	10	"	16.7		108	56-133			
4,4´-DDT	18.5	15	"	16.7		111	46-137			
Dieldrin	17.9	1.0	"	16.7		107	44-143			
Endrin	19.1	15	"	16.7		114	30-147			
Heptachlor	17.3	10	"	16.7		104	33-148			
Surrogate: Tetrachloro-meta-xylene	*8.45*		*"*	*8.33*		*101*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.69*		*"*	*8.33*		*116*	*52-141*			
LCS Dup (CP04904-BSD1)				Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	16.6	1.0	µg/kg	16.7		99.4	47-132	1.21	30	
gamma-BHC (Lindane)	18.3	10	"	16.7		110	56-133	1.65	30	
4,4´-DDT	20.3	15	"	16.7		122	46-137	9.28	30	
Dieldrin	17.6	1.0	"	16.7		105	44-143	1.69	30	
Endrin	17.9	15	"	16.7		107	30-147	6.49	30	
Heptachlor	17.4	10	"	16.7		104	33-148	0.576	30	
Surrogate: Tetrachloro-meta-xylene	*8.92*		*"*	*8.33*		*107*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.58*		*"*	*8.33*		*115*	*52-141*			
Matrix Spike (CP04904-MS1)		**Source: CPF0940-01**		Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	31.7	5.0	µg/kg	16.7	ND	190	47-138			QM-5
gamma-BHC (Lindane)	19.2	50	"	16.7	ND	115	38-144			
4,4´-DDT	76.0	75	"	16.7	21	329	41-157			QM-5
Dieldrin	172	5.0	"	16.7	74	587	46-155			QM-5
Endrin	34.7	75	"	16.7	ND	208	34-149			QM-5
Heptachlor	21.7	50	"	16.7	ND	130	36-155			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04904 - LUFT-DHS GCNV										
Matrix Spike (CP04904-MS1)		**Source: CPF0940-01**		Prepared: 06/30/06		Analyzed: 07/07/06				
Surrogate: Tetrachloro-meta-xylene	*22.9*		*µg/kg*	*20.8*		*110*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.6*		*"*	*20.8*		*99.0*	*52-141*			
Matrix Spike Dup (CP04904-MSD1)		**Source: CPF0940-01**		Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	26.8	5.0	µg/kg	16.7	ND	160	47-138	16.8	35	QM-5
gamma-BHC (Lindane)	18.5	50	"	16.7	ND	111	38-144	3.71	35	
4,4´-DDT	75.6	75	"	16.7	21	327	41-157	0.528	35	QM-5
Dieldrin	165	5.0	"	16.7	74	545	46-155	4.15	35	QM-5
Endrin	33.4	75	"	16.7	ND	200	34-149	3.82	35	QM-5
Heptachlor	19.7	50	"	16.7	ND	118	36-155	9.66	35	
Surrogate: Tetrachloro-meta-xylene	*21.8*		*"*	*20.8*		*105*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.5*		*"*	*20.8*		*103*	*52-141*			
Batch CP04906 - LUFT-DHS GCNV										
Blank (CP04906-BLK1)				Prepared & Analyzed: 06/30/06						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	8.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	10	"							

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04906 - LUFT-DHS GCNV										
Blank (CP04906-BLK1)				Prepared & Analyzed: 06/30/06						
Heptachlor epoxide	ND	4.0	µg/kg							
Kepone	ND	10	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*10.8*		*"*	*8.33*		*130*	*46-139*			
Surrogate: Decachlorobiphenyl	*11.2*		*"*	*8.33*		*134*	*52-141*			
LCS (CP04906-BS1)				Prepared & Analyzed: 06/30/06						
Aldrin	10.0	1.0	µg/kg	16.7		59.9	47-132			
gamma-BHC (Lindane)	10.6	10	"	16.7		63.5	56-133			
4,4´-DDT	10.3	15	"	16.7		61.7	46-137			
Dieldrin	10.6	1.0	"	16.7		63.5	44-143			
Endrin	10.3	15	"	16.7		61.7	30-147			
Heptachlor	10.1	10	"	16.7		60.5	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.62*		*"*	*8.33*		*67.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.12*		*"*	*8.33*		*73.5*	*52-141*			
LCS Dup (CP04906-BSD1)				Prepared & Analyzed: 06/30/06						
Aldrin	10.4	1.0	µg/kg	16.7		62.3	47-132	3.92	30	
gamma-BHC (Lindane)	10.8	10	"	16.7		64.7	56-133	1.87	30	
4,4´-DDT	11.3	15	"	16.7		67.7	46-137	9.26	30	
Dieldrin	10.9	1.0	"	16.7		65.3	44-143	2.79	30	
Endrin	10.8	15	"	16.7		64.7	30-147	4.74	30	
Heptachlor	10.7	10	"	16.7		64.1	33-148	5.77	30	
Surrogate: Tetrachloro-meta-xylene	*5.92*		*"*	*8.33*		*71.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.15*		*"*	*8.33*		*73.8*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04906 - LUFT-DHS GCNV										
Matrix Spike (CP04906-MS1)		**Source: CPF0970-08**		Prepared & Analyzed: 06/30/06						
Aldrin	10.7	5.0	µg/kg	16.7	ND	64.1	47-138			
gamma-BHC (Lindane)	11.7	50	"	16.7	ND	70.1	38-144			
4,4´-DDT	10.2	75	"	16.7	ND	61.1	41-157			
Dieldrin	10.9	5.0	"	16.7	ND	65.3	46-155			
Endrin	11.0	75	"	16.7	ND	65.9	34-149			
Heptachlor	10.3	50	"	16.7	ND	61.7	36-155			
Surrogate: Tetrachloro-meta-xylene	*15.1*		*"*	*20.8*		*72.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*17.4*		*"*	*20.8*		*83.7*	*52-141*			
Matrix Spike Dup (CP04906-MSD1)		**Source: CPF0970-08**		Prepared & Analyzed: 06/30/06						
Aldrin	9.95	5.0	µg/kg	16.7	ND	59.6	47-138	7.26	35	
gamma-BHC (Lindane)	11.1	50	"	16.7	ND	66.5	38-144	5.26	35	
4,4´-DDT	10.8	75	"	16.7	ND	64.7	41-157	5.71	35	
Dieldrin	10.3	5.0	"	16.7	ND	61.7	46-155	5.66	35	
Endrin	10.9	75	"	16.7	ND	65.3	34-149	0.913	35	
Heptachlor	10.1	50	"	16.7	ND	60.5	36-155	1.96	35	
Surrogate: Tetrachloro-meta-xylene	*13.9*		*"*	*20.8*		*66.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*17.0*		*"*	*20.8*		*81.7*	*52-141*			
Batch CP04935 - LUFT-DHS GCNV										
Blank (CP04935-BLK1)				Prepared: 06/30/06 Analyzed: 07/07/06						
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*8.80*		*"*	*8.33*		*106*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.30*		*"*	*8.33*		*99.6*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04935 - LUFT-DHS GCNV										
LCS (CP04935-BS1)				Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	11.6	1.0	µg/kg	16.7		69.5	47-132			
gamma-BHC (Lindane)	14.1	10	"	16.7		84.4	56-133			
4,4´-DDT	14.7	15	"	16.7		88.0	46-137			
Dieldrin	13.0	1.0	"	16.7		77.8	44-143			
Endrin	13.8	15	"	16.7		82.6	30-147			
Heptachlor	12.5	10	"	16.7		74.9	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.30*		*"*	*8.33*		*75.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.54*		*"*	*8.33*		*90.5*	*52-141*			
LCS Dup (CP04935-BSD1)				Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	11.5	1.0	µg/kg	16.7		68.9	47-132	0.866	30	
gamma-BHC (Lindane)	14.1	10	"	16.7		84.4	56-133	0.00	30	
4,4´-DDT	14.5	15	"	16.7		86.8	46-137	1.37	30	
Dieldrin	13.0	1.0	"	16.7		77.8	44-143	0.00	30	
Endrin	13.5	15	"	16.7		80.8	30-147	2.20	30	
Heptachlor	12.4	10	"	16.7		74.3	33-148	0.803	30	
Surrogate: Tetrachloro-meta-xylene	*6.25*		*"*	*8.33*		*75.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.52*		*"*	*8.33*		*90.3*	*52-141*			
Matrix Spike (CP04935-MS1)		**Source: CPF0799-45**		Prepared: 06/30/06		Analyzed: 07/07/06				
Aldrin	17.7	10	µg/kg	16.7	ND	106	47-138			
gamma-BHC (Lindane)	18.0	100	"	16.7	ND	108	38-144			
4,4´-DDT	17.1	150	"	16.7	ND	102	41-157			
Dieldrin	16.0	10	"	16.7	ND	95.8	46-155			
Endrin	15.1	150	"	16.7	ND	90.4	34-149			
Heptachlor	18.0	100	"	16.7	ND	108	36-155			
Surrogate: Tetrachloro-meta-xylene	*17.5*		*"*	*20.8*		*84.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*19.5*		*"*	*20.8*		*93.8*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04935 - LUFT-DHS GCNV										
Matrix Spike Dup (CP04935-MSD1)		**Source: CPF0799-45**		Prepared: 06/30/06	Analyzed: 07/07/06					
Aldrin	17.0	10	µg/kg	16.7	ND	102	47-138	4.03	35	
gamma-BHC (Lindane)	17.6	100	"	16.7	ND	105	38-144	2.25	35	
4,4´-DDT	17.4	150	"	16.7	ND	104	41-157	1.74	35	
Dieldrin	15.3	10	"	16.7	ND	91.6	46-155	4.47	35	
Endrin	14.8	150	"	16.7	ND	88.6	34-149	2.01	35	
Heptachlor	17.3	100	"	16.7	ND	104	36-155	3.97	35	
Surrogate: Tetrachloro-meta-xylene	*16.6*		*"*	*20.8*		*79.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*19.0*		*"*	*20.8*		*91.3*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04852 - LUFT-DHS GCNV										
Blank (CP04852-BLK1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04852-BS1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	91.1	20	µg/kg	83.3		109	29-131			
LCS Dup (CP04852-BSD1)				Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	94.7	20	µg/kg	83.3		114	29-131	3.88	30	
Matrix Spike (CP04852-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1400	20	µg/kg	83.3	160	NR	29-131			QM-4X
Matrix Spike Dup (CP04852-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06		Analyzed: 07/03/06				
Aroclor 1260	1500	20	µg/kg	83.3	160	NR	29-131	6.90	30	QM-4X
Batch CP04885 - LUFT-DHS GCNV										
Blank (CP04885-BLK1)				Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04885 - LUFT-DHS GCNV										
LCS (CP04885-BS1)				Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	86.1	20	µg/kg	83.3		103	29-131			
LCS Dup (CP04885-BSD1)				Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	87.9	20	µg/kg	83.3		106	29-131	2.07	30	
Matrix Spike (CP04885-MS1)		**Source: CPF0799-26**		Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	105	20	µg/kg	83.3	19	103	29-131			
Matrix Spike Dup (CP04885-MSD1)		**Source: CPF0799-26**		Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	109	20	µg/kg	83.3	19	108	29-131	3.74	30	
Batch CP04905 - LUFT-DHS GCNV										
Blank (CP04905-BLK1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04905-BS1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1260	165	20	µg/kg	167		98.8	29-131			
LCS Dup (CP04905-BSD1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1260	166	20	µg/kg	167		99.4	29-131	0.604	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04936 - LUFT-DHS GCNV										
Blank (CP04936-BLK1)				Prepared: 06/30/06		Analyzed: 07/06/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04936-BS1)				Prepared: 06/30/06		Analyzed: 07/06/06				
Aroclor 1260	97.8	20	µg/kg	83.3		117	29-131			
LCS Dup (CP04936-BSD1)				Prepared: 06/30/06		Analyzed: 07/06/06				
Aroclor 1260	77.9	20	µg/kg	83.3		93.5	29-131	22.7	30	
Matrix Spike (CP04936-MS1)		**Source: CPF0799-46**		Prepared: 06/30/06		Analyzed: 07/06/06				
Aroclor 1260	6.19	20	µg/kg	83.3	90	NR	29-131			A-COMa
Matrix Spike Dup (CP04936-MSD1)		**Source: CPF0799-46**		Prepared: 06/30/06		Analyzed: 07/06/06				
Aroclor 1260	8.49	20	µg/kg	83.3	90	NR	29-131	31.3	30	A-COMa
Batch CP04938 - LUFT-DHS GCNV										
Blank (CP04938-BLK1)				Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04938 - LUFT-DHS GCNV										
LCS (CP04938-BS1)				Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	81.0	20	µg/kg	83.3		97.2	29-131			
LCS Dup (CP04938-BSD1)				Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	83.2	20	µg/kg	83.3		99.9	29-131	2.68	30	
Matrix Spike (CP04938-MS1)		**Source: CPF0799-67**		Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	90.8	20	µg/kg	83.3	22	82.6	29-131			
Matrix Spike Dup (CP04938-MSD1)		**Source: CPF0799-67**		Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	83.0	20	µg/kg	83.3	22	73.2	29-131	8.98	30	

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04803 - EPA 5030 Soil GC										
Blank (CP04803-BLK1)				Prepared: 06/27/06		Analyzed: 06/28/06				
JP-4	ND	1.0	mg/kg							
Gasoline	ND	1.0	"							
Surrogate: o-Chlorotoluene (Gas)	*0.0896*		*"*	*0.100*		*89.6*	*65-135*			
LCS (CP04803-BS1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.31	1.0	mg/kg	2.50		92.4	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.101*		*"*	*0.100*		*101*	*65-135*			
LCS Dup (CP04803-BSD1)				Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.91	1.0	mg/kg	2.50		116	65-135	23.0	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0948*		*"*	*0.100*		*94.8*	*65-135*			
Matrix Spike (CP04803-MS1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.56	1.0	mg/kg	2.50	ND	102	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0921*		*"*	*0.100*		*92.1*	*65-135*			
Matrix Spike Dup (CP04803-MSD1)		**Source: CPF0799-61**		Prepared: 06/27/06		Analyzed: 06/28/06				
Gasoline	2.81	1.0	mg/kg	2.50	ND	112	63-124	9.31	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0927*		*"*	*0.100*		*92.7*	*65-135*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
Acetone	ND	100	µg/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	10	"							
2-Butanone	ND	100	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	10	"							
o-Chlorotoluene	ND	5.0	"							
p-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	10	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane (Freon 12)	ND	10	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2-Dichloropropane	ND	5.0	µg/kg							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	50	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	50	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Blank (CP04785-BLK1)				Prepared & Analyzed: 06/27/06						
1,2,4-Trimethylbenzene	ND	5.0	µg/kg							
Vinyl chloride	ND	10	"							
Xylenes (total)	ND	10	"							
Surrogate: 1,2-Dichloroethane-d4	*54.8*		*"*	*50.0*		*110*	*50-125*			
Surrogate: Toluene-d8	*48.9*		*"*	*50.0*		*97.8*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.9*		*"*	*50.0*		*106*	*50-128*			
LCS (CP04785-BS1)				Prepared & Analyzed: 06/27/06						
Benzene	51.0	5.0	µg/kg	50.0		102	64-135			
Chlorobenzene	51.8	5.0	"	50.0		104	67-133			
1,1-Dichloroethene	50.6	5.0	"	50.0		101	53-137			
Toluene	51.3	5.0	"	50.0		103	61-138			
Trichloroethene	50.9	5.0	"	50.0		102	64-130			
Surrogate: 1,2-Dichloroethane-d4	*50.5*		*"*	*50.0*		*101*	*50-125*			
Surrogate: Toluene-d8	*50.3*		*"*	*50.0*		*101*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*49.0*		*"*	*50.0*		*98.0*	*50-128*			
LCS Dup (CP04785-BSD1)				Prepared & Analyzed: 06/27/06						
Benzene	47.4	5.0	µg/kg	50.0		94.8	64-135	7.32	30	
Chlorobenzene	49.7	5.0	"	50.0		99.4	67-133	4.14	30	
1,1-Dichloroethene	55.5	5.0	"	50.0		111	53-137	9.24	30	
Toluene	47.6	5.0	"	50.0		95.2	61-138	7.48	30	
Trichloroethene	44.5	5.0	"	50.0		89.0	64-130	13.4	30	
Surrogate: 1,2-Dichloroethane-d4	*50.9*		*"*	*50.0*		*102*	*50-125*			
Surrogate: Toluene-d8	*49.0*		*"*	*50.0*		*98.0*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*52.4*		*"*	*50.0*		*105*	*50-128*			
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06 Analyzed: 06/28/06						
Benzene	49.1	5.0	µg/kg	50.0	ND	98.2	58-139			
Chlorobenzene	46.1	5.0	"	50.0	ND	92.2	62-134			
1,1-Dichloroethene	69.8	5.0	"	50.0	ND	140	53-152			
Toluene	47.6	5.0	"	50.0	ND	95.2	58-139			

ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04785 - EPA 5030 Soil MS										
Matrix Spike (CP04785-MS1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Trichloroethene	44.4	5.0	µg/kg	50.0	ND	88.8	55-138			
Surrogate: 1,2-Dichloroethane-d4	*61.5*		"	*50.0*		*123*	*50-125*			
Surrogate: Toluene-d8	*48.2*		"	*50.0*		*96.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*55.2*		"	*50.0*		*110*	*50-128*			
Matrix Spike Dup (CP04785-MSD1)		**Source: CPF0799-03**		Prepared: 06/27/06		Analyzed: 06/28/06				
Benzene	44.3	5.0	µg/kg	50.0	ND	88.6	58-139	10.3	30	
Chlorobenzene	37.8	5.0	"	50.0	ND	75.6	62-134	19.8	30	
1,1-Dichloroethene	63.6	5.0	"	50.0	ND	127	53-152	9.30	30	
Toluene	40.8	5.0	"	50.0	ND	81.6	58-139	15.4	30	
Trichloroethene	39.1	5.0	"	50.0	ND	78.2	55-138	12.7	30	
Surrogate: 1,2-Dichloroethane-d4	*62.9*		"	*50.0*		*126*	*50-125*			*A-COMd*
Surrogate: Toluene-d8	*48.7*		"	*50.0*		*97.4*	*62-125*			
Surrogate: 4-Bromofluorobenzene	*56.0*		"	*50.0*		*112*	*50-128*			

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ISSI/NASA Ames MS221-10	Project: AOI 14 Phase II	
NASA Ames MS T20-G	Project Number: N140-200	**CLS Work Order #: CPF0799**
Moffet Field, CA 94035-1000	Project Manager: Casey Fitzgerald	COC #: 71134,35,36,37,38,39

Notes and Definitions

QS-HI	Surrogate recovery was greater than the upper control limit. A reanalysis was not performed since the analytes associated with the surrogate were not detected.
QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QS-2	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QS-1	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
QRL-8	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
A-COMd	The surrogate recovery was slightly above the criteria.
A-COMc	The result could be biased high due to the interference from Aroclor 1260.
A-COMb	The recovery is 10% lower than the lower control limit.
A-COMa	The low recovery was very likely due to that the spike solution was not added.
A-COM	Due to an instrument problem, the end Endrin/DDT breakdown QC sample was not run for this batch.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

Environmental Chemistry

REVISION COVER LETTER

WORK ORDER No.: CPF0799

CLIENT: ISSI/NASA Ames MS221-10

ATTENTION: Casey Fitzgerald

PROJECT: AOI 14 Phase II

DATE: November 21, 2006

REVISION REMARKS:

Enclosed is the revised report for PCB.

We have optimized the PCB analysis to reduce overlap peak interference from adjacent Aroclor. However, the interference still exists. Only the results of Aroclor 1268 are revised. Some CCV recoveries of this re-quantification are slightly below the lower control limit. The following table lists the samples with revision.

CLS Lab ID	Original Aroclor 1268 Concentration, µg/kg	Revised Aroclor 1268 Concentration, µg/kg
CPF0799-01	ND	48
CPF0799-02	ND	42
CPF0799-03	ND	43
CPF0799-08	130	ND
CPF0799-09	140	ND
CPF0799-17	440	ND
CPF0799-25	ND	22
CPF0799-42	170	ND

I apologized for any inconvenience this may have caused you.

Sincerely,

James Liang, Ph.D.
Laboratory Director

3249 Fitzgerald Road Rancho Cordova, CA 95742 800-638-7301 916-638-7301 Fax: 916-638-4510

CALIFORNIA LABORATORY SERVICES

11/21/06 10:27

ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-6" (CPF0799-01) Soil Sampled: 06/22/06 10:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	**48**	20	"	"	"	"	"	"	PCB-1
PEN-23-2' (CPF0799-02) Soil Sampled: 06/22/06 10:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**180**	20	"	"	"	"	"	"	
Aroclor 1268	**42**	20	"	"	"	"	"	"	PCB-1
PEN-23-4' (CPF0799-03) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**170**	20	"	"	"	"	"	"	
Aroclor 1268	**43**	20	"	"	"	"	"	"	
PEN-23-6' (CPF0799-04) Soil Sampled: 06/22/06 10:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**46**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-10' (CPF0799-05) Soil Sampled: 06/22/06 10:48 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23-10' (CPF0799-05) Soil Sampled: 06/22/06 10:48 Received: 06/23/06 15:50									
Aroclor 1221	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-23-12' (CPF0799-06) Soil Sampled: 06/22/06 10:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-6" (CPF0799-07) Soil Sampled: 06/22/06 09:19 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	PCB-1
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-2' (CPF0799-08) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-2' DUP (CPF0799-09) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-2' DUP (CPF0799-09) Soil Sampled: 06/22/06 09:18 Received: 06/23/06 15:50									
Aroclor 1232	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**130**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-4' (CPF0799-10) Soil Sampled: 06/22/06 09:22 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**50**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-6' (CPF0799-11) Soil Sampled: 06/22/06 09:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-8' (CPF0799-12) Soil Sampled: 06/22/06 09:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**27**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-10' (CPF0799-13) Soil Sampled: 06/22/06 09:27 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34-10' (CPF0799-13) Soil Sampled: 06/22/06 09:27 Received: 06/23/06 15:50									
Aroclor 1242	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-34-12' (CPF0799-14) Soil Sampled: 06/22/06 09:25 Received: 06/23/06 15:50									
Aroclor 1016	ND	200	µg/kg	10	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	**94**	20	"	1	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-6" (CPF0799-15) Soil Sampled: 06/22/06 09:55 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**57**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-2' (CPF0799-16) Soil Sampled: 06/22/06 09:54 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**200**	20	"	"	"	"	"	"	
Aroclor 1268	ND	100	"	5	"	"	"	"	
PEN-35-4' (CPF0799-17) Soil Sampled: 06/22/06 10:00 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-4' (CPF0799-17) Soil Sampled: 06/22/06 10:00 Received: 06/23/06 15:50									
Aroclor 1248	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**970**	200	"	10	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
PEN-35-6' (CPF0799-18) Soil Sampled: 06/22/06 10:02 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-8' (CPF0799-19) Soil Sampled: 06/22/06 09:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04852	06/28/06	07/03/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-10' (CPF0799-20) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-10' DUP (CPF0799-21) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-35-10' DUP (CPF0799-21) Soil Sampled: 06/22/06 10:05 Received: 06/23/06 15:50									
Aroclor 1254	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1260	**90**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-12' (CPF0799-22) Soil Sampled: 06/22/06 10:03 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-6" (CPF0799-23) Soil Sampled: 06/22/06 08:56 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**49**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-2' (CPF0799-24) Soil Sampled: 06/22/06 08:54 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**1500**	400	"	20	"	"	"	"	
Aroclor 1268	ND	400	"	"	"	"	"	"	
PEN-36-4' (CPF0799-25) Soil Sampled: 06/22/06 08:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-4' (CPF0799-25) Soil Sampled: 06/22/06 08:59 Received: 06/23/06 15:50									
Aroclor 1260	**140**	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1268	**22**	20	"	"	"	"	"	"	PCB-1
PEN-36-6' (CPF0799-26) Soil Sampled: 06/22/06 09:01 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-8' (CPF0799-27) Soil Sampled: 06/22/06 08:57 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-10' (CPF0799-28) Soil Sampled: 06/22/06 09:03 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**36**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-36-12' (CPF0799-29) Soil Sampled: 06/22/06 09:02 Received: 06/23/06 15:50									**QRL-5**
Aroclor 1016	ND	200	µg/kg	10	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	200	"	"	"	"	"	"	
Aroclor 1232	ND	200	"	"	"	"	"	"	
Aroclor 1242	ND	200	"	"	"	"	"	"	
Aroclor 1248	ND	200	"	"	"	"	"	"	
Aroclor 1254	ND	200	"	"	"	"	"	"	
Aroclor 1260	ND	200	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-36-12' (CPF0799-29) Soil Sampled: 06/22/06 09:02 Received: 06/23/06 15:50									**QRL-5**
Aroclor 1268	ND	200	µg/kg	10	CP04885	06/29/06	07/04/06	EPA 8082A	
PEN-36-14' (CPF0799-30) Soil Sampled: 06/22/06 09:05 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**31**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-1-6" (CPF0799-31) Soil Sampled: 06/22/06 11:19 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-1-2' (CPF0799-32) Soil Sampled: 06/22/06 11:21 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-1-4' (CPF0799-33) Soil Sampled: 06/22/06 11:17 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2-6" (CPF0799-34) Soil Sampled: 06/22/06 11:32 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-2-2' (CPF0799-35) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-2-4' (CPF0799-36) Soil Sampled: 06/22/06 11:39 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-6" (CPF0799-37) Soil Sampled: 06/22/06 12:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**26**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-2' (CPF0799-38) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-2' (CPF0799-38) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Aroclor 1221	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**27**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-2' DUP (CPF0799-39) Soil Sampled: 06/22/06 12:45 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04885	06/29/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-4' (CPF0799-40) Soil Sampled: 06/22/06 12:41 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-6' (CPF0799-41) Soil Sampled: 06/22/06 12:48 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-8' (CPF0799-42) Soil Sampled: 06/22/06 12:46 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6-8' (CPF0799-42) Soil Sampled: 06/22/06 12:46 Received: 06/23/06 15:50									
Aroclor 1232	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**450**	100	"	5	"	"	"	"	PCB-1
Aroclor 1268	ND	100	"	"	"	"	"	"	
N217-6-10' (CPF0799-43) Soil Sampled: 06/22/06 12:50 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-6-12' (CPF0799-44) Soil Sampled: 06/22/06 12:49 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04905	06/30/06	07/04/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-6" (CPF0799-45) Soil Sampled: 06/22/06 13:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-2' (CPF0799-46) Soil Sampled: 06/22/06 13:22 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-2' (CPF0799-46) Soil Sampled: 06/22/06 13:22 Received: 06/23/06 15:50									
Aroclor 1242	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**90**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-4' (CPF0799-47) Soil Sampled: 06/22/06 13:18 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**80**	20	"	"	"	"	"	"	PCB-1
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-6' (CPF0799-48) Soil Sampled: 06/22/06 13:24 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-8' (CPF0799-49) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-8' DUP (CPF0799-50) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-7-8' DUP (CPF0799-50) Soil Sampled: 06/22/06 13:23 Received: 06/23/06 15:50									
Aroclor 1248	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-10' (CPF0799-51) Soil Sampled: 06/22/06 13:27 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-7-12' (CPF0799-52) Soil Sampled: 06/22/06 13:26 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
PEN-35-14' (CPF0799-53) Soil Sampled: 06/22/06 10:07 Received: 06/23/06 15:50									**QRL-5**
Aroclor 1016	ND	1000	µg/kg	50	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	1000	"	"	"	"	"	"	
Aroclor 1232	ND	1000	"	"	"	"	"	"	
Aroclor 1242	ND	1000	"	"	"	"	"	"	
Aroclor 1248	ND	1000	"	"	"	"	"	"	
Aroclor 1254	ND	1000	"	"	"	"	"	"	
Aroclor 1260	ND	1000	"	"	"	"	"	"	
Aroclor 1268	ND	1000	"	"	"	"	"	"	
N217-3-6" (CPF0799-54) Soil Sampled: 06/23/06 08:35 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-6" (CPF0799-54) Soil Sampled: 06/23/06 08:35 Received: 06/23/06 15:50									
Aroclor 1254	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-2' (CPF0799-55) Soil Sampled: 06/23/06 08:37 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-4' (CPF0799-56) Soil Sampled: 06/23/06 08:34 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-6' (CPF0799-57) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-6' DUP (CPF0799-58) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-3-6' DUP (CPF0799-58) Soil Sampled: 06/23/06 08:40 Received: 06/23/06 15:50									
Aroclor 1260	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-8' (CPF0799-59) Soil Sampled: 06/23/06 08:38 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-3-10' (CPF0799-60) Soil Sampled: 06/23/06 08:43 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-6" (CPF0799-61) Soil Sampled: 06/23/06 08:55 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-2' (CPF0799-62) Soil Sampled: 06/23/06 08:56 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-4-2' (CPF0799-62) Soil Sampled: 06/23/06 08:56 Received: 06/23/06 15:50									
Aroclor 1268	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
N217-4-4' (CPF0799-63) Soil Sampled: 06/23/06 08:52 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-6' (CPF0799-64) Soil Sampled: 06/23/06 08:59 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04936	06/30/06	07/06/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-8' (CPF0799-65) Soil Sampled: 06/23/06 08:58 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-4-10' (CPF0799-66) Soil Sampled: 06/23/06 09:01 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-6" (CPF0799-67) Soil Sampled: 06/23/06 09:10 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-2' (CPF0799-68) Soil Sampled: 06/23/06 09:11 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-4' (CPF0799-69) Soil Sampled: 06/23/06 09:09 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-8' (CPF0799-70) Soil Sampled: 06/23/06 09:17 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-10' (CPF0799-71) Soil Sampled: 06/23/06 09:14 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-5-10' (CPF0799-71) Soil Sampled: 06/23/06 09:14 Received: 06/23/06 15:50									
Aroclor 1221	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
N217-5-12' (CPF0799-72) Soil Sampled: 06/23/06 09:20 Received: 06/23/06 15:50									
Aroclor 1016	ND	20	µg/kg	1	CP04938	06/30/06	07/05/06	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04852 - LUFT-DHS GCNV										
Blank (CP04852-BLK1)				Prepared: 06/28/06	Analyzed: 07/03/06					
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04852-BS1)				Prepared: 06/28/06	Analyzed: 07/03/06					
Aroclor 1260	91.1	20	µg/kg	83.3		109	29-131			
LCS Dup (CP04852-BSD1)				Prepared: 06/28/06	Analyzed: 07/03/06					
Aroclor 1260	94.7	20	µg/kg	83.3		114	29-131	3.88	30	
Matrix Spike (CP04852-MS1)		**Source: CPF0799-01**		Prepared: 06/28/06	Analyzed: 07/03/06					
Aroclor 1260	1400	20	µg/kg	83.3	160	NR	29-131			QM-4X
Matrix Spike Dup (CP04852-MSD1)		**Source: CPF0799-01**		Prepared: 06/28/06	Analyzed: 07/03/06					
Aroclor 1260	1500	20	µg/kg	83.3	160	NR	29-131	6.90	30	QM-4X
Batch CP04885 - LUFT-DHS GCNV										
Blank (CP04885-BLK1)				Prepared: 06/29/06	Analyzed: 07/04/06					
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04885 - LUFT-DHS GCNV										
LCS (CP04885-BS1)				Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	86.1	20	µg/kg	83.3		103	29-131			
LCS Dup (CP04885-BSD1)				Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	87.9	20	µg/kg	83.3		106	29-131	2.07	30	
Matrix Spike (CP04885-MS1)		**Source: CPF0799-26**		Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	105	20	µg/kg	83.3	19	103	29-131			
Matrix Spike Dup (CP04885-MSD1)		**Source: CPF0799-26**		Prepared: 06/29/06		Analyzed: 07/04/06				
Aroclor 1260	109	20	µg/kg	83.3	19	108	29-131	3.74	30	
Batch CP04905 - LUFT-DHS GCNV										
Blank (CP04905-BLK1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04905-BS1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1260	165	20	µg/kg	167		98.8	29-131			
LCS Dup (CP04905-BSD1)				Prepared: 06/30/06		Analyzed: 07/04/06				
Aroclor 1260	166	20	µg/kg	167		99.4	29-131	0.604	30	

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ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04936 - LUFT-DHS GCNV										
Blank (CP04936-BLK1)				Prepared: 06/30/06	Analyzed: 07/06/06					
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
LCS (CP04936-BS1)				Prepared: 06/30/06	Analyzed: 07/06/06					
Aroclor 1260	97.8	20	µg/kg	83.3		117	29-131			
LCS Dup (CP04936-BSD1)				Prepared: 06/30/06	Analyzed: 07/06/06					
Aroclor 1260	77.9	20	µg/kg	83.3		93.5	29-131	22.7	30	
Matrix Spike (CP04936-MS1)		**Source: CPF0799-46**		Prepared: 06/30/06	Analyzed: 07/06/06					
Aroclor 1260	6.19	20	µg/kg	83.3	90	NR	29-131			
Matrix Spike Dup (CP04936-MSD1)		**Source: CPF0799-46**		Prepared: 06/30/06	Analyzed: 07/06/06					
Aroclor 1260	8.49	20	µg/kg	83.3	90	NR	29-131	31.3	30	
Batch CP04938 - LUFT-DHS GCNV										
Blank (CP04938-BLK1)				Prepared: 06/30/06	Analyzed: 07/05/06					
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							

CALIFORNIA LABORATORY SERVICES

11/21/06 10:27

ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CP04938 - LUFT-DHS GCNV										
LCS (CP04938-BS1)				Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	81.0	20	µg/kg	83.3		97.2	29-131			
LCS Dup (CP04938-BSD1)				Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	83.2	20	µg/kg	83.3		99.9	29-131	2.68	30	
Matrix Spike (CP04938-MS1)		**Source: CPF0799-67**		Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	90.8	20	µg/kg	83.3	22	82.6	29-131			
Matrix Spike Dup (CP04938-MSD1)		**Source: CPF0799-67**		Prepared: 06/30/06		Analyzed: 07/05/06				
Aroclor 1260	83.0	20	µg/kg	83.3	22	73.2	29-131	8.98	30	

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11/21/06 10:27

ISSI/NASA Ames MS221-10 NASA Ames MS T20-G Moffet Field CA, 94035-1000	Project: AOI 14 Phase II Project Number: N140-200 Project Manager: Casey Fitzgerald	**CLS Work Order #: CPF0799** COC #: 71134,35,36,37,38,39

Notes and Definitions

QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 15, 2007

CLS Work Order #: CQK0224
COC #: 89538

Brian Reddig
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: A01 14 Surface Soil Resample

Enclosed are the results of analyses for samples received by the laboratory on 11/07/07 17:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0224 LOG NO. 89538

REPORT TO:
NAME AND ADDRESS: ISSI, NASA Ames, Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: A01 14 Surface Soil Resample
SAMPLED BY: BR/JL
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (include 1268) by method 8082	DDD, DDE, DDT (Total) by method 8081A	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / OR ALT. ID:
11-7-07	1010	PEN-10R-6"	SOIL	1	8oz jar		X				X		PCB detection limit NO
	1015	PEN-10R-2'					X						greater than 20ug/Kg
	1040	PEN-17R-6"					X						
	1045	PEN-17R-2'					X						DDE, DDD, DDT detection
	1030	PEN-19R-6"					X						limit no greater than
	1020	PEN-20R-6"					X						75ug/Kg
	1025	PEN-20R-2'					X						
	1050	PEN-23R-6"						X					
	1000	PEN-34R-2'						X					
	945	PEN-35R-6"						X					
	950	PEN-36R-6"						X					

INVOICE TO:
P.O. #
QUOTE #

SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI	11/7/07 @ 1530		CJ / CLS
	CLS	11/7/07 @ 1745		

RECEIVED AT LAB BY: Will Orellana DATE / TIME: 11/7/07 1715 CLS CONDITIONS / COMMENTS: 5°

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-34R-2' (CQK0224-09) Soil Sampled: 11/07/07 10:00 Received: 11/07/07 17:15									
4,4´-DDD	ND	75	µg/kg	5	CQ09317	11/12/07	11/12/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.9 %*	*52-141*		"	"	"	"	
PEN-35R-6'' (CQK0224-10) Soil Sampled: 11/07/07 09:45 Received: 11/07/07 17:15									
4,4´-DDD	ND	75	µg/kg	5	CQ09317	11/12/07	11/12/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*83.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.2 %*	*52-141*		"	"	"	"	
PEN-36-6'' (CQK0224-11) Soil Sampled: 11/07/07 09:50 Received: 11/07/07 17:15									
4,4´-DDD	ND	75	µg/kg	5	CQ09317	11/12/07	11/12/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*65.0 %*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-10R-6'' (CQK0224-01) Soil Sampled: 11/07/07 10:10 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.4 %*	*50-150*		"	"	"	"	
PEN-10R-2' (CQK0224-02) Soil Sampled: 11/07/07 10:15 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.4 %*	*50-150*		"	"	"	"	
PEN-17R-6'' (CQK0224-03) Soil Sampled: 11/07/07 10:40 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**170**	20	"	"	"	"	"	"	
Aroclor 1268	**22**	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*78.4 %*	*50-150*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-17R-2' (CQK0224-04) Soil Sampled: 11/07/07 10:45 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.4 %*	*50-150*		"	"	"	"	
PEN-19R-6'' (CQK0224-05) Soil Sampled: 11/07/07 10:30 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**47**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.6 %*	*50-150*		"	"	"	"	
PEN-20R-6'' (CQK0224-06) Soil Sampled: 11/07/07 10:20 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*78.6 %*	*50-150*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-20R-2' (CQK0224-07) Soil Sampled: 11/07/07 10:25 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.0 %*	*50-150*		"	"	"	"	
PEN-23R-6'' (CQK0224-08) Soil Sampled: 11/07/07 10:50 Received: 11/07/07 17:15									
Aroclor 1016	ND	20	µg/kg	1	CQ09318	11/12/07	11/13/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**500**	100	"	5	"	"	"	"	
Aroclor 1268	**220**	40	"	2	"	"	"	"	
Surrogate: Decachlorobiphenyl		*130 %*	*50-150*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09317 - LUFT-DHS GCNV										
Blank (CQ09317-BLK1)				Prepared & Analyzed: 11/12/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.03*		*"*	*8.33*		*72.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.67*		*"*	*8.33*		*92.1*	*52-141*			
LCS (CQ09317-BS1)				Prepared & Analyzed: 11/12/07						
Aldrin	14.1	1.0	µg/kg	16.7		84.3	47-132			
gamma-BHC (Lindane)	13.9	10	"	16.7		83.1	56-133			
4,4´-DDT	13.8	15	"	16.7		82.9	46-137			
Dieldrin	13.6	1.0	"	16.7		81.8	44-143			
Endrin	13.7	15	"	16.7		82.2	30-147			
Heptachlor	14.7	5.0	"	16.7		88.0	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.67*		*"*	*8.33*		*92.1*	*46-139*			

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09317 - LUFT-DHS GCNV										
LCS (CQ09317-BS1)				Prepared & Analyzed: 11/12/07						
Surrogate: Decachlorobiphenyl	*7.42*		*µg/kg*	*8.33*		*89.1*	*52-141*			
LCS Dup (CQ09317-BSD1)				Prepared & Analyzed: 11/12/07						
Aldrin	12.0	1.0	µg/kg	16.7		71.8	47-132	16.1	30	
gamma-BHC (Lindane)	11.3	10	"	16.7		67.8	56-133	20.3	30	
4,4´-DDT	12.4	15	"	16.7		74.6	46-137	10.5	30	
Dieldrin	12.3	1.0	"	16.7		73.6	44-143	10.5	30	
Endrin	12.0	15	"	16.7		71.7	30-147	13.6	30	
Heptachlor	12.2	5.0	"	16.7		73.3	33-148	18.2	30	
Surrogate: Tetrachloro-meta-xylene	*5.90*		*"*	*8.33*		*70.8*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.92*		*"*	*8.33*		*95.0*	*52-141*			
Matrix Spike (CQ09317-MS1)		**Source: CQK0224-09**		Prepared & Analyzed: 11/12/07						
Aldrin	14.0	5.0	µg/kg	16.7	ND	84.1	47-138			
gamma-BHC (Lindane)	14.4	50	"	16.7	ND	86.2	38-144			
4,4´-DDT	16.1	75	"	16.7	9.63	38.6	41-157			QM-5
Dieldrin	15.5	5.0	"	16.7	ND	93.0	46-155			
Endrin	15.9	75	"	16.7	ND	95.7	34-149			
Heptachlor	15.4	25	"	16.7	ND	92.6	36-155			
Surrogate: Tetrachloro-meta-xylene	*20.1*		*"*	*20.8*		*96.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*20.2*		*"*	*20.8*		*97.1*	*52-141*			
Matrix Spike Dup (CQ09317-MSD1)		**Source: CQK0224-09**		Prepared & Analyzed: 11/12/07						
Aldrin	13.7	5.0	µg/kg	16.7	ND	82.0	47-138	2.54	35	
gamma-BHC (Lindane)	14.3	50	"	16.7	ND	86.0	38-144	0.209	35	
4,4´-DDT	16.4	75	"	16.7	9.63	40.7	41-157	2.15	35	QM-5
Dieldrin	15.2	5.0	"	16.7	ND	91.1	46-155	2.05	35	
Endrin	15.9	75	"	16.7	ND	95.5	34-149	0.183	35	
Heptachlor	15.2	25	"	16.7	ND	91.1	36-155	1.67	35	
Surrogate: Tetrachloro-meta-xylene	*19.9*		*"*	*20.8*		*95.6*	*46-139*			
Surrogate: Decachlorobiphenyl	*19.4*		*"*	*20.8*		*93.0*	*52-141*			

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09318 - LUFT-DHS GCNV										
Blank (CQ09318-BLK1)				Prepared: 11/12/07		Analyzed: 11/13/07				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*7.07*		*"*	*8.33*		*84.8*	*50-150*			
LCS (CQ09318-BS1)				Prepared: 11/12/07		Analyzed: 11/13/07				
Aroclor 1260	88.0	20	µg/kg	83.3		106	29-131			
Surrogate: Decachlorobiphenyl	*7.75*		*"*	*8.33*		*93.0*	*50-150*			
LCS Dup (CQ09318-BSD1)				Prepared: 11/12/07		Analyzed: 11/13/07				
Aroclor 1260	85.6	20	µg/kg	83.3		103	29-131	2.70	30	
Surrogate: Decachlorobiphenyl	*7.65*		*"*	*8.33*		*91.8*	*50-150*			
Matrix Spike (CQ09318-MS1)		**Source: CQK0224-04**		Prepared: 11/12/07		Analyzed: 11/13/07				
Aroclor 1260	93.8	20	µg/kg	83.3	12.3	97.7	29-131			
Surrogate: Decachlorobiphenyl	*7.38*		*"*	*8.33*		*88.6*	*50-150*			
Matrix Spike Dup (CQ09318-MSD1)		**Source: CQK0224-04**		Prepared: 11/12/07		Analyzed: 11/13/07				
Aroclor 1260	93.1	20	µg/kg	83.3	12.3	96.9	29-131	0.772	30	
Surrogate: Decachlorobiphenyl	*7.20*		*"*	*8.33*		*86.4*	*50-150*			

CALIFORNIA LABORATORY SERVICES

 11/15/07 15:30

ISSI/NASA Ames MS221-10	Project: A01 14 Surface Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0224**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Notes and Definitions

QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 03, 2007

CLS Work Order #: CQK0707
COC #: 85851,52,53,89539,40

Brian Reddig
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: A01 14 Soil Resample

Enclosed are the results of analyses for samples received by the laboratory on 11/20/07 17:05. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0707 LOG NO. 85851 1 of 5

REPORT TO:
NAME AND ADDRESS: ISS. NASA Ames, Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: ~~A01H~~ A01 14 Soil Resample
SAMPLED BY: BR/CP
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY, 2 DAY, 5 DAY, 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (include 1268) by method 8082	DDD, DDE, DDT (total) by method 8081A	Lead + Zinc by method 6020	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS
1	11-19-07	1257	PEN-9R-6'	Soil	1	Plastic liner	3		X				X		PCB detection limit no
2		108	PEN-9R-14'					X							greater than 20ug/kg
3		204	PEN-17R-10'						X						
4		207	PEN-17R-12'					X							DDD, DDE, DDT detection
5		1220	PEN-19R-8'					X	X	X					limit no greater than 75ug/kg
6		1224	PEN-19R-12'					X							
7		236	PEN-23R-6'						X						
8		242	PEN-23R-8'					X	X	X					
9		245	PEN-23R-10'						X						INVOICE TO:
10		220	PEN-25R-10'					X							
11		224	PEN-25R-12'					X							
12		125	PEN-27R-12'					X							P.O. #
13		128	PEN-27R-14'					X							QUOTE #

SUSPECTED CONSTITUENTS

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI	11/20/07 @ 1345		CJ / CLS
	CLS	11/20/07 @ 1705		

RECD AT LAB BY: DATE / TIME: 11/20/07 1705 CONDITIONS / COMMENTS: 5°

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0707 LOG NO. 85852 2 of 5

REPORT TO:
NAME AND ADDRESS: ISSI, NASA Ames, Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: A01 14 Soil Resample
SAMPLED BY: BR/CF
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD., RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (incl. 1268) by method 8082	DDE, DDD, DDT (total) by method 8081A	TURN AROUND TIME 1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
14	11-19-07	1140	PEN-28R-4'	Soil	1	plastic liner	3		X			X		PCB detection limit no greater than 20ug/kg
15		1235	PEN-30R-10'						X					
16		1240	PEN-30R-12'						X					
17		1243	PEN-30R-14'						X					DDE, DDD, DDT detection limit no greater than 75ug/kg
18		1150	PEN-33R-8'						X					
19		1154	PEN-33R-12'						X					
20		1202	PEN-34R-4'						X					
21		1205	PEN-34R-8'						X					
22		1208	PEN-34R-12'						X					INVOICE TO:
23		1100	PEN-35R-8'						X					
24		1103	PEN-35R-10'						X					
25		1110	PEN-35R-14'					X	X					P.O. #
														QUOTE #

SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI.	11/20/07 @ 1345		CL/CLS
	CLS	11/20/07 @ 1705		

RECD AT LAB BY: Orellana DATE / TIME: 11/20/07 1705 CONDITIONS / COMMENTS: 5°
SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

3 of 5

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0707 LOG NO. 85853

REPORT TO:
NAME AND ADDRESS: ISSI, NASA Ames, Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: A01 14 Soil Resample
SAMPLED BY: BRIEF
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB Limited, 8082 by method	DDD, DDE, DDT detected by method 8081A						1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS OR ALT. ID:
26	11-19-07	1125	PEN-36R-4'	SOIL	1	PLASTIC JAR	3		X								X		PCB detection limit no greater than 20ug/kg
27		1128	PEN-36R-6'						X										
28		1130	PEN-36R-8'						X										
29		1132	PEN-36R-10'						X										DDD, DDE, DDT detection limit
30		1135	PEN-36R-12'					X	X										no greater than 75ug/kg
31		1137	PEN-36R-14'						X										

INVOICE TO:
P.O. #
QUOTE #

SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI	11/20/07 @1347		CLS
	CLS	11/20/07 @1705		

RECD AT LAB BY: DATE / TIME: 11/20/07 1705 CONDITIONS / COMMENTS: 5°

SHIPPED BY: [ ] FED-X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

4 of 5

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0707 LOG NO. 89539

REPORT TO:
NAME AND ADDRESS: ISSI, NASA Ames, Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: A01 14 Soil Resample
SAMPLED BY: BR/CP
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

TURN AROUND TIME: 1 DAY, 2 DAY, 5 DAY, 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (include 1268) by method 8082	DDE, DDD, DDT (total) by method 8081A	Lead & Zinc by method 6010B/7000	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS
32	11-20-07	918	PEN-16R-12'	Soil	1	plastic liner	3	X					X		PCB detection limit no
33		900	PEN-24R-10'					X							greater than 20ug/Kg
34		953	N217-06W-6"					X	X	X					
35		956	N217-06W-2'					X	X	X					DDD, DDE, DDT detection
36		1000	N217-06W-4'					X	X	X					limit no greater than
37		1002	N217-06W-6'					X	X	X					75ug/Kg
38		1004	N217-06W-8'					X	X	X					
39		1006	N217-06W-10'					X	X	X					
40		1008	N217-06W-12'					X	X	X					INVOICE TO:
41		1018	N217-06E-6"					X	X	X					
42		1020	N217-06E-2'					X	X	X					
43		1022	N217-06E-4'					X	X	X					P.O. #
44		1024	N217-06E-6'					X	X	X					QUOTE #

SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI	11/20/07 @ 1345		CLS
	CLS	11/21/07 @ 1705		

RECD AT LAB BY: Will Quellana DATE / TIME: 11/20/07 1705 CONDITIONS / COMMENTS: 5

SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CQK0707 LOG NO. 89540 5 of 5

REPORT TO:
NAME AND ADDRESS: ISSI NASA Ames Moffett Field, CA
PROJECT MANAGER: Brian Reddig PHONE#: 650-604-1315
PROJECT NAME: A01 14 Soil Resample
SAMPLED BY: BD/CP
JOB DESCRIPTION:
SITE LOCATION: A01 14

CLIENT JOB NUMBER: N302-200
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER: EDF REPORT [ ] YES [ ] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS:

	DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCBs (wipe size) by method 8082	DDD, DDE, DDT (total) by method 8081A	Lead + Zinc by method 6010B/7000	1 DAY	2 DAY	5 DAY	10 DAY	SPECIAL INSTRUCTIONS / OR ALT. ID:
45	11-20-07	1026	N217-06E-8'	Soil	1	Plastic 1-oz		X	X	X			X		PCB detection limit no greater than 20ug/kg
46		1030	N217-06E-10'					X	X	X					
47		1032	N217-06E-12'					X	X	X					DDD, DDE, DDT detection limit no greater than 75ug/kg
48		1043	N217-06S-6"					X	X	X					
49		1045	N217-06S-2'					X	X	X					
50		1047	N217-06S-4'					X	X	X					
51		1049	N217-06S-6'					X	X	X					
52		1051	N217-06S-8'					X	X	X					
53		1053	N217-06S-10'					X	X	X					INVOICE TO:
54		1055	N217-06S-12'					X	X	X					

P.O. #
QUOTE #

SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Brian Reddig	Brian Reddig / ISSI	11/20/07 @ 1347		CLS
	CLS	11/20/07 @ 1705		

REC'D AT LAB BY: DATE / TIME: 11/20/07 1705 CONDITIONS / COMMENTS:
SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS AIR BILL #

LAB

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 19R - 8' (CQK0707-05) Soil Sampled: 11/19/07 12:20 Received: 11/20/07 17:05									
Lead	ND	25	mg/kg	10	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	ND	50	"	"	"	"	"	"	
PEN - 23R - 8' (CQK0707-08) Soil Sampled: 11/19/07 14:42 Received: 11/20/07 17:05									
Lead	**22**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**56**	5.0	"	"	"	"	"	"	
N217 - 06W - 6'' (CQK0707-34) Soil Sampled: 11/20/07 09:53 Received: 11/20/07 17:05									
Lead	**13**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**46**	5.0	"	"	"	"	"	"	
N217 - 06W - 2' (CQK0707-35) Soil Sampled: 11/20/07 09:56 Received: 11/20/07 17:05									
Lead	**7.9**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**43**	5.0	"	"	"	"	"	"	
N217 - 06W - 4' (CQK0707-36) Soil Sampled: 11/20/07 10:00 Received: 11/20/07 17:05									
Lead	**6.0**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**44**	5.0	"	"	"	"	"	"	
N217 - 06W - 6' (CQK0707-37) Soil Sampled: 11/20/07 10:02 Received: 11/20/07 17:05									
Lead	**4.4**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**35**	5.0	"	"	"	"	"	"	
N217 - 06W - 8' (CQK0707-38) Soil Sampled: 11/20/07 10:04 Received: 11/20/07 17:05									
Lead	**25**	2.5	mg/kg	1	CQ09644	11/21/07	11/29/07	EPA 6010B	
Zinc	**25**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06W - 10' (CQK0707-39) Soil Sampled: 11/20/07 10:06 Received: 11/20/07 17:05									
Lead	**4.8**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
N217 - 06W - 12' (CQK0707-40) Soil Sampled: 11/20/07 10:08 Received: 11/20/07 17:05									
Lead	**8.9**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**22**	5.0	"	"	"	"	"	"	
N217 - 06E - 6'' (CQK0707-41) Soil Sampled: 11/20/07 10:18 Received: 11/20/07 17:05									
Lead	**11**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**55**	5.0	"	"	"	"	"	"	
N217 - 06E - 2' (CQK0707-42) Soil Sampled: 11/20/07 10:20 Received: 11/20/07 17:05									
Lead	**12**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**47**	5.0	"	"	"	"	"	"	
N217 - 06E - 4' (CQK0707-43) Soil Sampled: 11/20/07 10:22 Received: 11/20/07 17:05									
Lead	**4.4**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**25**	5.0	"	"	"	"	"	"	
N217 - 06E - 6' (CQK0707-44) Soil Sampled: 11/20/07 10:24 Received: 11/20/07 17:05									
Lead	**13**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**28**	5.0	"	"	"	"	"	"	
N217 - 06E - 8' (CQK0707-45) Soil Sampled: 11/20/07 10:26 Received: 11/20/07 17:05									
Lead	**8.2**	2.5	mg/kg	1	CQ09644	11/21/07	11/28/07	EPA 6010B	
Zinc	**32**	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06E - 10' (CQK0707-46) Soil Sampled: 11/20/07 10:30 Received: 11/20/07 17:05									
Lead	**3.4**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**31**	5.0	"	"	"	"	"	"	
N217 - 06E - 12' (CQK0707-47) Soil Sampled: 11/20/07 10:32 Received: 11/20/07 17:05									
Lead	**3.3**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**30**	5.0	"	"	"	"	"	"	
N217 - 06S - 6'' (CQK0707-48) Soil Sampled: 11/20/07 10:43 Received: 11/20/07 17:05									
Lead	**9.6**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**50**	5.0	"	"	"	"	"	"	
N217 - 06S - 2' (CQK0707-49) Soil Sampled: 11/20/07 10:45 Received: 11/20/07 17:05									
Lead	**7.6**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**38**	5.0	"	"	"	"	"	"	
N217 - 06S - 4' (CQK0707-50) Soil Sampled: 11/20/07 10:47 Received: 11/20/07 17:05									
Lead	**7.3**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**48**	5.0	"	"	"	"	"	"	
N217 - 06S - 6' (CQK0707-51) Soil Sampled: 11/20/07 10:49 Received: 11/20/07 17:05									
Lead	**6.1**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**37**	5.0	"	"	"	"	"	"	
N217 - 06S - 8' (CQK0707-52) Soil Sampled: 11/20/07 10:51 Received: 11/20/07 17:05									
Lead	**3.9**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**34**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06S - 10' (CQK0707-53) Soil Sampled: 11/20/07 10:53 Received: 11/20/07 17:05									
Lead	**96**	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**120**	5.0	"	"	"	"	"	"	
N217 - 06S - 12' (CQK0707-54) Soil Sampled: 11/20/07 10:55 Received: 11/20/07 17:05									
Lead	ND	2.5	mg/kg	1	CQ09686	11/26/07	11/29/07	EPA 6010B	
Zinc	**26**	5.0	"	"	"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 9R - 6' (CQK0707-01) Soil Sampled: 11/19/07 12:57 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*70.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*70.0 %*	*52-141*		"	"	"	"	
PEN - 17R - 10' (CQK0707-03) Soil Sampled: 11/19/07 14:04 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97.9 %*	*52-141*		"	"	"	"	
PEN - 17R - 12' (CQK0707-04) Soil Sampled: 11/19/07 14:07 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*77.3 %*	*52-141*		"	"	"	"	
PEN - 19R - 8' (CQK0707-05) Soil Sampled: 11/19/07 12:20 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*101 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 23R - 6' (CQK0707-07) Soil Sampled: 11/19/07 14:36 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.2 %*	*52-141*		"	"	"	"	
PEN - 23R - 8' (CQK0707-08) Soil Sampled: 11/19/07 14:42 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.3 %*	*52-141*		"	"	"	"	
PEN - 23R - 10' (CQK0707-09) Soil Sampled: 11/19/07 14:45 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*75.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76.5 %*	*52-141*		"	"	"	"	
PEN - 28R - 4' (CQK0707-14) Soil Sampled: 11/19/07 13:40 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*83.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*85.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 30R - 10' (CQK0707-15) Soil Sampled: 11/19/07 12:35 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*60.2 %*	*52-141*		"	"	"	"	
PEN - 30R - 12' (CQK0707-16) Soil Sampled: 11/19/07 12:40 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*75.7 %*	*52-141*		"	"	"	"	
PEN - 30R - 14' (CQK0707-17) Soil Sampled: 11/19/07 12:43 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*69.9 %*	*52-141*		"	"	"	"	
PEN - 33R - 8' (CQK0707-18) Soil Sampled: 11/19/07 11:50 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.0 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 33R - 12' (CQK0707-19) Soil Sampled: 11/19/07 11:54 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*85.4 %*	*52-141*		"	"	"	"	
PEN - 34R - 4' (CQK0707-20) Soil Sampled: 11/19/07 12:02 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*62.2 %*	*52-141*		"	"	"	"	
PEN - 34R - 8' (CQK0707-21) Soil Sampled: 11/19/07 12:05 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.8 %*	*52-141*		"	"	"	"	
PEN - 34R - 12' (CQK0707-22) Soil Sampled: 11/19/07 12:08 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.5 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 35R - 8' (CQK0707-23) Soil Sampled: 11/19/07 11:00 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*97.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
PEN - 35R - 10' (CQK0707-24) Soil Sampled: 11/19/07 11:03 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*95.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.6 %*	*52-141*		"	"	"	"	
PEN - 35R - 14' (CQK0707-25) Soil Sampled: 11/19/07 11:10 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.1 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.1 %*	*52-141*		"	"	"	"	
PEN - 36R - 4' (CQK0707-26) Soil Sampled: 11/19/07 11:25 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09702	11/26/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*91.4 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 36R - 6' (CQK0707-27) Soil Sampled: 11/19/07 11:28 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*65.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*54.6 %*	*52-141*		"	"	"	"	
PEN - 36R - 8' (CQK0707-28) Soil Sampled: 11/19/07 11:30 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*53.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*53.3 %*	*52-141*		"	"	"	"	
PEN - 36R - 10' (CQK0707-29) Soil Sampled: 11/19/07 11:32 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*68.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*65.0 %*	*52-141*		"	"	"	"	
PEN - 36R - 12' (CQK0707-30) Soil Sampled: 11/19/07 11:35 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*54.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 36R - 14' (CQK0707-31) Soil Sampled: 11/19/07 11:37 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*92.2 %*	*52-141*		"	"	"	"	
N217 - 06W - 6'' (CQK0707-34) Soil Sampled: 11/20/07 09:53 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.6 %*	*52-141*		"	"	"	"	
N217 - 06W - 2' (CQK0707-35) Soil Sampled: 11/20/07 09:56 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*108 %*	*52-141*		"	"	"	"	
N217 - 06W - 4' (CQK0707-36) Soil Sampled: 11/20/07 10:00 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*87.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.5 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06W - 6' (CQK0707-37) Soil Sampled: 11/20/07 10:02 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.4 %*	*52-141*		"	"	"	"	
N217 - 06W - 8' (CQK0707-38) Soil Sampled: 11/20/07 10:04 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*85.9 %*	*52-141*		"	"	"	"	
N217 - 06W - 10' (CQK0707-39) Soil Sampled: 11/20/07 10:06 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*103 %*	*52-141*		"	"	"	"	
N217 - 06W - 12' (CQK0707-40) Soil Sampled: 11/20/07 10:08 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*72.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06E - 6'' (CQK0707-41) Soil Sampled: 11/20/07 10:18 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86.4 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*94.3 %*	*52-141*		"	"	"	"	
N217 - 06E - 2' (CQK0707-42) Soil Sampled: 11/20/07 10:20 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*93.4 %*	*52-141*		"	"	"	"	
N217 - 06E - 4' (CQK0707-43) Soil Sampled: 11/20/07 10:22 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*55.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.3 %*	*52-141*		"	"	"	"	
N217 - 06E - 6' (CQK0707-44) Soil Sampled: 11/20/07 10:24 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*85.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.6 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06E - 8' (CQK0707-45) Soil Sampled: 11/20/07 10:26 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.6 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
N217 - 06E - 10' (CQK0707-46) Soil Sampled: 11/20/07 10:30 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.7 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.9 %*	*52-141*		"	"	"	"	
N217 - 06E - 12' (CQK0707-47) Soil Sampled: 11/20/07 10:32 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*99.7 %*	*52-141*		"	"	"	"	
N217 - 06S - 6'' (CQK0707-48) Soil Sampled: 11/20/07 10:43 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*64.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*83.3 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06S - 2' (CQK0707-49) Soil Sampled: 11/20/07 10:45 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	
N217 - 06S - 4' (CQK0707-50) Soil Sampled: 11/20/07 10:47 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*92.0 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*135 %*	*52-141*		"	"	"	"	
N217 - 06S - 6' (CQK0707-51) Soil Sampled: 11/20/07 10:49 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.8 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*52-141*		"	"	"	"	
N217 - 06S - 8' (CQK0707-52) Soil Sampled: 11/20/07 10:51 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*84.3 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*113 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06S - 10' (CQK0707-53) Soil Sampled: 11/20/07 10:53 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*82.9 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
N217 - 06S - 12' (CQK0707-54) Soil Sampled: 11/20/07 10:55 Received: 11/20/07 17:05									
4,4´-DDD	ND	75	µg/kg	5	CQ09827	11/29/07	11/29/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*80.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*52-141*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 9R - 14' (CQK0707-02) Soil Sampled: 11/19/07 13:08 Received: 11/20/07 17:05									
Aroclor 1016	ND	100	µg/kg	5	CQ09763	11/27/07	11/29/07	EPA 8082A	QRL-5
Aroclor 1221	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1232	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1242	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1248	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1254	ND	20	"	1	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*73.6 %*	*50-150*		"	"	"	"	
PEN - 19R - 8' (CQK0707-05) Soil Sampled: 11/19/07 12:20 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*60.8 %*	*50-150*		"	"	"	"	
PEN - 19R - 12' (CQK0707-06) Soil Sampled: 11/19/07 12:24 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*72.8 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 23R - 8' (CQK0707-08) Soil Sampled: 11/19/07 14:42 Received: 11/20/07 17:05									
Aroclor 1016	ND	100	µg/kg	5	CQ09763	11/27/07	11/29/07	EPA 8082A	QRL-5
Aroclor 1221	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1232	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1242	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1248	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1254	ND	20	"	1	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*69.2 %*	*50-150*			"	"	"	"	
PEN - 25R - 10' (CQK0707-10) Soil Sampled: 11/19/07 14:20 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*61.8 %*	*50-150*			"	"	"	"	
PEN - 25R - 12' (CQK0707-11) Soil Sampled: 11/19/07 14:24 Received: 11/20/07 17:05									
Aroclor 1016	ND	100	µg/kg	5	CQ09763	11/27/07	11/29/07	EPA 8082A	QRL-5
Aroclor 1221	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1232	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1242	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1248	ND	100	"	"	"	"	"	"	QRL-5
Aroclor 1254	ND	20	"	1	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*80.4 %*	*50-150*			"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 27R - 12' (CQK0707-12) Soil Sampled: 11/19/07 13:25 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**23**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*50.0 %*	*50-150*		"	"	"	"	
PEN - 27R - 14' (CQK0707-13) Soil Sampled: 11/19/07 13:28 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*81.6 %*	*50-150*		"	"	"	"	
PEN - 35R - 14' (CQK0707-25) Soil Sampled: 11/19/07 11:10 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**2500**	400	"	20	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
Surrogate: Decachlorobiphenyl		*88.2 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 36R - 12' (CQK0707-30) Soil Sampled: 11/19/07 11:35 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**390**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
Surrogate: Decachlorobiphenyl		*62.2 %*	*50-150*		"	"	"	"	
PEN - 16R - 12' (CQK0707-32) Soil Sampled: 11/20/07 09:18 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*89.6 %*	*50-150*		"	"	"	"	
PEN - 24R - 10' (CQK0707-33) Soil Sampled: 11/20/07 09:00 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**1000**	200	"	10	"	"	"	"	
Aroclor 1268	**160**	20	"	1	"	"	"	"	PCB-1
Surrogate: Decachlorobiphenyl		*67.0 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06W - 6'' (CQK0707-34) Soil Sampled: 11/20/07 09:53 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*73.4 %*	*50-150*		"	"	"	"	
N217 - 06W - 2' (CQK0707-35) Soil Sampled: 11/20/07 09:56 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*70.8 %*	*50-150*		"	"	"	"	
N217 - 06W - 4' (CQK0707-36) Soil Sampled: 11/20/07 10:00 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*72.6 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06W - 6' (CQK0707-37) Soil Sampled: 11/20/07 10:02 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*62.6 %*	*50-150*		"	"	"	"	
N217 - 06W - 8' (CQK0707-38) Soil Sampled: 11/20/07 10:04 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.2 %*	*50-150*		"	"	"	"	
N217 - 06W - 10' (CQK0707-39) Soil Sampled: 11/20/07 10:06 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/30/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*34.6 %*	*50-150*		"	"	"	"	*QS-4*

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06W - 12' (CQK0707-40) Soil Sampled: 11/20/07 10:08 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*87.8 %*	*50-150*		"	"	"	"	
N217 - 06E - 6'' (CQK0707-41) Soil Sampled: 11/20/07 10:18 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09763	11/27/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**25**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*126 %*	*50-150*		"	"	"	"	
N217 - 06E - 2' (CQK0707-42) Soil Sampled: 11/20/07 10:20 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*72.2 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06E - 4' (CQK0707-43) Soil Sampled: 11/20/07 10:22 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*60.2 %*	*50-150*		"	"	"	"	
N217 - 06E - 6' (CQK0707-44) Soil Sampled: 11/20/07 10:24 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*44.6 %*	*50-150*		"	"	"	"	*QS-4*
N217 - 06E - 8' (CQK0707-45) Soil Sampled: 11/20/07 10:26 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*101 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06E - 10' (CQK0707-46) Soil Sampled: 11/20/07 10:30 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.2 %*	*50-150*		"	"	"	"	
N217 - 06E - 12' (CQK0707-47) Soil Sampled: 11/20/07 10:32 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*118 %*	*50-150*		"	"	"	"	
N217 - 06S - 6'' (CQK0707-48) Soil Sampled: 11/20/07 10:43 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*65.7 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06S - 2' (CQK0707-49) Soil Sampled: 11/20/07 10:45 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*80.0 %*	*50-150*		"	"	"	"	
N217 - 06S - 4' (CQK0707-50) Soil Sampled: 11/20/07 10:47 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*86.4 %*	*50-150*		"	"	"	"	
N217 - 06S - 6' (CQK0707-51) Soil Sampled: 11/20/07 10:49 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*82.4 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217 - 06S - 8' (CQK0707-52) Soil Sampled: 11/20/07 10:51 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*91.2 %*	*50-150*		"	"	"	"	
N217 - 06S - 10' (CQK0707-53) Soil Sampled: 11/20/07 10:53 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*79.5 %*	*50-150*		"	"	"	"	
N217 - 06S - 12' (CQK0707-54) Soil Sampled: 11/20/07 10:55 Received: 11/20/07 17:05									
Aroclor 1016	ND	20	µg/kg	1	CQ09828	11/29/07	11/29/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*84.8 %*	*50-150*		"	"	"	"	

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09644 - EPA 3050B										
Blank (CQ09644-BLK1)				Prepared: 11/21/07		Analyzed: 11/27/07				
Lead	ND	2.5	mg/kg							
Zinc	ND	5.0	"							
LCS (CQ09644-BS1)				Prepared: 11/21/07		Analyzed: 11/27/07				
Lead	24.5	2.5	mg/kg	25.0		98.2	75-125			
Zinc	25.2	5.0	"	25.0		101	75-125			
LCS Dup (CQ09644-BSD1)				Prepared: 11/21/07		Analyzed: 11/29/07				
Zinc	25.5	5.0	mg/kg	25.0		102	75-125	1.18	25	
Lead	24.5	2.5	"	25.0		98.0	75-125	0.184	25	
Matrix Spike (CQ09644-MS1)		**Source: CQK0664-03**		Prepared: 11/21/07		Analyzed: 11/27/07				
Lead	26.2	2.5	mg/kg	25.0	10.0	64.6	75-125			QM-5
Zinc	51.0	5.0	"	25.0	36.4	58.6	75-125			QM-5
Matrix Spike Dup (CQ09644-MSD1)		**Source: CQK0664-03**		Prepared: 11/21/07		Analyzed: 11/27/07				
Lead	30.3	2.5	mg/kg	25.0	10.0	81.0	75-125	14.5	30	
Zinc	57.4	5.0	"	25.0	36.4	84.2	75-125	11.8	30	
Batch CQ09686 - EPA 3050B										
Blank (CQ09686-BLK1)				Prepared: 11/26/07		Analyzed: 11/29/07				
Zinc	ND	5.0	mg/kg							
Lead	ND	2.5	"							
LCS (CQ09686-BS1)				Prepared: 11/26/07		Analyzed: 11/29/07				
Zinc	30.4	5.0	mg/kg	25.0		121	75-125			
Lead	31.1	2.5	"	25.0		124	75-125			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09686 - EPA 3050B										
LCS Dup (CQ09686-BSD1)				Prepared: 11/26/07		Analyzed: 11/29/07				
Zinc	29.4	5.0	mg/kg	25.0		118	75-125	3.16	25	
Lead	29.8	2.5	"	25.0		119	75-125	4.20	25	
Matrix Spike (CQ09686-MS1)		**Source: CQK0720-01**		Prepared: 11/26/07		Analyzed: 11/29/07				
Zinc	68.3	5.0	mg/kg	25.0	47.1	84.8	75-125			
Lead	28.0	2.5	"	25.0	4.50	94.0	75-125			
Matrix Spike Dup (CQ09686-MSD1)		**Source: CQK0720-01**		Prepared: 11/26/07		Analyzed: 11/29/07				
Lead	26.0	2.5	mg/kg	25.0	4.50	86.1	75-125	7.31	30	
Zinc	62.9	5.0	"	25.0	47.1	63.2	75-125	8.23	30	QM-5

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09702 - LUFT-DHS GCNV										
Blank (CQ09702-BLK1)				Prepared: 11/26/07 Analyzed: 11/28/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*6.95*		*"*	*8.33*		*83.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.36*		*"*	*8.33*		*100*	*52-141*			
LCS (CQ09702-BS1)				Prepared: 11/26/07 Analyzed: 11/28/07						
Aldrin	12.9	1.0	µg/kg	16.7		77.6	47-132			
gamma-BHC (Lindane)	12.6	10	"	16.7		75.3	56-133			
4,4´-DDT	13.4	15	"	16.7		80.2	46-137			
Dieldrin	13.8	1.0	"	16.7		82.6	44-143			
Endrin	15.1	15	"	16.7		90.8	30-147			
Heptachlor	11.1	5.0	"	16.7		66.9	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.10*		*"*	*8.33*		*85.2*	*46-139*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09702 - LUFT-DHS GCNV										
LCS (CQ09702-BS1)				Prepared: 11/26/07		Analyzed: 11/28/07				
Surrogate: Decachlorobiphenyl	*8.24*		*µg/kg*	*8.33*		*98.9*	*52-141*			
LCS Dup (CQ09702-BSD1)				Prepared: 11/26/07		Analyzed: 11/28/07				
Aldrin	12.8	1.0	µg/kg	16.7		76.7	47-132	1.15	30	
gamma-BHC (Lindane)	12.5	10	"	16.7		75.0	56-133	0.455	30	
4,4´-DDT	13.8	15	"	16.7		82.8	46-137	3.19	30	
Dieldrin	14.1	1.0	"	16.7		84.5	44-143	2.25	30	
Endrin	15.5	15	"	16.7		93.2	30-147	2.57	30	
Heptachlor	11.0	5.0	"	16.7		66.2	33-148	1.04	30	
Surrogate: Tetrachloro-meta-xylene	*6.20*		*"*	*8.33*		*74.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.34*		*"*	*8.33*		*100*	*52-141*			
Matrix Spike (CQ09702-MS1)		**Source: CQK0707-18**		Prepared: 11/26/07		Analyzed: 11/28/07				
Aldrin	11.7	5.0	µg/kg	16.7	ND	70.0	47-138			
gamma-BHC (Lindane)	11.8	50	"	16.7	ND	71.0	38-144			
4,4´-DDT	32.1	75	"	16.7	ND	193	41-157			QM-5
Dieldrin	15.8	5.0	"	16.7	ND	95.1	46-155			
Endrin	12.9	75	"	16.7	ND	77.6	34-149			
Heptachlor	11.7	25	"	16.7	ND	70.1	36-155			
Surrogate: Tetrachloro-meta-xylene	*19.8*		*"*	*20.8*		*95.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*18.9*		*"*	*20.8*		*90.8*	*52-141*			
Matrix Spike Dup (CQ09702-MSD1)		**Source: CQK0707-18**		Prepared: 11/26/07		Analyzed: 11/28/07				
Aldrin	10.3	5.0	µg/kg	16.7	ND	62.0	47-138	12.2	35	
gamma-BHC (Lindane)	10.5	50	"	16.7	ND	63.0	38-144	11.8	35	
4,4´-DDT	29.7	75	"	16.7	ND	178	41-157	7.90	35	QM-5
Dieldrin	14.6	5.0	"	16.7	ND	87.4	46-155	8.48	35	
Endrin	11.8	75	"	16.7	ND	70.9	34-149	9.02	35	
Heptachlor	10.2	25	"	16.7	ND	61.2	36-155	13.7	35	
Surrogate: Tetrachloro-meta-xylene	*17.0*		*"*	*20.8*		*81.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*17.9*		*"*	*20.8*		*86.1*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09752 - LUFT-DHS GCNV										
Blank (CQ09752-BLK1)				Prepared: 11/27/07 Analyzed: 11/28/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*7.75*		*"*	*8.33*		*93.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.23*		*"*	*8.33*		*98.8*	*52-141*			
LCS (CQ09752-BS1)				Prepared: 11/27/07 Analyzed: 11/28/07						
Aldrin	13.6	1.0	µg/kg	16.7		81.8	47-132			
gamma-BHC (Lindane)	13.2	10	"	16.7		79.1	56-133			
4,4´-DDT	11.7	15	"	16.7		70.2	46-137			
Dieldrin	13.6	1.0	"	16.7		81.9	44-143			
Endrin	14.8	15	"	16.7		88.7	30-147			
Heptachlor	12.4	5.0	"	16.7		74.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.83*		*"*	*8.33*		*82.0*	*46-139*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09752 - LUFT-DHS GCNV										
LCS (CQ09752-BS1)				Prepared: 11/27/07		Analyzed: 11/28/07				
Surrogate: Decachlorobiphenyl	*8.42*		*µg/kg*	*8.33*		*101*	*52-141*			
LCS Dup (CQ09752-BSD1)				Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	13.7	1.0	µg/kg	16.7		82.3	47-132	0.657	30	
gamma-BHC (Lindane)	13.6	10	"	16.7		81.5	56-133	2.98	30	
4,4´-DDT	12.6	15	"	16.7		75.7	46-137	7.47	30	
Dieldrin	14.1	1.0	"	16.7		84.6	44-143	3.29	30	
Endrin	15.4	15	"	16.7		92.3	30-147	3.91	30	
Heptachlor	12.7	5.0	"	16.7		76.3	33-148	2.29	30	
Surrogate: Tetrachloro-meta-xylene	*7.13*		*"*	*8.33*		*85.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.74*		*"*	*8.33*		*105*	*52-141*			
Matrix Spike (CQ09752-MS1)		**Source: CQK0707-34**		Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	11.6	5.0	µg/kg	16.7	ND	69.5	47-138			
gamma-BHC (Lindane)	12.0	50	"	16.7	ND	72.1	38-144			
4,4´-DDT	24.8	75	"	16.7	ND	149	41-157			
Dieldrin	17.3	5.0	"	16.7	ND	104	46-155			
Endrin	21.0	75	"	16.7	ND	126	34-149			
Heptachlor	11.4	25	"	16.7	ND	68.3	36-155			
Surrogate: Tetrachloro-meta-xylene	*17.4*		*"*	*20.8*		*83.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*18.5*		*"*	*20.8*		*88.7*	*52-141*			
Matrix Spike Dup (CQ09752-MSD1)		**Source: CQK0707-34**		Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	9.70	5.0	µg/kg	16.7	ND	58.2	47-138	17.6	35	
gamma-BHC (Lindane)	9.80	50	"	16.7	ND	58.8	38-144	20.2	35	
4,4´-DDT	20.5	75	"	16.7	ND	123	41-157	19.0	35	
Dieldrin	14.6	5.0	"	16.7	ND	87.6	46-155	17.0	35	
Endrin	17.7	75	"	16.7	ND	106	34-149	17.1	35	
Heptachlor	9.51	25	"	16.7	ND	57.0	36-155	17.9	35	
Surrogate: Tetrachloro-meta-xylene	*15.1*		*"*	*20.8*		*72.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*14.9*		*"*	*20.8*		*71.6*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09827 - LUFT-DHS GCNV										
Blank (CQ09827-BLK1)				Prepared & Analyzed: 11/29/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*5.86*		*"*	*8.33*		*70.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.60*		*"*	*8.33*		*115*	*52-141*			
LCS (CQ09827-BS1)				Prepared & Analyzed: 11/29/07						
Aldrin	13.3	1.0	µg/kg	16.7		80.0	47-132			
gamma-BHC (Lindane)	12.6	10	"	16.7		75.8	56-133			
4,4´-DDT	16.7	15	"	16.7		100	46-137			
Dieldrin	14.5	1.0	"	16.7		87.1	44-143			
Endrin	16.1	15	"	16.7		96.5	30-147			
Heptachlor	13.1	5.0	"	16.7		78.8	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.91*		*"*	*8.33*		*70.9*	*46-139*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09827 - LUFT-DHS GCNV										
LCS (CQ09827-BS1)				Prepared & Analyzed: 11/29/07						
Surrogate: Decachlorobiphenyl	*9.95*		*µg/kg*	*8.33*		*119*	*52-141*			
LCS Dup (CQ09827-BSD1)				Prepared & Analyzed: 11/29/07						
Aldrin	13.1	1.0	µg/kg	16.7		78.4	47-132	2.11	30	
gamma-BHC (Lindane)	12.4	10	"	16.7		74.2	56-133	2.09	30	
4,4´-DDT	16.3	15	"	16.7		97.9	46-137	2.31	30	
Dieldrin	14.6	1.0	"	16.7		87.7	44-143	0.697	30	
Endrin	15.6	15	"	16.7		93.7	30-147	2.88	30	
Heptachlor	12.9	5.0	"	16.7		77.4	33-148	1.78	30	
Surrogate: Tetrachloro-meta-xylene	*6.42*		*"*	*8.33*		*77.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.65*		*"*	*8.33*		*116*	*52-141*			
Matrix Spike (CQ09827-MS1)		**Source: CQK0720-01**		Prepared & Analyzed: 11/29/07						
Aldrin	13.4	5.0	µg/kg	16.7	ND	80.2	47-138			
gamma-BHC (Lindane)	13.0	50	"	16.7	ND	77.9	38-144			
4,4´-DDT	17.2	75	"	16.7	ND	103	41-157			
Dieldrin	13.8	5.0	"	16.7	ND	83.1	46-155			
Endrin	15.2	75	"	16.7	ND	91.0	34-149			
Heptachlor	13.5	25	"	16.7	ND	81.0	36-155			
Surrogate: Tetrachloro-meta-xylene	*17.7*		*"*	*20.8*		*85.2*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.6*		*"*	*20.8*		*118*	*52-141*			
Matrix Spike Dup (CQ09827-MSD1)		**Source: CQK0720-01**		Prepared & Analyzed: 11/29/07						
Aldrin	12.9	5.0	µg/kg	16.7	ND	77.2	47-138	3.72	35	
gamma-BHC (Lindane)	12.7	50	"	16.7	ND	76.4	38-144	1.93	35	
4,4´-DDT	17.1	75	"	16.7	ND	103	41-157	0.287	35	
Dieldrin	13.2	5.0	"	16.7	ND	79.0	46-155	5.04	35	
Endrin	14.6	75	"	16.7	ND	87.7	34-149	3.72	35	
Heptachlor	13.3	25	"	16.7	ND	79.5	36-155	1.85	35	
Surrogate: Tetrachloro-meta-xylene	*17.9*		*"*	*20.8*		*86.1*	*46-139*			
Surrogate: Decachlorobiphenyl	*24.3*		*"*	*20.8*		*117*	*52-141*			

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ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09763 - LUFT-DHS GCNV										
Blank (CQ09763-BLK1)				Prepared: 11/27/07		Analyzed: 11/29/07				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*7.60*		*"*	*8.33*		*91.2*	*50-150*			
LCS (CQ09763-BS1)				Prepared: 11/27/07		Analyzed: 11/29/07				
Aroclor 1260	82.0	20	µg/kg	83.3		98.4	29-131			
Surrogate: Decachlorobiphenyl	*7.87*		*"*	*8.33*		*94.4*	*50-150*			
LCS Dup (CQ09763-BSD1)				Prepared: 11/27/07		Analyzed: 11/29/07				
Aroclor 1260	78.6	20	µg/kg	83.3		94.3	29-131	4.26	30	
Surrogate: Decachlorobiphenyl	*7.70*		*"*	*8.33*		*92.4*	*50-150*			
Matrix Spike (CQ09763-MS1)		**Source: CQK0707-05**		Prepared: 11/27/07		Analyzed: 11/29/07				
Aroclor 1260	57.6	20	µg/kg	83.3	5.55	62.4	29-131			
Surrogate: Decachlorobiphenyl	*6.32*		*"*	*8.33*		*75.8*	*50-150*			
Matrix Spike Dup (CQ09763-MSD1)		**Source: CQK0707-05**		Prepared: 11/27/07		Analyzed: 11/29/07				
Aroclor 1260	56.0	20	µg/kg	83.3	5.55	60.6	29-131	2.75	30	
Surrogate: Decachlorobiphenyl	*6.10*		*"*	*8.33*		*73.2*	*50-150*			
Batch CQ09828 - LUFT-DHS GCNV										
Blank (CQ09828-BLK1)				Prepared & Analyzed: 11/29/07						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							

CALIFORNIA LABORATORY SERVICES

 12/03/07 09:54

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09828 - LUFT-DHS GCNV										
Blank (CQ09828-BLK1)				Prepared & Analyzed: 11/29/07						
Aroclor 1242	ND	20	µg/kg							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*8.28*		*"*	*8.33*		*99.4*	*50-150*			
LCS (CQ09828-BS1)				Prepared & Analyzed: 11/29/07						
Aroclor 1260	79.7	20	µg/kg	83.3		95.6	29-131			
Surrogate: Decachlorobiphenyl	*8.43*		*"*	*8.33*		*101*	*50-150*			
LCS Dup (CQ09828-BSD1)				Prepared & Analyzed: 11/29/07						
Aroclor 1260	78.4	20	µg/kg	83.3		94.0	29-131	1.64	30	
Surrogate: Decachlorobiphenyl	*8.30*		*"*	*8.33*		*99.6*	*50-150*			
Matrix Spike (CQ09828-MS1)		**Source: CQK0707-48**		Prepared & Analyzed: 11/29/07						
Aroclor 1260	101	20	µg/kg	83.3	12.8	106	29-131			
Surrogate: Decachlorobiphenyl	*7.97*		*"*	*8.33*		*95.6*	*50-150*			
Matrix Spike Dup (CQ09828-MSD1)		**Source: CQK0707-48**		Prepared & Analyzed: 11/29/07						
Aroclor 1260	115	20	µg/kg	83.3	12.8	123	29-131	12.7	30	
Surrogate: Decachlorobiphenyl	*8.10*		*"*	*8.33*		*97.2*	*50-150*			

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0707**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 29, 2007

CLS Work Order #: CQK0809
COC #: 89538

Brian Reddig
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: A01 14 Soil Resample

Enclosed are the results of analyses for samples received by the laboratory on 11/27/07 09:38. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 11/29/07 15:06

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0809**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

CHANGE OF STATUS

CQK0809

C.L.S. Lab Job No.: CQK0224

Project Name: A01 14 Soil resample.

Date Sample(s) Were Received: 11-7 Original Date Due: _____

Brian Reddig (Client Contacted) of ISSI (Company) called

on 11/27/07 (Date) at _____ (Time)

. . . and requested the following

Please run sample

PEN-23R-6"

For.

8081 DDD, DDE, DDT

Turnaround time requested for additional work: 2.

RayO (Signature) 11-27-07 (Date)

Updated lab job database and file folder by: Will Orellana

cc: _____

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CALIFORNIA LABORATORY SERVICES

 11/29/07 15:06

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0809**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN-23R-6'' (CQK0809-08) Soil Sampled: 11/07/07 10:50 Received: 11/27/07 09:38									**HT-1**
4,4´-DDD	ND	75	µg/kg	5	CQ09752	11/27/07	11/28/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*181 %*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/29/07 15:06

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0809**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09752 - LUFT-DHS GCNV										
Blank (CQ09752-BLK1)				Prepared: 11/27/07 Analyzed: 11/28/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*7.75*		*"*	*8.33*		*93.0*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.23*		*"*	*8.33*		*98.8*	*52-141*			
LCS (CQ09752-BS1)				Prepared: 11/27/07 Analyzed: 11/28/07						
Aldrin	13.6	1.0	µg/kg	16.7		81.8	47-132			
gamma-BHC (Lindane)	13.2	10	"	16.7		79.1	56-133			
4,4´-DDT	11.7	15	"	16.7		70.2	46-137			
Dieldrin	13.6	1.0	"	16.7		81.9	44-143			
Endrin	14.8	15	"	16.7		88.7	30-147			
Heptachlor	12.4	5.0	"	16.7		74.6	33-148			
Surrogate: Tetrachloro-meta-xylene	*6.83*		*"*	*8.33*		*82.0*	*46-139*			

CALIFORNIA LABORATORY SERVICES

 11/29/07 15:06

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0809**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ09752 - LUFT-DHS GCNV										
LCS (CQ09752-BS1)				Prepared: 11/27/07		Analyzed: 11/28/07				
Surrogate: Decachlorobiphenyl	*8.42*		*µg/kg*	*8.33*		*101*	*52-141*			
LCS Dup (CQ09752-BSD1)				Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	13.7	1.0	µg/kg	16.7		82.3	47-132	0.657	30	
gamma-BHC (Lindane)	13.6	10	"	16.7		81.5	56-133	2.98	30	
4,4´-DDT	12.6	15	"	16.7		75.7	46-137	7.47	30	
Dieldrin	14.1	1.0	"	16.7		84.6	44-143	3.29	30	
Endrin	15.4	15	"	16.7		92.3	30-147	3.91	30	
Heptachlor	12.7	5.0	"	16.7		76.3	33-148	2.29	30	
Surrogate: Tetrachloro-meta-xylene	*7.13*		*"*	*8.33*		*85.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.74*		*"*	*8.33*		*105*	*52-141*			
Matrix Spike (CQ09752-MS1)		**Source: CQK0707-34**		Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	11.6	5.0	µg/kg	16.7	ND	69.5	47-138			
gamma-BHC (Lindane)	12.0	50	"	16.7	ND	72.1	38-144			
4,4´-DDT	24.8	75	"	16.7	ND	149	41-157			
Dieldrin	17.3	5.0	"	16.7	ND	104	46-155			
Endrin	21.0	75	"	16.7	ND	126	34-149			
Heptachlor	11.4	25	"	16.7	ND	68.3	36-155			
Surrogate: Tetrachloro-meta-xylene	*17.4*		*"*	*20.8*		*83.3*	*46-139*			
Surrogate: Decachlorobiphenyl	*18.5*		*"*	*20.8*		*88.7*	*52-141*			
Matrix Spike Dup (CQ09752-MSD1)		**Source: CQK0707-34**		Prepared: 11/27/07		Analyzed: 11/28/07				
Aldrin	9.70	5.0	µg/kg	16.7	ND	58.2	47-138	17.6	35	
gamma-BHC (Lindane)	9.80	50	"	16.7	ND	58.8	38-144	20.2	35	
4,4´-DDT	20.5	75	"	16.7	ND	123	41-157	19.0	35	
Dieldrin	14.6	5.0	"	16.7	ND	87.6	46-155	17.0	35	
Endrin	17.7	75	"	16.7	ND	106	34-149	17.1	35	
Heptachlor	9.51	25	"	16.7	ND	57.0	36-155	17.9	35	
Surrogate: Tetrachloro-meta-xylene	*15.1*		*"*	*20.8*		*72.7*	*46-139*			
Surrogate: Decachlorobiphenyl	*14.9*		*"*	*20.8*		*71.6*	*52-141*			

CALIFORNIA LABORATORY SERVICES

 11/29/07 15:06

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQK0809**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 89538

Notes and Definitions

HT-1	The sample was received outside of the EPA recommended holding time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

December 13, 2007

CLS Work Order #: CQL0270
COC #: 85851,52,53,89539,40

Brian Reddig
ISSI/NASA Ames MS221-10
NASA Ames MS T20-G
Moffet Field, CA 94035-1000

Project Name: A01 14 Soil Resample

Enclosed are the results of analyses for samples received by the laboratory on 12/06/07 19:41. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

CHANGE OF STATUS

CQL0270 Relog.

C.L.S. Lab Job No.: CQK0707

Project Name: A01 Soil Resample

Date Sample(s) Were Received: 11-20-07 Original Date Due: _____

J.L. (Client Contacted) of ISSI (Company) called

on 12-6-07 (Date) at _____ (Time)

. . . and requested the following

Rerun samples

#33 PEN-24R-10'

#25 PEN-35R-14'

#30 PEN-36R-12'

Run sample

#04 PEN-25R-10'

For — PCBs 8082

Turnaround time requested for additional work: 5

Ray O (Signature) 12-6-07 (Date)

Updated lab job database and file folder by: _____

cc: _____

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CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 35R - 14' (CQL0270-25) Soil Sampled: 11/19/07 11:10 Received: 12/06/07 19:41									**HT-3**
4,4´-DDD	ND	75	µg/kg	5	CQ10094	12/10/07	12/12/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*74.4 %*	*52-141*		"	"	"	"	
PEN - 36R - 12' (CQL0270-30) Soil Sampled: 11/19/07 11:35 Received: 12/06/07 19:41									**HT-3**
4,4´-DDD	ND	75	µg/kg	5	CQ10094	12/10/07	12/12/07	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*99.2 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*96.8 %*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 25R - 10' (CQL0270-10) Soil Sampled: 11/19/07 14:20 Received: 12/06/07 19:41									**HT-3**
Aroclor 1016	ND	20	µg/kg	1	CQ10149	12/11/07	12/11/07	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*90.4 %*	*50-150*		"	"	"	"	
PEN - 35R - 14' (CQL0270-25) Soil Sampled: 11/19/07 11:10 Received: 12/06/07 19:41									**HT-3**
Aroclor 1016	ND	100	µg/kg	5	CQ10149	12/11/07	12/11/07	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**650**	100	"	"	"	"	"	"	
Aroclor 1268	**110**	20	"	1	"	"	"	"	PCB-1
Surrogate: Decachlorobiphenyl		*89.6 %*	*50-150*		"	"	"	"	
PEN - 36R - 12' (CQL0270-30) Soil Sampled: 11/19/07 11:35 Received: 12/06/07 19:41									**HT-3**
Aroclor 1016	ND	40	µg/kg	2	CQ10149	12/11/07	12/11/07	EPA 8082A	
Aroclor 1221	ND	40	"	"	"	"	"	"	
Aroclor 1232	ND	40	"	"	"	"	"	"	
Aroclor 1242	ND	40	"	"	"	"	"	"	
Aroclor 1248	ND	40	"	"	"	"	"	"	
Aroclor 1254	ND	40	"	"	"	"	"	"	
Aroclor 1260	**250**	40	"	"	"	"	"	"	
Aroclor 1268	**46**	20	"	1	"	"	"	"	PCB-1
Surrogate: Decachlorobiphenyl		*94.0 %*	*50-150*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PEN - 24R - 10' (CQL0270-33) Soil Sampled: 11/20/07 09:00 Received: 12/06/07 19:41									**HT-3**
Aroclor 1016	ND	100	µg/kg	5	CQ10149	12/11/07	12/11/07	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**360**	100	"	"	"	"	"	"	
Aroclor 1268	**59**	20	"	1	"	"	"	"	PCB-1
Surrogate: Decachlorobiphenyl		*87.4 %*	*50-150*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ10094 - LUFT-DHS GCNV										
Blank (CQ10094-BLK1)				Prepared: 12/10/07 Analyzed: 12/12/07						
Aldrin	ND	1.0	µg/kg							
alpha-BHC	ND	2.0	"							
beta-BHC	ND	10	"							
delta-BHC	ND	10	"							
gamma-BHC (Lindane)	ND	10	"							
Chlordane	ND	20	"							
4,4´-DDD	ND	15	"							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Dieldrin	ND	1.0	"							
Endosulfan I	ND	15	"							
Endosulfan II	ND	15	"							
Endosulfan sulfate	ND	15	"							
Endrin	ND	15	"							
Endrin aldehyde	ND	15	"							
Heptachlor	ND	5.0	"							
Heptachlor epoxide	ND	2.0	"							
Methoxychlor	ND	15	"							
Mirex	ND	10	"							
Toxaphene	ND	20	"							
Surrogate: Tetrachloro-meta-xylene	*7.36*		*"*	*8.33*		*88.4*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.28*		*"*	*8.33*		*87.4*	*52-141*			
LCS (CQ10094-BS1)				Prepared: 12/10/07 Analyzed: 12/12/07						
Aldrin	14.6	1.0	µg/kg	16.7		87.6	47-132			
gamma-BHC (Lindane)	14.4	10	"	16.7		86.6	56-133			
4,4´-DDT	15.5	15	"	16.7		93.3	46-137			
Dieldrin	14.9	1.0	"	16.7		89.3	44-143			
Endrin	13.8	15	"	16.7		83.0	30-147			
Heptachlor	11.8	5.0	"	16.7		70.9	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.35*		*"*	*8.33*		*88.1*	*46-139*			

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ10094 - LUFT-DHS GCNV										
LCS (CQ10094-BS1)				Prepared: 12/10/07		Analyzed: 12/12/07				
Surrogate: Decachlorobiphenyl	*8.07*		*µg/kg*	*8.33*		*96.9*	*52-141*			
LCS Dup (CQ10094-BSD1)				Prepared: 12/10/07		Analyzed: 12/12/07				
Aldrin	14.2	1.0	µg/kg	16.7		85.1	47-132	2.84	30	
gamma-BHC (Lindane)	14.0	10	"	16.7		84.1	56-133	2.88	30	
4,4´-DDT	14.9	15	"	16.7		89.2	46-137	4.43	30	
Dieldrin	14.2	1.0	"	16.7		85.5	44-143	4.44	30	
Endrin	13.5	15	"	16.7		80.7	30-147	2.79	30	
Heptachlor	11.5	5.0	"	16.7		68.8	33-148	3.01	30	
Surrogate: Tetrachloro-meta-xylene	*7.04*		*"*	*8.33*		*84.5*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.70*		*"*	*8.33*		*92.4*	*52-141*			
Matrix Spike (CQ10094-MS1)		**Source: CQL0339-01**		Prepared: 12/10/07		Analyzed: 12/12/07				
Aldrin	17.1	5.0	µg/kg	16.7	ND	103	47-138			
gamma-BHC (Lindane)	17.8	50	"	16.7	ND	107	38-144			
4,4´-DDT	17.1	75	"	16.7	ND	103	41-157			
Dieldrin	16.3	5.0	"	16.7	ND	97.8	46-155			
Endrin	14.7	75	"	16.7	ND	88.4	34-149			
Heptachlor	14.9	25	"	16.7	ND	89.4	36-155			
Surrogate: Tetrachloro-meta-xylene	*25.7*		*"*	*20.8*		*124*	*46-139*			
Surrogate: Decachlorobiphenyl	*25.3*		*"*	*20.8*		*121*	*52-141*			
Matrix Spike Dup (CQ10094-MSD1)		**Source: CQL0339-01**		Prepared: 12/10/07		Analyzed: 12/12/07				
Aldrin	16.2	5.0	µg/kg	16.7	ND	97.0	47-138	5.86	35	
gamma-BHC (Lindane)	15.7	50	"	16.7	ND	94.0	38-144	12.7	35	
4,4´-DDT	16.1	75	"	16.7	ND	96.4	41-157	6.31	35	
Dieldrin	15.4	5.0	"	16.7	ND	92.1	46-155	5.96	35	
Endrin	15.3	75	"	16.7	ND	92.1	34-149	4.10	35	
Heptachlor	13.9	25	"	16.7	ND	83.4	36-155	7.00	35	
Surrogate: Tetrachloro-meta-xylene	*24.8*		*"*	*20.8*		*119*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.4*		*"*	*20.8*		*103*	*52-141*			

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CQ10149 - LUFT-DHS GCNV										
Blank (CQ10149-BLK1)				Prepared & Analyzed: 12/11/07						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*8.98*		*"*	*8.33*		*108*	*50-150*			
LCS (CQ10149-BS1)				Prepared & Analyzed: 12/11/07						
Aroclor 1260	76.0	20	µg/kg	83.3		91.2	29-131			
Surrogate: Decachlorobiphenyl	*8.85*		*"*	*8.33*		*106*	*50-150*			
LCS Dup (CQ10149-BSD1)				Prepared & Analyzed: 12/11/07						
Aroclor 1260	77.3	20	µg/kg	83.3		92.8	29-131	1.79	30	
Surrogate: Decachlorobiphenyl	*8.87*		*"*	*8.33*		*106*	*50-150*			
Matrix Spike (CQ10149-MS1)		**Source: CQL0270-33**		Prepared & Analyzed: 12/11/07						
Aroclor 1260	304	20	µg/kg	83.3	361	NR	29-131			QM-5
Surrogate: Decachlorobiphenyl	*7.10*		*"*	*8.33*		*85.2*	*50-150*			
Matrix Spike Dup (CQ10149-MSD1)		**Source: CQL0270-33**		Prepared & Analyzed: 12/11/07						
Aroclor 1260	309	20	µg/kg	83.3	361	NR	29-131	1.91	30	QM-5
Surrogate: Decachlorobiphenyl	*7.05*		*"*	*8.33*		*84.6*	*50-150*			

CALIFORNIA LABORATORY SERVICES

 12/13/07 15:09

ISSI/NASA Ames MS221-10	Project: A01 14 Soil Resample	
NASA Ames MS T20-G	Project Number: N302-200	**CLS Work Order #: CQL0270**
Moffet Field, CA 94035-1000	Project Manager: Brian Reddig	COC #: 85851,52,53,89539,40

Notes and Definitions

QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
PCB-1	Although sample contains compounds in the retention time range associated with this Aroclor, the chromatogram was not consistent with the expected chromatographic pattern. However, the reported concentration is based on this Aroclor.
HT-3	Sample was from a previous job and was extracted/analyzed outside the EPA recommended holding time per client's request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

DRAFT
AREA OF INVESTIGATION 14

N217 & N217A FILL AREAS
INTERIM CORRECTIVE ACTION MEASURES
DATA GAP SOIL SAMPLING
REPORT OF FINDINGS

at

National Aeronautics and Space Administration
Ames Research Center
Moffett Field, CA

by

Environmental Management Division
Code JQ

December 2013

ATTACHMENT 1

Laboratory Analytical Report

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

November 26, 2013

CLS Work Order #: CWK0722
COC #: GREEN

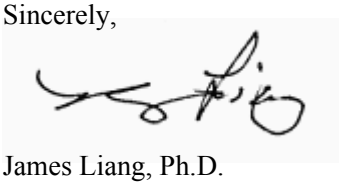
Joe Lukas
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: N217 + N217A Fill Area Date Gap

Enclosed are the results of analyses for samples received by the laboratory on 11/18/13 10:26. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

CHANGE OF STATUS CWK0722

CLS Labs Job # CWK0240

Project Name: N217 + N217A Fill Area Date Gap

Date Sample(s) Were Received: 11/6/13 **Original Date** 11/13/13

Joe Lukas (Client Contacted) **of** ERT (Company) **called**

on 11/18/13 (Date) **at** 0945 (Time).

... and requested the following:

Please take project off hold & run analysis.

Be mindful of reporting limit req's listed on COC.

Turnaround time requested for additional work: 5 day

(Signature) 11/18/13 (Date)

Updated lab job database and file folder by:

Cc:

H:\WillOrellana\ChangeOfStatus.Doc

CALIFORNIA LABORATORY SERVICES

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: N217 + N217A Fill Area Date Gap
Project Number: 03601-28
Project Manager: Joe Lukas

CLS Work Order #: CWK0722
COC #: GREEN

CLS - Labs CHAIN OF CUSTODY CLS ID No.: CWK0240 LOG NO. 113343

REPORT TO:
NAME AND ADDRESS: ERT, NASA Ames Research Center, Moffett Field, CA.
PROJECT MANAGER: Joseph Lukas PHONE#: 650-604-2057
PROJECT NAME: N217 + N217A Fill Area Data Gap
SAMPLED BY: Joe Lukas / Luke Mutz
JOB DESCRIPTION: N217/N217 A Fill Area Data Gap Surface Soil Resample
SITE LOCATION: AOI 14

CLIENT JOB NUMBER: 03601-28
DESTINATION LABORATORY: [X] CLS (916) 638-7301, 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 [ ] OTHER

GEOTRACKER:
EDF REPORT [ ] YES [X] NO
GLOBAL ID:
COMPOSITE:
FIELD CONDITIONS: Clear, warm

TURN AROUND TIME: 1 DAY / 2 DAY / 5 DAY / 10 DAY
SPECIAL INSTRUCTIONS OR ALT. ID:

DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	DDT (DDD/DDE/DDT) 8081A	PCBs (incl 1268) 8082	Lead - 6010B/7000	Zinc - 6010B/7000	Total Chrome 6010B/7000	Chrome VI - 7199	5 DAY	SPECIAL INSTRUCTIONS
11-4-13	1347	N217-2	Soil	1	8oz	3	X						X	*DDT-DL = 75 ug/kg
	1330	N217-3		1			X							PCB-DL = 20 ug/kg
	1335	N217-4		1			X							Lead-DL = 12 mg/kg
	1340	N217-5		1			X							Zinc-DL = 50 mg/kg
	1400	N217-6		1			X							Chromium DL = 1 mg/kg
	1405	N217-06N		2			X	X	X	X	X	X		Chrome VI DL = 10 ug/kg
11-4-13	1410	N217-7	Soil	2	8oz	3	X				X	X	X	- Hold for analysis pending notification.

INVOICE TO: ERT
PO. #
QUOTE #
SUSPECTED CONSTITUENTS
PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COOL (4) = NaOH (5) = H_2SO_4 (6) = $Na_2S_2O_3$ (7) =

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	RECEIVED BY (SIGN)	PRINT NAME / COMPANY
Joseph R. Lukas	JR Lukas / ERT	11-4-13 / 1500		
		11/6/13 1320H		
		11/6/13 1610H		
		11-6-13 1616		

RECD AT LAB BY: DATE / TIME: CONDITIONS / COMMENTS:
SHIPPED BY: [ ] FED X [ ] UPS [X] OTHER CLS Courier AIR BILL #

CALIFORNIA LABORATORY SERVICES

11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-06N (CWK0722-06) Soil Sampled: 11/04/13 14:05 Received: 11/18/13 10:26									
Hexavalent Chromium	ND	10	µg/kg	1	CW07672	11/19/13	11/19/13	EPA 7199	
N217-7 (CWK0722-07) Soil Sampled: 11/04/13 14:10 Received: 11/18/13 10:26									
Hexavalent Chromium	ND	10	µg/kg	1	CW07672	11/19/13	11/19/13	EPA 7199	

CALIFORNIA LABORATORY SERVICES

11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-06N (CWK0722-06) Soil Sampled: 11/04/13 14:05 Received: 11/18/13 10:26									
Chromium	**58**	1.0	mg/kg	1	CW07682	11/19/13	11/20/13	EPA 6010B	
Lead	ND	12	"	"	"	"	"	"	
Zinc	**58**	50	"	"	"	"	"	"	
N217-7 (CWK0722-07) Soil Sampled: 11/04/13 14:10 Received: 11/18/13 10:26									
Chromium	**67**	1.0	mg/kg	1	CW07682	11/19/13	11/20/13	EPA 6010B	

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: N217 + N217A Fill Area Date Gap
Project Number: 03601-28
Project Manager: Joe Lukas

CLS Work Order #: CWK0722
COC #: GREEN

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-2 (CWK0722-01) Soil Sampled: 11/04/13 13:47 Received: 11/18/13 10:26									**QRL-8**
4,4´-DDD	ND	75	µg/kg	20	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*100 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*97 %*	*52-141*		"	"	"	"	
N217-3 (CWK0722-02) Soil Sampled: 11/04/13 13:30 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*108 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*52-141*		"	"	"	"	
N217-4 (CWK0722-03) Soil Sampled: 11/04/13 13:35 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*98 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89 %*	*52-141*		"	"	"	"	
N217-5 (CWK0722-04) Soil Sampled: 11/04/13 13:40 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*101 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*89 %*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-6 (CWK0722-05) Soil Sampled: 11/04/13 14:00 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*112 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	
N217-06N (CWK0722-06) Soil Sampled: 11/04/13 14:05 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*110 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*104 %*	*52-141*		"	"	"	"	
N217-7 (CWK0722-07) Soil Sampled: 11/04/13 14:10 Received: 11/18/13 10:26									
4,4´-DDD	ND	75	µg/kg	10	CW07656	11/18/13	11/22/13	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*117 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*109 %*	*52-141*		"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
N217-06N (CWK0722-06) Soil Sampled: 11/04/13 14:05 Received: 11/18/13 10:26									
Aroclor 1016	ND	20	µg/kg	1	CW07630	11/18/13	11/22/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*169 %*	*50-150*		*"*	*"*	*"*	*"*	*QS-HI*

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07672 - General Prep										
Blank (CW07672-BLK1)				Prepared & Analyzed: 11/19/13						
Hexavalent Chromium	ND	10	µg/kg							
LCS (CW07672-BS1)				Prepared & Analyzed: 11/19/13						
Hexavalent Chromium	54.7	10	µg/kg	50.0		109	80-120			
LCS Dup (CW07672-BSD1)				Prepared & Analyzed: 11/19/13						
Hexavalent Chromium	49.5	10	µg/kg	50.0		99	80-120	10	20	
Matrix Spike (CW07672-MS1)		**Source: CWK0722-07**		Prepared & Analyzed: 11/19/13						
Hexavalent Chromium	58.2	10	µg/kg	50.0	ND	116	75-125			
Matrix Spike Dup (CW07672-MSD1)		**Source: CWK0722-07**		Prepared & Analyzed: 11/19/13						
Hexavalent Chromium	64.4	10	µg/kg	50.0	ND	129	75-125	10	25	QM-5

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07682 - EPA 3050B										
Blank (CW07682-BLK1)				Prepared: 11/19/13 Analyzed: 11/20/13						
Chromium	ND	1.0	mg/kg							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Cadmium	ND	0.50	"							
Chromium	ND	1.0	"							
Copper	ND	1.0	"							
Iron	ND	10	"							
Lead	ND	2.5	"							
Selenium	ND	5.0	"							
LCS (CW07682-BS1)				Prepared: 11/19/13 Analyzed: 11/20/13						
Chromium	22.4	1.0	mg/kg	25.0		90	75-125			
Arsenic	110	5.0	"	125		88	75-125			
Barium	23.1	1.0	"	25.0		92	75-125			
Cadmium	22.1	0.50	"	25.0		88	75-125			
Chromium	22.4	1.0	"	25.0		90	75-125			
Copper	22.9	1.0	"	25.0		92	75-125			
Iron	225	10	"	250		90	75-125			
Lead	21.5	2.5	"	25.0		86	75-125			
Selenium	204	5.0	"	250		82	75-125			
Matrix Spike (CW07682-MS1)	**Source: CWK0676-01**			Prepared: 11/19/13 Analyzed: 11/20/13						
Chromium	39.0	1.0	mg/kg	25.0	16.6	90	75-125			
Arsenic	127	5.0	"	125	22.0	84	75-125			
Barium	138	1.0	"	25.0	117	85	75-125			
Cadmium	22.3	0.50	"	25.0	0.320	88	75-125			
Chromium	39.0	1.0	"	25.0	16.6	90	75-125			
Copper	62.2	1.0	"	25.0	39.7	90	75-125			
Iron	10300	10	"	250	10100	104	75-125			
Lead	236	2.5	"	25.0	216	79	75-125			
Selenium	192	5.0	"	250	ND	77	75-125			

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: N217 + N217A Fill Area Date Gap
Project Number: 03601-28
Project Manager: Joe Lukas

CLS Work Order #: CWK0722
COC #: GREEN

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07682 - EPA 3050B										
Matrix Spike Dup (CW07682-MSD1)		**Source: CWK0676-01**		Prepared: 11/19/13 Analyzed: 11/20/13						
Chromium	39.5	1.0	mg/kg	25.0	16.6	92	75-125	1	30	
Arsenic	126	5.0	"	125	22.0	83	75-125	1	30	
Barium	142	1.0	"	25.0	117	99	75-125	3	30	
Cadmium	22.3	0.50	"	25.0	0.320	88	75-125	0.2	30	
Chromium	39.5	1.0	"	25.0	16.6	92	75-125	1	30	
Copper	65.3	1.0	"	25.0	39.7	102	75-125	5	30	
Iron	10600	10	"	250	10100	210	75-125	3	30	QM-4X
Lead	243	2.5	"	25.0	216	106	75-125	3	30	
Selenium	193	5.0	"	250	ND	77	75-125	0.3	30	

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07656 - LUFT-DHS GCNV										
Blank (CW07656-BLK1)				Prepared: 11/18/13 Analyzed: 11/22/13						
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*5.92*		*"*	*8.33*		*71*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.26*		*"*	*8.33*		*87*	*52-141*			
LCS (CW07656-BS1)				Prepared: 11/18/13 Analyzed: 11/22/13						
Aldrin	12.7	1.0	µg/kg	16.7		76	47-132			
gamma-BHC (Lindane)	12.7	10	"	16.7		76	56-133			
4,4´-DDT	13.1	15	"	16.7		79	46-137			
Dieldrin	13.7	1.0	"	16.7		82	44-143			
Endrin	11.2	15	"	16.7		67	30-147			
Heptachlor	14.5	5.0	"	16.7		87	33-148			
Surrogate: Tetrachloro-meta-xylene	*5.87*		*"*	*8.33*		*70*	*46-139*			
Surrogate: Decachlorobiphenyl	*7.95*		*"*	*8.33*		*95*	*52-141*			
LCS Dup (CW07656-BSD1)				Prepared: 11/18/13 Analyzed: 11/22/13						
Aldrin	13.3	1.0	µg/kg	16.7		80	47-132	4	30	
gamma-BHC (Lindane)	13.4	10	"	16.7		80	56-133	5	30	
4,4´-DDT	14.4	15	"	16.7		86	46-137	9	30	
Dieldrin	14.5	1.0	"	16.7		87	44-143	6	30	
Endrin	12.3	15	"	16.7		74	30-147	9	30	
Heptachlor	15.6	5.0	"	16.7		94	33-148	7	30	
Surrogate: Tetrachloro-meta-xylene	*5.80*		*"*	*8.33*		*70*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.32*		*"*	*8.33*		*100*	*52-141*			
Matrix Spike (CW07656-MS1)		**Source: CWK0722-04**		Prepared: 11/18/13 Analyzed: 11/22/13						
Aldrin	16.9	10	µg/kg	16.7	ND	101	47-138			
gamma-BHC (Lindane)	17.8	100	"	16.7	ND	107	38-144			
4,4´-DDT	23.3	150	"	16.7	ND	140	41-157			
Dieldrin	19.5	10	"	16.7	ND	117	46-155			
Endrin	15.2	150	"	16.7	ND	91	34-149			

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07656 - LUFT-DHS GCNV										
Matrix Spike (CW07656-MS1)		**Source: CWK0722-04**		Prepared: 11/18/13 Analyzed: 11/22/13						
Heptachlor	22.9	50	µg/kg	16.7	ND	138	36-155			
Surrogate: Tetrachloro-meta-xylene	*23.4*		*"*	*20.8*		*112*	*46-139*			
Surrogate: Decachlorobiphenyl	*21.3*		*"*	*20.8*		*102*	*52-141*			
Matrix Spike Dup (CW07656-MSD1)		**Source: CWK0722-04**		Prepared: 11/18/13 Analyzed: 11/22/13						
Aldrin	16.5	10	µg/kg	16.7	ND	99	47-138	2	35	
gamma-BHC (Lindane)	17.0	100	"	16.7	ND	102	38-144	4	35	
4,4´-DDT	21.2	150	"	16.7	ND	127	41-157	9	35	
Dieldrin	19.2	10	"	16.7	ND	115	46-155	1	35	
Endrin	14.2	150	"	16.7	ND	85	34-149	7	35	
Heptachlor	21.9	50	"	16.7	ND	131	36-155	5	35	
Surrogate: Tetrachloro-meta-xylene	*22.2*		*"*	*20.8*		*107*	*46-139*			
Surrogate: Decachlorobiphenyl	*23.7*		*"*	*20.8*		*114*	*52-141*			

CALIFORNIA LABORATORY SERVICES

 11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW07630 - LUFT-DHS GCNV										
Blank (CW07630-BLK1)				Prepared & Analyzed: 11/18/13						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*6.72*		*"*	*8.33*		*81*	*50-150*			
LCS (CW07630-BS1)				Prepared & Analyzed: 11/18/13						
Aroclor 1260	68.2	20	µg/kg	83.3		82	29-131			
Surrogate: Decachlorobiphenyl	*6.78*		*"*	*8.33*		*81*	*50-150*			
LCS Dup (CW07630-BSD1)				Prepared & Analyzed: 11/18/13						
Aroclor 1260	66.3	20	µg/kg	83.3		80	29-131	3	30	
Surrogate: Decachlorobiphenyl	*6.72*		*"*	*8.33*		*81*	*50-150*			
Matrix Spike (CW07630-MS1)		**Source: CWK0690-02**		Prepared & Analyzed: 11/18/13						
Aroclor 1260	69.2	20	µg/kg	83.3	13.8	66	29-131			
Surrogate: Decachlorobiphenyl	*7.00*		*"*	*8.33*		*84*	*50-150*			
Matrix Spike Dup (CW07630-MSD1)		**Source: CWK0690-02**		Prepared & Analyzed: 11/18/13						
Aroclor 1260	63.6	20	µg/kg	83.3	13.8	60	29-131	8	30	
Surrogate: Decachlorobiphenyl	*6.98*		*"*	*8.33*		*84*	*50-150*			

CALIFORNIA LABORATORY SERVICES

11/26/13 09:23

Earth Resource Technologies c/o NASA-Ames	Project: N217 + N217A Fill Area Date Gap	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWK0722**
Moffet Field, CA 94053-1000	Project Manager: Joe Lukas	COC #: GREEN

Notes and Definitions

QS-HI	Surrogate recovery was greater than the upper control limit. A reanalysis was not performed since the analytes associated with the surrogate were not detected.
QRL-8	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ATTACHMENT 4

Baseline Sediment Samples Analytical Results

(Post Silt Fence Installation-December 20, 2013)

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

January 03, 2014

CLS Work Order #: CWL1055
COC #:

Luke Metz
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: Former Soil Fill Area Sediment Samples

Enclosed are the results of analyses for samples received by the laboratory on 12/23/13 17:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES CHAIN OF CUSTODY CLS ID. NO. CWL1055 (1 of 2)

Report To:

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: Former Soil Fill Area Sediment Samples
Sampled By: Luke Metz
Job Description: Peninsula Samples 5 Feet From Silt Fence
Site Location: Moffett Field / NASA

Client Job Number: 03601-28

Destination Laboratory:
☑ CLS (916) 638-7301, 3249 Fitzgerald Road, Rancho Cordova, CA 95742, www.californialab.com
☐ OTHER

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID.
FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8082	PP-13 Metals	DDT, DDD, DDE by 8081A							TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
12/20/13	11:00	FSFA-SDS01-2013		Soil	1	8oz Jar	3	X	X	X									X		DDT-DL=75ug/kg
12/20/13	11:05	FSFA-SDS02-2013		Soil	1	8oz Jar	3	X	X	X									X		PCB-DL=20ug/kg
12/20/13	11:10	FSFA-SDS03-2013		Soil	1	8oz Jar	3	X	X	X									X		LEAD-DL=12mg/kg
12/20/13	11:15	FSFA-SDS04-2013		Soil	1	8oz Jar	3	X	X	X									X		Zinc-DL=50mg/kg
12/20/13	11:20	FSFA-SDS05-2013		Soil	1	8oz Jar	3	X	X	X									X		Chrom-DL=1mg/kg
12/20/13	11:25	FSFA-SDS06-2013		Soil	1	8oz Jar	3	X	X	X									X		Chrom6-DL=10mg/kg
12/20/13	12:15	FSFA-SDS07-2013		Soil	1	8oz Jar	3	X	X	X									X		INVOICE TO:
12/20/13	11:30	FSFA-SDS08-2013		Soil	1	8oz Jar	3	X	X	X									X		
12/20/13	11:35	FSFA-SDS09-2013		Soil	1	8oz Jar	3	X	X	X									X		
12/20/13	11:40	FSFA-SDS10-2013		Soil	1	8oz Jar	3	X	X	X									X		
12/20/13	11:45	FSFA-SDS11-2013		Soil	1	8oz Jar	3	X	X	X									X		PO#
12/20/13	11:50	FSFA-SDS11K-2013		Soil	1	8oz Jar	3	X	X	X									X		QUOTE#

SUSPECTED CONSTITUENTS | SAMPLE RETENTION TIME | PRESERVATIVES (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
Luke Metz	Luke Metz – SAIC / ERT	12-23-13 / 11:45am	N. OKENANA	12/23/13 1145
N. OKENANA		12/23/13 1530		

RECEIVED AT LAB BY: | DATE/TIME: 12/23/13 1530 | CONDITIONS/COMMENTS: 6.8°

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER ____CLS Courier____ AIR BILL # _____

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES CHAIN OF CUSTODY CLS ID. NO. CWL1055 (2 of 2)

Report To:

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: Former Soil Fill Area Sediment Samples
Sampled By: Luke Metz
Job Description: Peninsula Samples 5 Feet From Silt Fence
Site Location

Client Job Number: 03601-28

Destination Laboratory:
☑ CLS (916) 638-7301, 3249 Fitzgerald Road, Rancho Cordova, CA 95742, www.californialab.com
☐ OTHER

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID.
FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8082	PP-13 Metals	DDT, DDD, DDE by 8081A						TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
12/20/13	1155	FSFA-SDS12-2013		Soil	1	8oz Jar	3	X	X	X								X		
12/20/13	1200	FSFA-SDS13-2013		Soil	1	8oz Jar	3	X	X	X								X		
12/20/13	1205	FSFA-SDS14-2013		Soil	1	8oz Jar	3	X	X	X								X		
12/20/13	1210	FSFA-SDS15-2013		Soil	1	8oz Jar	3	X	X	X								X		

INVOICE TO:
PO#
QUOTE#

SUSPECTED | SAMPLE | PRESERVATIVES (1) HCL (2) – COLD

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME
Luke Metz	Luke Metz – SAIC / ERT	12-23-13 / 11:45am
N. ORELLANA 12/23/13	N. ORELLANA	12/23/13 1145
RECEIVED AT LAB BY:	DATE/TIME: 12/23/13 1730	CONDITIONS /COMMENTS: 4°

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER CLS

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2013 (CWL1055-01) Soil	**Sampled: 12/20/13 11:00**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	**0.72**	0.25	"	"	"	"	"	"	
Cadmium	**0.70**	0.50	"	"	"	"	"	"	
Copper	**37**	1.0	"	"	"	"	"	"	
Lead	**8.5**	2.5	"	"	"	"	"	"	
Nickel	**67**	1.0	"	"	"	"	"	"	
Silver	**0.75**	0.50	"	"	"	"	"	"	
Zinc	**53**	1.0	"	"	"	"	"	"	
Chromium	**52**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	ND	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS02-2013 (CWL1055-02) Soil	**Sampled: 12/20/13 11:05**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	**0.34**	0.25	"	"	"	"	"	"	
Cadmium	**0.56**	0.50	"	"	"	"	"	"	
Copper	**39**	1.0	"	"	"	"	"	"	
Lead	**17**	2.5	"	"	"	"	"	"	
Nickel	**44**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**39**	1.0	"	"	"	"	"	"	
Chromium	**64**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.9**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS03-2013 (CWL1055-03) Soil	**Sampled: 12/20/13 11:10**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	**0.39**	0.25	"	"	"	"	"	"	
Cadmium	**0.89**	0.50	"	"	"	"	"	"	
Copper	**47**	1.0	"	"	"	"	"	"	
Lead	**24**	2.5	"	"	"	"	"	"	
Nickel	**61**	1.0	"	"	"	"	"	"	
Silver	**1.5**	0.50	"	"	"	"	"	"	
Zinc	**36**	1.0	"	"	"	"	"	"	
Chromium	**110**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	ND	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS04-2013 (CWL1055-04) Soil	**Sampled: 12/20/13 11:15**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**28**	1.0	"	"	"	"	"	"	
Lead	**13**	2.5	"	"	"	"	"	"	
Nickel	**17**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**32**	1.0	"	"	"	"	"	"	
Chromium	**26**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.5**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS05-2013 (CWL1055-05) Soil	**Sampled: 12/20/13 11:20**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	13	"	5	CW08505	12/26/13	12/30/13	EPA 6010B	
Beryllium	ND	1.3	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	QB-2
Copper	**17**	5.0	"	"	"	"	"	"	
Lead	**18**	13	"	"	"	"	"	"	
Nickel	**28**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**62**	5.0	"	"	"	"	"	"	
Chromium	**21**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**2.9**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS06-2013 (CWL1055-06) Soil	**Sampled: 12/20/13 11:25**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	**15**	2.5	"	"	"	"	"	"	
Nickel	**25**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**44**	1.0	"	"	"	"	"	"	
Chromium	**30**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.3**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS07-2013 (CWL1055-07) Soil	**Sampled: 12/20/13 12:15**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**15**	1.0	"	"	"	"	"	"	
Lead	**14**	2.5	"	"	"	"	"	"	
Nickel	**17**	1.0	"	"	"	"	"	"	
Silver	**0.88**	0.50	"	"	"	"	"	"	
Zinc	**21**	1.0	"	"	"	"	"	"	
Chromium	**23**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	ND	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS08-2013 (CWL1055-08) Soil	**Sampled: 12/20/13 11:30**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**20**	1.0	"	"	"	"	"	"	
Lead	**15**	2.5	"	"	"	"	"	"	
Nickel	**18**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**25**	1.0	"	"	"	"	"	"	
Chromium	**42**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.0**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS09-2013 (CWL1055-09) Soil	**Sampled: 12/20/13 11:35**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	13	"	5	CW08505	12/26/13	12/30/13	EPA 6010B	
Beryllium	ND	1.3	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	QB-2
Copper	**8.3**	5.0	"	"	"	"	"	"	
Lead	ND	13	"	"	"	"	"	"	
Nickel	**17**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**21**	5.0	"	"	"	"	"	"	
Chromium	**7.9**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	ND	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS10-2013 (CWL1055-10) Soil	**Sampled: 12/20/13 11:40**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	**0.47**	0.25	"	"	"	"	"	"	
Cadmium	**0.61**	0.50	"	"	"	"	"	"	
Copper	**32**	1.0	"	"	"	"	"	"	
Lead	**11**	2.5	"	"	"	"	"	"	
Nickel	**51**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**55**	1.0	"	"	"	"	"	"	
Chromium	**54**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**2.6**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS11-2013 (CWL1055-11) Soil Sampled: 12/20/13 11:45 Received: 12/23/13 17:30									
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	13	"	5	CW08505	12/26/13	12/30/13	EPA 6010B	
Beryllium	ND	1.3	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Copper	**15**	5.0	"	"	"	"	"	"	
Lead	**20**	13	"	"	"	"	"	"	
Nickel	**36**	5.0	"	"	"	"	"	"	
Silver	ND	2.5	"	"	"	"	"	"	
Zinc	**39**	5.0	"	"	"	"	"	"	
Chromium	**27**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.0**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS11K-2013 (CWL1055-12) Soil Sampled: 12/20/13 11:50 Received: 12/23/13 17:30									
Mercury	**0.11**	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/30/13	EPA 6010B	
Beryllium	**0.27**	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**26**	1.0	"	"	"	"	"	"	
Lead	**17**	2.5	"	"	"	"	"	"	
Nickel	**41**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**47**	1.0	"	"	"	"	"	"	
Chromium	**51**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	ND	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS12-2013 (CWL1055-13) Soil	**Sampled: 12/20/13 11:55**		**Received: 12/23/13 17:30**						
Mercury	**0.16**	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	**0.68**	0.25	"	"	"	"	"	"	
Cadmium	**0.54**	0.50	"	"	"	"	"	"	
Copper	**49**	1.0	"	"	"	"	"	"	
Lead	**32**	2.5	"	"	"	"	"	"	
Nickel	**76**	1.0	"	"	"	"	"	"	
Silver	**0.74**	0.50	"	"	"	"	"	"	
Zinc	**96**	1.0	"	"	"	"	"	"	
Chromium	**70**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**6.7**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS13-2013 (CWL1055-14) Soil	**Sampled: 12/20/13 12:00**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.61**	0.50	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	**16**	2.5	"	"	"	"	"	"	
Nickel	**28**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	
Zinc	**35**	1.0	"	"	"	"	"	"	
Chromium	**55**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.5**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS14-2013 (CWL1055-15) Soil	**Sampled: 12/20/13 12:05**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	ND	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Copper	**23**	1.0	"	"	"	"	"	"	
Lead	**17**	2.5	"	"	"	"	"	"	
Nickel	**21**	1.0	"	"	"	"	"	"	
Silver	**0.53**	0.50	"	"	"	"	"	"	
Zinc	**36**	1.0	"	"	"	"	"	"	
Chromium	**29**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.8**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
FSFA-SDS15-2013 (CWL1055-16) Soil	**Sampled: 12/20/13 12:10**		**Received: 12/23/13 17:30**						
Mercury	ND	0.10	mg/kg	1	CW08554	12/27/13	12/30/13	EPA 7471A	
Antimony	**2.9**	2.5	"	"	CW08505	12/26/13	12/26/13	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.88**	0.50	"	"	"	"	"	"	
Copper	**25**	1.0	"	"	"	"	"	"	
Lead	**27**	2.5	"	"	"	"	"	"	
Nickel	**25**	1.0	"	"	"	"	"	"	
Silver	**2.1**	0.50	"	"	"	"	"	"	
Zinc	**36**	1.0	"	"	"	"	"	"	
Chromium	**29**	2.5	"	10	CW08504	12/26/13	12/30/13	EPA 7000	
Arsenic	**3.0**	2.5	"	"	"	"	"	"	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2013 (CWL1055-01) Soil	**Sampled: 12/20/13 11:00**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*62 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*48 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS02-2013 (CWL1055-02) Soil	**Sampled: 12/20/13 11:05**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*76 %*	*52-141*		"	"	"	"	
FSFA-SDS03-2013 (CWL1055-03) Soil	**Sampled: 12/20/13 11:10**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*47 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*36 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS04-2013 (CWL1055-04) Soil	**Sampled: 12/20/13 11:15**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*57 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*71 %*	*52-141*		"	"	"	"	

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS05-2013 (CWL1055-05) Soil	**Sampled: 12/20/13 11:20**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*81 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*43 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS06-2013 (CWL1055-06) Soil	**Sampled: 12/20/13 11:25**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*62 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*16 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS07-2013 (CWL1055-07) Soil	**Sampled: 12/20/13 12:15**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*66 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*73 %*	*52-141*		"	"	"	"	
FSFA-SDS08-2013 (CWL1055-08) Soil	**Sampled: 12/20/13 11:30**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*67 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*29 %*	*52-141*		"	"	"	"	*QS-4*

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS09-2013 (CWL1055-09) Soil	**Sampled: 12/20/13 11:35**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*70 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*34 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS10-2013 (CWL1055-10) Soil	**Sampled: 12/20/13 11:40**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*84 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*41 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS11-2013 (CWL1055-11) Soil	**Sampled: 12/20/13 11:45**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*24 %*	*52-141*		"	"	"	"	*QS-4*
FSFA-SDS11K-2013 (CWL1055-12) Soil	**Sampled: 12/20/13 11:50**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*77 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*33 %*	*52-141*		"	"	"	"	*QS-4*

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS12-2013 (CWL1055-13) Soil	**Sampled: 12/20/13 11:55**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*73 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*53 %*	*52-141*		"	"	"	"	
FSFA-SDS13-2013 (CWL1055-14) Soil	**Sampled: 12/20/13 12:00**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*52 %*	*52-141*		"	"	"	"	
FSFA-SDS14-2013 (CWL1055-15) Soil	**Sampled: 12/20/13 12:05**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*86 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*57 %*	*52-141*		"	"	"	"	
FSFA-SDS15-2013 (CWL1055-16) Soil	**Sampled: 12/20/13 12:10**		**Received: 12/23/13 17:30**						
4,4´-DDD	ND	75	µg/kg	10	CW08566	12/27/13	01/02/14	EPA 8081A	
4,4´-DDE	ND	75	"	"	"	"	"	"	
4,4´-DDT	ND	75	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93 %*	*46-139*		"	"	"	"	
Surrogate: Decachlorobiphenyl		*59 %*	*52-141*		"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2013 (CWL1055-01) Soil	**Sampled: 12/20/13 11:00**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*65 %*	*50-150*		"	"	"	"	
FSFA-SDS02-2013 (CWL1055-02) Soil	**Sampled: 12/20/13 11:05**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*73 %*	*50-150*		"	"	"	"	
FSFA-SDS03-2013 (CWL1055-03) Soil	**Sampled: 12/20/13 11:10**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS03-2013 (CWL1055-03) Soil	**Sampled: 12/20/13 11:10**		**Received: 12/23/13 17:30**						
Aroclor 1268	ND	20	µg/kg	1	CW08581	"	12/31/13	EPA 8082A	
Surrogate: Decachlorobiphenyl		*51 %*	*50-150*		"	"	"	"	
FSFA-SDS04-2013 (CWL1055-04) Soil	**Sampled: 12/20/13 11:15**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**30**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*76 %*	*50-150*		"	"	"	"	
FSFA-SDS05-2013 (CWL1055-05) Soil	**Sampled: 12/20/13 11:20**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**22**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*112 %*	*50-150*		"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS06-2013 (CWL1055-06) Soil	**Sampled: 12/20/13 11:25**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**68**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*58 %*	*50-150*		"	"	"	"	
FSFA-SDS07-2013 (CWL1055-07) Soil	**Sampled: 12/20/13 12:15**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*119 %*	*50-150*		"	"	"	"	
FSFA-SDS08-2013 (CWL1055-08) Soil	**Sampled: 12/20/13 11:30**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**110**	20	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS08-2013 (CWL1055-08) Soil	**Sampled: 12/20/13 11:30**		**Received: 12/23/13 17:30**						
Aroclor 1268	ND	20	µg/kg	1	CW08581	"	12/31/13	EPA 8082A	
Surrogate: Decachlorobiphenyl		*58 %*	*50-150*		"	"	"	"	
FSFA-SDS09-2013 (CWL1055-09) Soil	**Sampled: 12/20/13 11:35**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*75 %*	*50-150*		"	"	"	"	
FSFA-SDS10-2013 (CWL1055-10) Soil	**Sampled: 12/20/13 11:40**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**24**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*88 %*	*50-150*		"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS11-2013 (CWL1055-11) Soil Sampled: 12/20/13 11:45 Received: 12/23/13 17:30									
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**28**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*72 %*	*50-150*		"	"	"	"	
FSFA-SDS11K-2013 (CWL1055-12) Soil Sampled: 12/20/13 11:50 Received: 12/23/13 17:30									
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*56 %*	*50-150*		"	"	"	"	
FSFA-SDS12-2013 (CWL1055-13) Soil Sampled: 12/20/13 11:55 Received: 12/23/13 17:30									
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**100**	20	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS12-2013 (CWL1055-13) Soil	**Sampled: 12/20/13 11:55**		**Received: 12/23/13 17:30**						
Aroclor 1268	ND	20	µg/kg	1	CW08581	"	12/31/13	EPA 8082A	
Surrogate: Decachlorobiphenyl		*111 %*	*50-150*		"	"	"	"	
FSFA-SDS13-2013 (CWL1055-14) Soil	**Sampled: 12/20/13 12:00**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*111 %*	*50-150*		"	"	"	"	
FSFA-SDS14-2013 (CWL1055-15) Soil	**Sampled: 12/20/13 12:05**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**21**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*100 %*	*50-150*		"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS15-2013 (CWL1055-16) Soil	**Sampled: 12/20/13 12:10**		**Received: 12/23/13 17:30**						
Aroclor 1016	ND	20	µg/kg	1	CW08581	12/27/13	12/31/13	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**34**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*134 %*	*50-150*		"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08504 - EPA 3050B										
Blank (CW08504-BLK1)				Prepared: 12/26/13		Analyzed: 12/30/13				
Chromium	ND	0.25	mg/kg				75-125		30	
Arsenic	ND	0.25	"							
Selenium	ND	0.25	"							
Thallium	ND	0.25	"							
LCS (CW08504-BS1)				Prepared: 12/26/13		Analyzed: 12/30/13				
Chromium	5.53	0.25	mg/kg	5.00		111	75-125		30	
Arsenic	5.10	0.25	"	5.00		102	75-125			
Selenium	4.71	0.25	"	5.00		94	75-125			
Thallium	5.20	0.25	"	5.00		104	75-125			
Matrix Spike (CW08504-MS1)		**Source: CWL1055-01**		Prepared: 12/26/13		Analyzed: 12/30/13				
Chromium	72.2	2.5	mg/kg	5.00	52.0	405	75-125		30	QM-7
Arsenic	7.81	2.5	"	5.00	2.25	111	75-125			
Selenium	4.77	2.5	"	5.00	ND	95	75-125			
Thallium	5.67	2.5	"	5.00	ND	113	75-125			
Matrix Spike Dup (CW08504-MSD1)		**Source: CWL1055-01**		Prepared: 12/26/13		Analyzed: 12/30/13				
Chromium	73.9	2.5	mg/kg	5.00	52.0	438	75-125	2	30	QM-7
Arsenic	7.86	2.5	"	5.00	2.25	112	75-125	0.6	30	
Selenium	4.53	2.5	"	5.00	ND	90	75-125	5	30	
Thallium	6.35	2.5	"	5.00	ND	127	75-125	11	30	QM-7
Batch CW08505 - EPA 3050B										
Blank (CW08505-BLK1)				Prepared & Analyzed: 12/26/13						
Antimony	ND	2.5	mg/kg							
Beryllium	ND	0.25	"							
Cadmium	ND	0.50	"							
Copper	ND	1.0	"							
Lead	ND	2.5	"							
Nickel	ND	1.0	"							
Silver	ND	0.50	"							

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08505 - EPA 3050B										
Blank (CW08505-BLK1)				Prepared & Analyzed: 12/26/13						
Zinc	ND	1.0	mg/kg							
LCS (CW08505-BS1)				Prepared & Analyzed: 12/26/13						
Antimony	23.8	2.5	mg/kg	25.0		95	75-125			
Beryllium	23.4	0.25	"	25.0		94	75-125			
Cadmium	22.2	0.50	"	25.0		89	75-125			
Copper	23.4	1.0	"	25.0		94	75-125			
Lead	22.7	2.5	"	25.0		91	75-125			
Nickel	23.3	1.0	"	25.0		93	75-125			
Silver	22.7	0.50	"	25.0		91	75-125			
Zinc	23.6	1.0	"	25.0		94	75-125			
Matrix Spike (CW08505-MS1)		**Source: CWL1055-01**		Prepared & Analyzed: 12/26/13						
Antimony	4.12	2.5	mg/kg	25.0	ND	16	75-125			QM-5
Beryllium	13.1	0.25	"	25.0	0.725	50	75-125			QM-5
Cadmium	16.4	0.50	"	25.0	0.695	63	75-125			QM-5
Copper	66.6	1.0	"	25.0	36.6	120	75-125			
Lead	23.6	2.5	"	25.0	8.46	60	75-125			QM-5
Nickel	60.1	1.0	"	25.0	66.6	NR	75-125			QM-5
Silver	17.7	0.50	"	25.0	0.750	68	75-125			QM-5
Zinc	54.8	1.0	"	25.0	53.2	6	75-125			QM-5
Matrix Spike Dup (CW08505-MSD1)		**Source: CWL1055-01**		Prepared & Analyzed: 12/26/13						
Antimony	19.8	2.5	mg/kg	25.0	ND	79	75-125	131	30	QM-5
Beryllium	17.4	0.25	"	25.0	0.725	67	75-125	28	30	QM-5
Cadmium	20.0	0.50	"	25.0	0.695	77	75-125	20	30	
Copper	64.0	1.0	"	25.0	36.6	109	75-125	4	30	
Lead	43.4	2.5	"	25.0	8.46	140	75-125	59	30	QM-5
Nickel	75.7	1.0	"	25.0	66.6	36	75-125	23	30	QM-5
Silver	20.6	0.50	"	25.0	0.750	79	75-125	15	30	
Zinc	66.2	1.0	"	25.0	53.2	52	75-125	19	30	QM-5

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08554 - EPA 7471A										
Blank (CW08554-BLK1)				Prepared: 12/27/13		Analyzed: 12/30/13				
Mercury	ND	0.10	mg/kg							
LCS (CW08554-BS1)				Prepared: 12/27/13		Analyzed: 12/30/13				
Mercury	0.247	0.10	mg/kg	0.250		99	75-125			
Matrix Spike (CW08554-MS1)		**Source: CWL1039-26**		Prepared: 12/27/13		Analyzed: 12/30/13				
Mercury	0.277	0.10	mg/kg	0.250	0.0383	96	75-125			
Matrix Spike Dup (CW08554-MSD2)		**Source: CWL1039-26**		Prepared: 12/27/13		Analyzed: 12/30/13				
Mercury	0.248	0.10	mg/kg	0.250	0.0383	84	75-125	11	25	

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08566 - LUFT-DHS GCNV										
Blank (CW08566-BLK1)				Prepared: 12/27/13	Analyzed: 01/02/14					
4,4´-DDD	ND	15	µg/kg							
4,4´-DDE	ND	15	"							
4,4´-DDT	ND	15	"							
Surrogate: Tetrachloro-meta-xylene	*7.11*		*"*	*8.33*		*85*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.56*		*"*	*8.33*		*103*	*52-141*			
LCS (CW08566-BS1)				Prepared: 12/27/13	Analyzed: 01/02/14					
Aldrin	15.7	1.0	µg/kg	16.7		94	47-132			
gamma-BHC (Lindane)	15.4	10	"	16.7		93	56-133			
4,4´-DDT	16.6	15	"	16.7		100	46-137			
Dieldrin	16.6	1.0	"	16.7		99	44-143			
Endrin	13.6	15	"	16.7		81	30-147			
Heptachlor	16.6	5.0	"	16.7		99	33-148			
Surrogate: Tetrachloro-meta-xylene	*7.96*		*"*	*8.33*		*96*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.25*		*"*	*8.33*		*111*	*52-141*			
LCS Dup (CW08566-BSD1)				Prepared: 12/27/13	Analyzed: 01/02/14					
Aldrin	14.0	1.0	µg/kg	16.7		84	47-132	12	30	
gamma-BHC (Lindane)	13.6	10	"	16.7		82	56-133	13	30	
4,4´-DDT	13.3	15	"	16.7		80	46-137	22	30	
Dieldrin	14.5	1.0	"	16.7		87	44-143	13	30	
Endrin	11.1	15	"	16.7		67	30-147	20	30	
Heptachlor	14.1	5.0	"	16.7		85	33-148	16	30	
Surrogate: Tetrachloro-meta-xylene	*7.62*		*"*	*8.33*		*91*	*46-139*			
Surrogate: Decachlorobiphenyl	*8.21*		*"*	*8.33*		*99*	*52-141*			
Matrix Spike (CW08566-MS1)		**Source: CWL1055-09**		Prepared: 12/27/13	Analyzed: 01/02/14					
Aldrin	9.15	10	µg/kg	16.7	ND	55	47-138			
gamma-BHC (Lindane)	15.2	100	"	16.7	ND	91	38-144			
4,4´-DDT	17.9	150	"	16.7	ND	107	41-157			
Dieldrin	11.9	10	"	16.7	ND	72	46-155			
Endrin	12.3	150	"	16.7	ND	74	34-149			

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08566 - LUFT-DHS GCNV										
Matrix Spike (CW08566-MS1)		**Source: CWL1055-09**		Prepared: 12/27/13	Analyzed: 01/02/14					
Heptachlor	21.6	50	µg/kg	16.7	ND	130	36-155			
Surrogate: Tetrachloro-meta-xylene	*16.0*		*"*	*20.8*		*77*	*46-139*			
Surrogate: Decachlorobiphenyl	*9.18*		*"*	*20.8*		*44*	*52-141*			*QS-4*
Matrix Spike Dup (CW08566-MSD1)		**Source: CWL1055-09**		Prepared: 12/27/13	Analyzed: 01/02/14					
Aldrin	9.10	10	µg/kg	16.7	ND	55	47-138	0.6	35	
gamma-BHC (Lindane)	14.6	100	"	16.7	ND	88	38-144	4	35	
4,4´-DDT	16.1	150	"	16.7	ND	97	41-157	10	35	
Dieldrin	12.1	10	"	16.7	ND	72	46-155	0.9	35	
Endrin	12.1	150	"	16.7	ND	73	34-149	1	35	
Heptachlor	21.4	50	"	16.7	ND	129	36-155	0.7	35	
Surrogate: Tetrachloro-meta-xylene	*15.9*		*"*	*20.8*		*76*	*46-139*			
Surrogate: Decachlorobiphenyl	*6.89*		*"*	*20.8*		*33*	*52-141*			*QS-4*

CALIFORNIA LABORATORY SERVICES

 01/03/14 09:45

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CW08581 - LUFT-DHS GCNV										
Blank (CW08581-BLK1)				Prepared: 12/27/13		Analyzed: 12/31/13				
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*6.45*		*"*	*8.33*		*77*	*50-150*			
LCS (CW08581-BS1)				Prepared: 12/27/13		Analyzed: 12/31/13				
Aroclor 1260	71.4	20	µg/kg	83.3		86	29-131			
Surrogate: Decachlorobiphenyl	*6.80*		*"*	*8.33*		*82*	*50-150*			
LCS Dup (CW08581-BSD1)				Prepared: 12/27/13		Analyzed: 12/31/13				
Aroclor 1260	70.5	20	µg/kg	83.3		85	29-131	1	30	
Surrogate: Decachlorobiphenyl	*13.4*		*"*	*16.7*		*80*	*50-150*			
Matrix Spike (CW08581-MS1)		**Source: CWL1055-15**		Prepared: 12/27/13		Analyzed: 12/31/13				
Aroclor 1260	55.4	20	µg/kg	83.3	20.8	42	29-131			
Surrogate: Decachlorobiphenyl	*7.62*		*"*	*8.33*		*91*	*50-150*			
Matrix Spike Dup (CW08581-MSD1)		**Source: CWL1055-15**		Prepared: 12/27/13		Analyzed: 12/31/13				
Aroclor 1260	48.8	20	µg/kg	83.3	20.8	34	29-131	13	30	
Surrogate: Decachlorobiphenyl	*6.53*		*"*	*8.33*		*78*	*50-150*			

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CWL1055**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QB-2	The analyte was detected in the method blank or calibration verfication blank. A re-analysis was not performed since all sample results for the analyte are ND.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

January 09, 2014

CLS Work Order #: CXA0028
COC #: GREEN

Luke Metz
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: Former Soil Fill Area Sediment Samples

Enclosed are the results of analyses for samples received by the laboratory on 01/02/14 14:46. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 01/09/14 12:13

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CXA0028**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #: GREEN

CHANGE OF STATUS

CXA0028

CLS Labs Job # CWK 1055

Project Name: Former Soil Fill Area Sediment Samples

Date Sample(s) Were Received: 12/23/13 **Original Date** 12/31/13

Luke Metz (Client Contacted) **of** ERT (Company) ~~called~~ emailed

on 1/2/14 (Date) **at** 1417 (Time).

... and requested the following:

Please run chrome 6 on:
FSFA-SD03-2013 (#3)

please run chrome 6 & TCLP As on:
FSFA-SDS12-2013 (#13)

Turnaround time requested for additional work: 5 day

(Signature) (Date) 1/2/14

Updated lab job database and file folder by:

Cc:

H:\WillOrellana\ChangeOfStatus.Doc

CALIFORNIA LABORATORY SERVICES

 01/09/14 12:13

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CXA0028**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #: GREEN

CHANGE OF STATUS

CXA0028

CLS Labs Job # CWK 1055

Project Name: Former Soil Fill Area Sediment Samples

Date Sample(s) Were Received: 12/23/13 **Original Date** 12/31/13

Luke Metz (Client Contacted) of ERT (Company) ~~called~~ emailed

on 1/2/14 (Date) at 1417 (Time).

... and requested the following:

Please run chrome 6 on:
FSFA - SD03 - 2013 (#3)

please run chrome 6 ~~#~~ ~~[illegible]~~ 1/6/14 on:
FSFA - SD512 - 2013 (# 13)

Turnaround time requested for additional work: 5 day

SH (Signature) 1/2/14 (Date)

Updated lab job database and file folder by:

Cc:

H:\WillOrellana\ChangeOfStatus.Doc

CALIFORNIA LABORATORY SERVICES

 01/09/14 12:13

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CXA0028**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS03-2013 (CXA0028-03) Soil Sampled: 12/20/13 11:10 Received: 01/02/14 14:46									
Hexavalent Chromium	ND	10	µg/kg	1	CX00065	01/06/14	01/06/14	EPA 7199	
FSFA-SDS12-2013 (CXA0028-13) Soil Sampled: 12/20/13 11:55 Received: 01/02/14 14:46									
Hexavalent Chromium	ND	10	µg/kg	1	CX00065	01/06/14	01/06/14	EPA 7199	

CALIFORNIA LABORATORY SERVICES

 01/09/14 12:13

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CXA0028**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #: GREEN

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX00065 - General Prep										
Blank (CX00065-BLK1)				Prepared & Analyzed: 01/06/14						
Hexavalent Chromium	ND	10	µg/kg							
LCS (CX00065-BS1)				Prepared & Analyzed: 01/06/14						
Hexavalent Chromium	48.2	10	µg/kg	50.0		96	80-120			
LCS Dup (CX00065-BSD1)				Prepared & Analyzed: 01/06/14						
Hexavalent Chromium	46.4	10	µg/kg	50.0		93	80-120	4	20	
Matrix Spike (CX00065-MS1)		**Source: CXA0028-03**		Prepared & Analyzed: 01/06/14						
Hexavalent Chromium	41.7	10	µg/kg	50.0	ND	83	75-125			
Matrix Spike Dup (CX00065-MSD1)		**Source: CXA0028-03**		Prepared & Analyzed: 01/06/14						
Hexavalent Chromium	43.2	10	µg/kg	50.0	ND	86	75-125	3	25	

CALIFORNIA LABORATORY SERVICES

01/09/14 12:13

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03601-28	**CLS Work Order #: CXA0028**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #: GREEN

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

10 November 2014

CLS Work Order #: CXI0848

COC #:

Luke Metz

Earth Resource Technologies c/o NASA-Ames

Bldg T20G-4, Room 135

Moffet Field, CA 94053-1000

Project Name: Former Soil Fill Area Sediment Samples

Enclosed are the results of analyses for samples received by the laboratory on 09/17/14 19:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness. Any comments and exceptions are addressed under the Notes and Definitions section.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES — Report To: — **CHAIN OF CUSTODY** — CLS ID. NO. CXI0848-1 (of)

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: Former Soil Fill Area Sediment Samples
Sampled By: Luke Metz
Job Description: Perimeter Peninsula Samples
Site Location

Client Job Number: 03602-705

Destination Laboratory:
☑ CLS (916) 638-7301, 3249 Fitzgerald Road, Rancho Cordova, CA 95742, www.californialab.com
☐ OTHER

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID.
FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8082	PP-13 Metals	DDT, DDD, DDE by 8081A						TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
9/17/14	10:15	FSFA-SDS01-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:20	FSFA-SDS02-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:25	FSFA-SDS03-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:30	FSFA-SDS04-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:35	FSFA-SDS05-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:40	FSFA-SDS06-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:45	FSFA-SDS07-2014		Soil	1	8oz Jar	3	X	X	X								X		INVOICE TO:
9/17/14	10:50	FSFA-SDS08-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	10:55	FSFA-SDS09-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	11:00	FSFA-SDS10-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	11:05	FSFA-SDS11-2014		Soil	1	8oz Jar	3	X	X	X								X		PO#
9/17/14	11:10	FSFA-SDS12-2014		Soil	1	8oz Jar	3	X	X	X								X		QUOTE#

SUSPECTED CONSTITUENTS — SAMPLE RETENTION TIME — PRESERVATIVES (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
Luke Metz	Luke Metz – SAIC / ERT	9-17-14 / 12:00pm		CLS
	CLS	9/17/14 1900		

RECEIVED AT LAB BY: — DATE/TIME: — CONDITIONS/COMMENTS:

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER CLS Courier AIR BILL #

9-17-14 1900

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES — Report to:

CHAIN OF CUSTODY CLS ID. NO. CXI848 -2 (of)

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: Former Soil Fill Area Sediment Samples
Sampled By: Luke Metz
Job Description: Perimeter Peninsula Samples
Site Location

Client Job Number: 03602-705

Destination Laboratory:
☑ CLS (916) 638-7301, 3249 Fitzgerald Road, Rancho Cordova, CA 95742, www.californialab.com
☐ OTHER

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID.
FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8082	PP-13 Metals	DDT, DDD, DDE by 8081A						TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
9/17/14	11:15	FSFA-SDS13-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	11:20	FSFA-SDS14-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	11:25	FSFA-SDS15-2014		Soil	1	8oz Jar	3	X	X	X								X		
9/17/14	11:30	FSFA-SDS08K-2014		Soil	1	8oz Jar	3	X	X	X								X		

INVOICE TO:
PO#
QUOTE#

SUSPECTED CONSTITUENTS
SAMPLE RETENTION TIME
PRESERVATIVES (1) HCL (2) HNO3 (3) = COLD (4)

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
Luke Metz	Luke Metz – SAIC / ERT	9-17-14 / 12:00pm	1420H	
	CLS	9/17/14 1900h		

RECEIVED AT LAB BY: DATE/TIME: CONDITIONS/COMMENTS:

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER CLS Courier AIR BILL # 9-17-14 1400 4.1

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2014 (CXI0848-01) Soil Sampled: 09/17/14 10:15 Received: 09/17/14 19:00											
Mercury	RN	**0.13**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	
Zinc	ZZZ	**30**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**38**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**9.5**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**2.3**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**31**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.2**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS02-2014 (CXI0848-02) Soil Sampled: 09/17/14 10:20 Received: 09/17/14 19:00											
Mercury	RN	**0.10**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	
Zinc	ZZZ	**60**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**65**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**18**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**12**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**56**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**2.6**	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS03-2014 (CXI0848-03) Soil Sampled: 09/17/14 10:25 Received: 09/17/14 19:00											
Mercury	RN	**0.061**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**40**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**72**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**11**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**8.4**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**77**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	ND	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS04-2014 (CXI0848-04) Soil Sampled: 09/17/14 10:30 Received: 09/17/14 19:00											
Mercury	RN	**0.069**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**45**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**27**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**19**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**15**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**20**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.4**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS05-2014 (CXI0848-05) Soil Sampled: 09/17/14 10:35 Received: 09/17/14 19:00											
Mercury	RN	**0.071**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**39**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**25**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**17**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**3.0**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**19**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.7**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS06-2014 (CXI0848-06) Soil Sampled: 09/17/14 10:40 Received: 09/17/14 19:00											
Mercury	RN	**0.072**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**45**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**34**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**20**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**4.7**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**27**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	**0.32**	0.30	1.0	"	1	"	"	"	"	J
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**2.1**	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS07-2014 (CXI0848-07) Soil Sampled: 09/17/14 10:45 Received: 09/17/14 19:00											
Mercury	RN	**0.092**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**48**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	09/23/14	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	09/18/14	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	09/23/14	"	
Nickel	ZZZ	**44**	0.42	2.0	"	1	"	"	09/18/14	"	
Lead	ZZZ	**26**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**6.8**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**37**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.8**	0.84	2.0	"	1	"	"	09/23/14	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	09/18/14	"	
FSFA-SDS08-2014 (CXI0848-08) Soil Sampled: 09/17/14 10:50 Received: 09/17/14 19:00											
Mercury	RN	**0.069**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**45**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**41**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**26**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**2.2**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**40**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	**0.52**	0.30	1.0	"	1	"	"	"	"	J
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**3.7**	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS09-2014 (CXI0848-09) Soil Sampled: 09/17/14 10:55 Received: 09/17/14 19:00											
Mercury	RN	**0.052**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**22**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**19**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**11**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**2.2**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**12**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**2.0**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS10-2014 (CXI0848-10) Soil Sampled: 09/17/14 11:00 Received: 09/17/14 19:00											
Mercury	RN	**0.19**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	
Zinc	ZZZ	**71**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**58**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**18**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**16**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**53**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	ND	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS11-2014 (CXI0848-11) Soil Sampled: 09/17/14 11:05 Received: 09/17/14 19:00											
Mercury	RN	**0.073**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**36**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**33**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**17**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**3.2**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**29**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.7**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS12-2014 (CXI0848-12) Soil Sampled: 09/17/14 11:10 Received: 09/17/14 19:00											
Mercury	RN	**0.12**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	
Zinc	ZZZ	**58**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**51**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**24**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**9.8**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**44**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**3.2**	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS13-2014 (CXI0848-13) Soil Sampled: 09/17/14 11:15 Received: 09/17/14 19:00											
Mercury	RN	**0.073**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**33**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**26**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**13**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**3.6**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**22**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.4**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS14-2014 (CXI0848-14) Soil Sampled: 09/17/14 11:20 Received: 09/17/14 19:00											
Mercury	RN	**0.072**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**44**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**35**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**28**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**6.8**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**32**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.6**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS15-2014 (CXI0848-15) Soil Sampled: 09/17/14 11:25 Received: 09/17/14 19:00											
Mercury	RN	**0.046**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**28**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**20**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**11**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**3.3**	0.60	2.0	"	1	"	"	"	"	
Chromium	ZZZ	**15**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	**0.32**	0.30	1.0	"	1	"	"	"	"	J
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**1.2**	0.84	2.0	"	1	"	"	"	"	J
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	
FSFA-SDS08K-2014 (CXI0848-16) Soil Sampled: 09/17/14 11:30 Received: 09/17/14 19:00											
Mercury	RN	**0.080**	0.0072	0.10	mg/kg	1	CX06602	09/18/14	09/19/14	EPA 7471A	J
Zinc	ZZZ	**43**	0.54	2.0	"	1	CX06604	09/18/14	09/18/14	EPA 6010B	
Thallium	JL	ND	6.4	8.0	"	1	"	"	"	"	
Silver	ZZZ	ND	0.36	1.0	"	1	"	"	"	"	
Selenium	JL	ND	0.70	5.0	"	1	"	"	"	"	
Nickel	ZZZ	**42**	0.42	2.0	"	1	"	"	"	"	
Lead	ZZZ	**29**	1.7	5.0	"	1	"	"	"	"	
Copper	ZZZ	**1.9**	0.60	2.0	"	1	"	"	"	"	J
Chromium	ZZZ	**43**	0.62	2.0	"	1	"	"	"	"	
Cadmium	ZZZ	ND	0.30	1.0	"	1	"	"	"	"	
Beryllium	ZZZ	ND	0.10	0.50	"	1	"	"	"	"	
Arsenic	JL	**4.0**	0.84	2.0	"	1	"	"	"	"	
Antimony	ZZZ	ND	4.0	5.0	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2014 (CXI0848-01) Soil Sampled: 09/17/14 10:15 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*84 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*87 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS02-2014 (CXI0848-02) Soil Sampled: 09/17/14 10:20 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*137 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*78 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS03-2014 (CXI0848-03) Soil Sampled: 09/17/14 10:25 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*92 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*92 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS04-2014 (CXI0848-04) Soil Sampled: 09/17/14 10:30 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*99 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*97 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS05-2014 (CXI0848-05) Soil Sampled: 09/17/14 10:35 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*34 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*25 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS06-2014 (CXI0848-06) Soil Sampled: 09/17/14 10:40 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*26 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*22 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS07-2014 (CXI0848-07) Soil Sampled: 09/17/14 10:45 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*12 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*22 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS08-2014 (CXI0848-08) Soil Sampled: 09/17/14 10:50 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*33 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*30 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS09-2014 (CXI0848-09) Soil Sampled: 09/17/14 10:55 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*31 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*21 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS10-2014 (CXI0848-10) Soil Sampled: 09/17/14 11:00 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*36 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*27 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	**23**	2.2	75	"	10	"	"	"	"	J
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS11-2014 (CXI0848-11) Soil Sampled: 09/17/14 11:05 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*50 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*48 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS12-2014 (CXI0848-12) Soil Sampled: 09/17/14 11:10 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*49 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*44 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	**10**	2.4	75	"	10	"	"	"	"	J

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS13-2014 (CXI0848-13) Soil Sampled: 09/17/14 11:15 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*26 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	nt	*39 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS14-2014 (CXI0848-14) Soil Sampled: 09/17/14 11:20 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*48 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*48 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	**9.2**	2.2	75	"	10	"	"	"	"	J
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS15-2014 (CXI0848-15) Soil Sampled: 09/17/14 11:25 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*48 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*53 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	
FSFA-SDS08K-2014 (CXI0848-16) Soil Sampled: 09/17/14 11:30 Received: 09/17/14 19:00											
Surrogate: Tetrachloro-meta-xylene	nt	*50 %*		*46-139*	µg/kg		*CX06599*	*09/18/14*	*09/23/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	nt	*46 %*		*52-141*	"		*"*	*"*	*"*	*"*	*QS-4*
4,4´-DDT	nt	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	nt	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	nt	ND	2.4	75	"	10	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS01-2014 (CXI0848-01) Soil Sampled: 09/17/14 10:15 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*59 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	ND	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS02-2014 (CXI0848-02) Soil Sampled: 09/17/14 10:20 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*56 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	ND	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS03-2014 (CXI0848-03) Soil Sampled: 09/17/14 10:25 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*65 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**36**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS04-2014 (CXI0848-04) Soil Sampled: 09/17/14 10:30 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*55 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**37**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS05-2014 (CXI0848-05) Soil Sampled: 09/17/14 10:35 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*53 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**7.4**	2.1	20	"	1	"	"	"	"	J
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS06-2014 (CXI0848-06) Soil Sampled: 09/17/14 10:40 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*52 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**24**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS07-2014 (CXI0848-07) Soil Sampled: 09/17/14 10:45 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*48 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	*QS-4*
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**28**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS08-2014 (CXI0848-08) Soil Sampled: 09/17/14 10:50 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*63 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**1200**	21	200	"	10	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS09-2014 (CXI0848-09) Soil Sampled: 09/17/14 10:55 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*51 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**26**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS10-2014 (CXI0848-10) Soil Sampled: 09/17/14 11:00 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*57 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**36**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS11-2014 (CXI0848-11) Soil Sampled: 09/17/14 11:05 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*98 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**74**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS12-2014 (CXI0848-12) Soil Sampled: 09/17/14 11:10 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*92 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**35**	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS13-2014 (CXI0848-13) Soil Sampled: 09/17/14 11:15 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*85 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	ND	2.1	20	"	1	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS14-2014 (CXI0848-14) Soil Sampled: 09/17/14 11:20 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*91 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**7.4**	2.1	20	"	1	"	"	"	"	J
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	
FSFA-SDS15-2014 (CXI0848-15) Soil Sampled: 09/17/14 11:25 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*88 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**18**	2.1	20	"	1	"	"	"	"	J
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS08K-2014 (CXI0848-16) Soil Sampled: 09/17/14 11:30 Received: 09/17/14 19:00											
Surrogate: Decachlorobiphenyl	PF	*91 %*		*50-150*	µg/kg		*CX06600*	*09/18/14*	*09/23/14*	*EPA 8082A*	
Aroclor 1268	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	PF	**610**	11	100	"	5	"	"	"	"	
Aroclor 1254	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	PF	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	PF	ND	2.1	20	"	1	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06602 - EPA 7471A											
Blank (CX06602-BLK1)					Prepared: 09/18/14 Analyzed: 09/19/14						
Mercury	ND	0.0072	0.10	mg/kg							
LCS (CX06602-BS1)					Prepared: 09/18/14 Analyzed: 09/19/14						
Mercury	0.274	0.0072	0.10	mg/kg	0.250		110	75-125			
Matrix Spike (CX06602-MS1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/19/14						
Mercury	0.307	0.0072	0.10	mg/kg	0.250	0.130	71	75-125			QM-5
Matrix Spike Dup (CX06602-MSD1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/19/14						
Mercury	0.348	0.0072	0.10	mg/kg	0.250	0.130	87	75-125	13	25	
Batch CX06604 - EPA 3050B											
Blank (CX06604-BLK1)					Prepared & Analyzed: 09/18/14						
Thallium	ND	6.4	8.0	mg/kg							
Selenium	ND	0.70	5.0	"							
Arsenic	ND	0.84	2.0	"							
Zinc	ND	0.54	2.0	"							
Silver	ND	0.36	1.0	"							
Nickel	0.526	0.42	2.0	"							J
Lead	ND	1.7	5.0	"							
Copper	ND	0.60	2.0	"							
Chromium	1.15	0.62	2.0	"							J
Cadmium	ND	0.30	1.0	"							
Beryllium	0.133	0.10	0.50	"							J
Antimony	ND	4.0	5.0	"							

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06604 - EPA 3050B											
LCS (CX06604-BS1)					Prepared & Analyzed: 09/18/14						
Thallium	99.1	6.4	8.0	mg/kg	100		99	75-125			
Selenium	91.4	0.70	5.0	"	100		91	75-125			
Arsenic	96.7	0.84	2.0	"	100		97	75-125			
Zinc	96.9	0.54	2.0	"	100		97	75-125			
Silver	104	0.36	1.0	"	100		104	75-125			
Nickel	96.4	0.42	2.0	"	100		96	75-125			
Lead	95.1	1.7	5.0	"	100		95	75-125			
Copper	104	0.60	2.0	"	100		104	75-125			
Chromium	98.0	0.62	2.0	"	100		98	75-125			
Cadmium	99.6	0.30	1.0	"	100		100	75-125			
Beryllium	95.8	0.10	0.50	"	100		96	75-125			
Antimony	91.8	4.0	5.0	"	100		92	75-125			
Matrix Spike (CX06604-MS1)		**Source: CXI0638-05**			Prepared & Analyzed: 09/18/14						
Thallium	73.9	6.4	8.0	mg/kg	100	ND	74	75-125			QM-5
Selenium	69.1	0.70	5.0	"	100	ND	69	75-125			QM-5
Arsenic	81.6	0.84	2.0	"	100	2.53	79	75-125			
Zinc	129	0.54	2.0	"	100	46.9	82	75-125			
Silver	77.4	0.36	1.0	"	100	ND	77	75-125			
Nickel	101	0.42	2.0	"	100	18.1	83	75-125			
Lead	89.5	1.7	5.0	"	100	13.8	76	75-125			
Copper	96.8	0.60	2.0	"	100	3.51	93	75-125			
Chromium	113	0.62	2.0	"	100	29.7	83	75-125			
Cadmium	85.5	0.30	1.0	"	100	ND	86	75-125			
Beryllium	82.2	0.10	0.50	"	100	ND	82	75-125			
Antimony	29.4	4.0	5.0	"	100	ND	29	75-125			QM-5
Matrix Spike Dup (CX06604-MSD1)		**Source: CXI0638-05**			Prepared & Analyzed: 09/18/14						
Thallium	75.3	6.4	8.0	mg/kg	100	ND	75	75-125	2	30	
Selenium	71.4	0.70	5.0	"	100	ND	71	75-125	3	30	QM-5
Arsenic	84.2	0.84	2.0	"	100	2.53	82	75-125	3	30	
Zinc	131	0.54	2.0	"	100	46.9	84	75-125	1	30	
Silver	75.3	0.36	1.0	"	100	ND	75	75-125	3	30	
Nickel	103	0.42	2.0	"	100	18.1	85	75-125	2	30	
Lead	91.3	1.7	5.0	"	100	13.8	78	75-125	2	30	

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06604 - EPA 3050B											
Matrix Spike Dup (CX06604-MSD1)		**Source: CXI0638-05**			Prepared & Analyzed: 09/18/14						
Copper	99.7	0.60	2.0	mg/kg	100	3.51	96	75-125	3	30	
Chromium	116	0.62	2.0	"	100	29.7	87	75-125	3	30	
Cadmium	86.9	0.30	1.0	"	100	ND	87	75-125	2	30	
Beryllium	83.1	0.10	0.50	"	100	ND	83	75-125	1	30	
Antimony	40.5	4.0	5.0	"	100	ND	41	75-125	32	30	QM-5

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Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06599 - EPA method 3545											
Blank (CX06599-BLK1)					Prepared: 09/18/14 Analyzed: 09/23/14						
4,4´-DDT	ND	0.12	7.5	µg/kg							
4,4´-DDE	ND	0.22	7.5	"							
4,4´-DDD	ND	0.24	7.5	"							
Surrogate: Decachlorobiphenyl	*13.2*			*"*	*16.7*		*79*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*11.8*			*"*	*16.7*		*71*	*46-139*			
LCS (CX06599-BS1)					Prepared: 09/18/14 Analyzed: 09/23/14						
Heptachlor	22.4	0.11	5.0	µg/kg	33.3		67	33-148			
Endrin	26.4	0.092	15	"	33.3		79	30-147			
Dieldrin	24.9	0.19	1.0	"	33.3		75	44-143			
4,4´-DDT	27.4	0.12	7.5	"	33.3		82	46-137			
gamma-BHC (Lindane)	24.6	0.70	10	"	33.3		74	56-133			
Aldrin	23.7	0.13	1.0	"	33.3		71	47-132			
Surrogate: Decachlorobiphenyl	*13.8*			*"*	*16.7*		*83*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*14.1*			*"*	*16.7*		*84*	*46-139*			
LCS Dup (CX06599-BSD1)					Prepared: 09/18/14 Analyzed: 09/23/14						
Heptachlor	23.1	0.11	5.0	µg/kg	33.3		69	33-148	3	30	
Endrin	27.2	0.092	15	"	33.3		82	30-147	3	30	
Dieldrin	26.2	0.19	1.0	"	33.3		78	44-143	5	30	
4,4´-DDT	28.0	0.12	7.5	"	33.3		84	46-137	2	30	
gamma-BHC (Lindane)	25.5	0.70	10	"	33.3		76	56-133	3	30	
Aldrin	24.4	0.13	1.0	"	33.3		73	47-132	3	30	
Surrogate: Decachlorobiphenyl	*13.9*			*"*	*16.7*		*83*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*12.8*			*"*	*16.7*		*77*	*46-139*			
Matrix Spike (CX06599-MS1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/23/14						
Heptachlor	18.6	1.1	50	µg/kg	33.3	ND	56	36-155			J
Endrin	29.4	0.92	150	"	33.3	ND	88	34-149			J
Dieldrin	31.1	1.9	10	"	33.3	ND	93	46-155			

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06599 - EPA method 3545											
Matrix Spike (CX06599-MS1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/23/14						
4,4´-DDT	34.0	1.2	75	µg/kg	33.3	ND	102	41-157			J
gamma-BHC (Lindane)	30.1	7.0	100	"	33.3	ND	90	38-144			J
Aldrin	26.9	1.3	10	"	33.3	ND	81	47-138			
Surrogate: Decachlorobiphenyl	*16.0*			*"*	*16.7*		*96*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*15.2*			*"*	*16.7*		*91*	*46-139*			
Matrix Spike Dup (CX06599-MSD1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/23/14						
Heptachlor	16.3	1.1	50	µg/kg	33.3	ND	49	36-155	13	35	J
Endrin	27.2	0.92	150	"	33.3	ND	81	34-149	8	35	J
Dieldrin	28.8	1.9	10	"	33.3	ND	86	46-155	8	35	
4,4´-DDT	30.3	1.2	75	"	33.3	ND	91	41-157	11	35	J
gamma-BHC (Lindane)	27.0	7.0	100	"	33.3	ND	81	38-144	11	35	J
Aldrin	23.5	1.3	10	"	33.3	ND	70	47-138	14	35	
Surrogate: Decachlorobiphenyl	*14.6*			*"*	*16.7*		*88*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*13.2*			*"*	*16.7*		*79*	*46-139*			

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project: Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06600 - EPA method 3545											
Blank (CX06600-BLK1)					Prepared: 09/18/14 Analyzed: 09/19/14						
Aroclor 1268	ND	3.0	20	µg/kg							
Aroclor 1260	ND	2.1	20	"							
Aroclor 1254	ND	3.0	20	"							
Aroclor 1248	ND	3.0	20	"							
Aroclor 1242	ND	3.0	20	"							
Aroclor 1232	ND	3.0	20	"							
Aroclor 1221	ND	3.0	20	"							
Aroclor 1016	ND	2.1	20	"							
Surrogate: Decachlorobiphenyl	*14.9*			*"*	*16.7*		*89*	*50-150*			
LCS (CX06600-BS1)					Prepared: 09/18/14 Analyzed: 09/19/14						
Aroclor 1260	146	2.1	20	µg/kg	167		88	29-131			
Surrogate: Decachlorobiphenyl	*15.5*			*"*	*16.7*		*93*	*50-150*			
LCS Dup (CX06600-BSD1)					Prepared: 09/18/14 Analyzed: 09/19/14						
Aroclor 1260	144	2.1	20	µg/kg	167		87	29-131	1	30	
Surrogate: Decachlorobiphenyl	*15.3*			*"*	*16.7*		*92*	*50-150*			
Matrix Spike (CX06600-MS1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/23/14						
Aroclor 1260	108	2.1	20	µg/kg	167	ND	65	29-131			
Surrogate: Decachlorobiphenyl	*12.2*			*"*	*16.7*		*73*	*50-150*			
Matrix Spike Dup (CX06600-MSD1)		**Source: CXI0848-01**			Prepared: 09/18/14 Analyzed: 09/23/14						
Aroclor 1260	116	2.1	20	µg/kg	167	ND	70	29-131	7	30	
Surrogate: Decachlorobiphenyl	*12.2*			*"*	*16.7*		*73*	*50-150*			

CALIFORNIA LABORATORY SERVICES

11/10/14 12:49

Earth Resource Technologies c/o NASA-Ames	Project:	Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXI0848**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

October 27, 2014

CLS Work Order #: CXJ1017
COC #:

Luke Metz
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: AOI 14 Former Soil Fill Area
Sediment Samples

Enclosed are the results of analyses for samples received by the laboratory on 10/20/14 17:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: AOI 14 Former Soil Fill Area Sediment Samples
Project Number: 03602-750
Project Manager: Luke Metz

CLS Work Order #: CXJ1017
COC #:

CALIFORNIA LABORATORY SERVICES — CHAIN OF CUSTODY — CLS ID. NO. CXJ1017 (of)

Reporting:

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: AOI 14 Former Soil Fill Area Sediment Samples
Sampled By: Luke Metz
Job Description: SDS-08 Confirmation Sampling
Site Location

Client Job Number: 03602-750
Destination Laboratory:
☑ CLS (916) 638-7301, 3249 Fitzgerald Road, Rancho Cordova, CA 95742, www.californialab.com
☐ OTHER

ANALYSIS REQUESTED: PCB's (incl 1268) by 8082

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID

FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8082	TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
10/16/14	15:05	FSFA-SDS08		Soil	1	8oz Jar	3	X			X		
10/16/14	15:07	FSFA-SDS08-N		Soil	1	8oz Jar	3	X			X		
10/16/14	15:09	FSFA-SDS08-NE		Soil	1	8oz Jar	3	X			X		
10/16/14	15:11	FSFA-SDS08-E		Soil	1	8oz Jar	3	X			X		
10/16/14	15:13	FSFA-SDS08-SE		Soil	1	8oz Jar	3	X			X		
10/16/14	15:15	FSFA-SDS08-S		Soil	1	8oz Jar	3	X			X		

INVOICE TO:
PO#
QUOTE#

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME
PRESERVATIVES (1) HCL (2) HNO3 (3) COLD (4)

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
Luke Metz	Luke Metz – SAIC / ERT	10-16-14 / 16:30pm	10/20/14 12:30pm	CLS
	CLS	10/20/14 1700		

RECEIVED AT LAB BY: DATE/TIME: 10/20/14 1200 CONDITIONS/COMMENTS: SZ

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER CLS Courier AIR BILL #

CALIFORNIA LABORATORY SERVICES

 10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames	Project: AOI 14 Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-750	**CLS Work Order #: CXJ1017**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS08 (CXJ1017-01) Soil Sampled: 10/16/14 15:05 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**610**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
Surrogate: Decachlorobiphenyl		*84 %*	*50-150*		*"*	*"*	*"*	*"*	
FSFA-SDS08-N (CXJ1017-02) Soil Sampled: 10/16/14 15:07 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**490**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
Surrogate: Decachlorobiphenyl		*69 %*	*50-150*		*"*	*"*	*"*	*"*	
FSFA-SDS08-NE (CXJ1017-03) Soil Sampled: 10/16/14 15:09 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	ND	20	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames	Project: AOI 14 Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-750	**CLS Work Order #: CXJ1017**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS08-NE (CXJ1017-03) Soil Sampled: 10/16/14 15:09 Received: 10/20/14 17:00									
Aroclor 1268	ND	20	µg/kg	1	CX07457	"	10/22/14	EPA 8082A	
Surrogate: Decachlorobiphenyl		*63 %*		*50-150*		"	"	"	"
FSFA-SDS08-E (CXJ1017-04) Soil Sampled: 10/16/14 15:11 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**37**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*70 %*		*50-150*		"	"	"	"
FSFA-SDS08-SE (CXJ1017-05) Soil Sampled: 10/16/14 15:13 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**24**	20	"	"	"	"	"	"	
Aroclor 1268	ND	20	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl		*77 %*		*50-150*		"	"	"	"

CALIFORNIA LABORATORY SERVICES

10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames	Project: AOI 14 Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-750	**CLS Work Order #: CXJ1017**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
FSFA-SDS08-S (CXJ1017-06) Soil Sampled: 10/16/14 15:15 Received: 10/20/14 17:00									
Aroclor 1016	ND	20	µg/kg	1	CX07457	10/20/14	10/22/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**550**	100	"	5	"	"	"	"	
Aroclor 1268	ND	20	"	1	"	"	"	"	
Surrogate: Decachlorobiphenyl		*85 %*		*50-150*	*"*	*"*	*"*	*"*	

CALIFORNIA LABORATORY SERVICES

 10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames	Project: AOI 14 Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-750	**CLS Work Order #: CXJ1017**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX07457 - EPA method 3545										
Blank (CX07457-BLK1)				Prepared: 10/20/14 Analyzed: 10/22/14						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*13.4*		*"*	*16.7*		*81*	*50-150*			
LCS (CX07457-BS1)				Prepared: 10/20/14 Analyzed: 10/22/14						
Aroclor 1260	112	20	µg/kg	167		67	29-131			
Surrogate: Decachlorobiphenyl	*14.1*		*"*	*16.7*		*84*	*50-150*			
LCS Dup (CX07457-BSD1)				Prepared: 10/20/14 Analyzed: 10/22/14						
Aroclor 1260	122	20	µg/kg	167		73	29-131	8	30	
Surrogate: Decachlorobiphenyl	*14.7*		*"*	*16.7*		*88*	*50-150*			
Matrix Spike (CX07457-MS1)		**Source: CXJ0816-19**		Prepared: 10/20/14 Analyzed: 10/22/14						
Aroclor 1260	169	20	µg/kg	167	56.9	67	29-131			
Surrogate: Decachlorobiphenyl	*18.5*		*"*	*16.7*		*111*	*50-150*			
Matrix Spike Dup (CX07457-MSD1)		**Source: CXJ0816-19**		Prepared: 10/20/14 Analyzed: 10/22/14						
Aroclor 1260	165	20	µg/kg	167	56.9	65	29-131	3	30	
Surrogate: Decachlorobiphenyl	*17.8*		*"*	*16.7*		*107*	*50-150*			

CALIFORNIA LABORATORY SERVICES

10/27/14 12:42

Earth Resource Technologies c/o NASA-Ames	Project: AOI 14 Former Soil Fill Area Sediment Samples	
Bldg T20G-4, Room 135	Project Number: 03602-750	**CLS Work Order #: CXJ1017**
Moffet Field, CA 94053-1000	Project Manager: Luke Metz	COC #:

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ATTACHMENT A4
RESPONSES TO REGULATORY AGENCY COMMENTS ON THE DRAFT CURRENT CONDITIONS REPORT FOR AOI 14

ATTACHMENT A4: RESPONSES TO COMMENTS ON THE DRAFT AREA OF INVESTIGATION (AOI) 14 CURRENT CONDITIONS REPORT, NASA AMES RESEARCH CENTER, MOFFETT FIELD, CALIFORNIA

The table below summarizes the responses to comments submitted by the U.S. Environmental Protection Agency (EPA) and the San Francisco Bay Regional Water Quality Control Board (Water Board) on the "Draft Area of Investigation (AOI) 14 Current Conditions Report (CCR)," dated March 15, 2013. Many of the comments that refer to specific CCR text are no longer applicable because the CCR has been superseded by the Engineering Evaluation/Cost Analysis (EE/CA) EE/CA Section 2, Site Characterization, and Appendix A, Previous Investigations and Data.

Comment Number	Comment	Response	Response Location
EPA and Water Board Comments, dated February 27, 2014			
General Comments			
1.	The CCR fails to adequately describe the current conditions at AOI 14. The relevance of some data is not made clear and other relevant information is missing. For example, it is not clear why the CCR presents Navy sampling results from around AOI 14. While the CCR presents analytical results, it does not include a discussion of what this data means with respect to the contamination at AOI 14. Explain why results for sampling events outside AOI 14 are included in the report and how they relate to AOI 14. In addition, the CCR should make it clear which historical Navy data points were removed (no longer exist) as part of the Navy's IR Site 25 remedial action. Furthermore, "baseline sampling" performed by NASA after rains in November 2013 should be presented in the CCR. Those data should also be compared to results the Navy obtained during confirmation sampling efforts associated with the Navy IR Site 25 cleanup to determine whether any additional releases occurred as a result of the rains.	The CCR no longer exists as a stand-alone report. The EE/CA, and specifically Section 2 and Appendix A, presents the AOI 14 site description and context to surrounding areas, summarizes previous investigations involving AOI 14, and summarizes the extent of contamination at AOI 14. The EE/CA presents data within the footprint of AOI 14 and provides context for the data presented. The EE/CA, Appendix A, includes a summary of the "baseline sampling" conducted in December 2013 after the Interim Corrective Action Measures (ICAM) silt fence had been installed.	EE/CA Sections 2.1, 2.2, and 2.3 EE/CA Appendix A

RESPONSES TO COMMENTS ON THE DRAFT AREA OF INVESTIGATION (AOI) 14 CURRENT CONDITIONS REPORT, NASA AMES RESEARCH CENTER, MOFFETT FIELD, CALIFORNIA (CONTINUED)

Comment Number	Comment	Response	Response Location
EPA and Water Board Comments, dated February 27, 2014			
2.	Summary statements are made in the CCR that do not fully capture the nature and extent of contamination at the site. As noted in specific comments below, there are misleading and inaccurate statements that should be revised to more completely and accurately characterize the site.	The text of the EE/CA has been written to accurately present the nature and extent of contamination at AOI 14. Polychlorinated biphenyls (PCBs), pesticides, and metals are detected randomly across the former soil fill area (FSFA) peninsula and randomly across each of the depth intervals from surface to 10 feet below ground surface (bgs) (see Appendix A, AOI 14 Phase II Investigation). This detection pattern illustrates the heterogeneity of fill material and does not indicate an on-site surface source. The extent of contamination is limited to the northern portion of the FSFA peninsula.	EE/CA Sections 2.1, 2.2, and 2.3; EE/CA Appendix A
3.	Several of the statements and conclusions presented in Section 6, Conclusions, are premature or inappropriate for inclusion in the CCR. The last sentence of the paragraph following the bulleted list in Section 6 should be deleted and a separate letter request to EPA should be made to forego work required under the RCRA Order. Based on the information presented in the CCR, the requirements of the RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) have not been fulfilled and, therefore, cannot be withdrawn at this time. As submitted, the CCR fails to provide the following information that would be contained in the RFI: • Identification of reasonably foreseeable future uses • Characterization of potential releases due to rains in November 2013 before installation of the Interim Corrective Measure	The CCR will now be part of the EE/CA and follow the EE/CA schedule per the federal facility agreement (FFA). The EE/CA addresses the bulleted Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)/Corrective Measures Study (CMS) items as follows: • Section 2.5 discusses the current and potential futures use of AOI 14 — the FSFA peninsula is currently unused and no plans for future use exist. The N217 and N217A buildings are specially constructed used for conducting magnetic field measurements. Continued future use for magnetic measurements is planned.	EE/CA Sections 2.5 and 4; EE/CA Appendix A

Comment Number	Comment	Response	Response Location
EPA and Water Board Comments, dated February 27, 2014			
3. (Cont'd)	• Sufficient or adequate data to conduct a risk assessment and develop cleanup standards for AOI 14 particularly due to lack of clarity about contamination that remains at the site as well as issues with detection limits above remedial goals. As submitted, the CCR fails to provide the following information that would be contained in a CMS: • Justification of which corrective measures were studied or considered • Evaluation of corrective measures being considered based on their protectiveness or ability to attain cleanup standards • Estimated timeframe and cost to execute the various corrective measures. EPA will consider consolidation or modification of the work elements under the RCRA Order upon submission of documentation that includes the above information.	• Sediment data collected in December 2013 (Appendix A) represent ICAM baseline samples. Contaminants of concern (COC) (total PCBs, total dichlorodiphenyltrichloroethane (DDT), lead, and zinc) were not detected above the Navy Installation Restoration (IR) Site 25 sediment remediation goals in any of the 15 sediment samples. • The number of soil samples collected across AOI 14 is sufficient to characterize contamination, assess risk, develop cleanup standards, and evaluate removal action alternatives. DDT reporting limit issues occurred during the Phase I (Summer 2005) and Phase II (Summer 2006) investigations. The Phase I samples with DDT reporting limit issues were collocated with PCB exceedances and therefore will be addressed by proposed remediation. The Phase II samples with DDT and PCB reporting limit issues were resampled in either 2007 (FSFA samples) or during the ICAM data gap sampling conducted in November 2013 (N217 areas). The reporting limits for these resampling events were below remedial goals. Section 4 identifies and describes removal action alternatives. Each alternative is individually and comparatively evaluated against National Contingency Plan (NCP) criteria.	

RESPONSES TO COMMENTS ON THE DRAFT AREA OF INVESTIGATION (AOI) 14 CURRENT CONDITIONS REPORT, NASA AMES RESEARCH CENTER, MOFFETT FIELD, CALIFORNIA (CONTINUED)

Comment Number	Comment	Response	Response Location
EPA and Water Board Comments, dated February 27, 2014			
4.	Field methods for sample collection generally are not included in the report. Describe the field sampling collection methods for each sampling event, or include a reference for the report that includes the description. If a report reference is used, and the report(s) has/have not previously been provided to EPA and the Water Board, please submit the report(s) with the Draft Final version of the CCR.	EE/CA Appendix A includes "fact sheet" summaries of each AOI 14 investigation. Each investigation summary includes the name and date of investigation, purpose, sampling method, analytical method, summary of findings, references, and a figure and table summarizing investigation data. Laboratory analytical results for soil, sediment, and groundwater samples collected during all investigations are included in Attachment A1.	EE/CA Appendix A
5.	For each sampling event, provide the rationale for selecting the analytes for the soil samples. It is not clear for each event why one chemical was tested for, while others were not.	The fact sheets in EE/CA Appendix A include the purpose of each investigation, providing rationale for the analyses conducted.	EE/CA Appendix A
6.	Address the detections of arsenic in each sampling event. Concentrations generally exceed the Navy IR Site 25 cleanup level; however a discussion regarding these detections is included in only Sections 4.6.1.5 and 4.6.2.5, which is limited to the results from 2005 and 2006. In addition, note for each event when detection limits exceeded cleanup levels.	EE/CA Section 2.3.3 presents a brief discussion of contaminant detections, including arsenic. EE/CA Table 5 presents a comparison of metals detections at site AOI 14 to background concentrations. Although exceeding several screening criteria, arsenic concentrations at AOI 14 are in the range of background concentrations, and, therefore, not considered further. In Appendix A, the summary of findings section of each investigation-specific fact sheet includes a statement regarding detection limits for the investigation.	EE/CA Section 2.3.3; Appendix A; Appendix A, Attachment A5
7.	Extent maps are provided as plates at the end of the CCR. It appears that these maps are based solely on data collected from 2005 and 2006. If this is the case, the maps are incomplete because only select data was presented. Revise the plates to provide all supporting data.	EE/CA Section 2 includes summary maps that present sampling locations and results from all sampling events (Plates 1 through 8). Volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were not detected in initial investigations and were, therefore, eliminated from evaluation in subsequent investigations. EE/CA Appendix A includes sampling event-specific figures.	EE/CA Section 2; EE/CA Appendix A

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8.	The CCR uses a name for the site that has previously not been used. For consistency with earlier NASA documents and the RCRA Order, revise all uses of the name "The Former Soil Disposal Area" and "FSDA." "The Former Soil Fill Area" and "FSFA" should be used.	The EE/CA and Appendix A have been written to consistently use the term "Former Soil Fill Area (FSFA)."	Entire EE/CA and appendices
9.	Revise the CCR to ensure that any activities related to "Site 25" are clearly identified as "Navy IR Site 25."	The EE/CA has been written to consistently refer to "Navy IR Site 25."	Entire EE/CA and appendices
10.	Revise all tables to use bold, yellow-highlighted or red-highlighted text in the same manner consistently throughout the CCR. Annotations should be consistent throughout the report for ease of interpretation. Also, include a key to the annotations in each table.	The inconsistencies noted in this comment were in reference to the figures and tables presented in the CCR. Summary figures and tables presented in the EE/CA have been developed using consistent representation of data and include consistent notes or keys for each figure and table. EE/CA Appendix A includes figures and tables reproduced from the individual investigation source reports, with minimal updates. The figures and tables included in Appendix A were selected for their data presentation rather than data interpretation; therefore, inconsistencies are limited to style/format of presentation.	Entire EE/CA and appendices
11.	The CCR refers to "remedial goals," "remediation goals" and "remedial action levels" in various areas of the text, figures and table. It is not clear if these are all the same or what they are all based on. Clearly state the documents where these goals/levels were selected and approved as adequate goals/levels.	The EE/CA and appendices have been written using the term "remediation goals" consistently throughout the document when referring to the Navy IR Site 25 goals and "cleanup goals" when referring to the AOI 14 goals.	Entire EE/CA and appendices
12.	In the tables, or wherever data is presented, present the non-detect results numerically, like they are presented in Table 2 using "<".	Throughout the EE/CA and Appendix A, nondetect results are presented numerically as less than the laboratory detection limit.	Entire EE/CA and appendices
13.	For each investigation, specify whether detection limits were greater than or less than the project screening/remedial goals.	In Appendix A, the summary of findings section of each investigation-specific fact sheet includes a statement regarding whether detection limits were less than the project screening goals.	EE/CA Appendix A

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Specific Comments			
1.	Per Paragraph 74 of the RCRA Order, all written submissions to EPA must be accompanied by a certification from a responsible official. Also, the Report must be signed and stamped by a California-registered engineer or geologist.	All future written submittals to EPA will be accompanied by a certification from a responsible official. In addition, the EE/CA will be signed and stamped by a California-registered engineer or geologist.	EE/CA title page
2.	**Section 1.2:** Include a description of the history of NASA Ames Research Center. While the information about NAS Moffett Field is interesting, no information regarding Ames Research Center's history of operations and chemical and hazardous materials usage is included.	EE/CA Section 2.1 presents the site description and background, including history of operations, for NASA Ames, AOI 14, and Navy IR Site 25 to provide context for the AOI 14 removal action.	EE/CA Section 2.1
3.	**Section 1.2, 2nd paragraph:** Change NACA to NASA. Alternatively, include a brief explanation about how NASA replaced NACA.	The EE/CA text does not reference NACA.	Not applicable.
4.	**Section 1.2, 2nd paragraph:** Revise the sentence beginning "On July 1st" to: "On July 1st, 1994, NASA Ames assumed ~~steward~~ownership of the entire air station with the exception of…"	The EE/CA text does not include this sentence.	Not applicable.
5.	**Figure 2:** This figure incorrectly depicts the historical boundary of the Former NAS Moffett Field. Revise the figure to show the full extent of the Former NAS Moffett Field boundary, including those portions that are currently associated with NASA Ames Research Center.	Figure 2 has been revised to correctly depict the current and historical boundaries.	EE/CA Section 1.0, Figure 2
6.	**Section 2.3, 2nd paragraph:** At the end of this section, delete "Program" and the "P" in "IRP" from the second to last sentence and add "oversight" after "EPA" at the very end of the last sentence.	The EE/CA text has been revised as requested.	EE/CA Section 2.1.1
7.	**Section 3.1, 2nd paragraph:** Revise the first sentence to read "The 217 and 217A areas are adjacent to the storm water…"	The EE/CA text does not include this sentence.	Not applicable.

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8.	**Section 3.2.1:** State whether chemicals or hazardous materials were used at N271. Also, include a reference to Figure 5 for a depiction of the levee.	EE/CA Section 2.1.2 discusses the N217 peninsula and N217A fill area, including development and use. Buildings N217 and N217A are specially designed for conducting magnetic field measurements. Hazardous materials are not known to have been used at the N217 and N217A areas. A reference to the figure showing levees, now Figure 7, is included in Section 2.1.2.	EE/CA Section 2.1.2
9.	**Section 3.2.2:** Specify what the "other structures located in the fenced area" of N217A are that indicate the facility was used for training purposes. If possible, identify the type of training. State whether chemicals or hazardous materials were used at N271A. Also, include dates for the Navy remediation and hydroseeding described in the second paragraph.	EE/CA Section 2.1.2 discusses the current and historical use of the N217 peninsula and N217A fill area. The sentence regarding training has been deleted. Text has been added addressing use of chemicals or hazardous materials and hydroseeding dates.	EE/CA Section 2.1.2
10.	**Section 3.2.3:** Provide a datum for the measurements of the "surface" of the FSFA (e.g., above surrounding ground surface, feet above mean sea level, thickness, etc.).	EE/CA Section 2.1.2 now indicates that the surrounding stormwater retention pond is the datum to which the surface elevation of the FSFA is referenced.	EE/CA Section 2.1.2
11.	**Section 3.2.3:** Specify where on NASA Ames Research Center the "80'x 120' test section is located and what it is.	This sentence has been revised as follows: Some of the soil may have originated from construction activities for the National Full-scale Aerodynamic Complex 80- by 120-foot wind tunnel test section (Building N221B), located approximately 1 mile south of AOI 14 in the center of the NASA Ames campus.	EE/CA Section 2.1.2
12.	**Section 3.2.3:** In the last paragraph of this section clarify who conducted the removal of the structures on the FSFA in 1987.	EE/CA Section 2.1.1 has been revised as follows: The purpose of these structures and when they were constructed and removed are not known.	EE/CA Section 2.1.2

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13.	**Section 4.1:** For all of the sampling performed as part of the Listing Site Inspection (at the FSFA and N217A), provide the rationale for selecting the analytes for the soil samples and discuss why the samples were not analyzed for petroleum hydrocarbons or the full suite of Title 22 metals.	Section 4 of the Listing Site Inspection explains the rationale for chemical analyses as follows: "Based on the results of prior investigations, the primary chemicals of concern in the shallow soil at NARC were PCBs, Pb, and Hg. VOCs and SVOCs did not appear to be ubiquitous in the areas that were previously sampled; therefore, EKI analyzed for these chemicals only in areas that either had not been previously sampled for VOCs and SVOCs (e.g., N227, Stevens Creek, Former Soil Disposal Area, T350, and N239), or in areas where these chemicals are known to be currently stored (e.g., N255)." (EKI 1992).	EE/CA Appendix A
14.	**Section 4.1.1, 1st paragraph:** Revise the last sentence to read "The four soil samples…"	The EE/CA text does not include this sentence.	Not applicable.
15.	**Section 4.1.1:** Discuss all of the metals results.	The Appendix A investigation-specific fact sheet for the Listing Site Inspection includes a brief discussion of results for metals.	EE/CA Appendix A
16.	**Section 4.1.2:** Clarify where the other 8 of 11 sampling points from the Site Listing Inspection were taken.	The CCR indicates that 11 sampling points were located within the stormwater retention pond, three of which were in the vicinity of N217 and N217A fill area. The other stormwater retention pond samples were collected south of the N217 and N217A fill area. The EE/CA Appendix A presents only data from the one N217 and N217A fill area sample location within the AOI 14 boundary	EE/CA Appendix A
17.	**Section 4.1.2, 1st paragraph:** Revise the third sentence to read "Three samples were taken at various depths at each of the sampling <u>locations</u> for a total…"	The EE/CA text does not include this sentence.	Not applicable.

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18.	**Section 4.1.2:** It is not clear why data from the SWRP is being presented. Presumably, soil/sediment in these locations was excavated as part of the Navy's IR Site 25 remedial action and is no longer representative of the current conditions at the site. Furthermore, of the data presented in Figure 9 and Table 3, only 1 location or 3 samples are actually located on N217A, the subject of this section. Revise this section to discuss relevant data. If historic data is presented, clarify when particular samples are no longer representative of current conditions.	The EE/CA and Appendix A include investigations and data for samples collected within AOI 14 and the ICAM sediment samples. Investigations related to other sites have been deleted.	EE/CA Section 2.2 and 2.3; EE/CA Appendix A
19.	**Table 1:** Cite the Navy ROD from which the remediation goals were derived and include all relevant notes associated with this table on one page.	The Appendix A investigation-specific fact sheet for the Listing Site Inspection includes the CCR summary Table 1, updated to include a reference to the Navy record of decision (ROD). All relevant table notes are included on the same page as the table. EE/CA Table 1, which also introduces the Navy IR Site 25 remediation goals, includes a reference to the Navy ROD.	EE/CA Appendix A
20.	**Table 2:** Revise the table to note the arsenic results that exceed the ESL in this table.	The Appendix A investigation-specific fact sheet for the Listing Site Inspection includes the CCR summary Table 2, updated to show arsenic ecological soil screening levels (ESL) that are exceeded.	EE/CA Appendix A
21.	**Table 3:** The results for DDD and DDE are difficult to interpret. Revise the table to include separate columns for each compound. Also, clarify if the 109 µg/kg remediation goal is for both DDD and DDE.	The Appendix A investigation-specific fact sheet for the Listing Site Inspection includes the CCR summary Table 3, updated to include only the sample (RP-H003) within AOI 14. The table includes a revised footnote to indicate that only 4'4-dichlorodiphenyldichloroethylene (DDE) was detected. The remediation goal is for total DDT.	EE/CA Appendix A
22.	**Table 4:** Include petroleum hydrocarbon results.	Results from the sitewide ecological assessment presented in CCR Table 4, including petroleum hydrocarbon results, are no longer included in the EE/CA or Appendix A.	Not applicable

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23.	**Figure 10:** The figure includes an inset that refers the reader to a sampling area in Figure 7. There does not appear to be a sampling area noted in Figure 7. Clarify the figures.	Figure 10 is no longer included in the EE/CA or Appendix A.	Not applicable
24.	**Section 4.3:** It is not clear why data surrounding the SWRP is being presented. Presumably, soil/sediment in these locations was excavated as part of the Navy's IR Site 25 remedial action and is no longer representative of the current conditions at the site. Soil/sediment represented by data presented in Figure 11 and Tables 6 and 7 no longer appear relevant. If historic data is presented, clarify when particular samples are no longer representative of current conditions.	Results from the 2002 Navy IR Site 25 Pre-Construction Soil Investigation are no longer included in the EE/CA or Appendix A.	Not applicable
25.	**Section 4.3:** The text states "PCBs were detected to the east of the FSDA at a concentration of 64 µg/kg." However, a detection of 64 µg/kg is not listed in Table 6. Rectify this discrepancy. Also, it is not clear why a detection of PCBs at 64 µg/kg would be singled out for discussion when there were also detections at 75.3 and 78 µg/kg (PCSS-119 and PCSS-121) that are not summarized or discussed in the text. The noted sentence provides misleading information about the site.	Results from the 2002 Navy IR Site 25 Pre-Construction Soil Investigation are no longer included in the EE/CA or Appendix A.	Not applicable
26.	**Tables 6 and 7 and Figure 11:** Indicate which samples were removed as part of the Navy's IR Site 25 remedial action. Also, explain why results are bolded when they do not exceed the remediation goals or ESLs. Both of these tables appear to be small enough to fit entirely on one page. Where possible, revise the formatting of the CCR so that the entire table is on one page.	Results from the 2002 Navy IR Site 25 Pre-Construction Soil Investigation are no longer included in the EE/CA or Appendix A.	Not applicable
27.	**Figure 12:** Include a legend for this figure.	CCR Figure 12 is not used in the EE/CA or Appendix A.	Not applicable
28.	**Table 9:** Sample PEN-40 and PEN-43 do not appear to be discussed in the text. If these are duplicate samples like PEN-41, clarify which samples were the original samples.	Samples PEN-40 and PEN-43 were collected outside of the AOI 14 boundary and are no longer included in the AOI 14 data set.	Not applicable

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29.	**Section 4.6:** Describe how "native soil" was identified during sampling and how it differs from the fill material.	Attachment A2 includes available boring logs for most AOI 14 Phase II investigation borings. "Native soil" is assumed to be the silty clay layer, typically identified as dark grey, consistent with the surrounding surface soil of the stormwater retention pond. Soil above the clay layer is considered fill. The fill consists of topsoil, sands, and gravels mixed with construction debris, including concrete, rebar, and other miscellaneous piping and metal scraps.	Appendix A, Attachment A2
30.	**Section 4.6.1:** Clarify if the extent of contamination on Plates 1-9 reflects only 2005 and 2006 data, or if all site data is used to present the extent of contamination. Similarly, specify the same information for the cross sections shown on Plates 10-13.	The CCR plates are not used in the EE/CA or Appendix A. Plates in the main body of the EE/CA include the entire AOI 14 data set. Figures presented in Appendix A are reproduced from the individual investigations reports and supplemented as necessary. Appendix A includes figures similar to the CCR Plates 1-9 (detections by depth intervals). The Appendix A figures include the 2005 and 2006 data.	Not applicable
31.	**Section 4.6.1:** Discuss the results for the "native soil" samples. The text in Section 4.6 states that samples of native soil were collected from the boreholes during the 2006 investigation. However, only one result for a native soil sample is shown on the cross sections. It is not clear from the discussion, tables, and plates what the results were for the native soil samples.	During the AOI 14 Phase II investigation (2006 and 2007), subsurface samples were collected at depths considered to be native soil. Comparing the depth of the deepest sample at each boring with the boring log, samples collected in native soil were identified. The table attached to these responses to comments presents the data for samples collected in native soils across AOI 14. Chemicals of concern (COC) were not detected above the Navy IR Site 25 remediation goals in native soil samples.	
32.	**Section 4.6.1.1:** The first sentence of the second to last paragraph appears to be misleading about the location of high PCB levels. Locations PEN-08, PEN-09 and PEN-26 are called out as the location of high levels; however, this statement ignores the high levels on the eastern side and northern tip of the FSFA.	The EE/CA text and Appendix A do not include this sentence. Instead, full analytical data are presented in Appendix A, Attachment A1, and sampling results that exceed human health, ecological, or Navy IR Site 25 criteria are presented in Appendix A, Attachment A5.	Not applicable.

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33.	**Section 4.6.1.2:** The bulleted results in this section should be separated by a comma rather than a dash since they are individual results and not a range of results. Furthermore, there appear to be several errors in these results when compared with the Plates. The 9,900 µg/kg result at PEN-09 and the 450 µg/kg result at PEN-36 are not reported.	The EE/CA text and Appendix A do not present data in this format. Instead, full analytical data are presented in Appendix A, Attachment A1 and sampling results that exceed human health, ecological, or Navy IR Site 25 criteria are presented in Appendix A, Attachment A5.	Not applicable.
34.	**Section 4.6.1.2:** The first sentence of the last paragraph of this section states that only "Several soil samples" contained concentrations of DDT that were not detected above elevated laboratory detection limits. This statement is misleading because elevated detection limits were an issue with a rather significant number (35) of samples for DDT. Rectify this statement.	The EE/CA text and Appendix A do not include this sentence. Appendix A includes a statement in the Summary of Findings section regarding detection limit issues, and the AOI 14 Phase II results table in Appendix A identifies those samples with detection limits greater than the Navy IR Site 25 goal.	Not applicable.
35.	**Section 4.6.1.3:** PEN-26 is noted for having a concentration of lead above the remediation goal at 0.5 - 2 feet; however, the 140,000 µg/kg result is shown in Plate 4 as being associated with PEN-29 at 4 - 6 feet. The result shown in Plate 2 for PEN-26 is 11,000 µg/kg which is below the remediation goal. Rectify these results.	The EE/CA text and Appendix A do not include this sentence, CCR Plate 2, or CCR Plate 4. Appendix A, Attachment A5includes a data table that shows the correct information.	Not applicable.
36.	**Table 10:** A note to the table indicates that there is an arsenic background level of 1 mg/kg for the NAS Moffett Field. Explain why the ESL was selected instead of the background level for comparison of the Phase II results.	The EE/CA text and Appendix A do not include CCR Table 10 and the rationale for not considering background is unknown. The AOI 14 Phase II results table in Appendix A uses 2005 ESLs and Appendix A, Attachment A5 compares arsenic detections to the 2013 ESL and background.	EE/CA Table 7

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37.	**Section 4.6.2.3:** Besides the 280,000 µg/kg result at N217-6, a 14,000 µg/kg lead concentration is noted as the maximum result. This is misleading because it overlooks numerous other lead results including: • 15,000 µg/kg (PEN-09, PEN-24, PEN-36), • 16,000 µg/kg (PEN-13), • 18,000 µg/kg (PEN-03, PEN-07, PEN-08, PEN-29), • 19,000 µg/kg (PEN-16), • 26,000 µg/kg (PEN-150, • 29,000 µg/kg (PEN-02, PEN-25, FSDA-H001), • 36,000 µg/kg (PEN-23), • 79,000 µg/kg (PEN-22). The above results are all from just the 0 - 0.5 ft interval. Review data for all intervals and revise the text to accurately reflect the data.	CCR Section 4.6.2.3 focused on the N217 and N217A fill area data; therefore, the lead results mentioned in the comment are not discussed in Section 4.6.2.3, but would have been presented in CCR Section 4.6.1.3, which focused on the FSFA data (PEN data). The EE/CA and Appendix A do not include this discussion of lead. Instead, full analytical data are presented in Appendix A, Attachment A1, and sampling results that exceed human health, ecological, or Navy IR Site 25 criteria are presented in Appendix A, Attachment A5.	Not applicable.
38.	**Table 11:** Include all relevant notes associated with this table on one page.	The EE/CA text and Appendix A do not include Table 11. The EE/CA and Appendix A will be formatted to make sure page breaks occur appropriately.	Not applicable.
39.	**Figure 14:** Provide a legend for this figure.	The EE/CA text and Appendix A do not include Figure 14. Figures and plates presented in the EE/CA include appropriate legends.	Not applicable.
40.	**Section 4.7:** In the last paragraph state if there were any issues with the detection limits for Ar 1254 and Ar 1260.	EE/CA Appendix A discusses groundwater results and includes a statement indicating that reporting limits were within the guidelines set in the Unified Quality Assurance Project Plan.	EE/CA Appendix A
41.	**Section 4.7:** Provide well screen interval (depth below ground surface) and describe in what lithologic unit (fill or native soil) the well was screened. The text states "soils at AOI 14 are above groundwater…" Therefore, it is implied the well is screened below the fill into native soil; confirm this.	The well installation log for groundwater monitoring well 10A01A is included in Appendix A, Attachment A2. The well log shows the well is screened in native material (organic silty clay and clayey silty sand) from 10 feet bgs to 20 feet bgs.	Appendix A, Attachment A2

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42.	**Section 6:** In the numbered list, the second sentence under number 5 says "See note 4." Clarify what is meant by this reference.	The EE/CA does not include this sentence.	Not applicable.
43.	**Section 6:** In the numbered list under number 6 and in the paragraph that follows, remove text that states "NASA Ames has chosen" and "NASA Ames has concluded." The CCR also mentions an in house evaluation of remedial efforts. While the CCR is not the appropriate document to discuss remedial alternatives, NASA states in the CCR that excavation has been selected when no other remedial alternatives have been evaluated. These statements are premature and do not reflect the process under the RCRA Order for selection of a corrective measure by EPA.	The EE/CA does not include this text.	Not applicable.
44.	**Plates 10-13:** Include a figure (plan view) showing the location of the cross sections.	The EE/CA and Appendix A do not use the CCR plates.	Not applicable.
45.	**Plate 13:** This plate is missing a legend and also appears to be a duplicate of Plate 15.	The EE/CA and Appendix A do not use the CCR plates.	Not applicable.
46.	**Plates 14 and 15:** The order of these two plates should be switched to present the data according to increasing depths.	The EE/CA and Appendix A do not use the CCR plates.	Not applicable.
47.	**Plate 18:** The result for lead at N217-6 is shown in the plate to be 280 µg/kg; however, it is presented in Section 4.6.2.3 as 280,000 µg/kg. This appears to be an error in the units of the result. Review all results in the CCR to ensure they are accurately presented.	The EE/CA and Appendix A do not use the CCR plates.	Not applicable.
Minor Comments			
1.	**Section 3.2.2 and Figure 4:** Revise the text or the figure to consistently state the date of the aerial photograph as either 1970 or 1971.	The EE/CA text and figure caption have been corrected to indicate 1970.	EE/CA Section 2.1.2; Figure 6

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2.	**Section 3.2.3:** Add "and" in the second sentence before "eight to sixteen feet."	The EE/CA text was revised as follows: The FSFA is approximately 8 acres, and the surface elevation above the surrounding stormwater retention pond bottom varies from 2 to 4 feet at the southern end of the peninsula and from 8 to 16 feet at the northern end.	EE/CA Section 2.1.2
3.	**Sections 4.1, 4.1.2 and 4.4:** The words "Listing" and "Site" in the first sentence of Sections 4.1 and 4.12 are transposed. If the phrase is intended as "Listing Site Inspection" then the title of Section 4.1 should be changed. The same error occurs in the third sentence of Section 4.4.	The EE/CA and Appendix A consistently reference the 1992 investigation as the Listing Site Inspection.	Entire EE/CA and appendices
4.	**Section 4.1:** The acronyms "VOC" and "SVOC" should include an "s" at the end since these refer to groups of compounds. Revise these abbreviations throughout.	The EE/CA acronyms are defined in the singular and then used in the plural, as appropriate.	Entire EE/CA and appendices
5.	**Section 4.6.1.1:** Add "at PEN-26" at the very end of the second to last paragraph of the section.	The EE/CA does not include this text.	Not applicable.

ATTACHMENT A4: NATIVE SOIL SAMPLING RESULTS

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Sample Location	Sample ID	Sample Date	Sample Depth (feet)	TOTAL PCBS (mg/kg)	TOTAL DDT (mg/kg)	LEAD (mg/kg)	ZINC (mg/kg)
FSDA-H001	FSDA-H001-12'	6/20/2006	12	<0.02	<0.075	2.8	31
N217-06E	N217 - 06E - 12'	11/20/2007	12	<0.02		3.3	30
N217-06S	N217 - 06S - 12'	11/20/2007	12	<0.02		<2.5	26
N217-06W	N217 - 06W - 12'	11/20/2007	12	<0.02		8.9	22
N217-1	N217-1-4'	6/22/2006	4	<0.02		<7.5	37
N217-2	N217-2-4'	6/22/2006	4	<0.02		<7.5	42
N217-3	N217-3-10'	6/23/2006	10	<0.02		<7.5	40
N217-4	N217-4-10'	6/23/2006	10	<0.02		<7.5	40
N217-5	N217-5-12'	6/23/2006	12	<0.02		<7.5	35
N217-6	N217-6-12'	6/22/2006	12	<0.02		<7.5	38
N217-7	N217-7-12'	6/22/2006	12	<0.02		9.3	68
PEN-05	PEN-5-6'	6/20/2006	6	<0.02	<0.075	7.1	70
PEN-06	PEN-6-6'	6/20/2006	6	<0.02	<0.075	4.1	49
PEN-07	PEN-7-8'	6/20/2006	8	0.19	<0.075	4.9	44
PEN-08	PEN-8-12'	6/20/2006	12	<0.02	<0.075	3.8	59
PEN-09	PEN-9-14'	6/21/2006	14	<0.2	<0.075	2.7	22
PEN-09	PEN-9-16'	6/21/2006	16	<0.02	<0.075	5	42
PEN-15	PEN-15-12'	6/20/2006	12	<0.02	<0.075	3.4	46
PEN-19	PEN-19-14'	6/21/2006	14	<0.2	<0.075	<12	61
PEN-23	PEN-23-12'	6/22/2006	12	<0.02	<0.075	3.9	35

Note

DDT	Dichlorodiphenyltrichloroethane
mg/kg	Milligrams per kilogram
PCB	Polychlorinated biphenyl

ATTACHMENT A5
CHEMICALS AT AOI 14 EXCEEDING SCREENING CRITERIA AND NAVY IR SITE 25 REMEDIATION GOALS

Attachment A5. Exceedances of Screening Criteria and Navy IR Site 25 Remediation Goals at AOI 14

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Location ID	Sample ID	Date	Top Depth (feet bgs)	Bottom Depth (feet bgs)	Chemical	Concentration (mg/kg)	Industrial Screening Level (mg/kg)	Residential Screening Level (mg/kg)	Environmental Screening Level (mg/kg)	Navy IR Site 25 Remediation Goal (mg/kg)
FSDA-H001	FSDA-H001-0.5	4/7/92	0	0.5	AROCLOR-1254	0.71	1	0.24	NA	NA
FSDA-H001	FSDA-H001-0.5	4/7/92	0	0.5	TOTAL PCBS	0.71	NA	NA	0.22	0.21
FSDA-H001	FSDA-H001-4'	6/20/06	4	4	AROCLOR-1260	0.28	1	0.24	NA	NA
FSDA-H001	FSDA-H001-4'	6/20/06	4	4	TOTAL PCBS	0.28	NA	NA	0.22	0.21
FSDA-H001	FSDA-H001-8'	6/20/06	8	8	AROCLOR-1260	0.48	1	0.24	NA	NA
FSDA-H001	FSDA-H001-8'	6/20/06	8	8	TOTAL PCBS	0.48	NA	NA	0.22	0.21
FSDA-H002	FSDA-H002-0.5	4/7/92	0	0.5	TOTAL PCBS	0.22	NA	NA	0.22	0.21
FSDA-H003	FSDA-H003-2.0	4/7/92	1.5	2	AROCLOR-1254	0.31	1	0.24	NA	NA
FSDA-H003	FSDA-H003-2.0	4/7/92	1.5	2	TOTAL PCBS	0.31	NA	NA	0.22	0.21
FSFA-SDS08	FSFA-SDS08	10/16/14	0	0.5	AROCLOR-1260	0.61	1	0.24	NA	NA
FSFA-SDS08	FSFA-SDS08	10/16/14	0	0.5	TOTAL PCBS	0.61	NA	NA	0.22	0.21
FSFA-SDS08	FSFA-SDS08-201409	9/17/14	0	0.5	AROCLOR-1260	1.2	1	0.24	NA	NA
FSFA-SDS08	FSFA-SDS08-201409	9/17/14	0	0.5	TOTAL PCBS	1.2	NA	NA	0.22	0.21
FSFA-SDS08	FSFA-SDS08K-201409	9/17/14	0	0.5	AROCLOR-1260	0.61	1	0.24	NA	NA
FSFA-SDS08	FSFA-SDS08K-201409	9/17/14	0	0.5	TOTAL PCBS	0.61	NA	NA	0.22	0.21
FSFA-SDS08	FSFA-SDS08-N	10/16/14	0	0.5	AROCLOR-1260	0.49	1	0.24	NA	NA
FSFA-SDS08	FSFA-SDS08-N	10/16/14	0	0.5	TOTAL PCBS	0.49	NA	NA	0.22	0.21
FSFA-SDS08	FSFA-SDS08-S	10/16/14	0	0.5	AROCLOR-1260	0.55	1	0.24	NA	NA
FSFA-SDS08	FSFA-SDS08-S	10/16/14	0	0.5	TOTAL PCBS	0.55	NA	NA	0.22	0.21
H0001-E1	H0001-E1-0.5	9/22/04	0.5	0.5	AROCLOR-1260	0.55	1	0.24	NA	NA
H0001-E1	H0001-E1-0.5	9/22/04	0.5	0.5	TOTAL PCBS	0.55	NA	NA	0.22	0.21
H0001-E2	H0001-E2-0.5	9/22/04	0.5	0.5	AROCLOR-1260	0.7	1	0.24	NA	NA
H0001-E2	H0001-E2-0.5	9/22/04	0.5	0.5	TOTAL PCBS	0.7	NA	NA	0.22	0.21
H0001-N1	H0001-N-0.5'	5/27/05	0.5	0.5	AROCLOR-1260	1.6	1	0.24	NA	NA
H0001-N1	H0001-N-0.5'	5/27/05	0.5	0.5	TOTAL PCBS	1.6	NA	NA	0.22	0.21
H0001-N1	H0001-N1-0.5	9/22/04	0.5	0.5	AROCLOR-1260	3.9	1	0.24	NA	NA
H0001-N1	H0001-N1-0.5	9/22/04	0.5	0.5	TOTAL PCBS	3.9	NA	NA	0.22	0.21
H0001-N2	H0001-N2-0.5	9/22/04	0.5	0.5	AROCLOR-1260	5	1	0.24	NA	NA
H0001-N2	H0001-N2-0.5	9/22/04	0.5	0.5	TOTAL PCBS	5	NA	NA	0.22	0.21

Attachment A5. Exceedances of Screening Criteria and Navy IR Site 25 Remediation Goals at AOI 14

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Location ID	Sample ID	Date	Top Depth (feet bgs)	Bottom Depth (feet bgs)	Chemical	Concentration (mg/kg)	Industrial Screening Level (mg/kg)	Residential Screening Level (mg/kg)	Environmental Screening Level (mg/kg)	Navy IR Site 25 Remediation Goal (mg/kg)
H0001-N2	H0001-N2-R1-2'	5/27/05	2	2	AROCLOR-1260	8.4	1	0.24	NA	NA
H0001-N2	H0001-N2-R1-2'	5/27/05	2	2	TOTAL PCBS	8.4	NA	NA	0.22	0.21
H0001-NE	H0001-NE-0.5'	5/27/05	0.5	0.5	AROCLOR-1260	1.1	1	0.24	NA	NA
H0001-NE	H0001-NE-0.5'	5/27/05	0.5	0.5	TOTAL PCBS	1.1	NA	NA	0.22	0.21
H0001-NW	H0001-NW-0.5'	5/27/05	0.5	0.5	AROCLOR-1260	2.3	1	0.24	NA	NA
H0001-NW	H0001-NW-0.5'	5/27/05	0.5	0.5	TOTAL PCBS	2.3	NA	NA	0.22	0.21
H0001-S1	H0001-S1-0.5	9/22/04	0.5	0.5	AROCLOR-1260	4.8	1	0.24	NA	NA
H0001-S1	H0001-S1-0.5	9/22/04	0.5	0.5	TOTAL PCBS	4.8	NA	NA	0.22	0.21
H0001-S2	H0001-S2-0.5	9/22/04	0.5	0.5	AROCLOR-1260	3.9	1	0.24	NA	NA
H0001-S2	H0001-S2-0.5	9/22/04	0.5	0.5	TOTAL PCBS	3.9	NA	NA	0.22	0.21
H0001-S2	H0001-S2-R1-2'	5/27/05	2	2	AROCLOR-1260	0.27	1	0.24	NA	NA
H0001-S2	H0001-S2-R1-2'	5/27/05	2	2	TOTAL PCBS	0.27	NA	NA	0.22	0.21
H0001-SE	H0001-SE-0.5'	5/27/05	0.5	0.5	AROCLOR-1260	0.39	1	0.24	NA	NA
H0001-SE	H0001-SE-0.5'	5/27/05	0.5	0.5	TOTAL PCBS	0.39	NA	NA	0.22	0.21
H0001-W1	H0001-W-0.5'	5/27/05	0.5	0.5	AROCLOR-1260	1.2	1	0.24	NA	NA
H0001-W1	H0001-W-0.5'	5/27/05	0.5	0.5	TOTAL PCBS	1.2	NA	NA	0.22	0.21
H0001-W1	H0001-W1-0.5	9/22/04	0.5	0.5	AROCLOR-1260	2.3	1	0.24	NA	NA
H0001-W1	H0001-W1-0.5	9/22/04	0.5	0.5	TOTAL PCBS	2.3	NA	NA	0.22	0.21
H0001-W2	H0001-W2-0.5	9/22/04	0.5	0.5	AROCLOR-1260	2.6	1	0.24	NA	NA
H0001-W2	H0001-W2-0.5	9/22/04	0.5	0.5	TOTAL PCBS	2.6	NA	NA	0.22	0.21
N217-06S	N217 - 06S - 10'	11/20/07	10	10	LEAD	96	320	80	80	93.8
N217-6	N217-6-8'	6/22/06	8	8	AROCLOR-1260	0.45	1	0.24	NA	NA
N217-6	N217-6-8'	6/22/06	8	8	LEAD	280	320	80	80	93.8
N217-6	N217-6-8'	6/22/06	8	8	TOTAL PCBS	0.45	NA	NA	0.22	0.21
PEN-07	PEN-7-24"	8/29/05	2	2	AROCLOR-1260	1.7	1	0.24	NA	NA
PEN-07	PEN-7-24"	8/29/05	2	2	TOTAL PCBS	1.7	NA	NA	0.22	0.21
PEN-07	PEN-7-6"	8/29/05	0.5	0.5	AROCLOR-1260	0.37	1	0.24	NA	NA
PEN-07	PEN-7-6"	8/29/05	0.5	0.5	TOTAL PCBS	0.37	NA	NA	0.22	0.21

Attachment A5. Exceedances of Screening Criteria and Navy IR Site 25 Remediation Goals at AOI 14

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Location ID	Sample ID	Date	Top Depth (feet bgs)	Bottom Depth (feet bgs)	Chemical	Concentration (mg/kg)	Industrial Screening Level (mg/kg)	Residential Screening Level (mg/kg)	Environmental Screening Level (mg/kg)	Navy IR Site 25 Remediation Goal (mg/kg)
PEN-08	PEN-8-24"	8/29/05	2	2	AROCLOR-1260	88	1	0.24	NA	NA
PEN-08	PEN-8-24"	8/29/05	2	2	TOTAL PCBS	88	NA	NA	0.22	0.21
PEN-08	PEN-8-6"	8/29/05	0.5	0.5	AROCLOR-1260	1.8	1	0.24	NA	NA
PEN-08	PEN-8-6"	8/29/05	0.5	0.5	TOTAL PCBS	1.8	NA	NA	0.22	0.21
PEN-09	PEN-9-10'	6/21/06	10	10	CADMIUM	15	6.37	4.58	12	NA
PEN-09	PEN-9-4'	6/21/06	4	4	4,4'-DDT	1.9	8.6	1.9	1.7	NA
PEN-09	PEN-9-4'	6/21/06	4	4	AROCLOR-1260	9.6	1	0.24	NA	NA
PEN-09	PEN-9-4'	6/21/06	4	4	TOTAL DDT	1.9	NA	NA	1.7	0.109
PEN-09	PEN-9-4'	6/21/06	4	4	TOTAL PCBS	9.6	NA	NA	0.22	0.21
PEN-13	PEN-13-24"	9/12/05	2	2	AROCLOR-1260	0.45	1	0.24	NA	NA
PEN-13	PEN-13-24"	9/12/05	2	2	TOTAL PCBS	0.45	NA	NA	0.22	0.21
PEN-13	PEN-13-6"	9/12/05	0.5	0.5	AROCLOR-1260	0.82	1	0.24	NA	NA
PEN-13	PEN-13-6"	9/12/05	0.5	0.5	TOTAL PCBS	0.82	NA	NA	0.22	0.21
PEN-15	PEN-15-24"	9/12/05	2	2	AROCLOR-1260	0.93	1	0.24	NA	NA
PEN-15	PEN-15-24"	9/12/05	2	2	TOTAL PCBS	0.93	NA	NA	0.22	0.21
PEN-15	PEN-15-6"	9/12/05	0.5	0.5	AROCLOR-1260	0.31	1	0.24	NA	NA
PEN-15	PEN-15-6"	9/12/05	0.5	0.5	TOTAL PCBS	0.31	NA	NA	0.22	0.21
PEN-16	PEN-16-24"	8/29/05	2	2	AROCLOR-1260	0.83	1	0.24	NA	NA
PEN-16	PEN-16-24"	8/29/05	2	2	TOTAL PCBS	0.83	NA	NA	0.22	0.21
PEN-16	PEN-16-6"	8/29/05	0.5	0.5	AROCLOR-1260	0.57	1	0.24	NA	NA
PEN-16	PEN-16-6"	8/29/05	0.5	0.5	TOTAL PCBS	0.57	NA	NA	0.22	0.21
PEN-19	PEN-19-24"	8/29/05	2	2	AROCLOR-1260	0.56	1	0.24	NA	NA
PEN-19	PEN-19-24"	8/29/05	2	2	TOTAL PCBS	0.56	NA	NA	0.22	0.21
PEN-22	PEN-22-2'	6/20/06	2	2	AROCLOR-1260	0.47	1	0.24	NA	NA
PEN-22	PEN-22-2'	6/20/06	2	2	TOTAL DDT	0.13	NA	NA	1.7	0.109
PEN-22	PEN-22-2'	6/20/06	2	2	TOTAL PCBS	0.67	NA	NA	0.22	0.21
PEN-22	PEN-22-6"	6/20/06	0.5	0.5	AROCLOR-1260	0.6	1	0.24	NA	NA
PEN-22	PEN-22-6"	6/20/06	0.5	0.5	AROCLOR-1268	0.26	1	0.24	NA	NA
PEN-22	PEN-22-6"	6/20/06	0.5	0.5	TOTAL DDT	0.3	NA	NA	1.7	0.109
PEN-22	PEN-22-6"	6/20/06	0.5	0.5	TOTAL PCBS	0.86	NA	NA	0.22	0.21

Attachment A5. Exceedances of Screening Criteria and Navy IR Site 25 Remediation Goals at AOI 14

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Location ID	Sample ID	Date	Top Depth (feet bgs)	Bottom Depth (feet bgs)	Chemical	Concentration (mg/kg)	Industrial Screening Level (mg/kg)	Residential Screening Level (mg/kg)	Environmental Screening Level (mg/kg)	Navy IR Site 25 Remediation Goal (mg/kg)
PEN-23	PEN-23-2'	6/22/06	2	2	TOTAL PCBS	0.222	NA	NA	0.22	0.21
PEN-23	PEN-23-4'	6/22/06	4	4	TOTAL PCBS	0.213	NA	NA	0.22	0.21
PEN-23	PEN-23R-6"	11/7/07	0.5	0.5	AROCLOR-1260	0.5	1	0.24	NA	NA
PEN-23	PEN-23R-6"	11/7/07	0.5	0.5	TOTAL PCBS	0.72	NA	NA	0.22	0.21
PEN-24	PEN - 24R - 10'	11/20/07	10	10	AROCLOR-1260	0.36	1	0.24	NA	NA
PEN-24	PEN - 24R - 10'	11/20/07	10	10	TOTAL PCBS	0.419	NA	NA	0.22	0.21
PEN-24	PEN-24-2'	6/20/06	2	2	AROCLOR-1260	1.1	1	0.24	NA	NA
PEN-24	PEN-24-2'	6/20/06	2	2	TOTAL DDT	0.48	NA	NA	1.7	0.109
PEN-24	PEN-24-2'	6/20/06	2	2	TOTAL PCBS	1.1	NA	NA	0.22	0.21
PEN-24	PEN-24-6"	6/20/06	0.5	0.5	AROCLOR-1260	0.31	1	0.24	NA	NA
PEN-24	PEN-24-6"	6/20/06	0.5	0.5	TOTAL PCBS	0.31	NA	NA	0.22	0.21
PEN-26	PEN-26-10'	6/21/06	10	10	AROCLOR-1260	0.63	1	0.24	NA	NA
PEN-26	PEN-26-10'	6/21/06	10	10	TOTAL PCBS	0.63	NA	NA	0.22	0.21
PEN-26	PEN-26-4'	6/21/06	4	4	4,4'-DDT	35	8.6	1.9	1.7	NA
PEN-26	PEN-26-4'	6/21/06	4	4	AROCLOR-1260	180	1	0.24	NA	NA
PEN-26	PEN-26-4'	6/21/06	4	4	TOTAL DDT	35	NA	NA	1.7	0.109
PEN-26	PEN-26-4'	6/21/06	4	4	TOTAL PCBS	180	NA	NA	0.22	0.21
PEN-26	PEN-26-8'	6/21/06	8	8	AROCLOR-1260	0.67	1	0.24	NA	NA
PEN-26	PEN-26-8'	6/21/06	8	8	TOTAL DDT	0.14	NA	NA	1.7	0.109
PEN-26	PEN-26-8'	6/21/06	8	8	TOTAL PCBS	0.67	NA	NA	0.22	0.21
PEN-27	PEN-27-4'	6/21/06	4	4	4,4'-DDT	16	8.6	1.9	1.7	NA
PEN-27	PEN-27-4'	6/21/06	4	4	AROCLOR-1260	52	1	0.24	NA	NA
PEN-27	PEN-27-4'	6/21/06	4	4	TOTAL DDT	16	NA	NA	1.7	0.109
PEN-27	PEN-27-4'	6/21/06	4	4	TOTAL PCBS	52	NA	NA	0.22	0.21
PEN-29	PEN-29-6'	6/21/06	6	6	LEAD	140	320	80	80	93.8
PEN-30	PEN-30-10'	6/21/06	10	10	MOTOR OIL RANGE ORG	400	3500000	230000	100	NA
PEN-30	PEN-30-2'	6/21/06	2	2	AROCLOR-1260	2	1	0.24	NA	NA
PEN-30	PEN-30-2'	6/21/06	2	2	TOTAL DDT	0.46	NA	NA	1.7	0.109
PEN-30	PEN-30-2'	6/21/06	2	2	TOTAL PCBS	2	NA	NA	0.22	0.21
PEN-30	PEN-30-4'	6/21/06	4	4	AROCLOR-1260	0.38	1	0.24	NA	NA

Attachment A5. Exceedances of Screening Criteria and Navy IR Site 25 Remediation Goals at AOI 14

Engineering Evaluation/Cost Analysis for AOI 14

NASA Ames Research Center, Moffett Field, California

Location ID	Sample ID	Date	Top Depth (feet bgs)	Bottom Depth (feet bgs)	Chemical	Concentration (mg/kg)	Industrial Screening Level (mg/kg)	Residential Screening Level (mg/kg)	Environmental Screening Level (mg/kg)	Navy IR Site 25 Remediation Goal (mg/kg)
PEN-30	PEN-30-4'	6/21/06	4	4	TOTAL PCBS	0.38	NA	NA	0.22	0.21
PEN-30	PEN-30-6"	6/21/06	0.5	0.5	AROCLOR-1260	0.36	1	0.24	NA	NA
PEN-30	PEN-30-6"	6/21/06	0.5	0.5	TOTAL PCBS	0.36	NA	NA	0.22	0.21
PEN-33	PEN-33-10'	6/21/06	10	10	TOTAL DDT	0.18	NA	NA	1.7	0.109
PEN-33	PEN-33-6'	6/21/06	6	6	AROCLOR-1260	0.55	1	0.24	NA	NA
PEN-33	PEN-33-6'	6/21/06	6	6	TOTAL DDT	0.19	NA	NA	1.7	0.109
PEN-33	PEN-33-6'	6/21/06	6	6	TOTAL PCBS	0.55	NA	NA	0.22	0.21
PEN-35	PEN - 35R - 14'	11/19/07	14	14	AROCLOR-1260	0.65	1	0.24	NA	NA
PEN-35	PEN - 35R - 14'	11/19/07	14	14	TOTAL PCBS	0.76	NA	NA	0.22	0.21
PEN-35	PEN-35-4'	6/22/06	4	4	AROCLOR-1260	0.97	1	0.24	NA	NA
PEN-35	PEN-35-4'	6/22/06	4	4	TOTAL DDT	0.2	NA	NA	1.7	0.109
PEN-35	PEN-35-4'	6/22/06	4	4	TOTAL PCBS	0.97	NA	NA	0.22	0.21
PEN-35	PEN-35-6'	6/22/06	6	6	LEAD	210	320	80	80	93.8
PEN-36	PEN - 36R - 12'	11/19/07	12	12	AROCLOR-1260	0.25	1	0.24	NA	NA
PEN-36	PEN - 36R - 12'	11/19/07	12	12	TOTAL PCBS	0.296	NA	NA	0.22	0.21
PEN-36	PEN-36-2'	6/22/06	2	2	AROCLOR-1260	1.5	1	0.24	NA	NA
PEN-36	PEN-36-2'	6/22/06	2	2	TOTAL DDT	0.45	NA	NA	1.7	0.109
PEN-36	PEN-36-2'	6/22/06	2	2	TOTAL PCBS	1.5	NA	NA	0.22	0.21

Notes: Bold and shaded cells indicate that the sample result exceeded the criterion.

bgs below ground surface
DDT Dichlorodiphenyltrichloroethane
ID Identification
IR Installation restoration
mg/kg Milligram per kilogram
NA Not applicable
PCB Polychlorinated biphenyl

APPENDIX B
POTENTIAL ARARs SUMMARY TABLES

TABLE B-1: POTENTIAL FEDERAL CHEMICAL-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			FILL	
Resource Conservation and Recovery Act				
Defines RCRA hazardous waste. A solid waste is characterized as toxic, based on the TCLP, if the concentration exceeds the TCLP maximum concentrations.	Waste	22 CCR § 66261.21, 66261.22(a)(1), 66261.23, 66261.24(a)(1), and 66261.100	Applicable	The substantive provisions of these requirements are potentially applicable to activities that generate waste. NASA would generate waste from the excavation and off-site disposal evaluated in Alternative 3. NASA would characterize the waste at the time it is generated for appropriate off-site disposal.
Toxic Substances Control Act				
Regulates storage and disposal of PCB remediation waste. There are three options: (a) self-implementing on-site cleanup and disposal; (b) performance-based disposal using existing approved disposal technologies; and (c) risk-based disposal.	Soils, debris, sludge, or dredged materials contaminated with PCBs at concentrations greater than 50 m/kg	40 CFR § 761.61(a)(4)(i)	Not an ARAR	TSCA regulates PCB remediation waste when concentrations are 50 mg/kg or greater. TSCA is a potential ARAR at a CERCLA site contaminated with PCBs, and the self-implementing cleanup option under 40 CFR § 761.61(a)(4)(i) contains cleanup goals that can be used as cleanup goals for the CERCLA site when the basis for action is the protection of human health. The maximum concentration of PCBs at AOI 14 (Aroclor-1260 at 180 mg/kg) exceeds 50 mg/kg; however, the primary objective of the removal action is to protect ecological receptors at AOI 14 and neighboring Navy IR Site 25. The cleanup goal developed to achieve this objective (0.21 mg/kg) is lower than the self-implementing cleanup goals under TSCA (for example, the cleanup goal of 1 mg/kg for high occupancy use). Achieving the TSCA cleanup goals would not achieve the objective of the removal action. Achieving the PCB cleanup goal for AOI 14 will result in protection of potential human receptors because 0.21 mg/kg is a lower concentration than the TSCA cleanup goals and all PCB concentrations above 0.21 mg/kg in the contaminated fill will either be placed under a cover, required to be maintained, and restricted from residential use (Alternative 2) or excavated and removed from the site (Alternative 3). NASA has identified TSCA 40 §

TABLE B-1: POTENTIAL FEDERAL CHEMICAL-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
				761.61(c) as a potential action-specific ARAR for Alternatives 2 and 3. EPA would consider this provision to be an ARAR; however, because the ecological risk-based cleanup levels selected for the action meet the provision's requirements, EPA can concur with NASA's determination that it is not an ARAR for this action.

Notes:

§	Section
ARAR	Applicable or relevant and appropriate requirement
CCR	California Code of Regulations
CFR	Code of Federal Regulations
mg/kg	Milligrams per kilogram
NASA	National Aeronautics and Space Administration
PCB	Polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
TCLP	Toxicity characteristic leaching procedure
TSCA	Toxic Substances Control Act

TABLE B-2: POTENTIAL STATE CHEMICAL-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
		FILL		
State and Regional Water Quality Control Boards				
Waste classification definitions of designated waste, nonhazardous solid waste, and inert waste	Waste	27 CCR §§ 20210, 20220, and 20230	Applicable	These requirements are potentially applicable for activities that discharge classified waste to land. NASA would generate waste from the excavation and off-site disposal evaluated in Alternative 3. The excavated fill would be characterized for appropriate off-site disposal.
Department of Toxic Substances Control				
Definition of California hazardous waste	Waste	22 CCR §§ 66261.3, 66261.22(a)(3) and (4), 66261.24(a)(2)-(a)(8) and 66261.101	Applicable	These regulations define non-RCRA, state regulated hazardous waste. NASA would generate waste from the excavation and off-site disposal evaluated in Alternative 3. The excavated fill would be characterized for appropriate off-site disposal.

Notes:

§	Section
AOI	Area of Interest
ARAR	Applicable or relevant and appropriate requirement
CCR	California Code of Regulations
NASA	National Aeronautics and Space Administration
RCRA	Resource Conservation and Recovery Act

TABLE B-3: POTENTIAL FEDERAL LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Location	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
		BIOLOGICAL RESOURCES			
Endangered Species Act of 1973					
Presence of federal threatened or endangered species	Federal agencies may not jeopardize the continued existence of any listed species or cause the destruction or adverse modification of critical habitat.	Presence or potential presence of federal listed species or designation of critical habitat	16 U.S.C. § 1536(a), (h)(1)(B)	Applicable	The substantive requirements of these sections are potentially applicable because the salt marsh harvest mouse, Ridgeway's rail (formerly known as the California clapper rail), the California least tern, and others, all federal endangered species are present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect ecological receptors from exposure to contamination at AOI 14 and neighboring Navy IR Site 25. NASA is already working with the U.S. Fish and Wildlife Service to mitigate the effects of its actions on the pickleweed habitat around the site and will continue to work with the U.S. Fish and Wildlife Service to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are components of all alternatives evaluated, except the no action alternative.
Migratory Bird Treaty Act					
Presence of listed migratory birds	Protects migratory birds listed at 50 CFR § 10.13 from a taking.	Presence of migratory birds.	16 U.S.C. § 703	Applicable	The substantive provisions of this section are potentially applicable because federal endangered birds, such as the Ridgeway's rail and the California least tern, and migratory birds are present or potentially present at AOI 14. NASA will work with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act ARAR to develop appropriate avoidance actions for these migratory birds in the removal action design. These actions will result in compliance with the Migratory Bird Treaty Act. In addition, ecological restoration and monitoring are components of all alternatives evaluated, except the no action alternative

TABLE B-3: POTENTIAL FEDERAL LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Location	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			WETLANDS		
Executive Order No. 11990, Protection of Wetlands					
Wetland	Federal agencies must avoid undertaking new construction in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to such construction; and (2) that the proposed action includes all practicable measures to minimize harm to wetlands	A wetland area inundated by surface or groundwater with a frequency sufficient to support and under normal circumstances does support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions.	Executive Order 11990	To Be Considered criteria	Executive orders are not legally enforceable, and therefore are not identified as potential ARARs. As a result, this Executive Order was evaluated as to be considered criteria. AOI 14 is surrounded by jurisdictional wetlands and Alternatives 2 and 3 would include activities within the jurisdictional wetland. NASA has identified CWA § 404 as a potential location-specific ARAR for Alternatives 2 and 3 and has identified the substantive provisions of Nationwide Permit 38, promulgated under CWA authority, as a means of complying with CWA § 404. Complying with Nationwide Permit 38 and CWA § 404 will result in compliance with Executive Order 11990.
Clean Water Act					
Waters of the U.S., including adjacent wetlands	The discharge of dredge and fill material into waters of the U.S., including adjacent wetlands, is prohibited unless authorized by permit.	Discharge of dredge and fill material into waters of the U.S.	CWA § 404 (33 U.S.C. § 1344)	Applicable	AOI 14 is surrounded by jurisdictional wetlands and Alternatives 2 and 3 would include activities within the jurisdictional wetland. CWA § 404 prohibits the discharge of dredge and fill material without a permit. The discharge of dredge and fill material does not include incidental fallback of material pursuant to 33 CFR § 323.2(d)(2)(iii). Therefore, if, during removal action design, NASA, in cooperation with the Army Corps of Engineers, concludes that its activities would result in incidental fallback, then CWA § 404 would not be an ARAR. NASA is not required to obtain a permit pursuant to CERCLA § 121(e)(1). However, NASA will comply with the substantive provisions of Nationwide Permit 38 as a means of complying with this potential ARAR. Pursuant to Nationwide Permit 38, compensatory mitigation is not required for wetland losses that are 1/10 of an acre or less. NASA does not anticipate any wetland losses caused by Alternatives 2 or 3; however, the removal activities planned as part of Alternatives 2 or 3 would affect less than 1/10 of an acre of the wetland.

TABLE B-3: POTENTIAL FEDERAL LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Notes:

§	Section
AOI	Area of Interest
ARAR	Applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
ESA	Endangered Species Act
NASA	National Aeronautics and Space Administration
U.S.C	United States Code

TABLE B-4: POTENTIAL STATE LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Location	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
BIOLOGICAL RESOURCES					
California Fish and Game Code					
Presence of an endangered native or a rare native plant	No person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or rare native plant.	Presence of endangered or rare native plant	California Fish and Game Code § 1908	Applicable	The substantive requirements of this statutory provisions are potentially applicable to removal activities that will affect endangered or rare native plants that occur on AOI 14. NASA will complete plant surveys prior to implementing the removal to determine if endangered or rare native plants occur on the site. If endangered or rare native plants are found on the site, NASA will work with CDFW to determine appropriate protective measures. In addition, NASA is evaluating the eradication of up to 40 acres of pepperweed as part of its restoration activities. If the eradication occurs on the site, California Fish and Game Code § 1908 would be a potential ARAR. However, if the eradication occurs off-site, California Fish and Game Code § 1908 would not be a potential ARAR. ARARs apply to CERCLA response actions that occur on site; ARARs do not apply to the portion of the response action that occurs off site. NASA would comply with all applicable requirements, including applicable procedural requirements, for removal activities that occur off site.
Presence of state threatened or endangered species	No person shall take a state threatened or endangered species	Presence or potential presence of state listed species or designation of critical habitat	California Fish and Game Code § 2080	Applicable	The substantive requirements of this statutory provision are potentially applicable because the salt marsh harvest mouse, Ridgeway's rail (formerly known as the California clapper rail), California least tern, California black rail, and Swainson's hawk all state endangered species are present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14 and neighboring Navy IR Site 25. NASA will work with CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are components of all alternatives evaluated, except the no action alternative.
Presence of fully protected birds	Fully protected birds or parts thereof may not be taken or possessed at any	Presence of fully protected birds	California Fish and Game	Applicable	The substantive requirements of this statutory provision are potentially applicable because the Ridgeway's rail, California black rail, and the California least tern are

TABLE B-4: POTENTIAL STATE LOCATION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Location	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
	time		Code § 3511		state fully protected birds that are present or potentially present at AOI 14 and neighboring Navy IR Site 25. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14. NASA will work with CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are components of all alternatives evaluated, except the no action alternative
Presence of fully protected mammals	Fully protected mammals or parts thereof may not be taken or possessed at any time	Presence of fully protected mammals	California Fish and Game Code § 4700	Applicable	The substantive requirements of this statutory provision are potentially applicable because the Salt marsh harvest mouse is a state fully protected mammal that is present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14 and neighboring Navy IR Site 25. NASA will work with CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are components of all alternatives evaluated, except the no action alternative.
Waters of the State	Prohibits the deposition or placement of listed materials that are deleterious to fish, plant life, or bird life where they can pass into waters of the state	Unauthorized discharge	California Fish and Game Code § 5650	Applicable	The substantive requirements of this statutory provision are potentially applicable. NASA would develop appropriate controls in the removal action design to prevent a discharge deleterious to fish, plant, or bird life to waters of the state.

Notes:

§	Section
AOI	Area of Interest
ARAR	Applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CDFW	California Division of Fish and Wildlife
IR	Installation Restoration
NASA	National Aeronautics and Space Administration

TABLE B-5: POTENTIAL FEDERAL ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
ALTERNATIVES					
Soil Cover (Alternative 2)					
Clean Water Act					
Construct soil cover	Construction that disturbs at least 1 acre must use best management practices to control storm water discharges	Construction activities at least 1 acre in size.	Clean Water Act § 402 40 CFR §122.44(k)(2) and (4)	Applicable	The Phase II stormwater requirements are applicable to small construction activity, as defined in 40 CFR § 122.26(b)(15), that affects at least 1 acre. The construction of the cover would disturb at least 1 acre. NASA would use best management practices to comply with the stormwater discharge requirements under the CWA.
Clean Air Act					
Construct soil cover	A person shall not emit particles from any operation in sufficient number to cause annoyance to any other person, large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles	Emission of visible particles that could fall on real property other than the person responsible for the emission.	BAAQMD Rule 6-1-305	Applicable	Construction of the soil cover would emit dust that could fall on the property of another. As a result, NASA would use dust suppression techniques to control emissions.
Toxic Substances Control Act					
Cover fill contaminated with PCBs	Any person wishing to sample, clean up, or dispose of PCB remediation waste in a manner other than prescribed in § 761.61(a) or (b) may apply to the Regional administrator in the Region where the sampling, cleanup, disposal, or storage site is located.	PCB remediation waste at concentrations equal or greater than 50 mg/kg.	40 CFR § 761.61(c)	Relevant and appropriate	TSCA regulates PCB remediation waste at concentrations of 50 mg/kg or greater and is a potential ARAR at CERCLA sites contaminated with PCBs. The fill material deposited by NASA contains concentrations of PCBs. The maximum detected concentration at AOI 14 was a detection of Aroclor-1260 at a concentration of 180 mg/kg. NASA has not identified the self-implementing cleanup option under 40 CFR § 761.61(a)(4)(i) as a potential ARAR and cleanup goal. The primary objective of the removal action is to protect ecological receptors at AOI 14 and neighboring Navy IR Site 25 and the TSCA self-implementing cleanup goal would not achieve that objective. To accomplish the objective, the cleanup goal for PCBs was set at 0.21 mg/kg, a lower concentration than the TSCA self-implementing cleanup goals. NASA has identified

TABLE B-5: POTENTIAL FEDERAL ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			ALTERNATIVES		
					the risk based disposal provision of TSCA as a potential ARAR for Alternative 2 because concentrations of PCBs in the fill material above 0.21 mg/kg would remain on the site and be placed under a 2-foot cover overlying a biotic barrier. This cover will be protective of human health and the environment because human and ecological exposure would be prevented and ICs restricting the future use of the site and requiring maintenance of the cover and perimeter fence to prevent exposure to the contamination would be implemented.
Excavation and Off-Site Disposal (Alternative 3)					
Resource Conservation and Recovery Act					
Excavate fill	Person who generates waste shall determine if the waste is a RCRA hazardous waste.	Generator of waste.	22 CCR §66262.10(a), 66262.11	Applicable	These regulations are potentially applicable to excavation of fill and generation of waste. NASA would determine whether the fill is RCRA hazardous waste when it is generated.
Excavate fill	Provides requirements for analyzing waste for determining whether waste is hazardous.	Generator of waste.	22 CCR §66264.13(a) and (b)	Applicable	These regulations are potentially applicable to excavation of fill and generation of waste. NASA would determine whether the fill is RCRA hazardous waste when it is generated.
Stage fill for off-site disposal	Allows generators to accumulate solid remediation waste in a EPA-designated pile for storage only up to 2 years during remedial operations without triggering LDRs.	RCRA hazardous waste temporarily stored in piles.	40 CFR §264.554	Relevant and appropriate	These requirements are potential ARARs if excavated soil or waste is temporarily staged for off-site disposal. NASA does not anticipate that all fill would be RCRA hazardous waste; however, NASA has determined that these requirements are potentially relevant and appropriate for stockpiled fill. In addition, the fill contains concentrations of PCBs above 50 mg/kg. Storing PCB-contaminated fill in RCRA staging piles would also comply with TSCA storage requirements.

TABLE B-5: POTENTIAL FEDERAL ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			ALTERNATIVES		
Close temporary fill staging pile	Minimize the need for further maintenance controls and minimize or eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated rainfall or runoff, or waste decomposition products to groundwater or surface water or to the atmosphere.	RCRA hazardous waste management facility	22 CCR, § 66264.111(a) and (b)	Relevant and appropriate	These requirements are potential ARARs for closing the temporary fill stockpile if a temporary stockpile is constructed.
Close temporary fill staging pile	At closure, owner shall remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoil, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste. If waste is left on site, post-closure care shall be performed in accordance with the closure and post-closure care requirements that apply to landfills.	RCRA hazardous waste pile.	22 CCR, § 66264.258(a) and (b)	Relevant and appropriate	These requirements are potential ARARs for closing the temporary fill stockpile if a temporary stockpile is constructed.
Excavate fill	A generator of waste shall determine if the waste has to be treated before it can be land disposed.	Waste	22 CCR § 66268.7	Applicable	Alternative 3 evaluates the excavation of fill for off-site disposal. The excavated fill would constitute waste. NASA would characterize the fill when it is generated and would determine if the waste is subject to land disposal restrictions.
Excavate fill	The initial generator of waste shall determine each EPA hazardous waste number (waste code) to determine the applicable treatment standards, which may be made concurrently with the hazardous waste determination required in § 66262.11.	Waste	22 CCR § 66268.9(a)	Applicable	Alternative 3 evaluates the excavation of fill for off-site disposal. The excavated fill would constitute waste. NASA would characterize the fill when it is generated and would identify the EPA hazardous waste number.

TABLE B-5: POTENTIAL FEDERAL ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			ALTERNATIVES		
Toxic Substances Control Act					
Excavate fill contaminated with PCBs	Any person wishing to sample, cleanup, or dispose of PCB remediation waste in a manner other than prescribed in § 761.61(a) or (b) may apply to the Regional administrator in the Region where the sampling, cleanup, disposal, or storage site is located.	PCB remediation waste at concentrations equal or greater than 50 mg/kg.	40 CFR § 761.61(c)	Relevant and appropriate	TSCA regulates PCB remediation waste at concentrations of 50 mg/kg or greater and is a potential ARAR at CERCLA sites contaminated with PCBs. The fill material deposited by NASA contains concentrations of PCBs. The maximum detected concentration at AOI 14 was a detection of Aroclo-1260 at a concentration of 180 mg/kg. NASA has not identified the self-implementing cleanup option under 40 CFR § 761.61(a)(4)(i) as a potential ARAR and cleanup goal. The primary objective of the removal action is to protect ecological receptors at AOI 14 and neighboring Navy IR Site 25 and the TSCA self-implementing cleanup goal would not achieve that objective. To accomplish the objective, the cleanup goal for PCBs was set at 0.21 mg/kg, a lower concentration than the TSCA self-implementing cleanup goal. NASA has identified the risk based disposal provision of TSCA as a potential ARAR for alternative 3 because concentrations of PCBs in the fill material above 0.21 mg/kg would be excavated and disposed of off-site at an appropriate facility. This disposal be protective of human health and the environment because human and ecological exposure would be removed from the site.
Clean Water Act					
Excavate fill	Construction that disturbs at least 1 acre must use best management practices to control storm water discharges.	Construction activities at least 1 acre in size.	Clean Water Act § 402 40 CFR §122.44(k)(2) and (4)	Applicable	The Phase II stormwater requirements are applicable to small construction activity, as defined in 40 CFR § 122.26(b)(15), that affects at least 1 acre. The excavation would disturb at least 1 acre. NASA would use best management practices to comply with the stormwater discharge requirements under the CWA.
Clean Air Act					
Excavate fill	A person shall not emit particles from an operation sufficient to cause annoyance to another person, large enough to be visible	Emission of visible particles that could fall on real property other than the	BAAQMD Rule 6-1-305	Applicable	The excavation would emit dust that could fall on the property of another. As a result, NASA would use dust suppression techniques to control emissions.

TABLE B-5: POTENTIAL FEDERAL ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			ALTERNATIVES		
	as particles at the emission point or of such size and nature as to be visible individually as incandescent particles	person responsible for the emission.			

Notes:

§	Section
ARAR	Applicable or relevant and appropriate requirement
AOI	Area of interest
BAAQMD	Bay Area Air Quality Management District
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
IC	Institutional control
IR	Installation Restoration
LDR	Land disposal restriction
mg/kg	Milligrams per kilogram
NASA	National Aeronautics and Space Administration
PCB	Polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
TSCA	Toxic Substances Control Act
U.S.C.	United States Code

TABLE B-6: POTENTIAL STATE ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
ALTERNATIVES					
Soil Cover (Alternative 2)					
Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste					
Address contamination at AOI 14	Actions taken by or at the direction of public agencies to clean up or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment are exempt from the SWRCB-promulgated provisions of this subdivision provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to the SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1 and further provided that the remedial actions intended to contain such wastes at the place of release shall implement applicable SWRCB-promulgated provisions of this division to the extent feasible.	Action taken by or at the direction of a public agency	27 CCR § 20090(d)	Applicable	NASA is addressing the unintentional release of pollutants at AOI 14. Under Alternative 2, waste would not be removed from the immediate place of release, and instead would be reconfigured and covered and contained in place. NASA has identified several SWRCB-promulgated provisions as potential ARARs for covering and containing the waste in place.
Construct soil cover	Final cover slopes shall not be steeper than a horizontal to vertical ratio of one and three quarters to one; shall have a minimum of one 15-foot wide bench for every 50 feet of vertical height; and shall comply with the prescriptive standards included in (a)(1) through (3). The Water Board can allow an alternative cover design that it	Permitted solid waste landfill	27 CCR § 21090(a)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. The soil cover is an alternative cover because there is no threat to water quality because of the contamination at AOI 14 and there will be no threat to groundwater quality at AOI 14 as a result of the consolidation and cover over the contaminants. The cover evaluated for Alternative 2 includes a 2-foot soil layer over a biotic barrier. This cover will prevent exposure to the contaminants by

TABLE B-6: POTENTIAL STATE ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
			ALTERNATIVES		
Soil Cover (Alternative 2) (Continued)					
Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Continued)					
	finds will continue to isolate the waste in the unit from precipitation and irrigation waters at least as well as a final cover in accordance with applicable prescriptive standards.				human and potential ecological receptors.
Construct soil cover	The final cover shall be designed and constructed to function with the minimum maintenance possible. The closure and post-closure maintenance shall include periodic identification of problem areas, cover repair, and vegetation maintenance.	Permitted solid waste landfill	27 CCR § 21090(a)(4)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. The cover will be designed to function with minimum maintenance and will be maintained by NASA.
Construct soil cover	The final cover shall be designed, graded, and maintained to prevent ponding and to prevent soil erosion due to high run off-velocities.	Permitted solid waste landfill	27 CCR § 21090(b)(1)(A)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. The cover would be designed to prevent soil erosion.
Construct soil cover	The Water Board can allow portions of the final cover to be built with slopes of less than three percent if there is an effective system for diverting surface drainage from laterally-adjacent areas and preventing ponding in the allowed flatter portion.	Permitted solid waste landfill	27 CCR § 21090 (b)(1)(B)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. The cover would be designed to prevent ponding in any portion of the cover that has a flatter slope.

TABLE B-6: POTENTIAL STATE ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
ALTERNATIVES					
Soil Cover (Alternative 2) (Continued)					
Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Continued)					
Construct soil cover	Areas with slopes greater than ten percent, areas having surface drainage courses, and areas subject to erosion by water or wind shall be protected from erosion of shall be designed and constructed to prevent erosion	Permitted solid waste landfill	27 CCR § 21090(b)(2)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. The cover would be designed to prevent erosion.
Construct soil cover	Throughout the post-closure maintenance period, the discharger shall maintain the final cover as necessary to correct the effect of settlement or other adverse factors; prevent erosion and related damage of the final cover due to drainage; and protect and maintain surveyed monuments.	Permitted solid waste landfills	27 CCR § 21090(c)(1), (4), and (5)	Relevant and appropriate	These regulations are not applicable because the contamination at AOI 14 is not in a permitted unit. These regulations are relevant and appropriate because Alternative 2 evaluates the consolidation of contamination and construction of a soil cover over the contamination. NASA would maintain the cover.
Construct soil cover	The Water Board can approve the use of any alternative technique for producing a topographic map that allows the early identification of differential settlement.	Permitted solid waste landfills	27 CCR § 21090(e)(3)	Relevant and appropriate	This regulation is not applicable because the contamination at AOI 14 is not in a permitted unit. This regulation is relevant and appropriate because Alternative 2 would leave contamination in place under a constructed soil cover.
State Water Resources Control Board and San Francisco Bay Basin Regional Water Quality Board					
Construct soil cover	BMPs are required to prevent, monitor, and control stormwater discharges. Regulates pollutants in stormwater discharges.	Construction activity that affects at least 1 acre	SWRCB Order 2009-0009-DWQ, as amended by Orders 2010-0014 and 2012-006	Applicable	Construction of the cover would affect at least 1 acre. NASA has identified CWA § 402(p) and its implementing regulations at 40 CFR § 122.44 (k)(2) and (4) as potential federal ARARs. Pursuant to CERCLA § 121(e), permits are not required for CERCLA actions conducted on the CERCLA site, so NASA would not obtain a stormwater permit. However, NASA would use the substantive provisions of these SWRCB Orders as a means of complying with the potential federal ARARs.

TABLE B-6: POTENTIAL STATE ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
ALTERNATIVES					
Soil Cover (Alternative 2) (Continued)					
Hazardous Waste Property and Land Use Restrictions					
Place institutional controls	Whenever it is not feasible to record a land use covenant for property owned by the federal government, such as transfers from one federal agency to another, DTSC and the federal government shall use other mechanisms to ensure that future land use will be compatible with the levels of material, hazardous wastes or constituents, or hazardous substances that remain on the property.	Response actions taken pursuant to Health and Safety Code Division 20 and hazardous materials, hazardous wastes or constituents, or hazardous substances remaining on the property at levels not suitable for unrestricted use of the land	22 CCR § 67391.1(e)(2)	Relevant and appropriate	AOI 14 is owned by the federal government and managed by NASA. There are no plans to transfer AOI 14 out of federal government ownership or NASA management. Because the property will not be transferred, it is infeasible to enter a land use covenant. NASA will embody the ICs necessary under Alternative 2 (maintain the cover and prohibit residential development) in its facility master plan.
Excavation and Off-Site Disposal (Alternative 3)					
Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste					
Address contamination at AOI 14	Actions taken by or at the direction of public agencies to cleanup or abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment are exempt from the SWRCB-promulgated provisions of this subdivision provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to the SWRCB-promulgated sections of Article 2, Subchapter 2,	Action taken by or at the direction of a public agency	27 CCR § 20090(d)	Applicable	NASA is addressing the unintentional release of pollutants at AOI 14. Under Alternative 2, waste would not be removed from the immediate place of release, and instead would be reconfigured and covered and contained in place. NASA has identified several SWRCB-promulgated provisions as potential ARARs for covering and containing the waste in place.

TABLE B-6: POTENTIAL STATE ACTION-SPECIFIC APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Action	Requirement	Prerequisite	Citation	Preliminary ARAR Determination	Comments
ALTERNATIVES					
Excavation and Off-Site Disposal (Alternative 3) (Continued)					
Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Continued)					
	Chapter 3, Subdivision 1 and further provided that the remedial actions intended to contain such wastes at the place of release shall implement applicable SWRCB-promulgated provisions of this division to the extent feasible.				
Excavate soil for off-site disposal	Designated and nonhazardous solid waste must be discharged to a classified waste management unit.	Designated or nonhazardous solid waste	27 CCR § 20210 and 20220(b), (c), and (d)	Applicable	These regulations are potential ARARs for characterizing and disposing of waste off site.
State Water Resources Control Board and San Francisco Bay Basin Regional Water Quality Board					
Construct soil cover	BMPs are required to prevent, monitor, and control stormwater discharges. Regulates pollutants in stormwater discharges.	Construction activity that affects at least 1 acre	SWRCB Order 2009-0009-DWQ, as amended by Orders 2010-0014 and 2012-006	Applicable	Construction of the cover would affect at least 1 acre. NASA has identified CWA § 402(p) and its implementing regulations at 40 CFR § 122.44 (k)(2) and (4) as potential federal ARARs. Pursuant to CERCLA § 121(e), permits are not required for CERCLA actions conducted on the CERCLA site, so NASA would not obtain a stormwater permit. However, NASA would use the substantive provisions of these SWRCB Orders as a means of complying with the potential federal ARARs.

Notes:

§	Section	NASA	National Aeronautics and Space Administration
AOI	Area of Interest	SWRCB	State Water Resources Control Board
ARAR	Applicable or relevant and appropriate requirement		
BMP	Best management practices		
CCR	California Code of Regulations		
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act		
CFR	Code of Federal Regulations		
CWA	Clean Water Act		
IC	Institutional controls		

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
San Francisco Regional Water Quality Control Board (Water Board)					
Beneficial uses of groundwater and surface water	Waters of the State	Comprehensive Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), Chapter 2	--	Not an ARAR	Surface water and groundwater are not environmental media of concern at AOI 14.
Water quality objectives	Waters of the State	Basin Plan, Chapter 3	--	Not an ARAR	Surface water and groundwater are not environmental media of concern at AOI 14. In addition, Chapter 3 does not present narrative or numerical standards for the fill.
Implementation plans	Waters of the State	Basin Plan, Chapter 4	--	Not an ARAR	Contamination at AOI 14 has not affected groundwater or surface water, so groundwater and surface water are not media of concern. Instead, the objective of the removal action is to protect potential ecological receptors from exposure to contamination at AOI 14.
Water Quality Attainment Strategies	Waters of the State	Basin Plan, Chapter 7	--	Not an ARAR	Surface water is not an environmental medium of concern.
If the state board or the regional board finds that the property is not suitable for unrestricted use and that a land use restriction is necessary for the protection of public health, safety, or the environment, then the state board and the regional boards may not issue a closure letter, or make a determination that no further action is required, with respect to a site that is subject to a cleanup or abatement order pursuant to § 13304 unless a land use restriction is recorded or required to be recorded pursuant to California Civil Code § 1471.	Issuance of a Cleanup and Abatement Order pursuant to California Water Code § 13304	California Water Code § 13307.1(c)	--	Not an ARAR	NASA is addressing the contamination at AOI 14 according to the requirements of CERCLA. NASA has not been issued a Cleanup and Abatement Order. NASA is evaluating land use restrictions as part of Alternative 2; however, the land use restrictions would not be implemented pursuant to California Civil Code § 1471 because the federal government is not planning to transfer the property out of its ownership and so will not enter into a covenant.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.	Waters of the State	California Water Code § 13243	--	Not an ARAR	These provisions allow the Regional Boards to specify areas for waste discharge. They do not place environmental cleanup requirements on NASA.
Whenever the existing water quality is better than the quality established in policies, such existing high quality will be maintained until it has been demonstrated that any change will be consistent with the maximum benefit of the people of the State.	Waters of the State	SWRCB Resolution 68-16	--	Not an ARAR	No discharge to surface water is evaluated as part of the alternatives.
Establishes requirements for the investigation, cleanup, and abatement of discharges.	Discharge to waters of the state	SWRCB Resolution 92-49	--	Not an ARAR	NASA is addressing the contamination at AOI 14 pursuant to the requirements of CERCLA, which will result in substantive compliance with SWRCB Resolution 92-49. In addition, surface water and groundwater are not media of concern.
Declares all waters of the state to be suitable or potentially suitable as sources of drinking water. Identifies certain exceptions to sources of drinking water when, among other things: (1) TDS exceeds 3,000 mg/L and the Regional Board does not expect it to supply a public water system; or (2) water source does not provide sufficient water to supply a single well capable of producing a sustained yield of 200 gpd.	Waters of the State	SWRCB Resolution 88-63	--	Not an ARRA	Surface water and groundwater are not media of concern for AOI 14.
Guidance on selecting numerical values to implement narrative water quality objectives contained in the Basin Plan	Waters of the State	Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (Interim Final)	--	Not an ARAR or TBC	NASA does not accept this guidance as a potential ARAR because it is not promulgated as required in the NCP. NASA does not accept this guidance as a TBC criteria because the fill has not contaminated the groundwater. The primary objective of the removal action is to protect ecological receptors and neighboring Navy IR Site 25.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Guidance and criteria for evaluating if a chlorinated solvent case is considered low-threat.	Waters of the State	Assessment Tool for Closure of Low-Threat Chlorinated Solvent Sites (Draft Final, July 2009)	--	Not an ARAR or TBC	NASA does not accept this tool as a potential ARAR because it is not promulgated as required in the NCP. NASA does not accept this tool as a TBC criteria because chlorinated solvents are not chemicals of concern for AOI 14.
Guidance on how to classify wastes according to CCR Title 27 and CCR Title 23.	Waters of the State	The Designated Level Methodology for Waste Classification and Cleanup Level Determination	--	Not an ARAR or TBC	NASA does not accept this guidance as a potential ARAR because it is not promulgated as required in the NCP. NASA does not accept this as a TBC criteria. TBC criteria may be useful when there are no regulatory standards to guide an action. However, there are regulatory standards for the classification and disposal of waste, and NASA has identified them as potential ARARs.
Hazardous waste must be discharged to a Class I waste management unit that meets certain design and monitoring standards	Discharge of waste to land	23 CCR §§ 2520 and 2521	--	Not an ARAR	ARARs apply to actions that take place on the site. NASA is not evaluating the on-site discharge of hazardous waste to land as part of its alternatives. Therefore, NASA does not accept these as potential ARARs. NASA is evaluating the off-site disposal of contaminated fill as part of Alternative 3. NASA does not expect the fill to be hazardous; however, NASA will characterize the fill to determine if it is hazardous, and if so, will comply with applicable requirements for disposal at an appropriate off-site facility.
Establishes waste and siting classification systems and minimum waste management standards for discharges of waste to land for treatment, storage, and disposal or wastes left in place.	Discharge of waste to land	27 CCR Division 2, Subdivision 1	See specific sections below	See specific sections below	The Water Board identified more specific provisions of 27 CCR Division 2, Subdivision 1. NASA's responses to the specific provisions within 27 CCR Division 2, Subdivision 1 are below.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Requires that designed waste be discharged to Class I or Class II waste management units.	Discharge of waste to land	27 CCR §§ 20200(c) and 20210	27 CCR § 20200(c) and 20210	Applicable	NASA accepts these provisions as potential state ARARs for characterizing waste generated in Alternative 3 for appropriate off-site disposal. If the waste meets the definition of designated waste, the waste will be disposed of at an appropriate off-site facility.
Inert waste does not need to be discharged at classified units	Discharge of waste to land	27 CCR § 20230	27 CCR § 20230	Applicable	NASA accepts this provision as a potential state ARAR when characterizing waste generated in Alternative 3 for appropriate off-site disposal. If the waste is inert, NASA will dispose of it.
Requires that nonhazardous solid waste be discharged to a classified waste management unit	Discharge of waste to land	27 CCR § 20200(c) and 20220	27 CCR 20200(c) and 20220	Applicable	NASA accepts these provisions as potential state ARARs for characterizing waste generated in Alternative 3 for appropriate off-site disposal. If the waste meets the definition of nonhazardous solid waste, the waste will be disposed of at an appropriate off-site facility.
Regulates pollutants in discharge of stormwater associated with hazardous waste treatment, storage, and disposal facilities, wastewater treatment plants, landfills, land application sites, and open dumps.	Pollutants in stormwater discharge from industrial activities	SWRCB Order 97-03-DWQ	--	Not an ARAR	NASA does not accept this order as a potential ARAR for Alternative 2 (the alternative that would leave waste on the site under a cover as a disposal site). The cover material would be clean and graded to naturally shed rain, and sides would be armored with riprap to prevent surface erosion. As a result, it is unlikely that there would be pollutants in stormwater discharge.
Requires control of storm water runoff discharges at construction sites that are greater than 1 acre in size and regulates pollutants in discharge of stormwater associated with the disturbance of 1 or more acres.	Construction activity that affects at least 1 acre	SWRCB Order 2009-0009-DWQ (as amended by Orders 2010-0014 and 2012-006)	SWRCB Order 2009-0009-DWQ (as amended by Orders 2010-0014 and 2012-006)	Applicable	NASA accepts the substantive provisions of this order as potential state ARARs for construction of the cover under Alternative 2 and the excavation under Alternative 3 because both will affect more than 1 acre. NASA does not need to obtain the actual stormwater permit because pursuant to CERCLA § 121(e) permits are not necessary for actions conducted on a

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					CERCLA site. The construction of the cover and the excavation will both occur on site, so NASA will not obtain an actual permit. However, NASA will use the substantive provisions of this permit to comply with the Clean Water Act ARARs.
Persons responsible for discharges at units which were closed, abandoned, or inactive on or before November 27, 1984, may be required to develop and implement a detection monitoring program.	Discharge to CAI unit on or before November 27, 1984	27 CCR § 20080(g) and 23 CCR § 2510(g)	--	Not ARARs	NASA does not accept these provisions as potential state ARARs because groundwater and surface water are not media of concern at AOI 14.
Actions taken by public agencies to cleanup unauthorized releases are exempt from Titles 27 and 23, except that wastes removed from the immediate place of release and discharged to land must be managed in accordance with classification and siting requirements and wastes contained or left in place must comply with Titles 27 and 23 to the extent feasible.	Action taken by or at the direction of a public agency	27 CCR § 20090(d) and 23 CCR § 2511(d)	27 CCR § 20090(d)	Applicable	NASA accepts this requirement as a potential state ARAR because it is responsible for the cleanup of contamination at AOI 14. NASA has accepted several Title 27 requirements as potential ARARs for Alternatives 2 and 3. Further, Alternative 3 evaluates the excavation and off-site disposal of contaminated fill. NASA will characterize the fill and dispose of it at an appropriate classified waste management unit.
Existing units (units which were operating or had received all permits necessary for construction and operation on or before November 27, 1984) shall continue operations under existing classifications and waste discharge requirements until reviewed. Existing units shall be closed and maintained according to Subchapter 5, Chapter 3 (§ 20950, et seq.). Pending review and reclassification, existing units, except those closed, abandoned, or inactive on or before November 27, 1984, shall be in compliance with the monitoring program requirements and may be required to submit additional technical and monitoring reports to the Water Board as determined to be necessary on a case-by-case basis.	Existing or new unit	27 CCR § 20080(d) and 23 CCR § 2510(d)	--	Not ARARs	NASA does not accept these provisions as potential state ARARs because AOI 14 was not an operating unit on or before November 27, 1984. NASA has accepted several provisions in 27 CCR Division 2, Subdivision 1, Chapter 3, Subchapter 5 for Alternative 2, which leaves contamination in place under a biotic barrier and a 2-foot soil cover. NASA is not implementing water quality monitoring in conjunction with Alternative 2 because the contamination at AOI 14 has not affected water quality.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Surface impoundment must be close by removing and treating all free liquid and either removing all remaining contamination or closing the surface impoundment as a landfill.	Closing a surface impoundment	27 CCR § 21400 and 23 CCR § 2582	--	Not ARARs	NASA does not accept these provisions as potential ARARs because AOI 14 is not a surface impoundment, and NASA is not evaluating closing a surface impoundment as part of the removal action.
The requirements for establishing and conducting detection, evaluation, and corrective action monitoring programs.	Owners and operators that treat, store, or dispose of waste at waste management units	27 CCR §§ 20385-20435 and 23 CCR § 2550	--	Not ARARs	NASA does not accept these provisions as potential state ARARs because groundwater and surface water are not media of concern for AOI 14. No monitoring is required or proposed as part of the alternatives.
General closure requirements and financial assurance requirements.	Owners and operators that treat, store, or dispose of waste at waste management units	27 CCR §§ 20950, 22207(a), 22212(a), and 22222 and 23 CCR §§ 2550.0(b), 2580, and 2580(f)	--	Not ARARs	NASA does not accept these provisions as potential state ARARs because NASA is not evaluating closure of a classified waste management unit, and the contamination at AOI 14 does not pose a threat to water quality. In addition, NASA, as part of the federal government, does not provide financial assurances.
The goal of clean closure it so physically remove all waste and contaminated material from the unit and its surrounding environs such that the waste in the unit no longer poses a threat to water quality. Successful completion of clean-closure eliminates the need for any post-closure maintenance period and removes the unit from being subject to the SWRCB-promulgated requirements of this subdivision.	Final closure of a new or existing classified solid waste management unit	27 CCR § 20950(a)(2)(B)	--	Not an ARAR	Surface water and groundwater are not environmental media of concern. AOI 14 does not present a threat to water quality and will not present a threat to water quality should Alternative 2 or Alternative 3 be implemented. Instead, the objective of the removal action is to prevent potential ecological exposure to contamination.
Requirements for final covers, final grading, general post-closure duties, landfill closure deadlines, final cover surveys, and optional clean closure.	Permitted disposal site or landfill	27 CCR § 21090	27 CCR § 21090(a), (a)(4), (b)(1)(A), (b)(1)(B), (b)(2), (c)(1), (4), (5), and (e)(3)	Relevant and appropriate	NASA accepts these regulations as potential state ARARs for Alternative 2, which evaluates leaving contamination in place and covering it.
Definition of jurisdictional wetlands	--	40 CFR § 230.3	--	Not an ARAR	NASA does not accept definition this as a potential state ARAR. This regulation is

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					federal and would be evaluated as a potential federal ARAR. NASA will not delineate wetlands as part of this removal action.
Except as provided under § 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem. Except as provided under § 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States.	Discharge of dredged or fill material into waters of the US	40 CFR § 230.10(a) and (c)	--	Not ARARs	NASA does not accept these regulations as potential state ARARs. These are federal regulations and would be evaluated as potential federal ARARs. NASA has not identified these as potential federal ARARs. AOI 14 is surrounded by jurisdictional wetlands; however, none of the actions evaluated in this EE/CA would result in the discharge of dredge and fill material into the wetlands.
Guidelines for disposing of dredged material in San Francisco Bay	Disposing of dredged material in San Francisco Bay	US ACE Public Notice 92-7	--	Not an ARAR or TBC	NASA does not accept this guideline as a potential state ARAR or as TBC criteria. NASA is not evaluating the disposal of dredged material into San Francisco Bay.
Guidelines for screening and testing dredged material for re-use.	Reuse of dredged material	Beneficial Reuse of Dredged Materials; Sediment Screening and Testing Guidelines	--	Not an ARAR or TBC	NASA does not accept this guideline as a potential state ARAR or as TBC criteria. NASA is not evaluating dredging as part of the alternatives, and is not evaluating the re-use of the dredged material.
State water quality certification for discharge into waters of the U.S. including adjacent wetlands	Discharge into waters of the U.S or an adjacent wetland	CWA § 401	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. This requirement is federal and would be evaluated as a potential federal ARAR. AOI 14 is surrounded by jurisdictional wetlands; however, none of the actions NASA is evaluating would result in the discharge of dredge and fill material into the jurisdictional wetlands.
NPDES permits	Discharge into waters of the U.S. or an adjacent wetland	40 CFR § 122	40 CFR § 122.44(k)(2) and (4)	Applicable	NASA does not accept regulation this as a potential state ARAR. This regulation is federal and would be evaluated as a potential federal ARAR. NASA has identified the ARAR citation as a potential

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					federal action-specific ARAR for Alternatives 2 and 3.
Sediment quality	Exposure of sediment dependent biota to toxic pollutants	SWRCB Water Quality Control Plan for Enclosed Bays and Estuaries	--	Not an ARAR	NASA does not accept this as a potential state ARAR because it is not addressing sediment-dependent biota exposure to toxic pollutants.
Guidance on selecting numerical values to implement narrative water quality objectives contained in the Basin Plan	Selecting numerical values	A Compilation of Water Quality Goals	--	Not an ARAR or TBC	NASA does not accept this guidance as a potential state ARAR because it is not promulgated as required in the NCP. NASA does not accept this guidance as a potential TBC criteria because it has identified cleanup goals based on the protection of neighboring Navy IR Site 25. Cleanup goals based on the protection of IR Site 25 represent the lowest concentration of the potential cleanup goals identified for AOI 14, so these cleanup goals will result in the protection of human health and the environment at AOI 14.
Surface water quality criteria	Discharge to waters of the U.S., including adjacent wetlands	40 CFR Part 131	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. This requirement is federal and would be evaluated as a potential federal ARAR. NASA has not identified this requirement as a potential federal ARAR because it is not evaluating a discharge to surface water.
Closure criteria for low-threat petroleum UST sites	Closure of a low-threat petroleum UST site	SWRCB Resolution 2012-0016	--	Not an ARAR	NASA does not accept this resolution as a potential state ARAR because it is not closing a petroleum UST site.
Describes requirements for Water Board oversight of investigation and cleanup and abatement activities resulting from discharges of hazardous substances. Water Board may decide on cleanup and abatement goals and objectives for the protection of water quality and beneficial uses of water within each region. Establishes criteria for "containment zones" where cleanup to established	Waters of the state	Policies and procedures for investigation and cleanup and abatement of discharges under Cal. Water Code § 13304, SWRCB Res. 92-49	--	Not an ARAR	The Navy is investigating and responding to the releases at the IR17 and Building 503 Area according to the requirements of CERCLA and the NCP. In addition, groundwater is not a medium of concern.

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Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
water-quality goals is not economically or technically practicable.					
California Division of Fish and Wildlife (CDFW)					
Prohibits the deposition or placing where it can pass into waters of the state any petroleum products, sawdust, shavings, slabs or edgings and any substance deleterious to fish, plant life, mammals, or bird life.	Placing of deleterious material	Fish and Game Code § 5650	Cal. Fish and Game Code § 5650	Applicable	NASA accepts this requirement as a potential state ARAR. It will design the removal action so that it will not place material deleterious to fish, plant, or animal life where it can enter waters of the state. .
Prohibits the taking of birds and mammals, including taking by poison.	Presence of birds or mammals.	Cal. Fish and Game Code § 3005	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR because the actions evaluated in this EE/CA will not take any birds or mammals. NASA has accepted state ARARs related to the protection of special status birds and mammals.
No person shall take a rare or endangered native plant.	Presence of a rare or endangered native plant.	Cal. Fish and Game Code § 1908	Cal. Fish and Game Code § 1908	Applicable	NASA accepts this requirement as a potential state ARAR because rare or endangered native plants may be present at AOI 14 and may be affected by the alternatives being evaluated.
No person shall take any endangered or threatened species.	Presence of threatened or endangered species.	Cal. Fish and Game Code § 2080	Cal. Fish and Game Code § 2080	Applicable	NASA accepts this requirement as a potential state ARAR because the salt marsh harvest mouse, Ridgeway's rail (formerly known as the California clapper rail), California least tern, California black rail, and Swainson's hawk all state endangered species are present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14. NASA will work with the CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are a component of each alternative, except the no action alternative.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Fully protected birds may not be taken at any time.	Presence of a fully protected bird.	Cal. Fish and Game Code § 3511	Cal. Fish and Game Code § 3511	Applicable	NASA accepts this requirement as a potential state ARAR because the Ridgeway's rail, California black rail, and the California least tern are state fully protected birds that are present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14. NASA will work with the CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are a component of each alternative, except the no action alternative.
Fully protected mammals may not be taken.	Presence of fully protected mammals.	Cal. Fish and Game Code § 4700	Cal. Fish and Game Code § 4700	Applicable	NASA accepts this requirement as a potential state ARAR because the salt marsh harvest mouse is a state fully protected mammal that is present or potentially present at AOI 14. The objective of this CERCLA removal action is to protect potential ecological receptors from exposure to potential contamination at AOI 14. NASA will work with the CDFW to develop appropriate avoidance actions in the removal action design. In addition, ecological restoration and monitoring are a component of each alternative, except the no action alternative.
It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code.	Presence of nests or eggs.	Cal. Fish and Game Code § 3503	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. No nests or eggs will be affected by the actions evaluated in this EE/CA. NASA has accepted state ARARs related to the protection of special status birds and mammals.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the next or eggs of any such bird.	Presence of Falconiformes or Strigiformes	Cal. Fish and Game Code § 3503.5	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR because no Falconiformes or Strigiformes are present at AOI 14 or would be affected by the alternatives being evaluated.
Action must be taken to prevent take of migratory nongame birds.	Migratory nongame birds.	Cal. Fish and Game Code § 3513	--	Not an ARAR	NASA does not accept this requirement as potential state ARAR. NASA has identified the Migratory Bird Treaty Act as a potential federal ARAR, which would result in protection of the species protected by this state statute.
Fisher, marten, river otter, desert kit fox, and red fox may not be taken at any time.	Presence of fisher, marten, river otter, desert kit fox, and red fox.	14 CCR § 460	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR because these species are not present or potentially present at AOI 14.
DEPARTMENT OF TOXIC SUBSTANCES CONTROL					
Definitions of RCRA and California hazardous waste	Waste	22 CCR §§ 66261.2 66261.3, 66261.21, 66261.23, 66261.24, 66261.100, 66261.101, 66261.107, 66261.110, 66261.111, 66261.113, and 66261.122	22 CCR §§ 66261.21, 66261.22(a)(1), 66261.23, 66261.24(a)(1), and 66261.100 And 22 CCR § 66261.3, 66261.22(a)(3) and (4), 66261.24(a)(2)-(a)(8) and 66261.101	Applicable	NASA has identified the first set of regulations as potential federal ARARs and accepts the second set of regulations as potential state ARARs for characterizing waste generated in Alternative 3. NASA will characterize the waste for appropriate off-site disposal.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
RCRA hazardous waste lists	Waste	22 CCR §§ 66261.30-66261.33	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs. No information has been found indicating that the contaminated fill at AOI 14 is from RCRA listed wastes, primarily because the fill was placed at AOI 14 in the late 1970s, before the promulgation of the Hazardous and Solid Waste Amendments of 1984.
Standards for generators of hazardous waste	Waste	22 CCR § 66262.10 through 66262.47	22 CCR § 66262.10(a) and 66262.11	Applicable	NASA has identified these regulations as potential federal ARARs for Alternative 3, which would generate waste in the excavation of contaminated fill. These regulations require a generator to determine if the waste is hazardous. NASA would characterize the fill at the time it is generated to determine if it is hazardous. The waste would then be sent off-site for appropriate disposal. NASA has not identified other requirements as potential federal ARARs because they present off-site requirements. ARARs apply to actions that occur on the CERCLA site. NASA would comply with all applicable requirements for off-site actions, including off-site disposal requirements.
Hazardous waste transportation requirements	Hazardous waste	22 CCR § 66263	--	Not an ARAR	NASA has not identified this requirement as a potential federal ARAR. ARARs apply to actions that occur on the CERCLA site. NASA is not evaluating on-site transportation of hazardous waste. NASA would comply with all applicable requirements for off-site actions, including transportation of hazardous waste, which would only occur in conjunction with Alternative 3.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Storage of hazardous waste in containers	Hazardous waste	22 CCR §§ 66264.171 through 66264.174, 66264.175(a), (b),and (d), 66264.176 through 66264.178	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because the alternatives do not evaluate storage of hazardous waste in containers. Alternative 3 evaluates excavation and off-site disposal of contaminated fill. NASA would store the contaminated fill in a temporary staging pile.
Requirements to adequately design, operate, and maintain tanks.	Hazardous waste	22 CCR §§ 66264.191, 66264.194, and 66264.196	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because the alternatives do not evaluate the storage of hazardous waste in tanks.
Requirements for incompatible waste storage	Hazardous waste	22 CCR §§ 66264.199 and 66264.200	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because NASA will not be storing incompatible hazardous waste.
Requirements for waste piles	Hazardous waste	22 CCR §§ 66264.251-66264.256	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because NASA has identified the design and operating requirements of operating a temporary staging pile at 40 CFR §264.554 as the relevant and appropriate ARARs for staging soil prior to off-site disposal in Alternative 3.
Requirements for land treatment units.	Hazardous waste	22 CCR § 66264.271-66264.283	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because NASA is not evaluating a land treatment unit.
Applicability of corrective action management unit regulations and grandfathered corrective action management units.	Hazardous waste	22 CCR §§ 66264.550 and 66264.551	--	Not ARARs	NASA has not identified these regulations as potential federal ARARs because the applicability provisions do not contain substantive requirements and NASA is not evaluating an action on a grandfathered corrective action management unit.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Land disposal restrictions	Hazardous waste subject to land disposal restrictions	22 CCR §§ 66268.1, 66268.2, 66268.3, and 66268.5, 66268.6, 66268.7, 66268.9, 66268.29, 66268.31, 66268.31.5, 66268.32, 66268.33, 66268.34, 66268.37, 66268.39.5, 66268.40, 66268.41, 66268.42, 66268.43, 66268.44, 66268.45, 66268.48, 66268.49, 66268.50, 66268.100, 66268.105, 66268.106, and 66268.107	22 CCR §§ 66268.7 and 66268.9(a)	Applicable	NASA has identified the accepted ARAR section as potential federal ARARs for Alternative 3, which evaluates the off-site land disposal of contaminated fill. NASA will characterize the fill prior to off-site disposal and will determine the RCRA hazardous waste code and whether the contaminated fill is subject to the land disposal treatment standards. However, NASA will not treat the contaminated fill on the site; any required treatment would be done by the disposal facility. ARARs apply to actions conducted on the CERCLA site, so these regulations are not ARARs. NASA would comply with all applicable off-site disposal requirements, including procedural requirements.
Land use control requirements when property is not suitable for unrestricted use because of contamination remaining on site.	Contamination left in place above levels acceptable for unrestricted use.	22 CCR § 67391.1	22 CCR § 67391.1(e)(2)	Relevant and appropriate	NASA accepts this requirement as a potential state ARAR for Alternative 2 that will leave contaminated fill in place, under a biotic barrier overlain by a 2 foot soil cover. NASA would implement institutional controls in its facility master plan to prohibit residential use of the site and to require maintenance of the cover.
Land use covenants	Contamination left in place above levels acceptable for unrestricted use.	California Civil Code § 1471(a) through (d); California Health and Safety Code §§ 25202.5, 25221, 25355(a)(1)(C)	--	Not ARARs	NASA does not accept these statutory requirements as potential state ARARs. Only Alternative 2 would leave contaminated fill in place at AOI 14 above levels acceptable for unrestricted use. However, AOI 14 is part of an active federal facility, owned by the federal government and managed by NASA. There are no plans to transfer the site out of federal ownership or NASA"s management. As a result, it is infeasible for NASA to enter into an environmental covenant to restrict the use of

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					the property. Instead, NASA will amend its facility master plan to restrict the use of AOI 14 and has accepted 22 CCR § 67391.1(e)(2) as a potential state ARAR for restricting the use of the property.
Existing units (units which were operating or had received all permits necessary for construction and operation on or before November 27, 1984) shall continue operations under existing classifications and waste discharge requirements until reviewed. Existing units shall be closed and maintained according to Subchapter 5, Chapter 3 (§ 20950, et seq.). Pending review and reclassification, existing units, except those closed, abandoned, or inactive on or before November 27, 1984, shall be in compliance with the monitoring program requirements and may be required to submit additional technical and monitoring reports to the Water Board as determined to be necessary on a case-by-case basis.	Existing or new unit	27 CCR § 20080(d) and 23 CCR § 2510(d)	--	Not ARARs	NASA does not accept these provisions as potential state ARARs because AOI 14 was not an operating unit on or before November 27, 1984. NASA has accepted several provisions in 27 CCR Division 2, Subdivision 1, Chapter 3, Subchapter 5 for Alternative 2, which leaves contamination in place under a biotic barrier and a 2-foot soil cover. NASA is not implementing water quality monitoring in conjunction with Alternative 2 because the contamination at AOI 14 has not affected water quality.
Health and ecological risk assessment prepared in conjunction with a response action taken or approved pursuant to Chapter 6.8 of the Health and Safety Code shall be based on the NCP, the policies, guidelines, and practices of the U.S. EPA and the most current sound scientific methods, knowledge, and practices.	Response action taken pursuant to California Health and Safety Code Chapter 6.8.	California Health and Safety Code § 25356.1.5(b)	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. NASA is addressing the contamination at AOI 14 pursuant to CERCLA, and not the California Health and Safety Code. However, NASA has incorporated U.S. EPA CERCLA policies, guidelines, and practices and the most current sound scientific methods, knowledge, and practices into its CERCLA actions at AOI 14.
CalRecycle requirements for closure and post-closure maintenance of disposal sites and landfills	Closure of a disposal site or landfill	27 CCR §§ 21120, 21130, 21135, 21137, 21140, 21142, 21145, 21150, 21160, 21170, 21180, and 21190	--	Not ARARs	NASA does not accept these requirement as potential state ARARs because they are not relevant or appropriate to the actions evaluated in Alternative 2. The contaminated fill at AOI 14 is not similar enough to a traditional landfill. For example, it is environmental media contaminated with

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					metals, pesticides, and PCBs, not putrescible or decomposable waste or debris such that landfill gas would be an issue. In addition, NASA has accepted several provisions contained in 27 CCR that specify final cover performance objectives and final cover slopes, grading, and maintenance. Compliance with these potential ARARs would result in substantive compliance with these provisions.
Development of WDRs and solid waste facility permits	Operator of a disposal site	27 CCR § 21600	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. NASA is addressing contamination at AOI 14 pursuant to CERCLA. Alternative 2 evaluates leaving contamination on site and covering it. However, since AOI 14 is a CERCLA site and CERCLA § 121(e) exempts compliance with the requirement to obtain permits for all portions of the CERCLA action that occur on the site, NASA does not need to obtain a WDR or a disposal site permit. NASA would develop a long-term management plan in the removal action design that would generally result in substantive compliance with the information required in this regulation.
Financial assurance requirements	Remedy conducted pursuant to California Health and Safety Code	California Health and Safety Code § 25355.2	--	Not an ARAR	NASA does not accept this requirement as a potential ARAR. It is procedural in nature and CERCLA § 121(e) does not require compliance with procedural requirements. In addition, the federal government does not provide financial assurances.

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Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Exclusion from hazardous waste permitting requirements.	Remedy conducted pursuant to California Health and Safety Code	California Health and Safety Code § 25358.9	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR. NASA is addressing contamination at AOI 14 pursuant to CERCLA. CERCLA § 121(e) provides an exemption from the requirement to obtain permits for the portions of the response action that would occur on the CERCLA site.
Health and safety requirement for on-site workers	Worker involved in hazardous substance operations	8 CCR § 5192	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR because it is not a substantive environmental standard, criteria, or facility siting law or regulation. Rather ,it is a requirement designed to protect hazardous waste workers. NASA will comply with all required hazardous waste worker requirements.
Requirements for stockpiling soil contaminated with organic compounds	Soil contaminated with organic compounds in excess of 50 ppmw.	BAAQMD Regulation 8-40	--	Not an ARAR	NASA did not identify this requirement as a potential federal ARAR because concentrations of organic compounds are below 50 ppm by weight.
Limits the quantity of particulate matter in the atmosphere by controlling emission rates, visible emissions, and opacity.	Emission of particulate matter	BAAQMD Regulation 6-1	BAAQMD Regulation 6-1-305	Applicable	NASA has identified this requirement as a potential federal ARAR for construction of the cover in Alternative 2 and the excavation in Alternative 3.
Established general limitations on odorous substances	Emission of odorous substances	BAAQMD Regulation 7	--	Not an ARAR	NASA has not identified this requirement as a potential federal ARAR because none of the alternatives will emit odorous substances. In addition, the requirements only become effective on citizen complaints and no citizen complaints have been filed against NASA at AOI 14.
Potential feasible control measures for dust mitigation	Dust emission	BAAQMD CEQA Guidelines	--	Not an ARAR or TBC	NASA does not accept these guidelines as potential TBC criteria. CEQA is applicable to state discretionary decision making, but not to actions of the federal government. Furthermore, EPA and NASA have determined that the requirements of CEQA

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Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
					are no more stringent than the requirements for environmental review under CERCLA. Therefore, guidelines developed to assist in the CEQA review are not relevant and appropriate to CERCLA actions. In addition, the ARARs identified in BAAQMD Regulation 6-1-305 contain dust suppression requirements. TBC criteria are used to guide cleanup decisions and methodology when ARARs are not available. TBC criteria for dust mitigation are unnecessary.
Requirement to limit the idling of diesel-fueled commercial motor vehicles	Diesel-fueled commercial motor vehicle with a gross vehicular weight rating greater than 10,000 pounds	13 CCR § 2485	--	Not an ARAR	NASA does not accept this requirement as a potential state ARAR because these requirements apply to drivers of diesel-fueled commercial motor vehicles. NASA would contract with licensed transporters; it would be the responsibility of the transporter to comply with these provisions.
Regulates activities to control direct significant impacts on coastal waters and to protect state and national interests in California coastal resources	Activity that has a direct significant impact on coastal waters	Public Resources Code §§ 30000-30900 and 14 CCR Parts 13001-13666.4	--	Not ARARs	NASA does not accept these requirements as potential ARARs for AOI 14 because AOI 14 is not within the coastal zone and none of the alternatives evaluated would affect the coastal waters. However, the primary objective of the removal action at AOI 14 is to protect neighboring Navy IR Site 25, which, in the future, may have a connection with the San Francisco Bay.

TABLE B-7: NASA RESPONSE TO ARARS IDENTIFIED BY SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD (DATED OCTOBER 27, 2014), DEPARTMENT OF FISH AND WILDLIFE (DATED NOVEMBER 18, 2014), AND DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DATED NOVEMBER 2014)

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Requirement	Prerequisite	Statutes and Regulations identified by State	Accepted ARAR Citation	Preliminary ARAR Determination	Comments
Proposed revisions to the San Francisco Bay Plan to address climate change issues	Activities within the coastal zone	Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline, dated April 7, 2009 And The San Francisco Bay Plan	--	Not ARARs or TBC	NASA does not accept this or the San Francisco Bay plan as potential ARARs or TBC criteria. AOI 14 is not within the coastal zone and none of the alternatives being evaluating will be conducted in the coastal zone.
Requirements for filling or backfilling in the Bay	Filling or backfilling in the Bay	McAteer-Petris Act (California Government Code) § 66605	--	Not ARARs	NASA does not accept this act as a potential state ARAR because none of the alternatives evaluated include filling or backfilling in the San Francisco Bay.

Notes:

--	No statue, regulation, policy or guidance identified by the State of California was accepted by the Navy as a potential state ARAR or TBC.
§	Section
§§	Sections
AOI	Area of interest
ARAR	Applicable or relevant and appropriate requirement
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Comprehensive Water Quality Control Plan for the San Francisco Bay Region
CAI	Closed, Abandoned, or Inactive
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
et seq.	And the following
gpd	Gallons per day
IC	Institutional control
IR	Installation restoration
mg/L	Milligrams per liter
NASA	National Aeronautics and Space Administration
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
PCB	Polychlorinated biphenyls
Res.	Resolution
ppm	Parts per million
ppmw	Parts per million by weight
RCRA	Resource Conservation and Recovery Act
SWRCB	State Water Resources Control Board
TBC	To be considered
TDS	Total dissolved solids
USACE	U.S. Army Corps of Engineers
UST	Underground storage tank
Water Board	Regional Water Quality Control Board
WDR	Waste discharge requirement

APPENDIX C
SUMMARY OF COSTS ASSOCIATED WITH ALTERNATIVE SELECTION

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ACRONYMS AND ABBREVIATIONS

AECOM	AECOM Technology Corporation
AOI	Area of Investigation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EE/CA	Engineering evaluation/cost analysis
EPA	U.S. Environmental Protection Agency
FSFA	Former soil fill area
IC	Institutional control
IR	Installation Restoration
MSROD	Midpeninsula Regional Open Space District
NASA	National Aeronautics and Space Administration
NASA Ames	NASA Ames Research Center
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
O&M	Operation and maintenance
OMB	Office of Management and Budget
OSWER	Office of Solid Waste and Emergency Response
PCB	Polychlorinated biphenyl
RACER	Remedial Action Cost Engineering and Requirements System
USFWS	U.S. Fish and Wildlife Service

C1 INTRODUCTION

This appendix to the engineering evaluation/cost analysis (EE/CA) for Area of Investigation (AOI 14) provides an initial estimate of costs associated with removal action alternatives. AOI 14 is located at the National Aeronautics and Space Administration (NASA) Ames Research Center (NASA Ames) at Moffett Field, California. AOI 14 includes three separate areas in close proximity to each other. These three areas are: (1) former soil fill area (FSFA), (2) the N217 area, and (3) the N217A fill area. AOI 14 is bordered by the Navy's Installation Restoration (IR) Site 25 and NASA Ames. Navy IR Site 25 is composed of the Eastern Diked Marsh, the stormwater settling basin, and the stormwater retention pond. The stormwater retention pond is divided into the western portion (owned by Midpeninsula Regional Open Space District [MROSD]) and the central and northeastern basins (both managed by NASA). The FSFA is not actively used, and access to this area is limited by the NASA Ames security fence to the south and by Navy IR Site 25 on all other sides. There are two buildings on the N217 and N217A areas. These buildings are currently used for research, development, and testing of magnetic field equipment.

The source of the contamination at AOI 14 is contaminated fill material that was placed on the native soil. There are no known records indicating the source of the fill material, but it is believed to be from construction projects at NASA Ames. Soil is the only exposure medium for the site; groundwater, surface water, and soil gas were not identified as potential exposure media.

The primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 to adjacent Navy IR Site 25. Additionally, NASA intends for this removal action to be the final action at AOI 14, therefore the risks to all potential human or ecological receptors were evaluated. The removal alternatives were developed to address the potential exposure of human and ecological receptors to contamination in the fill material at AOI 14.

The area subject to the removal action was identified as the imported fill material in the northern portion of the FSFA. The N217 area and the N217A fill area do not require remediation.

The following removal action alternatives were developed and evaluated to address the soil contamination at the FSFA:

- Alternative 1: No Action
- Alternative 2: Soil Cover and Institutional Controls
- Alternative 3: Excavation and Off-site Disposal

Under Alternative 1, no action would be taken at AOI 14 to reduce, control, or prevent exposure to contamination in soil. This alternative is retained throughout the evaluation process as required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to provide a baseline for comparison with other alternatives.

Alternative 2 includes: (1) construction of a soil cover over contaminated soil on the northern portion of the FSFA (including a biotic barrier to prevent exposure to terrestrial receptors and side-slope armoring to prevent erosion of the contaminated soil into Navy IR Site 25); (2) institutional controls (IC) to prohibit residential and other future uses of the site and require maintenance of the cover; (3) mitigation of sensitive habitat disturbed during construction of the cover; and (4) long-term monitoring to ensure the effectiveness of the remedy.

Alternative 3 includes: (1) excavation and off-site disposal of contaminated soil in the northern portion of the FSFA, where concentrations of contaminants exceed the cleanup goals; and (2) mitigation of sensitive habitat disturbed during excavation. After the excavation and habitat mitigation are complete, the site will be available for unrestricted use.

Costs and components of the technologies were derived from the Remedial Action Cost Engineering and Requirements System (RACER) software developed for the U.S. Army and Air force for cost estimating (AECOM 2010). The components of the cost estimate are described in Section C2. Section C3 describes the removal alternatives for AOI 14 and the major assumptions for the cost estimate for each alternative. The costs are summarized in Section C4. References for the cost estimates used specifically in this appendix are listed in Section C5.

C2 COST ESTIMATE COMPONENTS

This cost estimate was prepared in accordance with the "Guide for Developing and Documenting Cost Estimates during the Feasibility Study" (EPA 2000). The U.S. Environmental Protection Agency (EPA) uses this guidance to develop cost estimates during the detailed analysis phase of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) feasibility studies to compare alternatives and support remedy selection.

This cost estimate uses a detailed cost estimating approach, rather than parametric cost modeling, on an item-by-item basis. Detailed methods typically rely on compiled sources of unit-cost data for each item, taken either from a built-in database (if part of a software package, for example) or from other sources (for example, cost estimating references). This method, also known as "bottom up" estimating, is used when design information is available. Costs and components of the technologies for this cost estimate were derived using unit-cost data from the RACER software (AECOM 2010). Using this estimating approach, a feasibility study-level estimate as defined in EPA guidance (EPA 2000) has been prepared for this removal action, which is based on a plus 50 percent, minus 30 percent cost accuracy.

Environmental remediation projects are typically executed following either a traditional design-bid-build or design-build contracting approach. The design-bid-build contracting approach requires the owner to prepare a design, or work plan, for each site or project. Once the scope is awarded to a contractor, the owner functions in the role of Project Manager and uses either in-house expertise or separately contracts a third party to oversee the contractor performing and executing each individual project. The design-build contracting approach allows the owner to issue broad, all-encompassing scopes of work, perhaps on a site-by-site basis. This method of execution requires that the prime contractor provide everything from design, to remedial construction and long-term operations and maintenance.

This cost estimate assumes a design-build approach for managing the removal action. This cost estimate assumes NASA administers the project in accordance with U.S. Government Federal Acquisition Regulation requirements. As such, NASA procures contactors using competitive bidding with equivalent bid packages for contactor services. The cost estimate has estimated project management and technical services for third-party consultants using EPA guidance (EPA 2000). NASA has a separate department using its own in-house staff and third-party contractors to provide project management oversight over the design-build contractor to ensure that the design and build process complies with regulatory requirements. However, this estimate assumes the contactor will provide all necessary management services, including quality assurance and quality control.

Cost estimates for the removal alternatives include capital costs, annual operation and maintenance (O&M) costs, periodic costs, and the present value of O&M and periodic costs. Each of these components is discussed in further detail in the following text. The cost

estimate also includes a sensitivity analysis that evaluates the potential impacts of project assumptions on the range of costs for each alternative.

C2.1 CAPITAL COSTS

Capital costs include direct and indirect costs. Costs incurred for equipment, material, labor, construction, development, and implementation of the removal technologies are included as direct costs. Indirect costs include health and safety items, site supervision, engineering, overhead and profit, and startup. Indirect costs are included in the estimate as either a separate line item or as a percentage of the direct capital cost.

Internal costs for NASA to oversee the removal action are not included.

C2.2 ANNUAL OPERATION AND MAINTENANCE OR PERIODIC COSTS

Annual O&M costs include costs incurred after construction. These costs are necessary to assure the effectiveness of the removal action. Annual O&M costs typically include labor, consumable materials, purchased services (for example, laboratory analysis), sampling, permit fees, annual reports, and site reviews.

Periodic costs occur once every few years or once during the entire O&M period. Examples include 5-year reviews and site closeout.

C2.3 PRESENT VALUE ANALYSIS

Removal actions typically involve construction costs expended at the beginning of a project (capital costs) and costs in subsequent years (O&M or periodic costs). Present value analysis is a method to evaluate expenditures that occur over different periods. This standard methodology allows for cost comparisons of different alternatives on the basis of a single cost figure for each alternative. This single value, referred to as the present value, is the amount that would be needed to be set aside at the initial point in time (the base year) to assure that funds will be available in the future as they are needed. The present value analysis uses a discount rate and period of analysis to calculate the present value of each alternative.

C2.3.1 Discount Rate

A discount rate is the difference between interest and inflation rates. When inflation is neglected, the discount rate is simply an interest rate and is used to account for the time value of money. A dollar is worth more today than in the future because, if invested today, the dollar would earn interest. The choice of a discount rate is important because the selected rate directly affects the present value of a cost estimate, which is then used in making a remedy selection decision.

EPA policy on use of discount rates for cost analysis is set forth in the preamble to the NCP (55 *Federal Register* 8722) and in Office of Solid Waste and Emergency Response (OSWER) Directive9355.3-20 (EPA 1993). Discount rates used in economic analysis by the federal

government are specified in Office of Management and Budget (OMB) Circular A-94. This cost estimate uses the "real" discount rate (instead of the "nominal" discount rate). The current discount rates for varying streams of payments are as follows (OMB 2013):

Discount Rates for Varying Streams of Payment

3 years	-0.7%
5 years	0.0%
7 years	0.5%
10 years	1.0%
20 years	1.6%
30 years	1.9%

According to the OMB Circular A-94, "Analyses of programs with terms different from those presented above may use a linear interpolation. For example, a four-year project can be evaluated with a rate equal to the average of the three-year and five-year rates. Programs with durations longer than 30 years may use the 30-year interest rate."

C2.3.2 Present Value

The present value of a series of equal annual future payments, such as annual O&M payments, is calculated using the following equation:

$$PV = \sum_{t=1}^{n} \frac{x_t}{(1+i)^t}$$

where

PV	=	Present value
x_t	=	Payment in year t (t = 0 for present or base year)
i	=	Discount rate
t	=	Number of years after construction that expenditures start
n	=	Number of years that the stream of equal annual future payments will run

The present value of a single periodic future payment is calculated using the following equation:

$$PV = \frac{x_t}{(1+i)^t}$$

where

PV	=	Present value
x_t	=	Payment in year t (t = 0 for present or base year)

i = Discount rate

t = Number of years after construction that expenditures occur

The present value of a removal alternative represents the sum of the present values of all future payments associated with the project. The present value for this cost estimate is calculated using 2014 dollars.

C2.3.3 Project Duration

Excavation, sampling, loading of contaminated material, and site grading may require construction activities to extend past the dry season into the wet season. Most intrusive work is anticipated to be completed between September and the beginning of the dry season in May of the following year, but all work may continue throughout the year, over an approximate 12-month period.

C2.4 PROFESSIONAL LABOR MANAGEMENT AND DESIGN COSTS

Professional labor management and design costs have been applied as a percentage of capital costs using RACER-identified percentages or assumed based on the percentages recommended in EPA guidance (EPA 2000). The percentages recommended in EPA guidance (p.5-13) are shown on the table below.

Recommended Percentages from EPA Guidance

Task 2 - Remediation: Percentages (%) for Professional/Technical Services Recommended by EPA (EPA 2000)				
	Percentage (%)			
Capital Cost Element	**<$100K**	**$100k-$500K**	**$500K-$2M**	**$2M-$10M**
Project Management	10	8	6	5
Remedial Design	20	15	12	8
Construction Management	15	10	8	6
Lower Limit % =	10	8	6	**5**
Upper Limit % =	**45**	33	26	19

C2.5 CONTINGENCY ALLOWANCE

Contingency is factored into a cost estimate to cover unknowns, unforeseen circumstances, or unanticipated conditions that cannot be evaluated using the data on hand when the estimate is prepared. This cost estimate applies scope and bid contingency as a percentage of the total remediation (construction) and post-remediation (O&M) costs rather than individual elements as recommended by EPA (EPA 2000).

This cost estimate uses engineering judgment to develop a 20 percent contingency percentage. This estimate of contingency includes the following:

- Scope (Design) contingency covers unknown costs resulting from changes in scope that may occur during the design. Given that NASA is using proven technologies, such as excavation, rather than emerging technologies, a 10 percent contingency has been assumed, as recommended by EPA, and applied to both construction and O&M costs.
- Bid (Construction) contingency covers unknown costs associated with constructing or implementing a project scope and typically consider adverse weather, material or supply shortages, or new regulations. Given that Moffett Field has mild weather and NASA has a long history in the area with well-established contractor relations and well-understood regulatory requirements, the lower percentage recommended by EPA of 10 percent has been assumed for all costs except hazardous waste that might be encountered during excavation.
- Hazardous Waste contingency assumes that 10 percent of the soil and debris excavated from the disposal area is hazardous, and requires disposal in a Class I California landfill.

C2.6 Cost Range for Key Design Elements (Sensitivity Analysis)

Sensitivity analysis is added into the cost estimate to estimate the influence of specific cost elements on the results of the present value of the overall estimate.

Tables in Sections C3.2.3 and C3.3.3 list the major cost items in the estimate for Alternatives 2 and 3 where a small change in the element (either unit costs or accuracy of quantities) will substantially modify the overall estimate. The most cost sensitive item is the volume of fill material containing contaminants above cleanup goals.

C2.7 Cost Estimate Presentation

A summary of costs for the removal alternatives for AOI 14 is presented in Table C-1. Present value calculations for the alternatives are presented in Tables C-2 and C-3. Cost details for the alternatives are presented in Tables C-4 and C-5. The sensitivity analysis for Alternatives 2 and 3 is presented in Table C-6.

C3 COST ASSUMPTIONS FOR THE REMOVAL ALTERNATIVES

This section describes the following removal alternatives and the assumptions made for cost estimating purposes:

- Alternative 1: No Action
- Alternative 2: Soil Cover and Institutional Controls
- Alternative 3: Excavation and Off-site Disposal

C3.1 ALTERNATIVE 1: NO ACTION

This section describes Alternative 1, no action, and the associated cost estimate.

C3.1.1 Description

This alternative is required as part of the removal action screening process and provides a baseline used to compare with the other alternatives. Under this alternative, no action would be taken to alter any area of the site.

C3.1.2 Cost Assumptions for Alternative 1

No actions and no costs are associated with Alternative 1.

C3.2 ALTERNATIVE 2: SOIL COVER AND INSTITUTIONAL CONTROLS

This section describes Alternative 2 and the associated cost estimate and sensitivity analysis.

C3.2.1 Description

Alternative 2 includes the following components:

- Excavation of fill material at the FSFA that extends over the property line into the MROSD property and near sediment sample FSFA-SDS08 where concentrations of total polychlorinated biphenyls (PCB) exceed cleanup goals;
- Installation of a temporary barrier to prevent special status species from entering work areas during removal action activities;
- Installation of a soil cover over the areas of AOI 14 where concentrations of contaminants exceed the cleanup goals, including a biotic barrier to prevent ecological receptors at AOI 14 from contacting the contaminated soil and possibly side-slope armoring that would support a vegetative layer to prevent erosion of underlying soil into Navy IR Site 25;
- Implementation of institutional controls (ICs) to prohibit the future residential use of AOI 14;
- Mitigation and monitoring of areas where sensitive habitat was disturbed during removal action activities; and

- Long-term monitoring and maintenance of the soil cover.

Soil containing concentrations of contaminants above the cleanup goals is limited to the northern portion of the FSFA, as shown on Plate 7 in the EE/CA report. This area will be covered with a biotic barrier and soil cover to reduce the potential for exposure of ecological receptors to the contaminated soil. The performance objectives of the cover are (1) to prevent the erosion of contaminated soil from AOI 14 into Navy IR Site 25; and (2) to prevent the exposure of human and terrestrial ecological receptors at AOI 14 to contaminated soil.

The FSFA is adjacent to Navy IR Site 25, a portion of which is owned by MROSD. The land surrounding the peninsula provides habitat that could support special status species. Under this alternative, the current FSFA will be reconfigured to excavate fill material that extends over the property line onto MROSD property. In addition, fill material that exceeds site cleanup goals near sediment sample FSFA-SDS08 will be removed. The FSFA may also be reconfigured to minimize the area of the cover necessary or to maintain slope requirements without expanding the current site boundaries. This reconfiguration would consist of excavating contaminated fill material from the edges of the FSFA and moving it toward the center of the FSFA, using it as foundation material to achieve the final slopes.

The surface of the FSFA will be cleared of existing vegetation. The existing surface will be compacted and scarified as a base foundation layer for the biotic barrier and to remove any construction debris at the surface. Then, a biotic barrier will be placed on top of the contaminated fill material to reduce the potential for exposure of plants and burrowing animals. A soil cover consisting of clean fill from an off-site borrow source will be placed on top of the biotic barrier to allow reseeding of the area. The surface of the soil cover will be graded at a minimum slope of 3 percent to promote surface water drainage off of the cover and revegetated with native and local plant stock when feasible. The side slopes of the cover will be maintained and may be armored with structural material, such as open cell articulated concrete blocks that will support a vegetative layer, to reduce erosion of underlying soil into Navy IR Site 25 and to protect against tidal action if Navy IR Site 25 is restored to a tidal marsh.

A land use control design will be prepared that describes the specific IC implementation actions, including the requirements for CERCLA 5-year remedy reviews; frequency and requirements for periodic monitoring or visual inspection; notification procedures to the regulatory agencies for planned property conveyance; corrective action requirements or responses to actions inconsistent with the ICs; a list of ICs with expected duration; and maps identifying where ICs are to be implemented.

Construction at soil sample location FSFA-SDS08 will occur in a jurisdictional wetland delineated by the U.S. Army Corps of Engineers in 1989; however, the removal activities in this area would affect less than 1/10 of an acre of the jurisdictional wetland. Ecological habitat within the wetland areas would be restored. Details of the habitat restoration will be presented in a mitigation plan developed as part of the removal design. A qualified biologist will monitor implementation of the removal action to minimize the impact of site

activities on the ecological habitat at AOI 14 and the surrounding areas. A qualified biologist will create guidelines for construction procedures and identify the appropriate hours during the day and months of the year to conduct construction to reduce disturbances to ecological receptors. NASA will work with the U.S. Fish and Wildlife Service (USFWS) and CDFW to develop these guidelines. In addition, NASA will work with USFWS and CDFW to mitigate disturbed habitat.

Construction is estimated to require less than 6 months to complete. This timeframe was estimated based on the following assumptions: (1) site preparation would require approximately 1 month; (2) construction of the cover would require approximately 4 months; and (3) initial efforts for habitat mitigation and site revegetation would require approximately 1 month.

Maintenance and monitoring will be required to maintain the effectiveness of this alternative. The soil cover and side-slope protection will be inspected and repaired as necessary to meet the performance objectives of the cover. Typical repair would consist of repair of any structural material or soil. The habitat mitigation or management will be monitored to evaluate their effectiveness. In addition, the effectiveness of the ICs will be monitored periodically. These maintenance and monitoring activities would be documented in a CERCLA 5-year review.

C3.2.2 Cost Assumptions for Alternative 2

Construction details, including the type of biotic barrier, borrow source for the clean fill material, type and size of structural material, slope of the sides, and species and sources of selected vegetation, will be specified in the removal action design. These design specifications were assumed in this EE/CA for the cost analysis. These assumptions of the scope of the alternative are described in this section. Actual quantities and materials used may vary from this estimate.

Soil Cover

The following assumptions were used to evaluate the costs of the soil cover:

- The soil cover will be approximately 270,000 square feet (6.2 acres), as shown on Plate 7.
- The existing vegetation will be cleared and grubbed (approximately 6 acres). Approximately 11,000 cubic yards (bank) of soil will be reconfigured to remove contaminated fill material from the edges of the site, near the boundaries of Navy IR Site 25 (around sample FSFA-SDS08) and where fill material extends over the property line onto property owned by MROSD, and to reduce the size of the cover. This excavated fill material will be placed on top of existing grade near the center of the northern portion of the FSFA.
- The existing surface will be scarified to a depth of 2 feet; any debris or other obstructions will be removed. Approximately 250,000 square feet (18,500 bank cubic yards) will be scarified.

- Approximately 20 tons of large, protruding construction debris, such as concrete blocks and miscellaneous metal piping, will be removed from the fill material during reconfiguration or scarification and disposed of off site as solid waste.
- The existing fill material will be compacted as a base foundation layer for the biotic barrier and soil cover. Approximately 18,500 bank cubic yards will be compacted in 6-inch lifts.
- A biotic barrier will be placed on top of the compacted soil. It is assumed that the biotic barrier will be 1.5 feet thick, consisting of (from top to bottom) 6 inches of mixed gravel (gradation size ¼ to ½ inch), 8 inches of cobbles (gradation 1 to 6 inches), and 4 inches of gravel (gradation ½ to ¼ inches). Approximately 9,300 cubic yards of gravel and 6,200 cubic yards of cobbles and gravel will be placed.
- A soil cover approximately 2 feet thick and consisting of clean soil from an off-site borrow source will be placed on top of the biotic barrier, including 6 inches of topsoil suitable for revegetation.
- The soil cover will require approximately 18,500 cubic yards of clean soil.
- The cover will be graded to a minimum 3 percent slope to promote stormwater drainage.
- The surface of the cover (approximately 6 acres) will be revegetated.
- A 15-foot-wide gravel access road will be constructed on the soil cover (approximately 1,000 feet long) to extend the existing access road to the soil cover for maintenance and monitoring. A 40- by 60-foot turn-around area will be constructed at the northern end of the soil cover. The access road and turn-around area will be constructed of approximately 210 cubic yards of aggregate base course (assuming 6 inches deep).
- It is assumed that the soil cover would be inspected quarterly for the first 2 years, then annually thereafter.
- It is assumed that one percent of the soil cover and side slope riprap would require maintenance by soil or riprap backfilling every 5 years.

Side-Slope Armoring

The following assumptions were used to evaluate the costs of the side-slopes:

- The side slopes will be graded to a 3 horizontal: 1 vertical slope.
- The side slopes will contain the same foundation layer and biotic barrier as the soil cover.

- The side slopes will be armored with structural material and backfilled with sand, marsh soils, topsoil, and vegetation. It is assumed that the structural material will be articulated concrete blocks.
- The structural material will extend to approximately 8 to 12.5 feet above mean sea level.
- Approximately 75,000 square feet of structural material will be transported to the site and placed on the slopes of the FSFA. (Assume the perimeter of the removal area is 2,200 feet and the material extends an average of 10 feet in height, with 3:1 slope, and a side slope length of about 27 feet.)

Ecological Monitoring and Mitigation
The following assumptions were used to evaluate the costs of the ecological monitoring and mitigation:

- A qualified biologist will train construction personnel and periodically monitor the effects of the construction on the ecological habitat.
- Approximately 4,500 linear feet of visqueen plastic sheeting will be constructed around the construction area to prevent special status species from entering the construction zone. The barrier will be approximately 4 feet high and will extend approximately 6 inches into the ground. Field personnel will exclude animals inside the construction zone before sampling and excavation begin. Construction of the barrier and exclusion of animals will require 6 days to complete.
- Approximately 0.3 acre of pickleweed will be disturbed. This area will be mitigated by replacement of 0.3 acre of pickleweed and management of 40 acres of pepperweed within the stormwater retention pond and in the diked marshes south of AOI 14.
- Pickleweed will be restored through hydroseeding. Pepperweed will be eradicated through spraying of herbicide. The herbicide will be identified by NASA during the remedial design (likely glyphosate where pickleweed is located and imazapyr on other areas). Costs for spraying of herbicides are assumed to be similar to costs for hydroseeding. It is assumed that 30 acres can be sprayed using large truck-mounted equipment and 10 acres will require hand spraying.
- The mitigation and eradication efforts will be monitored annually for 5 years. It is assumed that no mitigation will be necessary after the initial mitigation and eradication efforts.

Institutional Controls and 5-Year Reviews
The following assumptions were used to evaluate the costs of implementing ICs:

- Costs associated with ICs are largely administrative and include labor hours to modify NASA planning documents and legal documents. These costs include the

time and material for the annual reviews and the 5-year reviews to evaluate the protectiveness of the remedy. The specific ICs for AOI 14 will be detailed in a land use control remedial design.

- The ICs are designed and implemented in the base year. The inspections and enforcement of the ICs are conducted annually or with the 5-year reviews.
- CERCLA 5-year reviews are conducted every 5 years as long as ICs are in place to restrict the future use of AOI 14. For cost estimating purposes, it is assumed that the annual IC reviews and 5-year reviews are conducted until Year 30.

C3.2.3 Sensitivity Analysis for Alternative 2

The costs for Alternative 2 are based on the assumptions listed in Section C3.2.2. The actual costs of Alternative 2 may vary significantly if these assumptions are changed. Table C-6 that follows shows the impacts on the present value with changes in line item costs. The table lists possible scenarios that might cause the present value of the alternative to change. The greatest changes in present value might occur if off-site disposal of excavated fill, or cover maintenance or inspection services increase over time. Table C-6 summarizes present value costs for each of these scenarios.

C3.3 ALTERNATIVE 3: EXCAVATION AND OFF-SITE DISPOSAL

This section describes Alternative 3 and the associated cost estimate.

C3.3.1 Description

Under this alternative, all fill material located in the northern portion of the FSFA where contaminant concentrations exceed cleanup goals (Plate 7) would be excavated and transported off site to an appropriate disposal facility. Mitigation and monitoring will be required for habitat disturbed during implementation of the remedy.

The fill material containing concentrations of lead, total PCBs, and total DDT above cleanup goals will be excavated and transported off site for disposal. The excavation area includes fill material near sediment sample FSFA-SDS08 where concentrations of total PCBs exceed the cleanup goal and fill material in the FSFA that extends over the property line into MROSD property. The excavation will extend until clean fill material is encountered (based on the results of previous investigations and post-excavation confirmation sampling) or until native soil beneath the fill (based on visual inspection) is encountered. Construction debris encountered during excavation will be segregated and disposed of as solid waste. Metal debris could be salvaged as scrap metal. Material that does not contain concentrations of contaminants above cleanup goals will be segregated and used to grade the site after the contaminated material is removed. A typical cross-section of the excavation and grading for Alternative 3 is shown on Plate 10 of the EE/CA report.

It is assumed that 90 percent of the contaminated fill material will meet the requirements for disposal at a nonhazardous waste landfill, 5 percent will meet the requirements for disposal at a hazardous waste landfill, and 5 percent will be disposed of as construction debris. Waste characterization samples will be collected to ensure proper disposal of the excavated fill material.

The horizontal extent of the excavation is shown on Plate 7 of the EE/CA report and is approximately the same as the horizontal extent of the soil cover for Alternative 2. NASA will work with USFWS to identify the appropriate mitigation activities for this area. The remaining, uncontaminated fill material at the FSFA will be sloped to prevent the erosion of the material into the stormwater retention pond.

Confirmation samples will be collected from the clean fill and native soil after excavation is complete to evaluate the residual concentrations of contamination at the FSFA. If the results of the confirmation samples exceed the cleanup goals, additional excavation or evaluation may be required. As discussed in Section 3.2 of the EE/CA report, the results of the confirmation samples will be used to calculate the site-wide average concentration, and that concentration will be compared with the site-wide average remediation goals developed for Navy IR Site 25. If the AOI 14 site-wide average concentration exceeds the Navy IR Site 25 goals, additional soil may be excavated until the site-wide average concentration is below the goal.

It is assumed that construction will require less than 12 months to complete. This timeframe was estimated based on the following assumptions: (1) site preparation would require approximately 1 month; (2) excavation and off-site disposal would require approximately 10 months; and (3) initial efforts for habitat mitigation and site revegetation would require approximately 1 month.

NASA will work with USFWS and CDFW to restore the ecological habitat of the former FSFA area. As described in Section 4.2.1.2 of the EE/CA report, a temporary barrier will be constructed to prevent special status species from entering the construction area, and a biologist will periodically monitor the construction and provide guidelines to minimize the impact of the remedy on the surrounding habitat. After the ecological mitigation is complete, no further maintenance or monitoring would be required for AOI 14 because no contamination at concentrations exceeding the cleanup goals would be left in place.

C3.3.2 Cost Assumptions for Alternative 3

The design parameters, such as the volume of material to be excavated, sampling requirements, and the mitigation activities will be specified in the removal action design; however, these parameters are estimated in this section for cost analysis.

Excavation and Off-site Disposal

The following assumptions were used to evaluate the costs of the excavation and off-site disposal of the contaminated fill material at AOI 14. (Actual volumes will be based on actual field conditions and will likely vary from these estimates.)

- The existing vegetation will be cleared and grubbed (approximately 6 acres).
- Approximately 71,000 cubic yards (bank) of contaminated fill material will be excavated from the FSFA.
- Approximately 12,000 cubic yards (bank) of clean fill material located over contaminated fill material will be excavated, stockpiled, and placed back on the FSFA. This soil will be compacted and graded for drainage.
- Ninety percent of the fill material will meet the requirements for disposal at a nonhazardous waste landfill, 5 percent will meet the requirements for hazardous waste disposal, and 5 percent will be disposed of as construction debris.
- Approximately 3,000 cubic yards of construction debris will be segregated from the excavated soil and will be transported and disposed of as construction debris. The assumed amount of debris may vary significantly because the waste is heterogeneous.
- Approximately 53,000 bank cubic yards of excavated soil will be transported by truck to a California Class II landfill, approximately 45 miles from the site (assume Altamont Landfill in Livermore, California).

- Approximately 3,000 bank cubic yards of excavated soil will be transported by truck to Kettleman Landfill (Class I hazardous waste), approximately 175 miles from the site.
- Waste disposal characterization samples will be collected, assuming one sample per 2,000 cubic yards (25 samples total). The samples will be analyzed for California hazardous waste criteria (total and soluble metals), PCBs, and pesticides, and additional analysis required by the disposal facility, including paint-filter test for solids.
- A total of 620 confirmation samples will be collected from the clean fill material or the native soil at the bottom of the excavation area (assuming 10 confirmation sample per soil sample used to define the areas of excavation). The confirmation samples will be analyzed for metals, pesticides, and PCBs. It is assumed that all samples will be below cleanup goals and that the area-wide average concentration for AOI 14 is below the Navy IR Site 25 area-wide average remediation goal. No further excavation or evaluation will be necessary.
- The excavated area will not be backfilled, similar to the Navy IR Site 25 ecological restoration, where a suitable source of fill material was not found on or off site.

Ecological Monitoring and Mitigation

The following assumptions were used to evaluate the costs of the ecological monitoring and mitigation:

- A biologist will train construction personnel and periodically monitor the effects of the construction on the ecological habitat.
- Approximately 4,500 linear feet of visqueen plastic sheeting will be constructed around the construction area to prevent special status species from entering the construction zone. The barrier will be approximately 4 feet high and will extend approximately 6 inches into the ground. Field personnel will exclude animals inside the construction zone before sampling and excavation begin. Construction of the barrier and exclusion of animals will require 6 days to complete.
- Approximately 0.8 acre of pickleweed will be disturbed. This area will be mitigated by replacement of 0.8 acre of pickleweed and management of 40 acres of pepperweed within the stormwater retention pond and in the diked marshes south of AOI 14.
- Pickleweed will be restored through hydroseeding. Pepperweed will be eradicated through spraying of herbicide. The herbicide will be identified by NASA during the remedial design (likely glyphosate where pickleweed is located and imazapyr on other areas). Costs for spraying of herbicides are assumed to be similar to costs for hydroseeding. It is assumed that 30 acres can be sprayed using large truck-mounted equipment and 10 acres will require hand spraying.

- The mitigation and eradication efforts will be monitored annually for 5 years. It is assumed that no mitigation will be necessary after the initial mitigation and eradication efforts.
- One 5-year review will be necessary to document the ecological mitigative measures.

C3.3.3 Sensitivity Analysis for Alternative 3

The actual costs of Alternative 3 may vary significantly from the cost estimate presented in this appendix. A sensitivity analysis was conducted to attempt to identify and quantify the variability of the cost estimate. Table C-6 summarizes present value costs for the sensitivity analysis.

Table C-6 shows the impacts on the present value with changes in off-site disposal quantities of excavated fill as nonhazardous and hazardous waste. The baseline cost estimate assumes volumes of contaminated soil correspond to the distribution of contamination interpreted from sampling data. These scenarios assume increases in contaminated soil that correspond to removal of the complete area within the bounded removal action area shown on Plate 7.

C4 COST SUMMARY

Table C-1 provides a summary of costs for the removal action alternatives. These costs include capital costs, O&M costs, future costs, and the present value costs. Alternative 3 is approximately 37 percent more expensive than Alternative 2. Most of the costs for Alternative 3 are for transportation and disposal of the contaminated fill material because of the large volume of fill.

Tables C-2 and C-3 summarize the present value analysis of future costs for the removal alternatives. The detailed costs are presented on Tables C-4 and C-5.

C5 REFERENCES

AECOM Technology Corporation. 2010. Remedial Action Cost Engineering and Requirements System (RACER) cost database software, Version 10.4.

Office of Management and Budget (OMB). 2013. "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs." Circular A-94. Revised December.

U.S. Environmental Protection Agency (EPA). 1993. "Memorandum from Office of Emergency and Remedial Response to EPA Regional Directors." Office of Solid Waste and Emergency Response (OSWER) Directive 9355.3-20.

EPA. 2000. "A Guide to Developing and Documenting Cost Estimates during the Feasibility Study." EPA 540-R-00-002, OSWER 9355.0-75. July.

TABLES

TABLE C-1. REMOVAL ACTION ALTERNATIVE COST SUMMARY

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

	Description	Capital Cost	O&M [a]	Total Future Value	Total Present Value [b]
Alternative 1	No Action	$0	$0	$0	**$0**
Alternative 2	Soil Cover and Institutional Controls	$6,129,000	$1,401,000	$7,530,000	**$7,876,000**
Alternative 3	Excavation and Off-site Disposal	$9,938,000	$324,000	$10,262,000	**$10,803,000**

Note: Costs have been rounded to the nearest thousand dollars

a Future value O&M costs are presented above for the 30-year (Alternative 2) or 5-year (Alternative 3) O&M periods.

b Present value costs are shown in Tables C-2 and C-3. Detailed capital and O&M costs are shown on Tables C-4 and C-5.

O&M Operation and maintenance

TABLE C-2. PRESENT VALUE COST ESTIMATE, ALTERNATIVE 2

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Discount Rate (30 years) at 1.90%

Year	Future Value of Costs for Alternative 2	Escalation Factor [a]	Escalated Value	Annual Discount Factor [b]	Present Value Cost for Alternative 2	Present Value Cost for Alternative 2
0	$6,129,483	1.0508	$6,440,861	1	Design, ICs, Soil Cover, Ecological Restoration	$6,440,861
1	$113,287	1.0687	$121,069	0.981	Quarterly Soil Cover and IC Inspections, Annual Ecological Mitigation Inspection, Annual Soil Cover Inspection Report	$118,812
2	$113,287	1.0869	$123,131	0.963	Quarterly Soil Cover and IC Inspections, Annual Ecological Mitigation Inspection, Annual Soil Cover Inspection Report	$118,582
3	$78,465	1.1053	$86,728	0.945	Annual Soil Cover and IC Inspections, Annual Ecological Mitigation Inspection, Annual Soil Cover Inspection Report	$81,966
4	$78,465	1.1241	$88,203	0.927	Annual Soil Cover and IC Inspections, Annual Ecological Mitigation Inspection, Annual Soil Cover Inspection Report	$81,806
5	141580.2447	1.1432	$161,855	0.910	5-Year Review, Annual Ecological Mitigation Inspection, Soil Cover Maintenance	$147,317
6	$22,398	1.1627	$26,042	0.893	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$23,261
7	$22,398	1.1824	$26,483	0.877	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$23,214
8	$22,398	1.2026	$26,935	0.860	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$23,170
9	$22,398	1.2230	$27,392	0.844	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$23,124
10	85512.4047	1.2438	$106,360	0.828	5-Year Review, Soil Cover Maintenance	$88,113
11	$22,398	1.2649	$28,331	0.813	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$23,032
12	$22,398	1.2864	$28,812	0.798	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,987
13	$22,398	1.3083	$29,303	0.783	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,943
14	$22,398	1.3305	$29,800	0.768	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,897
15	$85,512	1.3532	$115,715	0.754	5-Year Review, Soil Cover Maintenance	$87,253
16	$22,398	1.3762	$30,823	0.740	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,808
17	$22,398	1.3996	$31,348	0.726	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,764
18	$22,398	1.4234	$31,881	0.713	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,719
19	$22,398	1.4476	$32,423	0.699	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,675
20	$85,512	1.4722	$125,891	0.686	5-Year Review, Soil Cover Maintenance	$86,400
21	$22,398	1.4972	$33,534	0.674	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,585
22	$22,398	1.5226	$34,102	0.661	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,540
23	$22,398	1.5485	$34,683	0.649	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,496
24	$22,398	1.5748	$35,272	0.637	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,451
25	$85,512	1.6016	$136,957	0.625	5-Year Review, Soil Cover Maintenance	$85,552
26	$22,398	1.6288	$36,481	0.613	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,363
27	$22,398	1.6565	$37,102	0.602	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,320
28	$22,398	1.6847	$37,733	0.590	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,276
29	$22,398	1.7133	$38,374	0.579	Annual Soil Cover and IC Inspections, Annual Soil Cover Inspection Report	$22,232
30	$85,512	1.7425	$149,005	0.569	5-Year Review, Soil Cover Maintenance	$84,718
					Total Present Value Cost	**$7,876,238**

Notes:

a Escalation factors from RACER Version 10.4 (2011 cost database).

b Annual discount factor = $1/(1+i)^t$, where i=0.019 and t=year (that is, the present value of $1 paid in year t at 1.90%). Annual discount rate obtained from OMB Circular No. A-94, 2013.

TABLE C-3. PRESENT VALUE COST ESTIMATE, ALTERNATIVE 3

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Discount Rate (5 years) at 0.00%

Year	Future Value of Costs for Alternative 3	Escalation Factor [a]	Escalated Value	Annual Discount Factor [b]	Present Value Cost for Alternative 3	Present Value Cost for Alternative 3
0	$9,938,083	1.0508	$10,442,937	1	Remedial Design, Excavation and Off-Site Disposal, Ecological Restoration	$10,442,937
1	$56,068	1.0687	$59,920	1.000	Annual Ecological Mitigation Inspection	$59,920
2	$56,068	1.0869	$60,940	1.000	Annual Ecological Mitigation Inspection	$60,940
3	$56,068	1.1053	$61,972	1.000	Annual Ecological Mitigation Inspection	$61,972
4	$56,068	1.1241	$63,026	1.000	Annual Ecological Mitigation Inspection	$63,026
5	$99,504	1.1432	$113,753	1.000	5-Year Review and Ecological Restoration Inspection	$113,753
6	$0	1.1627	$0	1.000		$0
7	$0	1.1824	$0	1.000		$0
8	$0	1.2026	$0	1.000		$0
9	$0	1.2230	$0	1.000		$0
10	$0	1.2438	$0	1.000		$0
11	$0	1.2649	$0	1.000		$0
12	$0	1.2864	$0	1.000		$0
13	$0	1.3083	$0	1.000		$0
14	$0	1.3305	$0	1.000		$0
15	$0	1.3532	$0	1.000		$0
16	$0	1.3762	$0	1.000		$0
17	$0	1.3996	$0	1.000		$0
18	$0	1.4234	$0	1.000		$0
19	$0	1.4476	$0	1.000		$0
20	$0	1.4722	$0	1.000		$0
21	$0	1.4972	$0	1.000		$0
22	$0	1.5226	$0	1.000		$0
23	$0	1.5485	$0	1.000		$0
24	$0	1.5748	$0	1.000		$0
25	$0	1.6016	$0	1.000		$0
26	$0	1.6288	$0	1.000		$0
27	$0	1.6565	$0	1.000		$0
28	$0	1.6847	$0	1.000		$0
29	$0	1.7133	$0	1.000		$0
30	$0	1.7425	$0	1.000		$0
					Total Present Value Cost	**$10,802,548**

Notes:

a Escalation factors from RACER Verison 10.4 (2011 cost database).

b Annual discount factor for 5 years is 0.0%. Annual discount rate obtained from OMB Circular No. A-94, 2013.

TABLE C-4. COST DETAILS, ALTERNATIVE 2
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Project: **NASA Ames, AOI 14**
Alternative 2: Soil Cover and Institutional Controls

Prepared by: **Date:** 12/18/2014 **Checked by:** **Date:**

RACER Database: System Costs
Cost Database Date: 2011

Assumed Start Date *Dec-14*
Location Modifier *1.275* (Moffett Field NAS, California)
Contingency* **20%**

Assembly	Description	Quantity	Unit	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Total Loaded Unit Cost	Extended Cost
INSTITUTIONAL CONTROLS (CAPITAL COSTS)								
Planning Docs								
33220102	Project Manager	10	HR	$0.00	$184.80	$0.00	$184.80	$1,848
33220105	Project Engineer	40	HR	$0.00	$164.52	$0.00	$164.52	$6,581
33220106	Staff Engineer	160	HR	$0.00	$218.01	$0.00	$218.01	$34,882
33220110	QA/QC Officer	20	HR	$0.00	$185.44	$0.00	$185.44	$3,709
33220114	Word Processing/Clerical	180	HR	$0.00	$95.32	$0.00	$95.32	$17,158
33220115	Draftsman/CADD	40	HR	$0.00	$104.61	$0.00	$104.61	$4,184
33220503	Attorney, Partner, Real Estate	10	HR	$0.00	$340.64	$0.00	$340.64	$3,406
33240101	Other Direct Costs	1	LS	$4,297.82	$0.00	$0.00	$4,297.82	$4,298
Planning Meetings								
33010202	Per Diem (per person)	8	DAY	$172.00	$0.00	$0.00	$172.00	$1,376
33220102	Project Manager	10	HR	$0.00	$184.80	$0.00	$184.80	$1,848
33220105	Project Engineer	20	HR	$0.00	$164.52	$0.00	$164.52	$3,290
33220114	Word Processing/Clerical	40	HR	$0.00	$95.32	$0.00	$95.32	$3,813
33220115	Draftsman/CADD	16	HR	$0.00	$104.61	$0.00	$104.61	$1,674
33240101	Other Direct Costs	1	LS	$702.34	$0.00	$0.00	$702.34	$702
Implementation								
33220102	Project Manager	10	HR	$0.00	$184.80	$0.00	$184.80	$1,848
33220105	Project Engineer	80	HR	$0.00	$164.52	$0.00	$164.52	$13,162
33220106	Staff Engineer	60	HR	$0.00	$218.01	$0.00	$218.01	$13,081
33220110	QA/QC Officer	20	HR	$0.00	$185.44	$0.00	$185.44	$3,709
33220114	Word Processing/Clerical	60	HR	$0.00	$95.32	$0.00	$95.32	$5,719
33220115	Draftsman/CADD	80	HR	$0.00	$104.61	$0.00	$104.61	$8,369
33220120	Computer Data Entry	80	HR	$0.00	$95.32	$0.00	$95.32	$7,626
33240101	Other Direct Costs	1	LS	$2,355.02	$0.00	$0.00	$2,355.02	$2,355
				Subtotal Institutional Controls - Base Year (with contingency):				**$173,564**
Five-Year Review								
Document Review								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	12	HR	$0.00	$200.64	$0.00	$200.64	$2,408
33220108	Project Scientist	8	HR	$0.00	$228.30	$0.00	$228.30	$1,826
33220109	Staff Scientist	16	HR	$0.00	$130.46	$0.00	$130.46	$2,087
Interviews								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
Site Inspection								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	20	HR	$0.00	$200.64	$0.00	$200.64	$4,013
33220108	Project Scientist	12	HR	$0.00	$228.30	$0.00	$228.30	$2,740
33220109	Staff Scientist	13	HR	$0.00	$130.46	$0.00	$130.46	$1,696
Reports (each review)								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	16	HR	$0.00	$200.64	$0.00	$200.64	$3,210
33220108	Project Scientist	16	HR	$0.00	$228.30	$0.00	$228.30	$3,653
33220109	Staff Scientist	26	HR	$0.00	$130.46	$0.00	$130.46	$3,392
Travel								
33010108	Sedan, Automobile, Rental	1	DAY	$74.24	$0.00	$0.00	$74.24	$74
33010202	Per Diem (per person)	2	DAY	$140.00	$0.00	$0.00	$140.00	$280
					Subtotal - Each Review (with contingency):			**$43,436.18**
					Subtotal Years 5 through 30 (6 reviews):			**$260,617.10**
					SUBTOTAL INSTITUTIONAL CONTROLS:			**$434,181**

TABLE C-4. COST DETAILS, ALTERNATIVE 2
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Assembly	Description	Quantity	Unit	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Total Loaded Unit Cost	Extended Cost
SOIL COVER (CAPITAL COST)								
Site Preparation								
Clearing and Grubbing								
33010101	Mobilize/DeMobilize Equipment	1.00	LS	0.00	2,279.91	1,334.25	3,614.16	$3,614
17010102	Selective clearing, brush, light clearing, with dozer and brush rake, excludes removal offsite	6	ACR	$0.00	$199.31	$193.25	$392.56	$2,355
17010501	Grub and stack, 140 HP dozer	726	CY	$0.00	$4.96	$2.95	$7.91	$5,743
17020401	Dump Charges	1,591	EA	$22.48	$0.00	$0.00	$22.48	$35,770
17030222	926, 2.0 CY, Wheel Loader	31	HR	$0.00	$129.17	$71.30	$200.47	$6,215
17030287	20 CY, Semi Dump	62	HR	$0.00	$120.54	$96.23	$216.77	$13,440
Scarification								
17010520	Scarifying, 12G - 2 Pass	27,800	SY	$0.00	$0.37	$0.31	$0.68	$18,904
Temporary Barrier around Construction Area								
CAQA SE-1_2012; Means 312316.13 1500	Visqueen barrier	4,500	LF	$7.00	$5.00	$0.00	$12.00	$54,000
33220107	Senior Scientist (Qualified Biologist)	200	HR	$0.00	$292.92	$0.00	$292.92	$58,584
Disposal of Construction Debris								
17030278	Excavate and load, bank measure, medium material, 3-1/2 CY bucket, hydraulic excavator	14	BCY	$0.00	$1.33	$1.66	$2.99	$42
17020401	Dump Charges	14	EA	$20.00	$0.00	$0.00	$20.00	$280
17030220	910, 1.25 CY, Wheel Loader	1	HR	$0.00	$129.17	$55.42	$184.59	$185
17030284	8 CY, Dump Truck	10	HR	$0.00	$120.54	$81.22	$201.76	$2,018
Excavation on MROSD and near SDS08								
17030278	Excavate and load, bank measure, medium material, 3-1/2 CY bucket, hydraulic excavator	11,000	BCY	$0.00	$1.33	$1.66	$2.99	$32,890
17030423	Unclassified Fill, 6" Lifts, Includes Spreading and Compaction (no material)	15,278	CCY	$0.00	$1.71	$1.48	$3.19	$48,736
							Subtotal Site Preparation (with contingency):	**$339,329.79**
Soil Cover Construction								
Soil Cover, Biotic Barrier, and Side Slope Protection								
33010101	Mobilize/DeMobilize Equipment	2.00	LS	0.00	2,279.91	1,334.25	3,614.16	$7,228
17030423	Unclassified Fill, 6" Lifts, Off-Site, Includes Delivery, Spreading and Compaction	20,306	CCY	$13.83	$1.71	$1.48	$17.02	$345,601
18010102	Gravel, Delivered and Dumped (10-inch layer, cover and side slopes)	16,261	LCY	$40.12	$7.13	$7.51	$54.76	$890,438
18050101	Area Preparation, 67% Level & 33% Slope	6	ACR	$0.00	$30.98	$38.65	$69.63	$418
17030423	Side-slope armoring foundation soil: Unclassified Fill, 6" Lifts, Off-Site, Includes Delivery, Spreading and Compaction	1,389	CCY	$13.83	$1.71	$1.48	$17.02	$23,639
18050202	Gravel and cobbles for Biotic Barrier, including underneath side slope (assume 8-inch thick layer of rip rap, random pieces, dumped from truck)	8,947	CCY	$51.83	$12.30	$5.14	$69.27	$619,724
Means 3136130400(Lbr & eqp) & Vendor (Conteches mat'l)	Sideslope armoring (open cell articulated concrete stones)	72,900	SF	$11.50	$1.72	$0.00	$13.22	$963,414
18050301	Loam or topsoil, imported topsoil, 6" deep, furnish and place	7,481	LCY	$48.15	$9.11	$2.96	$60.22	$450,499
18050402	Seeding, Vegetative Cover	7	ACR	$5,533.51	$785.82	$338.50	$6,657.83	$46,871
Access Road and Turn-around								
17030103	Rough Grading, 14G, 1 Pass	4,000	SY	$0.00	$0.37	$0.44	$0.81	$3,240
17030108	Fine Grading, 130G, 2 Passes	1,889	SY	$0.00	$0.86	$0.61	$1.47	$2,777
17030501	Compaction, subgrade, 18" wide, 8" lifts, walk behind, vibrating plate	247	CCY	$0.00	$4.06	$0.28	$4.34	$1,072
18010102	Gravel, Delivered and Dumped	294	LCY	$40.12	$7.13	$7.51	$54.76	$16,090
Ecological Oversight								
33220107	Senior Scientist (Qualified Biologist)	100	HR	$0.00	$292.92	$0.00	$292.92	$29,292
							Subtotal Soil Cover Construction (with contingency):	**$4,080,363**
							SUBTOTAL SOIL COVER:	**$4,419,693**
SOIL COVER INSPECTION AND MAINTENANCE (O&M COSTS)								
Annual Site Inspection								
33220102	Project Manager	8	HR	$0.00	$225.37	$0.00	$225.37	$1,803
33220105	Project Engineer	16	HR	$0.00	$200.64	$0.00	$200.64	$3,210
33220108	Project Scientist	12	HR	$0.00	$228.30	$0.00	$228.30	$2,740
33220109	Staff Scientist	12	HR	$0.00	$130.46	$0.00	$130.46	$1,566
Travel								
33010108	Sedan, Automobile, Rental	1	DAY	$74.24	$0.00	$0.00	$74.24	$74
33010202	Per Diem (per person)	2	DAY	$140.00	$0.00	$0.00	$140.00	$280
							Subtotal - Each Inspection (with contingency):	**$11,607.07**

TABLE C-4. COST DETAILS, ALTERNATIVE 2

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Assembly	Description	Quantity	Unit	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Total Loaded Unit Cost	Extended Cost
Annual Site Inspection Report								
33220102	Project Manager	8	HR	$0.00	$225.37	$0.00	$225.37	$1,803
33220109	Staff Scientist	24	HR	$0.00	$130.46	$0.00	$130.46	$3,131
33220110	QA/QC Officer	8	HR	$0.00	$185.44	$0.00	$185.44	$1,484
33220114	Word Processing/Clerical	8	HR	$0.00	$95.32	$0.00	$95.32	$763
33220115	Draftsman/CADD	8	HR	$0.00	$104.61	$0.00	$104.61	$837
33220120	Computer Data Entry	8	HR	$0.00	$95.32	$0.00	$95.32	$763
33240101	Other Direct Costs	1	LS	$212.53	$0.00	$0.00	$212.53	$213
							Subtotal - Each Report (with contingency):	**$10,790.46**
							Subtotal (30 Inspections, 24 reports):	**$607,183**
Periodic Soil Cover Maintenance (Assume repair of 1% of cover)								
17030423	Unclassified Fill, 6" Lifts, Off-Site, Includes Delivery, Spreading and Compaction	226	CCY	$13.83	$1.71	$1.48	$17.02	$3,840
18010102	Gravel, Delivered and Dumped	228	LCY	$40.12	$7.13	$7.51	$54.76	$12,466
18050101	Area Preparation, 67% Level & 33% Slope	0.06	ACR	$0.00	$30.98	$38.65	$69.63	$4
Means 3136130400(Lbr & eqp) & Vendor (Conteches mat'l)	Sideslope armoring (open cell articulated concrete stones)	729	SF	$11.50	$1.72	$0.00	$13.22	$9,634
18050301	Loam or topsoil, imported topsoil, 6" deep, furnish and place	105	LCY	$48.15	$9.11	$2.96	$60.22	$6,307
18050402	Seeding, Vegetative Cover	0.1	ACR	$5,533.51	$785.82	$338.50	$6,657.83	$469
33220107	Senior Scientist (Qualified Biologist)	8	HR	$0.00	$292.92	$0.00	$292.92	$2,343
							Subtotal - Each Maintenance Event (with contingency):	**$42,076.22**
							Subtotal (6 Maintenance Events):	**$252,457**
							SUBTOTAL SOIL COVER INSPECTION AND MAINTENANCE	**$859,641**
ECOLOGICAL MITIGATION[a] (CAPITAL COST)								
18050101	Area Preparation, 67% Level & 33% Slope	0.3	ACR	$0.00	$30.98	$38.65	$69.63	$21
18050401	Seeding, 67% Level & 33% Slope, Hydroseeding	0.3	ACR	$3,869.97	$1,317.29	$1,023.11	$6,210.37	$1,863
18050408	Fertilizer, Hydro Spread	0.6	ACR	$199.74	$127.20	$46.91	$373.85	$224
18050101	Area Preparation, 67% Level & 33% Slope	40.0	ACR	$0.00	$30.98	$38.65	$69.63	$2,785
18050401	Seeding, 67% Level & 33% Slope, Hydroseeding	10.0	ACR	$3,869.97	$1,317.29	$1,023.11	$6,210.37	$62,104
18050413	Watering with 3,000-Gallon Tank	30.0	ACR	$234.75	$47.95	$49.65	$332.35	$9,971
18050408	Fertilizer, Hydro Spread	30.0	ACR	$199.74	$127.20	$46.91	$373.85	$11,216
33220107	Senior Scientist (Qualified Biologist)	40	HR	$0.00	$292.92	$0.00	$292.92	$11,717
							SUBTOTAL ECOLOGICAL RESTORATION (with contingency)	**$119,880.01**
ECOLOGICAL MITIGATION INSPECTION[a] - 5 YEARS (O&M COSTS)								
18050101	Annual ecological mitigation	40.0	ACR	$0.00	$30.98	$38.65	$69.63	$2,785
33220107	Senior Scientist (Qualified Biologist)	150	HR	$0.00	$292.92	$0.00	$292.92	$43,938
							Subtotal - Each Inpection Event (with contingency):	**$56,067.84**
							Subtotal (5 Inspection Events):	**$280,339.20**
PROFESSIONAL LABOR MANAGEMENT [b] (CAPITAL COST)								
33220149	Lump Sum Percentage Labor	1	LS	$0.00	$635,540.22	$0.00	$635,540.22	$635,540
							SUBTOTAL PROFESSIONAL LABOR MANAGEMENT (with contingency):	**$762,648.26**
REMEDIAL DESIGN (CAPITAL COST)								
							Total Capital	**%**	**Design**
							$4,539,573	12.00	$544,749
							SUBTOTAL DESIGN (with contingency):		**$653,699**
SUMMARY								
							Capital Costs:		$6,129,483
							O&M and Periodic Costs:		$1,400,597
							TOTAL ALTERNATIVE 2:		**$7,530,080**

Notes: All unit costs are from RACER Version 10.4 2011 database - adjusted for 2014 by escalation factor (see Table C-2).

1 Costs for professional labor management were generated by RACER based on a "moderately low" level of effort.

a Assume similar costs for hydroseeding for pickleweed replacement and spraying herbicide for pepperweed eradication.

b Costs for professional labor management include project and construction management were generated by RACER based on 14% of construction costs.

* Contingency allowance was applied to each subtotal for capital, O&M, and periodic costs.

TABLE C-5. COST DETAILS, ALTERNATIVE 3
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Project:	**NASA Ames, AOI 14** **Alternative 3: Excavation and Off-site Disposal**		
Prepared by:	**Date:** D. MacMillan 12/18/14	**Checked by:**	**Date:**
	RACER Database: System Costs **Cost Database Date:** 2011		
	Assumed Start Date *Dec-14* **Location Modifier** *1.275* (Moffett Field NAS, California) **Contingency*** **20%**		

Assembly	Description	Quantity	Unit	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Total Loaded Unit Cost	Extended Cost
EXCAVATION AND OFF-SITE DISPOSAL (CAPITAL COST)								
Site Preparation								
33010101	Mobilize/DeMobilize Equipment	1.00	LS	0.00	2,279.91	1,334.25	3,614.16	$3,614
17010102	Selective clearing, brush, light clearing, with dozer and brush rake, excludes removal offsite	6	ACR	$0.00	$199.31	$193.25	$392.56	$2,355
17010501	Grub and stack, 140 HP dozer	726	CY	$0.00	$4.96	$2.95	$7.91	$5,743
17020401	Dump Charges	1,591	EA	$22.48	$0.00	$0.00	$22.48	$35,770
17030222	926, 2.0 CY, Wheel Loader	31	HR	$0.00	$129.17	$71.30	$200.47	$6,215
17030287	20 CY, Semi Dump	62	HR	$0.00	$120.54	$96.23	$216.77	$13,440
Temporary Barrier around Construction Area								
CAQA SE-1_2012; Means 312316.13 1500	Visqueen barrier	4,500	LF	$7.00	$5.00	$0.00	$12.00	$54,000
33220107	Senior Scientist	200	HR	$0.00	$292.92	$0.00	$292.92	$58,584
							Subtotal Site Preparation (with contingency):	**$215,664.80**
Excavation of Soil and Confirmation Samples								
33010101	Mobilize/DeMobilize Equipment	2.00	LS	0.00	2,279.91	1,334.25	3,614.16	$7,228
17030278	Excavate and load, bank measure, medium material (3-1/2 CY bucket, hydraulic excavator	71,000	BCY	$0.00	$1.33	$1.66	$2.99	$212,290
33020303	Organic Vapor Analyzer Rental, per Day	30	DAY	$52.77	$0.00	$0.00	$52.77	$1,583
33020401	Disposable Materials per Sample	620	EA	$16.40	$0.00	$0.00	$16.40	$10,168
TetraTech's lab BOAs	Metals - Pb only (6010)	620	EA	$29.60	$0.00	$0.00	$29.60	$18,352
33021717	Pesticides/PCBs (SW3550B/SW 8081/8082), Soil Analysis	620	EA	$297.78	$0.00	$0.00	$297.78	$184,624
33220112	Field Technician	1,488	HR	$0.00	$135.20	$0.00	$135.20	$201,178
Ecological Oversight								
33220107	Senior Scientist	100	HR	$0.00	$292.92	$0.00	$292.92	$29,292
Slope Protection for Remaining FSFA								
18050101	Area Preparation, 67% Level & 33% Slope	0.3	ACR	$0.00	$30.98	$38.65	$69.63	$21
							Subtotal Excavation (with contingency):	**$797,683**
Off-site Transportation and Disposal								
Disposal of Debris								
17020401	Dump Charges	3,000	BCY	$30.00	$0.00	$0.00	$30.00	$90,000
17030224	966, 4.0 CY, Wheel Loader	53	HR	$0.00	$129.17	$130.27	$259.44	$13,750
33190205	Transport Bulk Solid Waste, Maximum 20 CY (per mile), 45 mile trip one way to municipal landfill	6,750	MI	$2.83	$0.00	$0.00	$2.83	$19,103
17030288	26 CY, Semi Dump	599	HR	$0.00	$120.54	$111.76	$232.30	$139,148
Characterization and Disposal of Fill Material								
33021705	Targeted TCLP (Metals, Volatiles, Semi-Volatiles only), Soil Analysis	39	EA	$859.84	$0.00	$0.00	$859.84	$33,190
	California WET analysis (assume same cost as targeted TCLP)	39	EA	$859.84	$0.00	$0.00	$859.84	$33,190
33190102	Bulk Solid Waste Loading Into Disposal Vehicle or Bulk Disposal Container	77,200	LCY	$1.96	$1.94	$0.63	$4.53	$349,716
33190317	Waste Stream Evaluation Fee, Not Including 50% Rebate on 1st Shipment	1	EA	$733.07	$0.00	$0.00	$733.07	$733
33190807	32 Ft. Dump Truck, 6 Mil Liner, disposable	3,860	EA	$83.02	$0.00	$0.00	$83.02	$320,457
Altamont Landfill Quote, January 16, 2015	Landfill Nonhazardous Solid Bulk Waste by CY (assume 1.5 Tons/BCY)	79,500	TON	$47.50	$0.00	$0.00	$47.50	$3,776,250
33190205	Transport Bulk solid Nonhazardous Waste, Maximum 20 CY (per mile); 45 mile trip one way to Class II, Altamont Landfill, Livermore, CA	166,950	MI	$2.83	$0.00	$0.00	$2.83	$472,469
33190317	Waste Stream Evaluation Fee, Not Including 50% Rebate on 1st Shipment	1	EA	$733.07	$0.00	$0.00	$733.07	$733
Kettleman Hills Landfill	Landfill Hazardous Solid Bulk Waste by CY (assume 1.5 Tons/BCY))	4,500	Ton	$65.00	$0.00	$0.00	$65.00	$292,500

TABLE C-5. COST DETAILS, ALTERNATIVE 3

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Assembly	Description	Quantity	Unit	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Total Loaded Unit Cost	Extended Cost
33190205	Transport Bulk solid Hazardous Waste, Maximum 20 CY (per mile); 175 mile trip one way to Class I, Kettleman Hills Landfill, Kings County, CA	36,750	MI	$2.83	$0.00	$0.00	$2.83	$104,003
							Subtotal Transportation and Disposal (with contingency):	**$6,774,289**
Excavation and Grading of Clean Fill								
33010101	Mobilize/DeMobilize Equipment	2.00	LS	0.00	2,279.91	1,334.25	3,614.16	$7,228
17030278	Excavate and load, bank measure, medium material, 3-1/2 CY bucket, hydraulic excavator	12,000	BCY	$0.00	$1.33	$1.66	$2.99	$35,880
17030423	Unclassified Fill, 6" Lifts, Includes Spreading and Compaction (no material)	16,667	CCY	$0.00	$1.71	$1.48	$3.19	$53,167
17030103	Rough Grading, 14G, 1 Pass	6,000	SY	$0.00	$0.37	$0.44	$0.81	$4,860
17030108	Fine Grading, 130G, 2 Passes	2,200	SY	$0.00	$0.86	$0.61	$1.47	$3,234
18050402	Seeding, Vegetative Cover	7	ACR	$5,533.51	$785.82	$338.50	$6,657.83	$46,605
							Subtotal Excavation and Grading of Clean Fill (with contingency):	**$181,168.56**
							SUBTOTAL EXCAVATION AND DISPOSAL:	**$7,968,805**
Five-Year Review (PERIODIC COST)								
Document Review								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	12	HR	$0.00	$200.64	$0.00	$200.64	$2,408
33220108	Project Scientist	8	HR	$0.00	$228.30	$0.00	$228.30	$1,826
33220109	Staff Scientist	16	HR	$0.00	$130.46	$0.00	$130.46	$2,087
Interviews								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
Site Inspection								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	20	HR	$0.00	$200.64	$0.00	$200.64	$4,013
33220108	Project Scientist	12	HR	$0.00	$228.30	$0.00	$228.30	$2,740
33220109	Staff Scientist	13	HR	$0.00	$130.46	$0.00	$130.46	$1,696
Reports (each review)								
33220102	Project Manager	12	HR	$0.00	$225.37	$0.00	$225.37	$2,704
33220105	Project Engineer	16	HR	$0.00	$200.64	$0.00	$200.64	$3,210
33220108	Project Scientist	16	HR	$0.00	$228.30	$0.00	$228.30	$3,653
33220109	Staff Scientist	26	HR	$0.00	$130.46	$0.00	$130.46	$3,392
Travel								
33010108	Sedan, Automobile, Rental	1	DAY	$74.24	$0.00	$0.00	$74.24	$74
33010202	Per Diem (per person)	2	DAY	$140.00	$0.00	$0.00	$140.00	$280
							SUBTOTAL 5-YEAR REVIEW (with contingency):	**$43,436**
ECOLOGICAL MITIGATION[a] (CAPITAL COST)								
18050101	Area Preparation, 67% Level & 33% Slope	0.8	ACR	$0.00	$30.98	$38.65	$69.63	$56
18050401	Seeding, 67% Level & 33% Slope, Hydroseeding	0.8	ACR	$3,869.97	$1,317.29	$1,023.11	$6,210.37	$4,968
18050408	Fertilizer, Hydro Spread	1.6	ACR	$199.74	$127.20	$46.91	$373.85	$598
18050101	Area Preparation, 67% Level & 33% Slope	40.0	ACR	$0.00	$30.98	$38.65	$69.63	$2,785
18050401	Seeding, 67% Level & 33% Slope, Hydroseeding	10.0	ACR	$3,869.97	$1,317.29	$1,023.11	$6,210.37	$62,104
18050413	Watering with 3,000-Gallon Tank	30.0	ACR	$234.75	$47.95	$49.65	$332.35	$9,971
18050408	Fertilizer, Hydro Spread	30.0	ACR	$199.74	$127.20	$46.91	$373.85	$11,216
33220107	Senior Scientist (Qualified Biologist)	40	HR	$0.00	$292.92	$0.00	$292.92	$11,717
							SUBTOTAL ECOLOGICAL RESTORATION (with contingency):	**$124,096.63**
ECOLOGICAL MITIGATION INSPECTION[a]-5 YEARS (O&M COST)								
18050101	Annual ecological mitigation	40.0	ACR	$0.00	$30.98	$38.65	$69.63	$2,785
33220107	Senior Scientist (Qualified Biologist)	150	HR	$0.00	$292.92	$0.00	$292.92	$43,938
							Subtotal - Each Inpection Event (with contingency):	**$56,067.84**
							Subtotal (5 Inspection Events):	**$280,339.20**
PROFESSIONAL LABOR MANAGEMENT [b] (CAPITAL COST)								
33220149	Lump Sum Percentage Labor	1	LS	$0.00	$890,219.13	$0.00	$890,219.13	$890,219
							SUBTOTAL PROFESSIONAL LABOR MANAGEMENT (with contingency):	**$1,068,262.96**
REMEDIAL DESIGN (CAPITAL COST)								
							Total Capital	**%**	**Design**
							$8,092,901	8.00	$647,432
							SUBTOTAL DESIGN (with contingency):		**$776,919**
SUMMARY								
							Capital Costs:		$9,938,083
							O&M and Periodic Costs:		$323,775
							TOTAL ALTERNATIVE 3:		**$10,261,858**

Notes: All unit costs are from the RACER 10.4 2011 database - adjusted for 2014 by escalation factor (see Table C-3).

a Assume similar costs for hydroseeding for pickleweed replacement and eradication.

b Costs for professional labor management include project and construction management were generated by RACER based on 11% of construction costs.

* Contingency allowance was applied to each subtotal for capital, O&M, and periodic costs.

TABLE C-6. SENSITIVITY ANALYSIS OF COSTS FOR REMEDIAL ALTERNATIVES

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Items	Scenario	Capital Cost	O&M [a]	Total Future Value	Baseline Total Present Value [b]	Scenario Total Present Value [c]	Difference Total Present Value [d]
Alternative 1	**No Action**		$0	$0	**$0**	NA	NA
Alternative 2	**Soil Cover and Institutional Controls**						
2.1	Baseline Cost Scenario , with annual inspections **(30 years)**	$6,129,000	$1,401,000	$7,530,000	**$7,876,000**	NA	NA
	(in Perpetuity)					$8,600,000	$724,000
2.2	**Inspection Frequency** - Increase from annual to quarterly inspections **(30 Years)**	$6,129,000	$2,167,000	$8,296,000	NA	$8,656,000	$780,000
	(in Perpetuity)				NA	$11,149,000	$3,273,000
2.3	**Cover Maintenance (30 years)** - A larger area of the soil cover may need to be repaired or the cover may need more frequent maintenance to maintain the effectiveness of the remedy (Assume increase from 1% to 5% of surface area)	$6,129,000	$2,410,000	$7,530,000	NA	$8,902,000	$1,026,000
	(In Perpetuity)				NA	$10,734,000	$2,858,000
2.4	**Discount Rate** -currently low at 1.9% and may vary upwards - assume 7% **(30 years)**	$6,129,000	$1,401,000	$7,530,000	NA	$7,295,000	-$581,000
	(In Perpetuity)				NA	$7,337,000	-$539,000
Alternative 3	**Excavation and Off-site Disposal**						
3.1	**Baseline Cost Scenario:** Excavate 71,000 BCY to **"Clean"** borings, and offsite disposal 59,000 cy (3,000 cy of construction debris, 3,000 cy of hazardous waste and 53,000 cy of nonhazardous waste)	$9,938,000	$324,000	$10,262,000	**$10,803,000**	NA	NA
3.2	**Best Case:** Excavate 41,000 BCY of fill to halfway between **"clean"** and **"dirty"** sample boring locations, with offsite disposal of 32,000 cy (2,000 cy of construction debris, 2,000 cy of hazardous waste and 28,000 cy of nonhazardous waste)	$6,440,000	$324,000	$6,764,000	NA	$7,152,000	-$3,651,000
3.3	**Worst Case:** Excavation and Off-Site Disposal of varying volumes of contaminated soil by truck at (a) nonhazardous disposal facility (Altamont Landfill), (b) hazardous waste disposal facility, either (i) Kettleman Hills, California, or (ii) Grassy Mountain, Utah, and (c) no construction debris						
3.3.1	(i) **Increase nonhazardous waste** up to 100,000 cy, and decrease hazardous waste and construction debris to zero(0) cy	$15,949,000	$324,000	$16,273,000	NA	$17,144,000	$6,341,000
3.3.2	(ii) **Increase hazardous waste** up to 10,000 cubic yards, nonhazardous waste up to 90,000 cy with disposal of hazardous waste at						
3.3.2.1	(i) Kettleman Hills, CA (175 miles one way), or	$16,715,000	$324,000	$17,039,000	NA	$17,949,000	$7,146,000
3.3.2.2	(ii) Grassy Mountain, UT (700 miles one way)	$18,248,000	$324,000	$18,572,000	NA	$19,559,000	$8,756,000

Note: Costs have been rounded to the nearest thousand dollars

a Future value O&M costs are presented above for Alternative 2 as 30-year or in Perpetuity O&M periods, and for Alternative 3 as 5-year O&M period.

b Present value costs (except in Perpetuity) are shown in Tables C-2 and C-3. Detailed capital and O&M costs are shown on Tables C-4 and C-5,and C-7 of Appendix C.

c Scenario Costs are based on adjusting individual line item costs as noted

d **Difference Total Value Present Worth** = Scenario total present value - baseline total present value

O&M Operation and maintenance

APPENDIX D
GREEN AND SUSTAINABLE REMEDIATION EVALUATION

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ATTACHMENT

D1 Assumptions Made for SiteWise Evaluation

ACRONYMS AND ABBREVIATIONS

AOI	Area of Investigation
EE/CA	Engineering evaluation/cost analysis
FSFA	Former soil fill area
GHG	Greenhouse gas
GSR	Green and sustainable remediation
IC	Institutional control
IR	Installation Restoration
NASA	National Aeronautics and Space Administration
NASA Ames	NASA Ames Research Center
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOx	Nitrogen oxides
PM_{10}	Particulate matter
PVC	Polyvinyl chloride
SOx	Sulfur oxides

D1.0 INTRODUCTION

This appendix to the engineering evaluation/cost analysis (EE/CA) for Area of Investigation (AOI) 14 presents the approach taken and the results obtained from a sustainability analysis. This evaluation was conducted as part of the EE/CA to allow the environmental footprint (in terms of specific sustainability metrics) to be considered during the remedy selection process. The results of the analysis can be used to implement green and sustainable remediation (GSR) practices, which require site cleanups to not only meet the traditional requirements of remediation (that is, protection of human health and the environment and compliance with applicable or relevant and appropriate requirements), but also strive to minimize the environmental footprint of the remedy itself. This GSR analysis was performed using SiteWise, Version 2.0, a tool developed jointly by the U.S. Navy, the U.S. Army Corps of Engineers, and Battelle.

AOI 14 is located at the National Aeronautics and Space Administration (NASA) Ames Research Center (NASA Ames) at Moffett Field, California. AOI 14 includes three separate areas in close proximity to each other. These three areas are (1) former soil fill area (FSFA), (2) the N217 area, and (3) the N217A fill area. AOI 14 is bordered by the Navy's Installation Restoration (IR) Site 25, which includes property owned by the Midpeninsula Regional Open Space District. The FSFA is not actively used, and access to this area is limited by the NASA Ames security fence to the south and by Navy IR Site 25 on all other sides. There are two buildings on the N217 and N217A areas. These buildings are currently used for research, development, and testing of magnetic field equipment.

The source of the contamination at AOI 14 is contaminated fill material that was placed on the native soil. There are no known records indicating the source of the fill material, but it is believed to be from construction projects at NASA Ames. Soil is the only exposure medium for the site; groundwater, surface water, and soil gas were not identified as potential exposure media.

The primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 to adjacent Navy IR Site 25. However, NASA intends that this removal action will be the final action at AOI 14, so the potential risks to other human or ecological receptors were also evaluated. The removal alternatives were developed to address the potential exposure of human and ecological receptors to contamination in the fill material at AOI 14.

The area subject to the removal action was identified as the imported fill material in only the northern portion of the FSFA. The N217 area and the N217A fill area do not require remediation.

The following removal action alternatives were developed and evaluated to address the soil contamination at the FSFA:

- Alternative 1: No Action
- Alternative 2: Soil Cover and Institutional Controls

- Alternative 3: Excavation and Off-site Disposal

Under Alternative 1, no action would be taken at AOI 14 to reduce, control, or prevent exposure to contamination in soil. This alternative is retained throughout the evaluation process as required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to provide a baseline for comparison with other alternatives. However, the no action alternative (Alternative 1) is assumed to have no or negligible environmental footprint and thus was not evaluated for the GSR analysis.

Alternative 2 includes (1) construction of a soil cover over contaminated soil on the northern portion of the FSFA (including a biotic barrier to prevent exposure to terrestrial receptors and side-slope armoring to reduce erosion of the contaminated soil into Navy IR Site 25); (2) institutional controls (IC) to prohibit residential use of the site and require maintenance of the cover; (3) ecological restoration of sensitive habitat disturbed during construction of the cover; and (4) long-term monitoring to ensure the effectiveness of the remedy.

Alternative 3 includes: (1) excavation and off-site disposal of contaminated soil in the northern portion of the FSFA, where concentrations of contaminants exceed the cleanup goals; and (2) mitigation of sensitive habitat disturbed during excavation. After the excavation and habitat mitigation are complete, the site will be available for unrestricted use.

D2.0 ASSESSMENT METHODOLOGY

SiteWise is an Excel-based tool composed of spreadsheets used to conduct a baseline assessment of GSR metrics. The quantitative metrics calculated by the tool include (1) greenhouse gas (GHG) emissions, including carbon dioxide, methane, and nitrous oxide; (2) energy usage (expressed as British thermal units); (3) water use; (4) air emissions of criteria pollutants, including nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter (PM_{10}); and (5) accident risk (risk of injury and risk of fatality). Additional sustainability metrics evaluated in Version 2.0 include nonhazardous and hazardous waste landfill space, topsoil consumption, costs, and lost hours caused by injury.

Sustainability metrics not evaluated by SiteWise include ecological and community impacts. Ecological impacts include adverse effects such as introduction of invasive species, changes in ecosystem structure or shifts in the geographic distribution and extent of major ecosystem types, disturbance to soil and surface water bodies, and destruction of habitats. Community impacts are local disturbances and health and safety issues caused by remedial actions, such as noise, traffic issues, odor, dust, and emissions of volatile organic compounds or other contaminants. These effects are discussed in the text of this GSR appendix and these factors are evaluated qualitatively.

SiteWise Version 2.0 includes the evaluation of some footprint reduction technologies to assess the potential cost savings and environmental footprint reduction of these techniques. These footprint reduction technologies include the use of landfill gas microturbines, wind power, solar power, renewable energy certificates, biodiesel, diesel

oxidation catalysts, variable frequency drives, and water recycling. These footprint reduction calculations were not evaluated for the alternatives for AOI 14; however, Section D4 includes some methods that could be implemented to reduce the environmental footprint of the selected alternative.

D3.0 RESULTS OF GREEN AND SUSTAINABLE REMEDIATION EVALUATION

The GSR metrics for Alternatives 2 and 3 were evaluated using SiteWise. As discussed earlier, the no action alternative (Alternative 1) is assumed to have no or negligible environmental footprint and thus was not evaluated for the GSR analysis. The assumptions used in SiteWise are listed in Attachment D1; these assumptions were listed so the results of the GSR evaluation could be replicated. However, the inputs for SiteWise are limited and, therefore, the assumptions of equipment or methods used for each removal alternative were often different for the GSR evaluation than the assumptions made for cost estimating purposes. For example, the restoration of pickleweed and the eradication of pepperweed are assumed to include hydroseeding and spraying herbicide. However, SiteWise does not include hydroseeding or herbicide as construction materials, so fertilizer and acetic acid were used as the closest substitutions provided by SiteWise.

A comparative analysis of the GSR evaluation for the AOI 14 removal alternatives is summarized on Table D-1. Alternative 3 has a significantly greater environmental footprint than Alternative 2 for all of the sustainability metrics (except topsoil consumption) because a large volume of fill material would be excavated and transported to a disposal facility under this alternative.

Alternative 2 includes construction of a soil cover, ecological management, and long-term maintenance and monitoring of ICs, the soil cover, and the ecological restoration. The GSR metrics for Alternative 2 are summarized on Table D-2. The activities for Alternative 2 were split into remedial action construction (construction of the soil cover), remedial action operations (ecological management), and long-term monitoring (monitoring the ICs, monitoring and periodic maintenance of the soil cover, monitoring the ecological restoration, and 5-year reviews). Activities associated with construction of the soil cover resulted in the greatest environmental impacts of all activities under this alternative. The transportation and use of consumables (the soil, structural material, gravel, and cobbles used to construct the cover) accounted for the most emissions of GHGs and total energy used, while the equipment used during construction resulted in the most emissions of NOx, SOx, and PM_{10}, and accident risk (injury and fatality) of the Alternative 2 activities. In addition, this alternative resulted in significant consumption of topsoil. The environmental footprint for ecological restoration is minimal and because it includes only annual site inspections by a local biologist. The maintenance and monitoring of the remedy would result in potential accident risks (injury and fatalities) and lost work hours caused by injury, mainly from the periodic repair of the soil cover.

Alternative 3 results in a larger environmental footprint than Alternative 2 because it may include excavation and off-site disposal of a large volume of contaminated fill material (approximately 71,000 (bank) cubic yards and may increase up to 100,000 bank cubic

yards). The GSR metrics for Alternative 3 are summarized on Table D-3. The activities for Alternative 3 were split into remedial action construction (excavation and off-site disposal), remedial action operations (ecological restoration), and long-term monitoring (monitoring of the restoration of pickleweed and management of pepperweed). Activities associated with ecological restoration and monitoring were minimal. Activities associated with excavation and transportation of the fill resulted in the greatest environmental impacts of all activities under this alternative. The transportation and disposal of fill material (residual handling) accounted for the most emissions of GHGs, NOx, SOx, and PM_{10} and total energy used. Transportation of the contaminated fill material and equipment use during excavation resulted in the highest accident risk (injury and fatality) of the Alternative 3 activities. In addition, this alternative resulted in significant consumption of landfill space.

Although not evaluated in SiteWise, Alternative 3 would also significantly affect the community and the environment from transportation of the contaminated fill material from AOI 14 to a disposal facility. Approximately 71,000 to 100,000 bank cubic yards would be transported by truck (or rail, if available) through NASA Ames and the surrounding community. Assuming that each dump truck has a capacity of 20 cubic yards, approximately 2,240 to 7,000 trips would be necessary to move the contaminated fill material. Under Alternative 2, approximately 35,000 cubic yards of clean material would be transported to the sites, resulting in approximately 2,500 trips. The additional traffic on the roads on and surrounding NASA Ames would burden the infrastructure and cause significant nuisances for the on- and off-site community (including noise, dust, vehicle emissions, and traffic delays). This traffic would also affect the environment, including the sensitive wetland habitat surrounding AOI 14.

D4.0 FOOTPRINT REDUCTION METHODS

The sustainability analysis provides a comparison of the environmental footprint for each remedy and also which specific activities contribute the most to the footprint for each remedy. This comparison allows NASA to consider GSR metrics during remedy selection and, if possible, choose the alternative with the smallest footprint out of those alternatives that meet cleanup goals in an acceptable timeframe. Once the remedy is selected, the GSR analysis then allows the project team to focus on footprint reduction methods for specific remedy activities that have the greatest footprint, thus yielding a greater benefit for the efforts. SiteWise includes a limited footprint reduction evaluation; however, this evaluation was not completed for this EE/CA. The footprint reduction evaluation is most applicable during the remedial design and implementation.

Potential actions to reduce the environmental footprint of the removal alternatives for AOI 14 include:

- Manufacture the topsoil by amending regular soil with compost or agricultural waste, which would reduce the cost and lessen the environmental impact.

- Use green fuels and after-treatment technologies to reduce emissions from excavation equipment, drill rigs, and trucks. Examples of after-treatment technologies include diesel oxidation catalyst, diesel particulate filter, selective catalytic reduction, and diesel multistage filter.

- Implement an idle control plan and other operating strategies to improve the efficiency of site activities.

- Limit the over-excavation of soil by further delineating the extent of contamination above the cleanup goals.

- Limit the excavation area and allowing natural attenuation processes to reduce concentrations of contaminants to meet the removal action objectives.

- Optimize the monitoring plans to reduce trips to the site while still meeting the objectives of the program.

- Use local personnel and equipment to minimize the transportation to and from the site for long-term monitoring activities.

TABLES

TABLE D-1: COMPARISON OF GREEN AND SUSTAINABLE REMEDIATION METRICS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Remedial Alternatives	GHG Emissions	Total energy Used	Water	NO_x emissions	SO_x Emissions	PM_{10} Emissions	Accident	Accident
	metric ton	MMBTU	gallons	metric ton	metric ton	metric ton	Risk Fatality	Risk Injury
Alternative 2	1060.06	1.78E+04	1.00E+02	1.90E-01	3.11E-02	1.89E-02	8.60E-04	1.33E-01
Alternative 3	1951.05	3.53E+04	3.00E+02	8.44E+00	4.35E+00	2.27E+01	1.55E-03	1.88E-01

Additional Sustainability Metrics

Remedial Alternatives	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury	Final Cost with Footprint Reduction
	tons	tons	cubic yards	$		$
Alternative 2	20.00	0.00E+00	5.00E+03	0.00E+00	1.06E+00	0.00E+00
Alternative 3	111500.00	1.24E+04	0.00E+00	0.00E+00	1.50E+00	0.00E+00

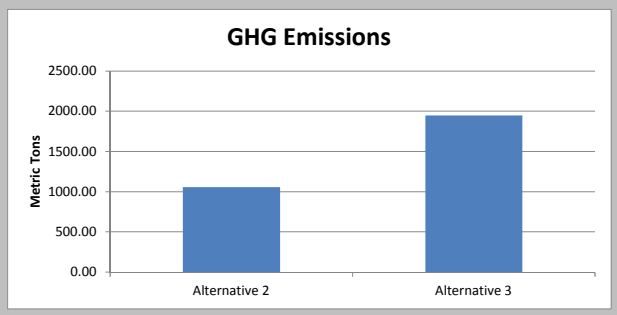
Relative Impact

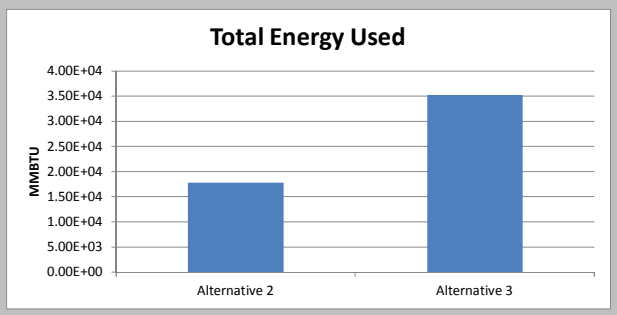
Remedial Alternatives	GHG Emissions	Energy Usage	Water Usage	NOx emissions	SOx Emissions	PM10 Emissions	*Accident Risk Fatality	*Accident Risk Injury	Community Impacts	Resources Lost
Alternative 2	Medium	Medium	Medium	Low	Low	Low	Medium	High	Low	Low
Alternative 3	High	High	High	High	High	High	High	High	Medium	Medium

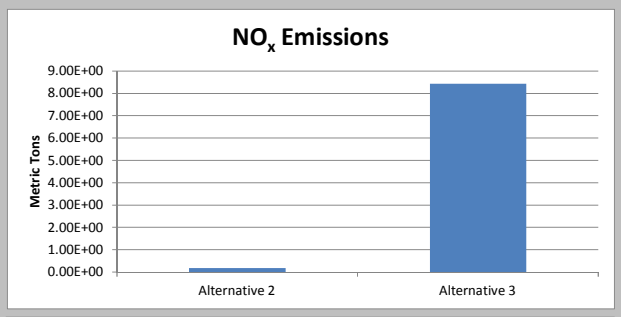
Relative Impact (User Override)

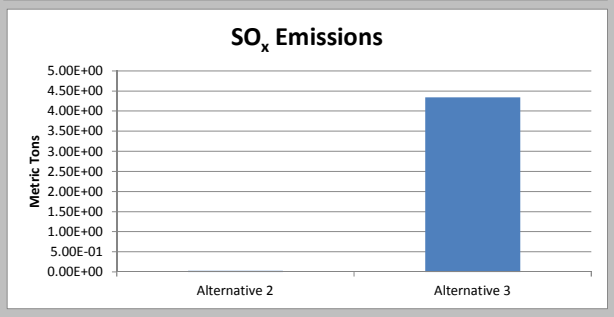
Remedial Alternatives	GHG Emissions	Energy Usage	Water Usage	NOx emissions	SOx Emissions	PM10 Emissions	*Accident Risk Fatality	*Accident Risk Injury	Community Impacts	Resources Lost
Alternative 2	Medium	Medium	Medium	Low	Low	Low	Medium	High	Low	Low
Alternative 3	High	High	High	High	High	High	High	High	Low	Low

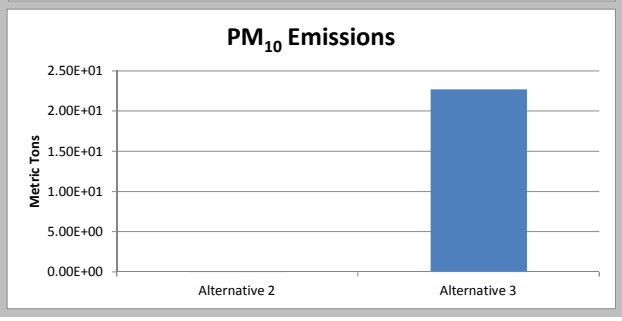
*Accident Risk is an estimate of how many accidents may occur. This risk is not the same as Cancer Risk, which is the probablity (for a single person) of getting cancer. Accident risk is not comparable to Cancer Risk due to inherent fundamental differences.











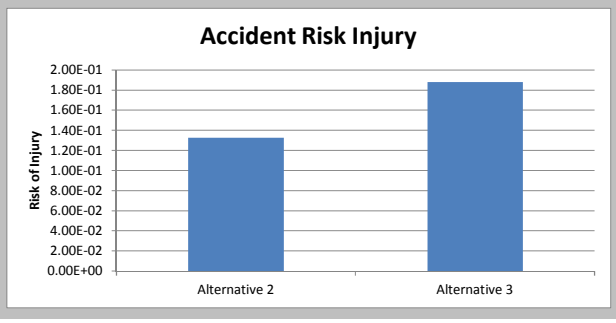


TABLE D-1: COMPARISON OF GREEN AND SUSTAINABLE REMEDIATION METRICS

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

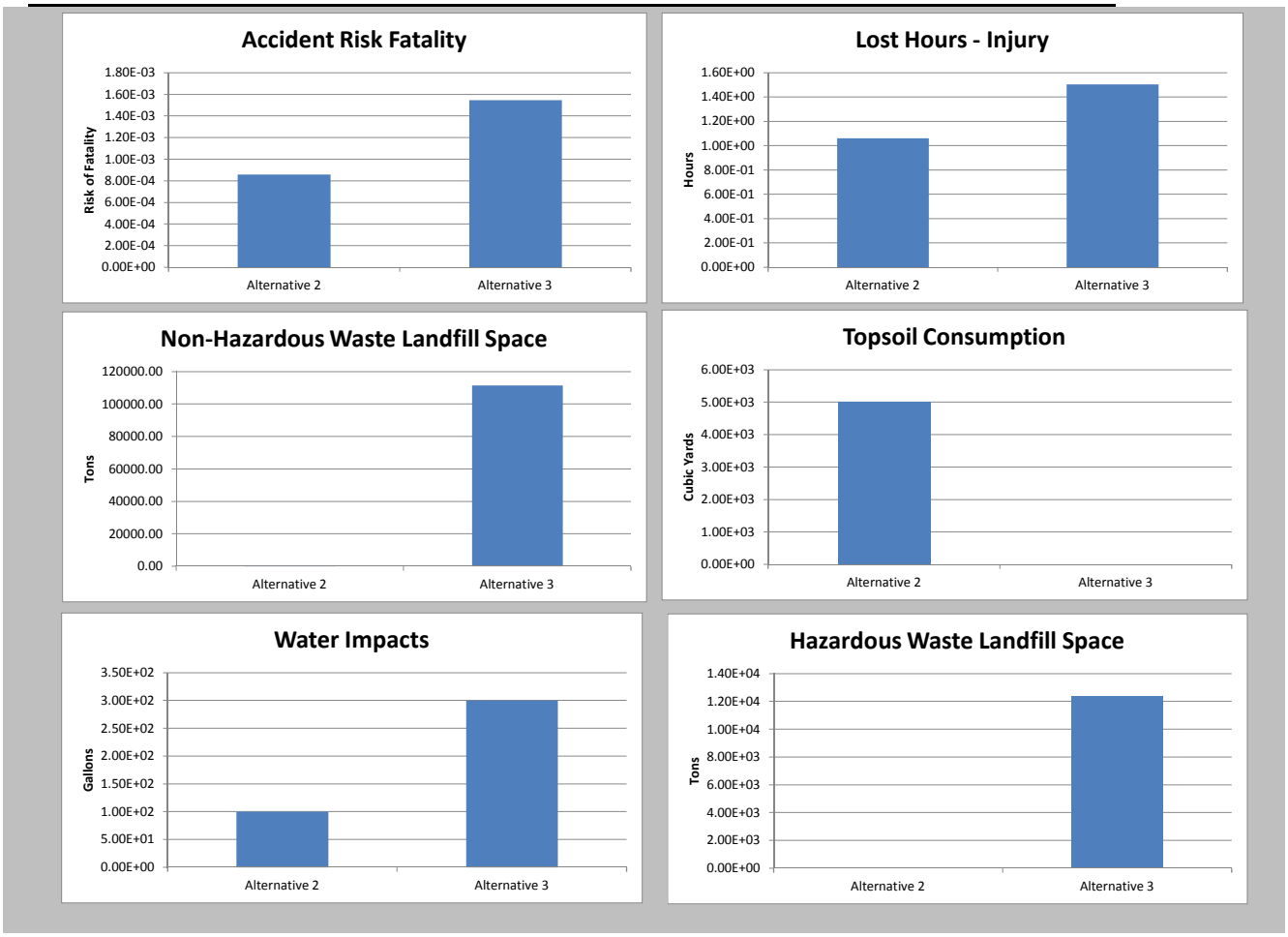


TABLE D-2: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 2
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

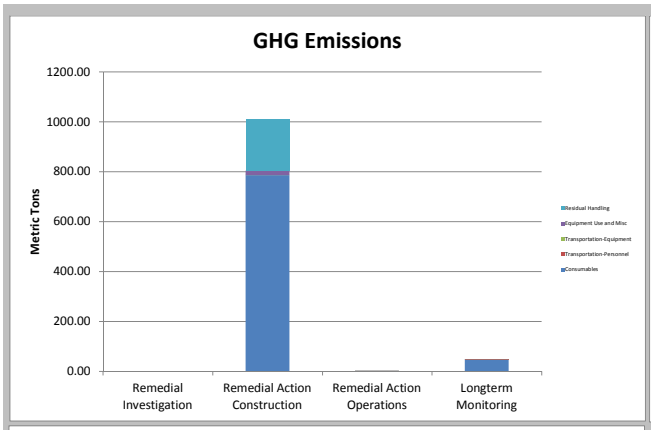
Sustainable Remediation - Environmental Footprint Summary
Alternative 2

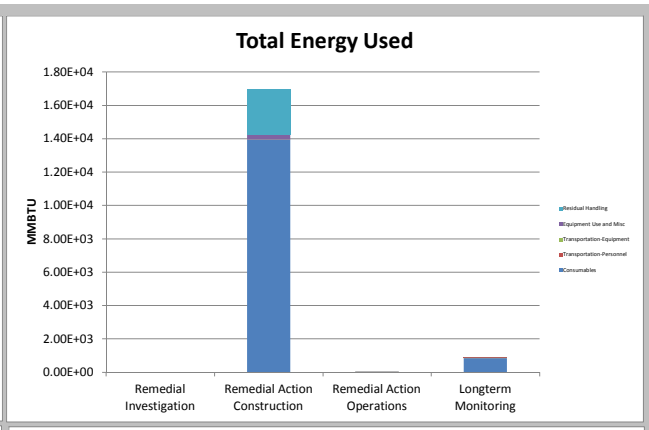
Phase	Activities	GHG Emissions	Total energy Used	Water Consumption	NOx emissions	SOx Emissions	PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	metric ton	metric ton	metric ton		
Remedial Investigation	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Remedial Action Construction	Consumables	785.69	1.4E+04	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.09	1.1E+00	NA	2.8E-05	4.9E-07	2.5E-06	4.7E-07	3.8E-05
	Equipment Use and Misc	17.72	2.8E+02	0.0E+00	1.2E-01	2.8E-02	8.6E-03	2.6E-04	6.9E-02
	Residual Handling	206.98	2.7E+03	NA	6.6E-02	1.8E-03	9.4E-03	5.1E-04	4.1E-02
	Sub-Total	1,010.48	1.69E+04	0.00E+00	1.84E-01	2.96E-02	1.81E-02	7.68E-04	1.11E-01
Remedial Action Operations	Consumables	0.93	1.6E+01	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.03	3.8E-01	NA	9.0E-06	3.7E-07	7.3E-07	1.6E-07	1.3E-05
	Equipment Use and Misc	0.00	9.8E-02	1.0E+02	1.2E-05	3.2E-06	3.1E-06	3.9E-06	1.2E-03
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.96	1.62E+01	1.00E+02	2.14E-05	3.61E-06	3.79E-06	4.05E-06	1.17E-03
Longterm Monitoring	Consumables	47.14	8.4E+02	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.27	3.5E+00	NA	1.0E-04	3.6E-06	2.1E-05	1.1E-05	9.0E-04
	Transportation-Equipment	0.17	2.2E+00	NA	5.4E-05	9.5E-07	4.8E-06	9.4E-07	7.5E-05
	Equipment Use and Misc	1.03	2.1E+01	0.0E+00	6.0E-03	1.5E-03	7.7E-04	7.7E-05	2.0E-02
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	48.62	8.63E+02	0.00E+00	6.13E-03	1.48E-03	7.94E-04	8.88E-05	2.09E-02
Total		**1.1E+03**	**1.8E+04**	**1.0E+02**	**1.9E-01**	**3.1E-02**	**1.9E-02**	**8.6E-04**	**1.3E-01**

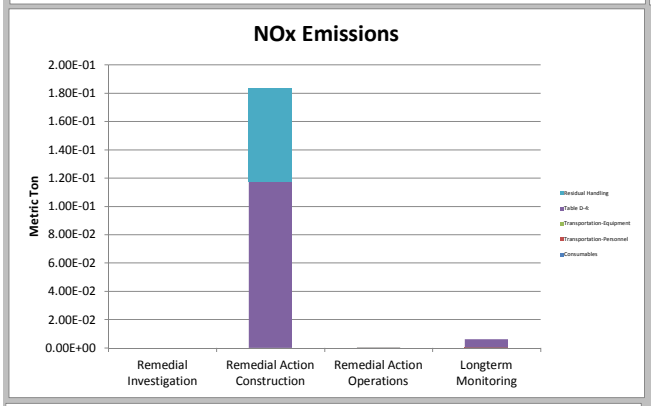
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury
	tons	tons	cubic yards	$	
Remedial Investigation	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Remedial Action Construction	2.0E+01	0.0E+00	5.0E+03	0	8.8E-01
Remedial Action Operations	0.0E+00	0.0E+00	0.0E+00	0	9.3E-03
Longterm Monitoring	0.0E+00	0.0E+00	0.0E+00	0	1.7E-01
Total	**2.0E+01**	**0.0E+00**	**5.0E+03**	**$0**	**1.1E+00**

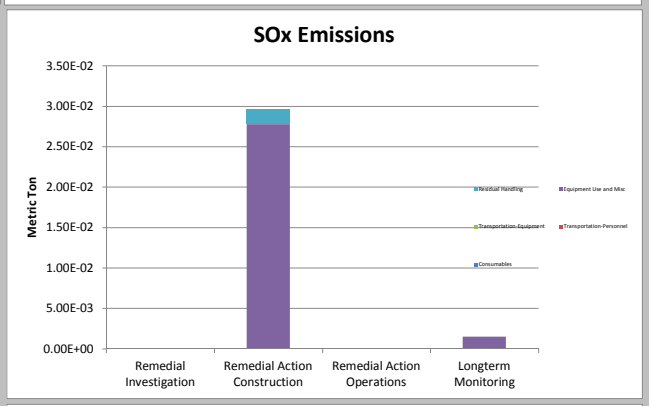
Total Cost with Footprint Reduction
$0

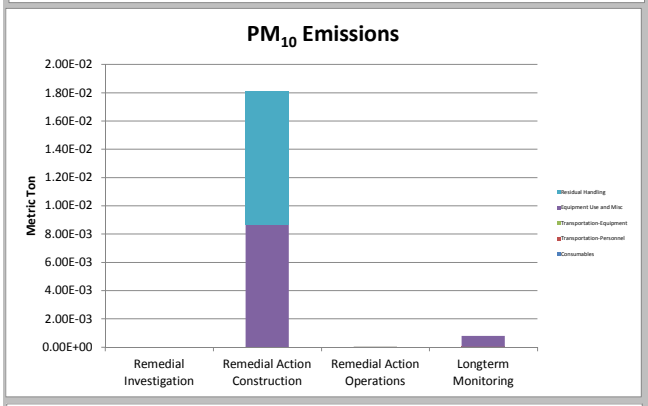
TABLE D-2: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 2
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

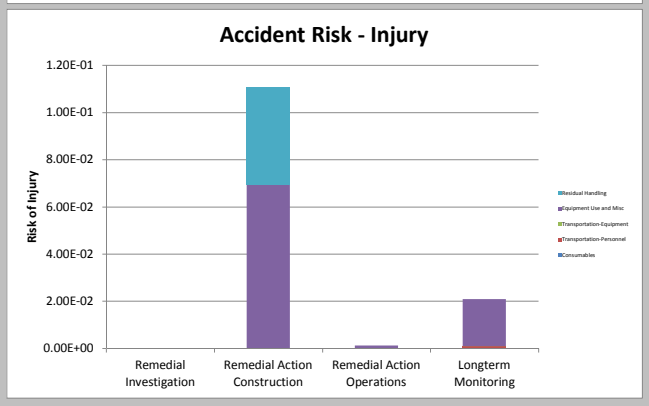


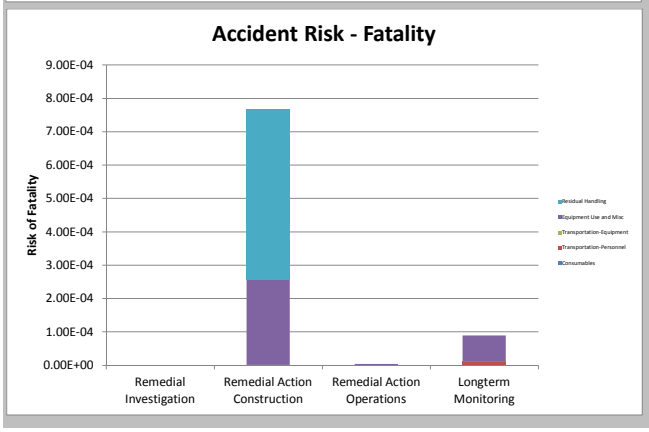












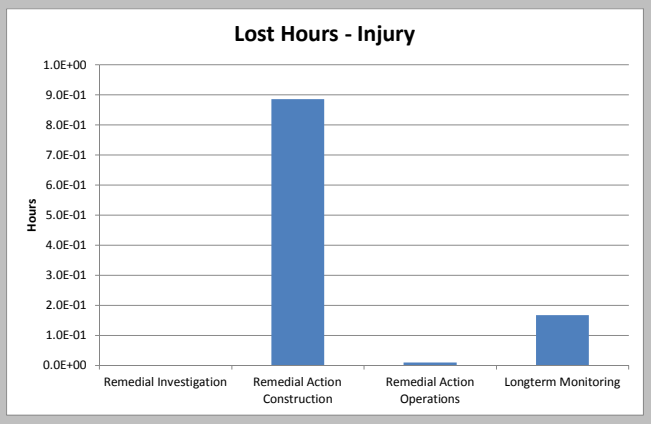
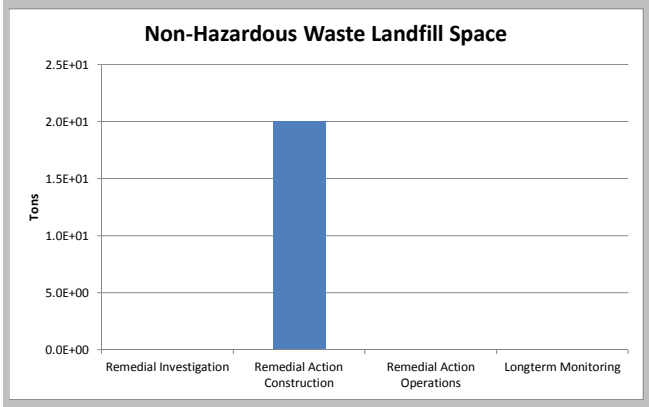
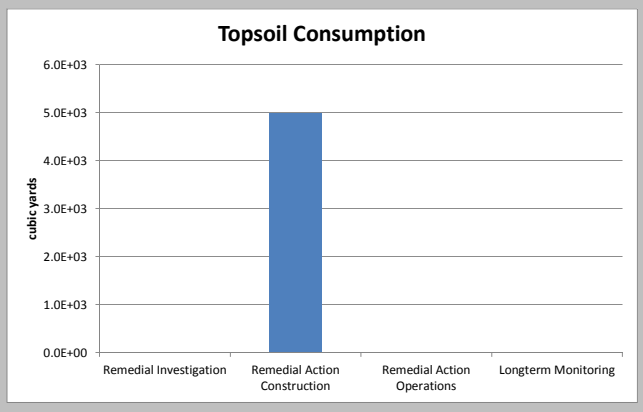


TABLE D-2: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 2
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California





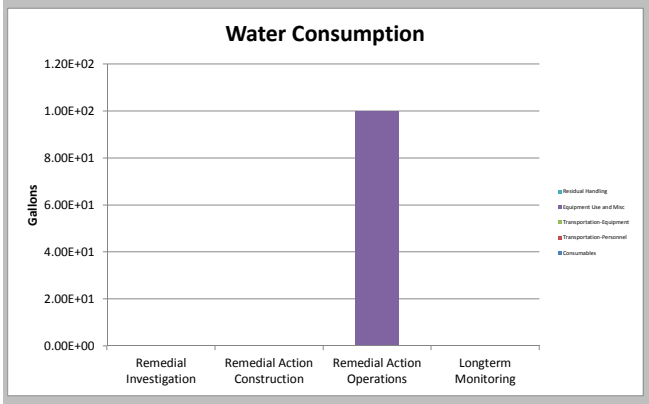


TABLE D-3: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 3
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

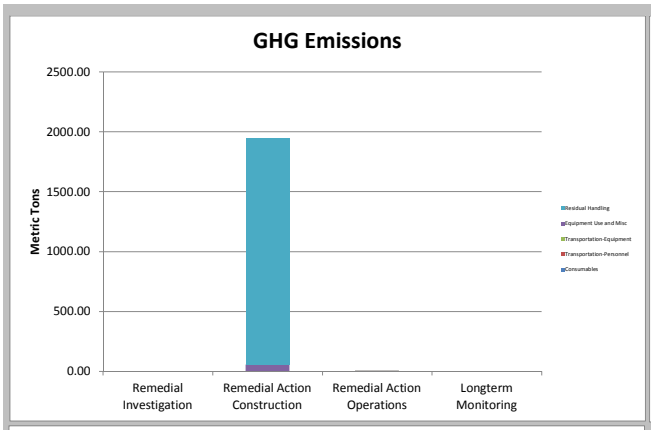
Sustainable Remediation - Environmental Footprint Summary
Alternative 3

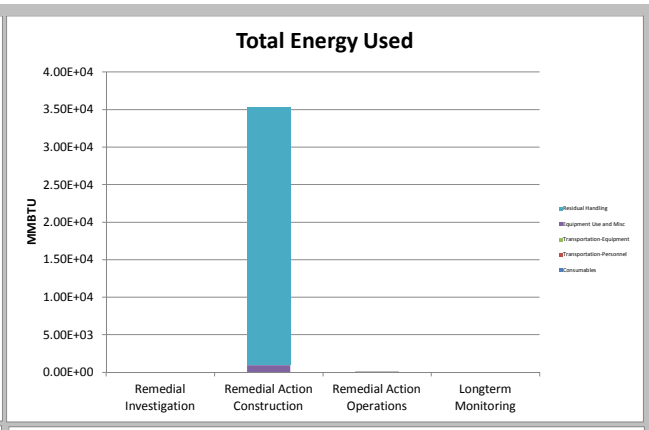
Phase	Activities	GHG Emissions	Total energy Used	Water Consumption	NOx emissions	SOx Emissions	PM10 Emissions	Accident Risk Fatality	Accident Risk Injury
		metric ton	MMBTU	gallons	metric ton	metric ton	metric ton		
Remedial Investigation	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Remedial Action Construction	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.03	3.8E-01	NA	9.2E-06	1.6E-07	8.2E-07	1.6E-07	1.3E-05
	Equipment Use and Misc	54.15	9.2E+02	0.0E+00	3.4E-01	8.3E-02	2.4E-02	3.3E-04	8.7E-02
	Residual Handling	1,894.97	3.4E+04	NA	8.1E+00	4.3E+00	2.3E+01	1.2E-03	9.7E-02
	Sub-Total	1,949.15	3.52E+04	0.00E+00	8.44E+00	4.35E+00	2.27E+01	1.54E-03	1.85E-01
Remedial Action Operations	Consumables	1.86	3.1E+01	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.03	3.8E-01	NA	9.0E-06	3.7E-07	7.3E-07	1.6E-07	1.3E-05
	Equipment Use and Misc	0.01	2.6E-01	3.0E+02	3.3E-05	8.7E-06	8.4E-06	9.7E-06	2.9E-03
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	1.90	3.20E+01	3.00E+02	4.24E-05	9.09E-06	9.10E-06	9.90E-06	2.90E-03
Longterm Monitoring	Consumables	0.00	0.0E+00	NA	NA	NA	NA	NA	NA
	Transportation-Personnel	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Transportation-Equipment	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Equipment Use and Misc	0.00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-07	3.3E-04
	Residual Handling	0.00	0.0E+00	NA	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Sub-Total	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.70E-07	3.30E-04
Total		**2.0E+03**	**3.5E+04**	**3.0E+02**	**8.4E+00**	**4.3E+00**	**2.3E+01**	**1.5E-03**	**1.9E-01**

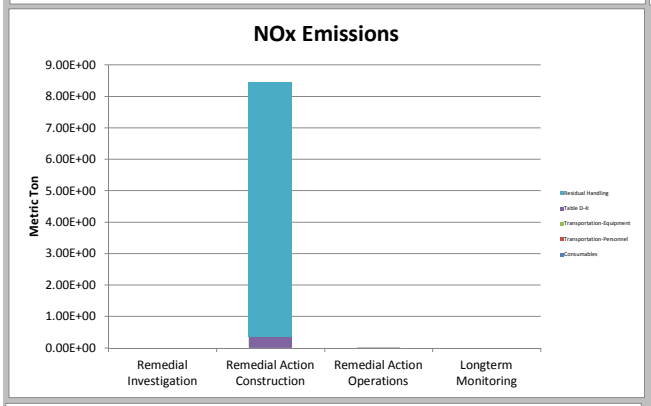
Remedial Alternative Phase	Non-Hazardous Waste Landfill Space	Hazardous Waste Landfill Space	Topsoil Consumption	Costing	Lost Hours - Injury
	tons	tons	cubic yards	$	
Remedial Investigation	0.0E+00	0.0E+00	0.0E+00	0	0.0E+00
Remedial Action Construction	1.1E+05	1.2E+04	0.0E+00	0	1.5E+00
Remedial Action Operations	0.0E+00	0.0E+00	0.0E+00	0	2.3E-02
Longterm Monitoring	0.0E+00	0.0E+00	0.0E+00	0	2.6E-03
Total	**1.1E+05**	**1.2E+04**	**0.0E+00**	**$0**	**1.5E+00**

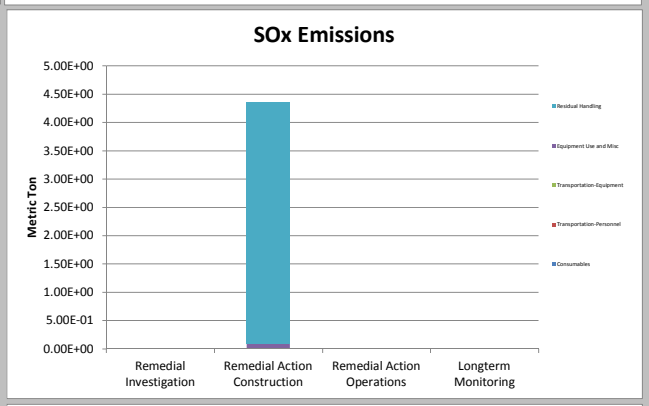
Total Cost with Footprint Reduction
$0

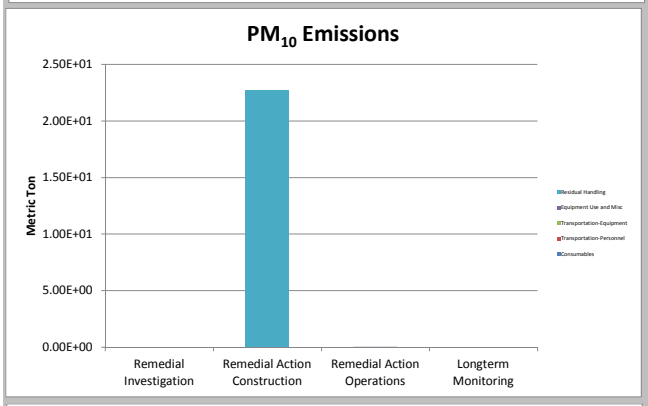
TABLE D-3: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 3
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

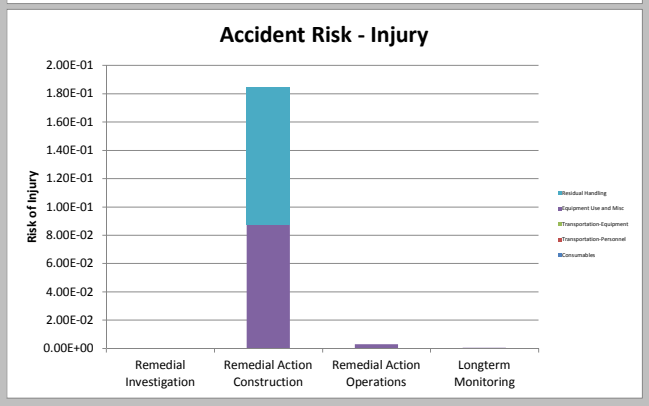


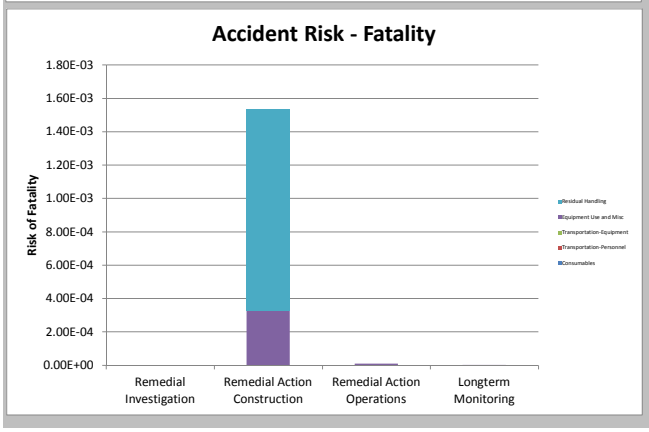












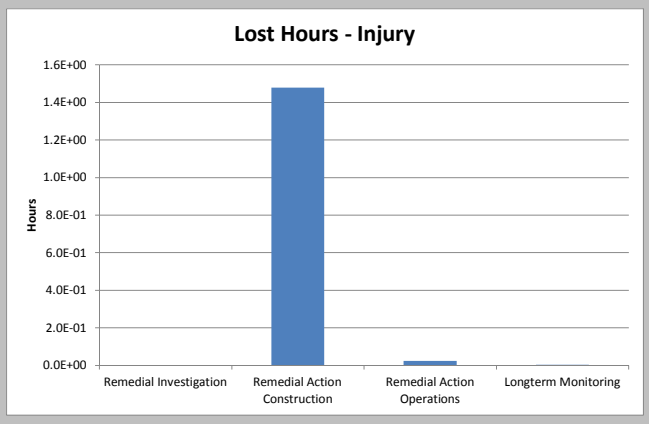
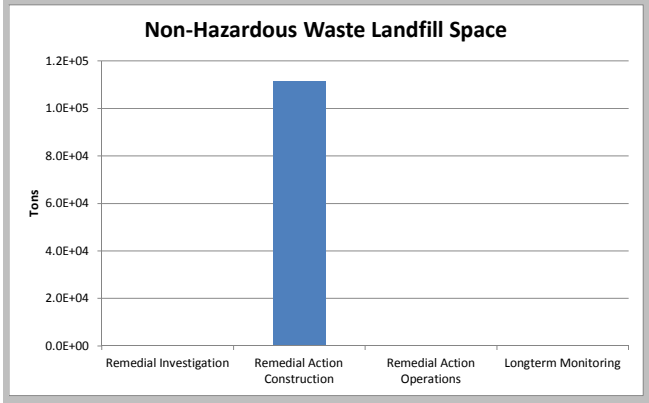
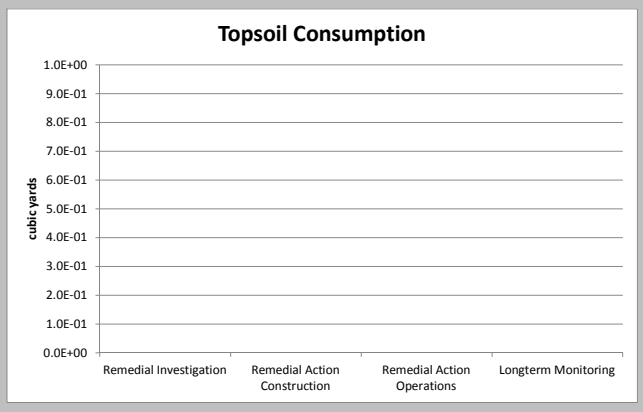
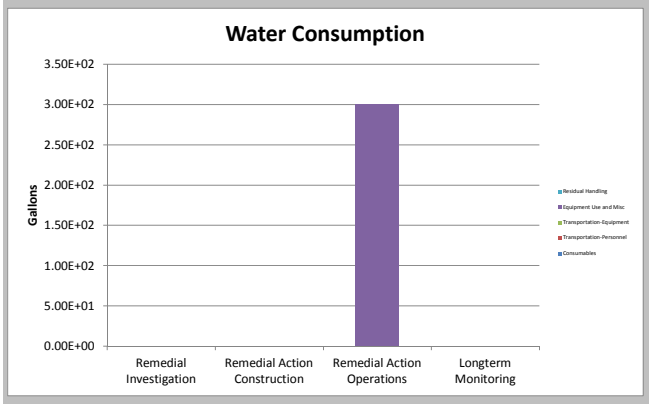
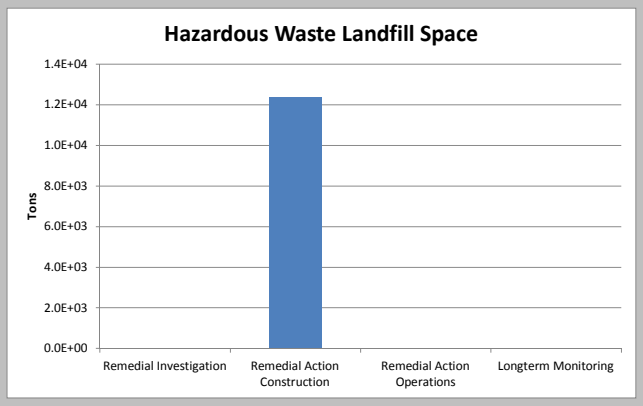


TABLE D-3: EVALUATION OF GREEN AND SUSTAINABLE REMEDIATION METRICS FOR ALTERNATIVE 3
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California









ATTACHMENT D1
ASSUMPTIONS MADE FOR SITEWISE EVALUATION

The following assumptions were made for the evaluation of GSR in SiteWise Version 2.0. Because of the limitations of the SiteWise spreadsheets, these assumptions may not match the assumptions made for cost estimating purposes. These assumptions are listed so that the results of the GSR evaluation may be reproduced, if necessary.

D1.1 ASSUMPTIONS FOR ALTERNATIVE 2 (SOIL COVER AND INSTITUTIONAL CONTROLS)

Under "Remedial Action Construction," including construction of the soil cover

- Transportation (diesel, 20 miles, 3 tons) of three pieces of equipment to excavate and construct the cover
- 15,850 cubic yards of gravel and cobble for biotic barrier and access road
- 364,500 cubic feet of soil (not including 6 inches of topsoil)
- Use of excavator (diesel) to excavate 11,000 cubic yards of soil
- Use of roller (diesel, 60 days) to compact 270,000 square feet.
- Use of a dozer (diesel) to spread 18,500 cubic yards of soil and topsoil
- Use of dozer (diesel) to spread 15,850 cubic yards of gravel and cobble (for biotic barrier and gravel access road)
- 2,560 construction labor hours to complete the excavation
- 600 hours for oversight by scientific and technical service personnel to collect confirmation samples (oversight provided by local NASA employees)
- 600 hours for oversight by NASA biologist
- Off-site disposal of excavated debris (20 tons of waste per trip, 1 trip, 50 miles per trip)
- Landfill disposal of 20 tons of excavated debris
- 5,000 cubic yards of topsoil brought to site (assuming 6 inches of topsoil over 270,000 square feet)
- Transportation of 35,000 cubic yards of clean material to construct the cover (52,500 tons, 40 tons of waste per trip, 3,100 trips, 50 miles per trip)

Under "Remedial Action Operation," including ecological restoration of pickleweed/ eradication of pepperweed

- 500 pounds of fertilizer (substitute for the pickleweed hydroseeding) and 500 pounds of acetic acid (substitute for herbicide used to eradicate pepperweed)
- Transportation of equipment to spray hydroseed and herbicide (gasoline, 20 miles, 1 ton)

- Agricultural equipment to prepare soil for hydroseeding (diesel, 0.3 acres, firm, untilled soil, clay soil, 3 work days, 6 inches depth of tillage)
- 40 construction labor hours to complete the restoration
- 40 hours for oversight by scientific and technical service personnel (oversight provided by local NASA employees)
- 100 gallons of water consumed

Under "Longterm Monitoring," including annual inspections of the soil cover, ecological restoration, ICs, and 5-year reviews.

- Transportation of 2 personnel (20 miles, car, gasoline), 36 total trips over 30 years for inspection of the ICs, soil cover, ecological restoration, and 5-year reviews.
- Transportation of equipment to repair the soil cover every 5 years (diesel, 20 miles, 1 ton, 6 trips)
- 950 cubic yards of gravel and cobble, 21,870 cubic feet of soil for repair of biotic barrier and access road (assuming 1 percent of the initial material every 5 years for 30 years).
- Use of a dozer (diesel) to spread 1,110 cubic yards of soil and 950 cubic yards of gravel for repair of the cover and biotic barrier.
- 800 construction labor hours to complete the excavation
- 150 hours for oversight by scientific and technical service personnel (oversight provided by local NASA employees)

D1.2 ASSUMPTIONS FOR ALTERNATIVE 3 (EXCAVATION AND OFF-SITE DISPOSAL)

Under "Remedial Action Construction," including excavation of fill material

- Transportation (diesel, 20 miles, 3 tons) of equipment to excavate
- Use of excavator and scraper (diesel) to excavate 71,000 cubic yards of soil
- 3200 construction labor hours to complete the excavation
- 600 hours for oversight by scientific and technical service personnel to collect confirmation samples (oversight provided by local NASA employees)
- 600 hours for oversight by NASA biologist
- Off-site disposal of 59,000 bank cubic yards of excavated soil, assuming a bulking factor of 1.4 (82,600 bulk cubic yards) and 1.5 tons per cubic yard (123,900 tons) (40 tons of waste per trip, 3,100 trips, 50 miles per trip)

- Landfill disposal of 123,900 tons of excavated soil (111,500 tons as hazardous waste, 12,390 tons as nonhazardous waste or solid waste)

Under "Remedial Action Operation," including ecological restoration of pickleweed/ eradication of pepperweed

- 1,000 pounds of fertilizer (substitute for the pickleweed hydroseeding) and 1,000 pounds of acetic acid (substitute for herbicide used to eradicate pepperweed).
- Transportation of equipment to spray hydroseed and herbicide (gasoline, 20 miles, 1 ton)
- Agricultural equipment to prepare soil for hydroseeding (diesel, 0.8 acres, firm, untilled soil, clay soil, 5 work days, 6 inches depth of tillage).
- 100 construction labor hours to complete the restoration
- 100 hours for oversight by scientific and technical service personnel (oversight provided by local NASA employees)
- 300 gallons of water consumed.

Under "Longterm Monitoring," including annual inspections of ecological restoration of pickleweed/eradication of pepperweed for 5 years.

- Assume local NASA biologist (no transportation)
- 60 hours for site inspection by scientific and technical service personnel.

APPENDIX E
RESPONSES TO COMMENTS

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

The table below summarizes the responses to comments submitted by the U.S. Environmental Protection Agency (EPA) and the San Francisco Bay Regional Water Quality Control Board (Water Board) on the "Draft Area of Investigation (AOI) 14 Engineering Evaluation/Cost Analysis (EE/CA)," dated February 20, 2015. Comments were received from EPA and the Water Board on June 4, 2015. Additional comments pertaining to applicable or relevant and appropriate requirements (ARAR) were provided by the Water Board on June 15, 2015 and by EPA on July 23, 2015.

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
General Comments		
General 1a.	The EE/CA does not appear to provide sufficient justification to recommend selection of Alternative 2 (Soil Cover and Institutional Controls). Given uncertainties generally associated with developing cost estimates, the difference between the baseline costs for Alternatives 2 and 3 (Excavation and Off-site Disposal), approximately $600K, is nominal. While the EE/CA describes the possibility that the cost for Alternative 3 could balloon up to $17.4M based on the cost of additional soil requiring off-site disposal, the available sampling results indicate that contamination at depth is limited (no known contamination below 10 feet below ground surface [bgs] and limited exceedances below 6 feet bgs) and only a few of the samples exceed the criteria for disposal as non-hazardous waste. Therefore, it is unlikely that the cost of Alternative 3 would reach $17.4M. In addition, uncertainties associated with long-term O&M costs for Alternative 2 appear to be discounted.	Based on this comment and further discussion with EPA and the Water Board, the National Aeronautics and Space Administration (NASA) will update the costs, alternative descriptions, and alternative evaluation as follows: • The recommended alternative will be changed from Alternative 2 to Alternative 3, based on comments from and discussion with regulatory agencies and further analysis of the alternatives, including the costs of Alternatives 2 and 3. Alternative 3 would provide the best long-term effectiveness and permanence, would provide more area for habitat restoration and unrestricted future use of the stormwater retention pond, would not require long-term institutional controls, maintenance, or monitoring, and would likely be accepted by regulatory agencies and the public. • The estimated volume of contaminated material to be excavated under Alternative 3 will be modified to include the range of (1) material extending half the distance from "dirty" sample locations (sample locations with concentrations of contaminants exceeding cleanup goals) to "clean" sampling locations (with concentrations below cleanup goals) as presented in the Draft EE/CA to (2) all material between "dirty" and "clean" sampling locations. This change will provide a more conservative estimate of the volume of material that would reasonably require excavation and disposal off site, reflecting the uncertainties of the contaminant distribution in fill material. • The evaluation of Alternative 3 will be modified to discuss this range of costs, including a sensitivity analysis reflecting a "worst-case" scenario (excavating and disposing of the entire northern portion of the Former Soil Fill Area [FSFA]).

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
General 1a. (cont'd)		• The main section of the EE/CA will present a summary of the sensitivity analysis in Appendix C to further explain the uncertainties associated with the cost estimate and assumptions. • The sensitivity analysis in Appendix C will be modified to include the costs for monitoring and maintenance of the soil cover (Alternative 2) in perpetuity. • The description and cost estimate for Alternative 2 will be modified to replace the riprap side slopes with a vegetative layer over a biotic barrier. The side slopes may include a structural material that can support a top vegetative layer so that existing pickleweed and upland habitat is restored and so that animals can migrate over the surface. The description will also indicate that the side slopes will change from 2.5H:1V to 3H:1V to allow for a topsoil layer. Structural materials that could be used include: (1) a marine mattresses filled with stone and backfilled with sand, marsh soils, topsoil, and vegetation; (2) open cell articulated concrete blocks, also backfilled with sand, marsh soils, topsoil, and vegetation; or (3) turf-reinforcing mattresses.
General 1b.	Provide additional support or clarify the reasons for recommending Alternative 3.	Please see the response to General Comment 1(a) for a list of changes proposed for the EE/CA. Alternatives 2 and 3 were evaluated using the balancing criteria of long-term effectiveness and permanence, short-term effectiveness, implementability, and cost. Alternative 3 ranked better than Alternative 2 with regard to long-term effectiveness and permanence. Although Alternative 3 ranked lower than Alternative 2 for the other three criteria, the recommended alternative will be revised to Alternative 3 instead of Alternative 2 because other factors are significant in the consideration of Alternative 3 in addition to the importance of long-term effectiveness. These factors include allowing for a larger and higher quality habitat for special status species, no requirements for institutional controls or long-term maintenance and monitoring, and acceptance by regulatory agencies and the public.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
General 2.	Confirm that U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) will concur with the use of rip rap as part of the removal action and that it will not have a negative impact on wildlife habitat. In addition, confirm that USFWS and CDFW have concurred or will concur with the use of herbicides to eradicate the pepperweed.	NASA received comments from CDFW on the draft EE/CA on May 15, 2015. CDFW Specific Comment #7 addressed the use of riprap on the side slopes for Alternative 2. NASA consulted with USFWS and agreed to revise Alternative 2 to replace riprap on the slide slopes with a vegetative cover over a biotic barrier. Structural material may also be placed under the vegetative cover to stabilize the slope. Application of herbicides are assumed for the purposes of the EE/CA cost estimate because they are the most common, effective, and feasible method for pepperweed eradication and control, particularly over a large area. NASA will work with USFWS and CDFW to identify potential alternative methods during design and development of a habitat mitigation plan.
General 3.	Include a figure showing the estimated schedule for implementing the initial phases of Alternatives 2 and 3 (including site restoration but not monitoring) to explain the estimates of 6 and 9 months, respectively, for completion.	The schedule for the removal action will be specified in the removal action design and will include provisions to mitigate potential impacts to protected species. The timeframes for completing Alternatives 2 and 3 were estimated using professional experience to provide the reader a general indication of the amount of time required to complete the action so the short-term protectiveness of the alternatives could be evaluated. The estimated timeframe for Alternative 3 in the Draft EE/CA was less than 9 months; however, the anticipated volume of contaminated material to be excavated for Alternative 3 will be increased, as described in the response to General Comment 1a, to provide a more conservative estimate. Therefore, the timeframe to complete Alternative 3 is now estimated to be less than 12 months. The schedule estimates in the EE/CA were quantified using the following assumptions: • Site preparation for both alternatives would require approximately 1 month (including installation of the temporary barrier and exclusion of any special status species found within the construction area). • Construction of the soil cover (Alternative 2) would require approximately 4 months, including approximately 1 month to remove soil from the adjacent Midpeninsula Regional Open Space District (MROSD) property (removal of 450 to 500 cubic yards of soil per day), 2 months to construct the soil cover (approximately 7,000 square feet of cover per day), and 1 month to construct the side slopes (approximately 100 cubic yards per day).

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
General 3. (cont'd)		• Excavation and off-site disposal (Alternative 3) would require approximately 10 months, assuming approximately 350 cubic yards of soil would be excavated, sampled, and loaded onto trucks per day (18 truckloads per day). Although the production rate could be greater, this rate takes into consideration (1) the sampling requirements to identify clean fill to be replaced at the site and the disposal method for the fill transported off site and (2) the time required to regrade the site after the contaminated fill material is removed. • The initial efforts for habitat mitigation and site revegetation would require approximately 1 month. A brief description of these discussion points will be added to the EE/CA to explain the estimates of less than 6 and 12 months to complete Alternatives 2 and 3.
General 4.	Modify all sections of the document as appropriate in response to regulatory comments. For example, a comment on the executive summary will apply to the main text as well.	All appropriate sections of the EE/CA, including the appendices, will be updated to reflect the changes identified in the responses to EPA and Water Board comments.
Specific Comments		
Specific 1.	Executive Summary, page ES-1: In the second paragraph, the stormwater retention pond is noted to be habitat for ecological receptors. Revise the text to indicate that the receptors include special status species.	The EE/CA will be revised as requested in this comment.
Specific 2.	Executive Summary and Section 1.0, Introduction, pages ES-1, ES-3 and 3: State that NASA's Interim Corrective Action Measures (ICAM) did not include the placement of silt fencing around N217 and N217A due to the depth and limited extent of contamination in these areas.	The EE/CA will be revised as requested in this comment.
Specific 3.	Executive Summary and Section 1.0, Introduction, pages ES-1 and 4: Revise the sentence regarding the termination of the RCRA Order to be worded in the past tense and include the effective date of the FFA, March 11, 2015.	The EE/CA will be revised as requested in this comment.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 4.	Executive Summary, page ES-2: In the third paragraph on the page, the last sentence appears to erroneously state that zinc is a contaminant of concern at AOI 14. This is inconsistent with other text in the EE/CA that states that no samples at AOI 14 contained concentrations of zinc that exceeded the Navy Installation Restoration (IR) Site 25 remediation goals.	The EE/CA will be revised as requested in this comment. Zinc was not identified as a contaminant of concern at AOI 14, and the referenced sentence in the Executive Summary is incorrect.
Specific 5.	Executive Summary, page ES-3: In the second to last paragraph, state that the alternatives also underwent NASA's Green and Sustainable Remediation Evaluation	The EE/CA will be revised as requested in this comment.
Specific 6.	Section 1.0, Introduction, page 1: The first paragraph states the EE/CA evaluates technologies for conducting a non-time-critical removal action. Revise the text to discuss the appropriateness of a non-time-critical removal action, as opposed to a time-critical-removal action for this site.	The EE/CA will be revised to reflect that site-specific investigations have not identified an urgent threat that must be addressed to prevent significant human or ecological exposure to contamination at AOI 14. Therefore, a planning period of at least 6 months exists for NASA to evaluate an appropriate removal action and identify the appropriate extent of the removal action it will conduct at AOI 14. This evaluation is being completed in this EE/CA.
Specific 7.	Section 1.0, Introduction, page 3: In the first sentence, with the first use of the term "Unilateral Administrative Order" include the parenthetical abbreviated term "Order" and then ensure all uses of the term "Order" as they relate to the UAO are capitalized as they relate specifically to the Order issued on March 15, 2013. Alternately, use the abbreviation UAO to refer to the 2013 Order.	The EE/CA will be revised to use the term "RCRA Order" to refer to the Unilateral Administrative Order issued by EPA on March 15, 2013.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 8.	Section 2.1.1, Facility History, page 6: The partial paragraph at the top of the page indicates that groundwater contamination exists under the western side of Moffett Field but fails to include groundwater contamination on the eastern side of the runway. Revise the text to include the plume being addressed by the Eastern Aquifer Treatment System (EATS).	The partial paragraph at the top of page 6 will be modified as follows: "In addition to releases from NASA Ames operations, groundwater contamination has resulted from operations at former NAS Moffett Field and from off-site upgradient sources. In the western portion of NASA Ames, west of the airfield, groundwater contamination is present from the Middlefield-Ellis-Whisman (MEW) Superfund site and from operations at former NAS Moffett Field. This comingled groundwater contamination in the western portion of NASA Ames is referred to as the "Regional Plume." The Regional Plume does not extend to AOI 14. In the eastern portion of NASA Ames, east of the airfield, groundwater contamination is present from operations at former NAS Moffett Field and is being addressed by the Navy (Navy Operable Unit 5)."
Specific 9.	Section 2.1.2, Area of Investigation 14, page 11: In the sentence that begins on the previous page, state what the N217A fill area is currently used for.	The current use of the N217A fill area is stated in the previous paragraph on page 10 of the EE/CA (first paragraph after Figure 7). This paragraph also describes the public access restrictions for the N217A area. Therefore, the sentence on page 11 indicated in this comment ("The N217A fill area is currently used, but access to the area is restricted by a NASA security fence to the south and the Navy IR Site 25 stormwater retention pond on all other sides.") will be deleted because it is redundant with text in the previous paragraph on page 10.
Specific 10.	Section 2.1.3, Navy Installation Restoration Site 25, page 12: Portions of the stormwater retention pond are described as being "owned by MROSD" or "managed by NASA." Clarify what entities manage the western portion of the stormwater retention pond and what entities own the central and northeastern basins. The use of different terms is confusing.	The first paragraph of Section 2.1.3 will be modified as follows: "AOI 14 is adjacent to Navy IR Site 25 (Figure 9). Navy IR Site 25 is approximately 230 acres and encompasses NASA's stormwater retention pond and Eastern Diked Marsh, which contains NASA's stormwater settling basin. The stormwater retention pond consists of the Northeast and Central Basins within NASA Ames' property boundary, and a western parcel of approximately 54 acres owned by MROSD." Figure 9 will be modified to clarify these areas.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
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Comment No.	Comment	Response
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Specific 11.	Section 2.1.3, Navy Installation Restoration Site 25, pages 13-14: State who owns the levees adjacent to and enclosing the stormwater retention pond. Also, include analytical data for more recent sampling of the accumulated sediment in the settling basin. Only 2007 data is referenced in the EE/CA. Clarify which upland polychlorinated biphenyl (PCB) source areas are "currently being addressed." It is the understanding of the regulatory agencies that the Navy and NASA completed remediation efforts at all known upland source areas.	Section 2.1.3 of the EE/CA will be revised as follows: 1. The text will be modified to indicate that the levees adjacent to and enclosing the stormwater retention pond are owned by USFWS, San Francisco Bay National Wildlife Refuge Complex. 2. The last sentence of the third paragraph of Section 2.1.3 will be replaced with the following: "Analysis of the sediment removed from the settling basin has indicated the presence of PCBs (Aroclor-1260 and Aroclor-1268) and metals (mercury, cadmium, chromium, copper, lead, nickel and zinc). NASA also collects annual soil samples from the Eastern Diked Marsh surface at the settling basin outfall and overflow locations. The samples are analyzed for PCBs, DDTs, lead and zinc. The most recent sampling event was conducted in August 2014; the laboratory results from this event are included in Attachment 1. Lead and zinc were detected in the surface samples below the Site 25 remediation goals; DDTs and PCBs were not detected above laboratory reporting limits." 3. The last sentence of the first full paragraph on page 14 will be modified to delete "or are currently being addressed" because all upland source areas have been addressed under separate actions.
Specific 12.	Section 2.2, Previous Investigations and Analytical Data, page 16: Include information on the groundwater result "exception." Identify the chemicals and concentrations detected.	Section 2.2 provides a brief overview of investigations conducted for soil, sediment, and groundwater and therefore is not the appropriate section to discuss details of specific results. The last sentence of the last paragraph of Section 2.2 referring to the "exception" will be deleted. Section 2.3 presents the extent of contaminants by medium. Specifically, Section 2.3.4 discusses analytical results of groundwater sampling and identifies the name and concentration of the one chemical detected at monitoring well 10A01A.

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 13.	Section 2.3.3, Soil, page 18: Provide the rationale for why the background data sets being used are applicable to soil at Moffett Field. In addition, include the rationale for using a different data set for arsenic. Clarify how cadmium can be eliminated if the maximum concentration (15 mg/kg) exceeds the background screening level (14 mg/kg). Average background concentrations are not calculated for cadmium, so the only value to screen against is the background concentration.	Concentrations of metals in site soil were compared with two background data sets provided by Scott (1995) and Duvergé (2011). Scott (1995) was used for all metals except arsenic. The metals were compared with a data set generated from data collected in northern Santa Clara County, within a 2-mile radius of the intersection of California State Highways 101 and 237 (Scott 1995). The background data set used for comparison of arsenic concentrations was derived from a larger data set containing data collected throughout the nine-county San Francisco Bay area (Duvergé 2011); this study evaluated background data based on geology type and included data from soils located near San Francisco Bay, similar to the soil at AOI 14. The Scott (1995) background data set has been used at Moffett Field in previous reports, including the Environmental Issues Management Plan (EKI 2015) recently prepared for the NASA-leased areas occupied by Planetary Ventures. Duvergé (2011) is referenced on the Water Board's website for environmental screening levels (ESLs), under "Supplemental Information," with the following text "BACKGROUND ARSENIC CONCENTRATIONS IN SOIL: A master's thesis completed in December 2011 presents the first regional estimate of background arsenic concentrations in the San Francisco Bay Region. The proposed upper estimate for background arsenic (99th percentile) within undifferentiated urbanized flatland soils is 11 milligrams per kilogram (mg/kg)." It is also cited in the ESL User Guide, in Section 9.4, regarding background metals, as follows: "Arsenic and chromium are often naturally present in Bay Area soils at concentrations above risk-based screening levels. Background concentrations of arsenic in Bay Area soils typically exceed the 0.39 mg/kg risk-based screening level for direct-exposure concerns (Duvergé 2011). Alternative screening levels based on site-specific or regional established background levels may represent a more appropriate screening level in these instances. Cleanup levels for sites where metals are known to be present due to site-related activities may be based on a site-specific or region-specific determination of appropriate background. Cleanup of naturally occurring chemicals to less than background concentrations is not generally required." (http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.shtml; http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/Users_Guide_Dec_2013.pdf).

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 13. (Cont'd)		Cadmium was not eliminated from consideration in the EE/CA based on the comparison of site concentrations to background concentrations. The conclusion of the background comparison for cadmium was "inconclusive." The background comparison treated metals classified as "inconclusive" the same as metals that were identified as being present at concentrations exceeding background concentrations. Cadmium was considered in the human health and ecological screening in Sections 2.4.1.3 and 2.4.2.3, where concentrations were compared with human health and ecological screening criteria (Tables 6 and 7 of the EE/CA). Cadmium was not carried forward into the EE/CA's removal action objectives because of the low detection frequency, low concentrations, depth of cadmium detections, and collocation of the maximum concentration with areas that will be addressed based on other chemicals of potential concern (COPCs). The maximum concentration of cadmium was 15 mg/kg, just slightly greater than the maximum detected concentration of 14 mg/kg in the background data set (Scott 1995). All other detected concentrations of cadmium at AOI 14 (15 of 52 samples; a detection frequency of 28 percent) ranged from 0.18 to 0.89 mg/kg. The maximum concentration of cadmium was detected 10 feet below the ground surface, which is well below the depth of concern for ecological receptors (typically as deep as 6 feet for burrowing mammals [DTSC 1998]) and is located within the removal action footprint for Alternatives 2 and 3, so it will no longer be a potential exposure concern after the removal action is complete. Please see the response to CDFW General Comment 2(a) in Table E-2 for more information on changes to Section 2.4.2.3 to clarify the ecological evaluation of cadmium.

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Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 14.	Section 2.3.3, Soil, page 19: The text describes three parameters used to determine if a particular metal had concentrations above background. When only one of the three parameters was "appreciably greater" or if the average concentration was not calculated, the metal was identified as "inconclusive;" however, according to other text in this section all metals were considered in the risk evaluation regardless of these conclusions. Clarify what is meant by "inconclusive" and how this designation factored into the risk evaluation for metals.	As noted in the first full paragraph of Section 2.3.3 (third to last paragraph in the section), a designation of "inconclusive" was assigned to metals that exceeded only one of the three parameters examined (mean, mean plus one standard deviation, and maximum) and to metals for which an average concentration was not calculated in Scott (1995). All metals designated as "inconclusive" were considered in the risk evaluation. The last paragraph in Section 2.3.3 will be modified as indicated (deleted text in strikethrough, new text in italics): "...were identified as below background. *Metals identified as "inconclusive" were treated the same as "above background" and further evaluated in this EE/CA. In addition*, all metals were considered in the risk evaluation regardless of these conclusions *to provide a conservative evaluation.* - ~~although the information presented in this table is considered in the conclusions of the risk evaluation.~~ *The comparison of metal concentrations in site soil with background soil was used in combination with the risk evaluation to identify chemicals to be addressed by the removal action.*"
Specific 15.	Tables 5 and 6: Include a note about what "inconclusive" means and how it is used in the evaluation of identifying chemicals of concern.	As stated in the response to EPA and Water Board Specific Comment 14, a conservative approach was used to assign the designation of "inconclusive" to metals that exceeded only one of the three parameters examined (mean, mean plus one standard deviation, and maximum) and to metals for which an average concentration was not calculated in Scott (1995). The following note will be added to Tables 5, 6, and 7: "Metals with "inconclusive" designations based on the background comparisons are treated the same as metals with "yes" conclusions in the EE/CA. In addition, all metals were evaluated for human health and ecological risk, regardless of their background comparison conclusion to provide a conservative evaluation of risk."
Specific 16.	Section 2.4.1.2, Human Health Receptors and Exposure Pathways, page 22: The first sentence of this section needs to be rewritten.	The current site use of AOI 14 is discussed in Section 2.4.1.1; therefore, the first sentence of Section 2.4.1.2 is redundant and will be deleted.

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Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 17.	Section 2.4.1.3, Characterization of Site Risk, page 22: Confirm that the potential risk to on-site construction workers was evaluated. Include a discussion to explain how data were eliminated if the comparison against background data and/or screening levels was "inconclusive." It is not clear that the chemicals for which an inconclusive determination was made should be eliminated.	The potential risk to construction workers at AOI 14 was not evaluated in the streamlined human health risk evaluation, which compared site concentrations with industrial and residential screening levels. This methodology for a streamlined risk evaluation was presented in technical meetings with EPA and the Water Board. Although risk to a construction worker was not specifically evaluated in the human health risk evaluation, the removal action alternatives would address contamination at AOI 14 that may pose a risk to construction workers through institutional controls and a soil cover (Alternative 2) or removal of contaminated soil (Alternative 3) that poses a risk to sensitive ecological receptors. In addition, the current and anticipated use of the FSFA does not include construction activities. Institutional controls for Alternative 2 would prohibit the disturbance of the soil cover, preventing construction on the FSFA. Construction workers would be exposed to contaminated material at AOI 14 only during implementation of the removal action. These risks can be mitigated through normal construction practices, including those required by the Occupational Safety and Health Administration (OSHA). Please see the response to EPA and Water Board Specific Comments 15 and 16 for more information on how an "inconclusive" designation was addressed in the EE/CA.
Specific 18.	Sections 2.4.1.3 and 2.4.2.3, Characterization of Site Risk, pages 22 and 29: The evaluation of the maximum detection of cadmium with respect to risks to humans and risks to ecological receptors is inconsistent. With regard to human receptors the concentration of cadmium at PEN-09 is considered a statistical outlier; whereas, the same result with regard to ecological receptors is disregarded due its depth and inaccessibility. While different factors should be considered in the evaluation of risks, the treatment of this sample result in the evaluation of site risks appears to favor arguments that limit the risk. Revise the text to thoroughly discuss the reasons for not carrying cadmium forward in the EE/CA.	The discussion of cadmium in Section 2.4.2.3 (characterization of ecological risk) will be revised to include information on the detection frequency, sample depth, and range of detected concentrations, similar to the information discussed in Section 2.4.1.3 for human health risk. Also, please see the response to EPA and Water Board Specific Comment 14 and CDFW General Comment 2(a) in Table E-2 for the proposed changes to the EE/CA with regards to cadmium.

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Specific 19.	Section 2.4.2.3, Characterization of Site Risk, pages 28-30: Provide the rationale for how screening levels were selected, particularly ESLs. Reference the specific table used to select the ecological ESLs.	The EE/CA includes a streamlined evaluation, in accordance with EPA guidance. For AOI 14, a removal action will be undertaken to protect the surrounding wetland, which will reduce risk to both terrestrial and wetland receptors by either excavating or containing the contaminated soil (see the removal action footprint on Plate 7). Therefore, the intent of the streamlined ecological risk assessment is to ensure that the removal action is protective of both current and future exposure scenarios. The Tier 1 ESLs, developed to address both human health and terrestrial biota, are intended to focus on significant site contamination and streamline the investigation and cleanup process (Water Board 2013), which is consistent with the goals and scope of the EE/CA for AOI 14. The first paragraph of Section 2.4.2.3 has been revised for clarity to read as follows: "To evaluate potential risk posed to ecological receptors at AOI 14 in this streamlined ecological risk evaluation, site soil concentrations were compared with: 1. Navy IR Site 25 do-not-exceed remediation goals (shown on Table 1) to protect receptors in the wetland from erosion of soil from AOI 14 with contaminant concentrations that exceed the remedial goals because the primary purpose of the removal action is to prevent erosion of contaminated soil from AOI 14 into adjacent Navy IR Site 25; 2. Tier 1 ESLs from the table titled "Tier 1 ESLs (screening levels resulting from default settings)" in Water Board 2013, which are conservative screening levels protective of the environment (terrestrial biota) to consider the potential need for action to protect terrestrial receptors based on current concentrations in soil (Tier 1 ESLs were developed to address both human health and terrestrial biota and are intended to focus on significant site contamination to streamline the investigation and cleanup process [Water Board 2013], which is consistent with the goals and scope of the EE/CA for AOI 14); and 3. Background soil data (Scott 1995; Duvergé 2011) because chemicals detected at concentrations within the range of background concentrations do not warrant a removal action, and the site will not be cleaned up to levels less than background concentrations. The ESLs and Navy IR Site 25 remediation goals are presented in Table 7, along with the results of the background comparison."

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Specific 20.	Table 7: The ESLs cited for lead, DDT, and PCBs (80, 1.7, and 0.22 milligrams per kilogram, respectively) are human health-based screening levels and may not be applicable for ecological (terrestrial and wetland) receptors. Provide justification for using these screening levels in the ecological risk evaluation.	The referenced screening levels were used in the ecological risk evaluation because the Tier 1 ESLs were developed to be protective of both humans and terrestrial biota. The Water Board considered both human health and ecotoxicological data in development of the Tier 1 ESLs. Depending on the chemical, human health screening values may be lower than ecological screening values, and vice versa, so the sources of individual ESLs are not always ecotoxicological values. Please see the response to EPA and Water Board Specific Comment 19 regarding selection of the criteria, including the Tier 1 ESLs, for the streamlined risk evaluation.
Specific 21a	Table 9: The regulatory agencies disagree with characterization of excavation and off-site disposal as moderately difficult to implement. (a) This technology is technically and administratively feasible and the necessary resources are available. Disturbance of the public or possible damage to the roads is potentially a short-term effectiveness issue rather than a factor in how implementable this technology is.	Excavation and off-site disposal was ranked as moderately difficult to implement because of the volume of soil to be excavated, sampled, and either replaced on site (if "clean") or loaded onto trucks and transported to an off-site disposal facility (if "dirty"). Transporting a large volume of contaminated material may also be difficult because NASA Ames has aged infrastructure and roads and contains sensitive populations such as tenants, public visitors and a daycare facility located on site. The note for the implementability of excavation and off-site disposal on Table 9 will be modified to state "Moderate difficulty in implementing; excavation would be easily implemented using common equipment and methods because contaminated soil is above the grade of the surrounding area; however, a large volume of soil would be excavated, sampled, and transported off site, which may negatively affect the surrounding community and pose transportation issues because NASA Ames is an active facility with sensitive populations and aged infrastructure."
Specific 21b	(b) Clarify if the description for soil stabilization under "Cost" should indicate the cost is reduced because material meets disposal criteria for "hazardous" or "nonhazardous" disposal criteria. The regulatory agencies assume the text is meant to indicate cost for disposal would be reduced if stabilization decreased concentrations such that the material could be disposed of as nonhazardous.	The comment on Table 9 for soil stabilization will be changed to "High for in situ application; however may decrease disposal costs if used in conjunction with excavation and off-site disposal to allow soil to be disposed of as nonhazardous waste instead of hazardous waste." Soil stabilization would not decrease the concentrations of contaminants in the soil, rather it would "bind" the contaminants to prevent them from leaching into surface water and groundwater. Typically, a toxicity characteristic leaching potential (TCLP) analysis (and Waste Extraction Test [WET] in California) is conducted to determine if a waste is characteristically hazardous and to identify the suitable disposal facility. This analysis simulates leaching through a landfill.

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Specific 22.	Section 4.2.1.2, Alternative 2: Soil Cover and Institutional Controls, page 45: The first bullet describing the extent of excavation under this alternative is somewhat confusing and appears inconsistent with what is shown in diagrams in the EE/CA. The text states that all fill on property owned by MROSD will be excavated; however, Figure 9 and Plate 7 show that the property owned by MROSD, also known as the Stevens Creek Shoreline Nature Study Area, overlies/encompasses all/most of the Western Basin of the Stormwater Retention Pond/Navy IR Site 25, which was previously remediated and should not require further response action.	The first bullet and the third paragraph of Section 4.2.1.2 (starting with "The FSFA is adjacent…") will be changed to clarify that the soil cover will be located solely on NASA Ames property. This will require excavation of soil exceeding the cleanup goal from the MROSD property along the western side of the removal action boundary and regrading of this area to construct the side slopes of the soil cover within NASA Ames' property.
Specific 22a.	Revise the figures to better show which areas owned by MROSD will be excavated.	The MROSD property is shown in yellow stripes on Plates 1, 3, 5, and 7, which show the overlap of the MROSD property and the FSFA. However, the yellow stripes will be changed to a darker color to make this area more visible to the reader. The revised text in Section 4.2.1.2 will also reference the overlap of the MROSD property and the FSFA and refer to Plate 7. Fill material with contaminant levels exceeding cleanup goals will be excavated from MROSD property and either disposed of offsite or placed under the soil cover. Additional excavation will be conducted from MROSD property along the western boundary of the removal action area to construct the soil cover side slopes within NASA's property boundary.
Specific 22b.	Clarify how the removed material will be handled, including where it will be placed under Alternative 2 and whether it will be reused on-site or disposed of off-site under Alternative 3.	In Section 4.2.1.2, the third paragraph on page 45 and the second full paragraph on page 46 will be modified to indicate that soil excavated from the portion of the FSFA that overlaps the MROSD property may be transported off site for disposal or placed on the existing ground surface of the FSFA, which will be covered by the soil cover. The section will also clarify that the cost estimate for Alternative 2 assumed that the material would be placed under the soil cover and not disposed of off site.
Specific 22c.	In addition, show this information on the applicable figures.	Plate 9 includes two notes regarding the FSFA fill material on MROSD property. The first legend note will be changed to: "Excavated FSFA fill removed from MROSD property to be placed on FSFA surface." The second note ("Fill area using material cut from MROSD property.") will be moved closer to the first note so the relationship between the fill excavated from MROSD property and the placement of the material is clear.

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Specific 23.	Section 4.2.1.2, Alternative 2: Soil Cover and Institutional Controls, page 45: The second to last paragraph on the page describes the reconfiguration of the peninsula to "move fill material off MROSD property or away from the property line" and to "minimize the area of the cover necessary;" however, this description is vague and the diagrams in the EE/CA do not provide sufficient clarification. Include further text to better limit or bound the extent of the proposed reconfiguration of the peninsula.	The referenced paragraph will be modified to indicate that the fill material along the toe of the slope of the fill area exceeding cleanup goals will be excavated from MROSD property and may be placed on top of the FSFA or disposed of off site, as described in the response to EPA and Water Board Specific Comment 22b. Additional soil will be regraded to construct the soil cover on NASA Ames property. The last sentence of the paragraph ("The FSFA may also be reconfigured to minimize the area of the cover necessary or to maintain slope requirements without expanding the current site boundaries.") was intended to inform the reader that the removal action design may include reconfiguration of the fill before construction of the soil cover. If Alternative 2 is the chosen alternative, the design will specify the volume of material to be excavated and placed to construct the cover. The EE/CA indicates that the removal action may involve disturbance of the contaminated fill material so the reader may accurately evaluate the effects of the alternative on on-site workers, the community, and the environment during implementation.
Specific 24.	Section 4.2.1.2, Alternative 2: Soil Cover and Institutional Controls, page 47: Alternative 2 proposes cap side slopes of 2.5:1. Generally, landfill cap slopes are 3:1. Explain why the ratio of 2.5:1 was selected, justify that it is appropriate, and account for any cost differences related to this design change.	The actual side slope for Alternative 2 will be specified in the removal action design, if Alternative 2 is chosen as the preferred alternative. The assumed side slopes for Alternative 2 will be changed to 3H:1V instead of 2.5H:1V, and the costs will be revised accordingly. Please see the response to General Comment 1 for other changes to Alternatives 2 and 3.
Specific 25.	Section 4.2.1.2, Alternative 2: Soil Cover and Institutional Controls, page 47: In describing the mitigation of pickleweed at a 1:1 ratio, the text states that up to 40 acres of land "will be managed." Clarify what is meant by this and show the proposed 40-acre area to be "managed" on a figure. Also, explain why a mitigation ratio of 1:1 was determined to be sufficient for this action. Confirm USFWS and CDFW concur with the proposed 1:1 ratio for pickleweed restoration.	The third paragraph on page 47 (Section 4.2.1.2) will be revised as follows: "In addition, NASA will work with USFWS and CDFW to mitigate habitat disturbed to carry out the removal action. Habitat includes pickleweed immediately surrounding and on the existing slopes of the FSFA and upland habitat that covers the remaining surface of the FSFA. The specific mitigation actions to be conducted will be detailed in subsequent site removal action documents; however, based on discussions between NASA and USFWS, the assumptions used for the alternatives evaluation include mitigation of up to 1 acre of pickleweed and up to 5 acres of upland habitat. Habitat will be mitigated at a ratio of 1:1 on site based on the assumption that the removal action will result in a temporary effect. Habitat restoration will be supplemented by pepperweed management. Assumptions included in this EE/CA provide for up to 5 years of pepperweed management in the stormwater pond surrounding the FSFA and south of the FSFA within the Western and Eastern Dike Marshes. Recent surveys by NASA's qualified biologist indicate the presence of pepperweed over approximately 40 acres of these areas."

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Specific 26.	Section 4.2.1.2, Alternative 2: Soil Cover and Institutional Controls, page 49: The paragraph at the bottom of the page describing Hazardous Waste Property and Land Use Restrictions appears to confuse land use covenants (LUCs) and deed restrictions. Although deed restrictions cannot be placed on property owned by the federal government, provisions for such restrictions can be planned for when property does transfer. In fact, federal entities are required to provide assurances regarding transferred property, including any applicable deed restrictions. While the property remains in federal hands, the substantive requirements that would otherwise be addressed in a deed restriction are to be incorporated into the relevant property documents, such as a facility master plan. Here, the requirements for maintenance of the cover and the residential prohibition should be incorporated into an appropriate planning document, such as a facility master plan. While the NASA facility master plan may be the appropriate instrument in which to include these requirements and restrictions, as of the latest Five Year Review, it does not appear that restrictions have been included in the facility master plan or in the Environmental Resources Document (ERD). This section should clarify what mechanism(s) NASA will use to ensure land use restrictions are applied as required and a timeframe for implementing such mechanism(s).	The bulleted items on pages 48 and 49 list potential state ARARs accepted by NASA for Alternative 2. The referenced bullet summarizes the provisions contained in the citation 22 CCR § 67391.1(e)(2). This regulation was promulgated by DTSC, and the content and terminology (for example, "land use covenant") are consistent with the regulation. The discussion was intended to show that the site-specific factors for AOI 14 meet the requirements of 22 CCR § 67391.1(e)(2) - that when it is not feasible to enter and record a land use covenant for property owned by the federal government, DTSC allows "other mechanisms" to ensure that future land use will be compatible with the levels of hazardous substances remaining at the site. Because the federal government owns AOI 14 and has no plans to transfer ownership, it is not feasible to enter into and record a land use covenant. The "other mechanism" that NASA will use is its facility master plan, NASA Ames Master Plan and Environment Resources Document. No changes will be made to the referenced bullet on page 49; however, the last paragraph on page 47 (starting with "ICs will be implemented to prohibit…") will be replaced with the following paragraph to provide additional information on the methods NASA intends to use to implement the institutional controls (ICs): "NASA would establish and implement land use restrictions for AOI 14 to maintain the integrity of the cap and prohibit residential use. This would include prohibiting the construction of any buildings or structures on the cap. NASA Ames' relevant documents that incorporate land use restrictions include NASA Ames Master Plan and Environmental Resources Document, which implement NASA Ames' Final Programmatic Environmental Impact Statement, Mitigated Alternative 5 Land Use Plan. General land use control provisions are incorporated into current NASA Ames procedural requirements and processes and would be incorporated into all applicable current and prospective lease agreements for parcels including or adjacent to the site. NASA Ames' NEPA and construction permit processes include review of LUC provisions for all development and construction actions at NASA Ames. In the event of property transfer to a non-federal entity, a restrictive covenant would be placed in the deed for conveyance of the property with land use controls. NASA intends to incorporate all applicable land use restrictions within 9 months of completion of the final removal action design." In addition, the first sentence on page 47 would be deleted (starting with "ICs will be implemented through…").

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Specific 27.	Section 4.2.1.3, Alternative 3: Excavation and Off-site Disposal, page 50: The last full paragraph on the page discusses the expansion of capacity of the stormwater retention pond but is unclear what goals the enlarged pond would achieve. Revise the text to explain why the stormwater retention pond will be expanded and how much additional capacity it will accommodate.	The first sentence of the referenced paragraph (starting with "The side slopes of the remaining…") will be moved to the end of the second paragraph in Section 4.2.1.3. The rest of the paragraph will be deleted because it is redundant with other statements in the section or not relevant to the alternative.
Specific 28.	Section 4.2.3.3, Alternative 3, page 60: Excavation and Off-site Disposal: Explain why excavation and off-site disposal is expected to take 9 months.	In the Draft EE/CA, Alternative 3 was anticipated to require 1 month for site preparation; 7 months for excavation, sampling, transportation of contaminated material off site, and site grading; and 1 month for initial site restoration activities. As described in the response to EPA and Water Board General Comment 3, the estimated timeframe for Alternative 3 will be modified to less than 12 months because the volume of material to be excavated and disposed of will be increased to provide a more conservative estimate of the contaminated material. A brief description of the discussion points listed in General Comment 3 will be added to the EE/CA to explain the estimates of 6 and 12 months to complete Alternatives 2 and 3. The schedule will be refined during design, in particular to address potential impacts to protected species. It will also be noted in Section 4.3 that Alternative 3 does not include operation and maintenance activities, with the exception of habitat restoration.
Specific 29.	Section 4.3, Comparative Analysis of Alternatives, page 62: Explain why only Alternative 3 would impact sensitive ecological receptors. Like Alternative 3, Alternative 2 includes staging and construction activities that could impact sensitive ecological receptors.	The fifth paragraph of Section 4.3 will be changed to the following: "Alternative 2 ranks higher than Alternative 3 with respect to implementability. Both alternatives would use conventional methods and equipment and would disturb the sensitive ecological habitat around AOI 14. The construction schedules for both alternatives will consider potential impacts to protected species. However, Alternative 3 would require excavation, sampling, grading, and transportation of a larger volume of contaminated material. Transportation of a large volume of contaminated soil from AOI 14 to an off-site disposal facility may require coordination with on- and off-site communities and may affect aged roads or infrastructure on and off of NASA Ames."
Specific 30.	Plate 7: Confirm the removal action area (purple outline) includes all red points (those with concentrations greater than cleanup criteria) in the detail area (H0001 borings).	The removal action boundary will be adjusted to include all of the H0001 sample locations where concentrations exceed the cleanup goals.

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Specific 31.	Plates 9 and 10: Indicate where the soil excavated from the MROSD property will be placed if it is to remain on site. If it is to be taken off site for disposal, make that clear (on figures and within the text).	The description of Alternative 3 in Section 4.2.1.3 will be modified to indicate that fill material that extends onto the MROSD property would be excavated and sampled, and results would be compared with the cleanup goals to determine whether the material should be transported off site for disposal or placed back onto the ground surface at the FSFA. The cost estimate for Alternative 3 included this soil in the total estimate of soil to be excavated, sampled, and either placed on site or transported off site. The note on Plate 10 regarding the FSFA fill on MROSD property will be modified to indicate that the fill would be sampled and either replaced on site or transported off site for disposal. Please see the response to EPA and Water Board Specific Comment 22a, b, and c for changes to the description of Alternative 2 and Plate 9.
Specific 32.	Appendix A, page A-2: The Purpose section of the "fact sheet" states that groundwater, surface water, and air samples were collected as part of the investigation. Clarify that none of the samples in these media were associated with AOI 14. Otherwise, present those data.	The following sentence will be added to the purpose section of the Listing Site Inspection fact sheet: "No groundwater, surface water, or air samples were collected at AOI 14."
Specific 33.	Appendix A, page A-12 and A-16: The Purpose sections state that the extent of zinc contamination was to be evaluated for these investigations; however, the earlier Listing Site Inspection did not indicate any issues with zinc contamination. Explain why these investigations further evaluated zinc.	The following sentence will be added to the purpose section of the AOI 14 Phase I (Summer 2005) fact sheet: "Analysis for DDT, lead, and zinc was conducted because DDT, lead, and zinc were identified as contaminants of concern at adjacent Navy IR Site 25."
Specific 34.	Appendix A, page A-44 and A-47: The Summary of Findings sections of these "fact sheets" state that there were exceedances of the Navy IR Site 25 remediation goal and the ESL for chromium; however, no IR Site 25 remediation goal for chromium was developed and the residential soil ESLs for CR III and VI are 750 mg/kg (as stated on page A-44) and 8 mg/kg, respectively. Revise the text to clarify the evaluation of chromium results and explain whether the removal action needs to be expanded to address chromium contamination specifically at SDS03 and SDS12.	The text on pages A-44 and A-47 has been revised to clarify the chromium results evaluation. The text of the source documents compared chromium results with the 2005 ESL of 58 mg/kg rather than the updated 2013 ESL of 750 mg/kg. The chromium criterion has been updated in tables on pages A-46 and A-50.

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Specific 35.	Appendix A and Attachment A4 to Appendix A: Various figures and tables reproduced from individual investigations reports are included in Appendix A with "minimal updates" to the figures and tables as noted in various responses to agency comments, including the response to General Comment 10. The quality of a number of these figures and tables (see pages A-14 and A-19, for example) is not adequate and important data results or labels cannot be discerned. Review the figures and tables and ensure they are legible and highlight any notations in figures and tables that may appear inconsistent with other portions of the EE/CA.	The response to General Comment 10 on the Draft Current Conditions Report (CCR) has been revised as follows: "The inconsistencies noted in this comment were in reference to the figures and tables presented in the CCR. Summary figures and tables presented in the EE/CA have been developed using consistent representation of data and include consistent notes or keys for each figure and table. EE/CA Appendix A includes figures and tables reproduced from the individual investigation source reports, with minimal updates. The figures and tables included in Appendix A were selected for their data presentation rather than data interpretation; therefore, inconsistencies are limited to style and format of presentation." Per the June 15, 2015, meeting between NASA, EPA, and the Water Board, Table 6, presented on pages A-14 and A-15, will be enlarged to fit on landscape- rather than portrait-oriented pages, and the "Table 6" title will be removed. The following note will be added to the figures on pages A-19 through A-27: "For overview and sample numbers, see the figure on page A-18. For complete data, see the tables on pages A-28 through A-35."
Specific 36.	Appendix A, Attachment A4, page A4-3: The second to last bullet in the response to General Comment 3 states that ICAM data gap sampling addressed detection limit issues encountered in earlier investigations. The agencies note that the various "fact sheets" developed to summarize previous investigations and results include statements about reporting limits; however, the "fact sheets" and Appendix A, Attachment 3, do not provide conclusions about the usability of the data. Confirm that any samples with results above reporting limits are collocated with exceedances of the remediation goals to show that those samples will be addressed by the removal action. Also, clarify that ICAM data gap sampling occurred only at N217 and N217A to address issues with detection limits for DDT.	Appendix A, Attachment A3, page A3-15, includes a data usability statement and indicates that data associated with quality control (QC) violations noted in Attachment A3 should be considered estimated and that QC violations were not severe enough to reject data. NASA deems the data usable. Dichlorodiphenyltrichloroethane (DDT) reporting limit issues occurred during the Phase I (Summer 2005) and Phase II (Summer 2006) investigations. The Phase I samples with DDT reporting limit issues were co-located with samples with elevated polychlorinated biphenyl (PCB) results and therefore will be addressed by the proposed removal action (see the table on page A-14). The Phase II samples with DDT and PCB reporting limit issues (see the tables on pages A-28 through A-33 for FSFA and on page A-37 for N217 areas) were resampled in either 2007 (the table on page A-35 shows FSFA samples, and the table on page A-40 shows N217 area samples) or during the interim corrective action measure (ICAM) data gap sampling conducted in November 2013 (table on page A-43 for N217 areas). The reporting limits for these resampling events were less than cleanup goals. The CCR response for General Comment 3 will be revised to reflect this information. Text indicating reporting limit issue resolution (as indicated above) will be added to the "Summary of Findings" section of the Phase I and Phase II investigation fact sheets.

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Specific 37.	Appendix A, Attachment A4, page A4-6: Figure 2 does not appear to show the full extent of IR Site 25 within the boundary of NASA Ames as portions of IR Site 25 are not included in either the pink or blue outline. Revise the figure.	The figure has been revised as requested.
Specific 38.	Appendix A, Attachment A4, page A4-7: Include the text of the response to Specific Comment 13 in the text of Appendix A.	The text of the response to CCR Specific Comment 13 (Appendix A, Attachment A4) has been added to the purpose section of the Site Listing Investigation fact sheet.
Specific 39.	Appendix C, Section C2.5, Contingency Allowance, pages C-6 – C-7: Expand the discussion to further explain the contingencies as they are presented in Tables C-4 and C-5. The text states the cost estimates use engineering judgment to develop a "20 percent contingency percentage," which includes a 10 percent scope contingency and a 10 percent bid contingency. The text, therefore, leads the reader to assume the 20 percent is the scope plus bid contingency. However, in the tables, it is not clear how the contingencies are applied. For example, for ecological restoration, the total capital cost is $99,901. A 20 percent contingency ("Subtotal...with contingency") is added for a total of $119,881. That cost is then subtotaled with other costs and another 20 percent contingency is added under "Contingency Allowance." Therefore, it appears that more than a 40 percent contingency has actually been added.	The contingency allowance was 20 percent and was applied to each subtotal on Tables C-4 and C-5. The 20-percent contingency was not applied again as the summary sections of the tables imply. The contingency allowance line items at the ends of Tables C-4 and C-5 will be moved to the beginnings of the tables to clarify the application of contingency.
Specific 40.	Appendix C, Section C3.2.2, Cost Assumptions for Alternative 2: Explain how the 6-month estimate for completion was developed.	Appendix C will be updated with a summary of the timeframe estimates for Alternatives 2 and 3. The estimates are described in the response to General Comment 3.
Specific 41a.	Appendix C, Section C3.3.2, Cost Assumptions for Alternative 3: (a) Include more detail about the excavation, sampling, and disposal activities in the assumptions. For example, include how the field activities will be staged, if soil will be single- or double-handled (stockpiled) prior to being loaded in the trucks, whether the soil to be removed will be sampled for disposal characterization prior to excavation or after it is stockpiled, etc.	The requested information is beyond the level of detail necessary for an EE/CA and will be specified during the design phase, if Alternative 3 is chosen as the removal action. However, for cost estimating purposes, it was assumed that the soil would be loaded directly into trucks, confirmation samples would be collected from the sidewalls and bottom of the excavation, and waste characterization samples would be collected from the material on the truck or from the excavator bucket during loading.

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Specific 41b.	Explain how the 9-month estimate for completion was developed.	Appendix C will be updated with a summary of the timeframe estimates for Alternatives 2 and 3, as discussed in the response to General Comment 3.
Specific 41c.	Confirm that the confirmation soil sampling approach provides adequate coverage across the excavation. The assumption of 10 confirmation samples per one sample used to define the extent does not provide enough information to evaluate aerial coverage of confirmation sample (e.g., per square foot of area excavated).	The confirmation soil sampling approach will be specified in a sampling and analysis plan during the design phase. The EE/CA only includes assumptions of the number of samples collected at the site and the anticipated analysis for cost estimating purposes. The cost for confirmation sampling is approximately $400,000, which is less than 10 percent of the total cost of Alternative 3 and within the anticipated accuracy of an EE/CA-level cost estimate of +50/-30 percent. The excavation areas were delineated based on previous samples collected at AOI 14. The samples were used to identify the areas to be excavated and also the depths of the excavations. Therefore, the estimated excavation areas were irregular shapes and varied in depth across the FSFA. It was assumed that 10 confirmation samples per previous soil sample location would be collected based on the estimated length of the sidewalls of the individual excavation areas. However, this estimate was made for cost estimating purposes and will need to be refined during the design phase.
Specific 41d.	Clarify why the length of plastic sheeting for Alternative 3 (2100 linear feet) is different than for Alternative 2 (4500 linear feet). Note that in Table C-5 (Cost Details, Alternative 3), 4500 linear feet of visqueen barrier is assumed for cost estimating purposes and no difference in length for the two alternatives is shown on Plate 7.	The length of plastic sheeting for Alternative 3 was incorrectly listed in Section C3.3.2 and will be corrected to 4,500 linear feet. The cost estimate for Alternative 3 used the correct length (Table C-5, under "Temporary Barrier around Construction Area").
Specific 42.	Table C-3: Clarify why only 5 years of mitigation inspection are included in the table when the text (page C-16) states that "It is assumed that mitigation will be necessary after the initial effort for 5 years," suggesting additional work will be conducted after year 5.	The referenced text on page C-16 will be modified to correct a typo and for clarity as follows: "It was assumed that no mitigation will be necessary after the initial mitigation and eradication efforts."

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Specific 43.	Tables C-4 and C-5: Confirm the cost estimates include the labor and other necessary costs for the "Four field personnel" who will "flush animals inside the construction zone through temporary holes in the barrier." It is not clear where there fees are included in the cost estimate. Clarify what the different shading colors (blue, pink, and yellow) mean in the tables.	The costs for a qualified biologist to monitor for impacts to special status species are included in Tables C-4 and C-5 for Alternatives 2 and 3. However, instead of "qualified biologist," the labor description is titled "senior scientist" because the cost estimating software does not include a labor category for a biologist. The labor category will be modified to "Senior Scientist (Qualified Biologist)" to identify the hours estimated for a biologist to train construction personnel, monitor the habitat during construction, and conduct ecological monitoring and mitigation activities. The different shaded colors on Tables C-4 and C-5 were for internal purposes and will be removed.
Specific 44.	Table C-6: Explain why the sensitivity analysis includes a line item for increasing inspections from annually to quarterly at the end of the wet season.	The sensitivity analysis on Table C-6 included changes in the frequency of the soil cover inspection because it is a major cost component of Alternative 2. The actual frequency of inspections will be specified in the design and land use control documents, or inspections may be conducted as necessary to meet project objectives, for example conducting inspections at the beginning and end of the wet season to detect erosion before a washout event occurs. Therefore, the inspection frequency may vary significantly from the frequency estimated in the EE/CA. This change may have a significant impact on the costs for Alternative 2, particularly because the inspections would continue in perpetuity.
Minor Comments		
Minor 1.	Section 1.0, Introduction, page 1: In the sentence that begins at the bottom of the page, include a reference to Figure 9, which shows the listed site features	The following sentence will be added to the last paragraph on page 1: "Navy IR Site 25 is discussed in Section 2.1.3."
Minor 2.	Section 2.1.1, Facility History, page 6: The last sentence of the section states that a remedial investigation (RI) and feasibility study (FS) might lead to a removal action. While removal actions may be based on an RI and FS, they more commonly follow the development of an EE/CA and Action Memorandum. It would be more appropriate to rewrite the sentence to use the term "remedial action."	The last paragraph of Section 2.1.1 will be changed as follows: "NASA is the lead federal agency responsible for conducting response actions at AOI 14 under NASA Ames' FFA, with regulatory oversight by the EPA and the Water Board."
Minor 3.	Section 2.1.2, Area of Investigation 14, page 9: Change "indicating fill constructed" to "indicating fill emplaced."	Section 2.1.2 of the EE/CA will be revised as requested in this comment.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Minor 4.	Section 2.2, Previous Investigations and Analytical Data, page 15: The sentence before Table 2 states that this section presents a summary of all of relevant site data; however, the data summary actually appears to be in Section 2.3.	The last sentence before Table 2 will be deleted.
Minor 5.	Table 3: Explain the significance of the bold text. Unlike other tables where bold text is used to denote exceedances, it is not clear why data in this table are in bold type.	Table 3 will be modified to remove the bold emphasis on the text.
Minor 6.	Section 2.3.5, Other Media of Interest, page 21: In the sentence about Navy conclusions regarding risks to ecological receptors, change the text to "chemicals in surface water were expected to be similar to risks associated with..."	Section 2.3.5 of the EE/CA will be revised as requested in this comment.
Minor 7.	Section 2.4.2.1, Ecological Setting, page 26: Change "Aldrete" to "Alderete."	The spelling of Alderete will be corrected throughout the EE/CA.
Minor 8.	Tables 6 and 7: The conclusions in far right column for whether a contaminant is above background for pesticides and PCBs are inconsistent. The "--" or the "NA" designation should be used in both tables.	Tables 6 and 7 will be changed to consistently use "--" instead of "NA."
Minor 9.	Table 7: The explanation of the "Bold" notation for the table appears to be incorrect. Bold text appears to indicate concentrations of contaminants that exceed screening levels or background concentrations	The note in Table 7 will be modified as suggested in this comment.
Minor 10.	Section 3.3, Determination of Removal Schedule, page 39: In the last paragraph on the page, include the year for when construction of the removal action will occur.	The schedule in the EE/CA was intended to provide a general timeframe for removal action activities. The actual schedule for the removal action will be specified in the Site Management Plan (SMP).
Minor 11.	Appendix A, Attachment A4, page A4-6: The response to Specific Comment 8 should refer to Figure 7 in the EE/CA, not Figure 4.	The response to Specific Comment 8 will be corrected as indicated in this comment.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
Water Board ARARs Comment		
Water Board ARARs 1.	Table B-7, page 5 of 19: Clarify if 23 CCR § 2511 (d) is accepted as an ARAR. It is not cited as being accepted, and the discussion does not indicate it has been rejected.	NASA does not accept 23 CCR § 2511(d) as an ARAR but did accept 27 CCR 20090(d) (as identified in Table B-7). The two regulations contain identical provisions. NASA determined that 27 CCR 20090(d) was more suited to the site-specific conditions at AOI 14.
EPA ARARs Comments		
EPA ARARs 1.	Table B-1, page 1 of 2, (p. 1792): 40 CFR § 761.61: This regulation is identified in the chemical-specific ARARs section as "Not an ARAR" because NASA is utilizing a risk-based number for PCB cleanup that is lower than that proscribed in this subsection. EPA agrees with the selection of the risk-based number for a cleanup level. However, this regulation would still be applicable to the action and the cleanup level will be compliant.	NASA does not identify 40 CFR § 761.61(a)(4)(i) as a potential chemical-specific ARAR for AOI 14. 40 CFR § 761.61(a)(4)(i) is not applicable because 40 CFR § 761.61(a)(1)(ii) provides that the self-implementing cleanup provisions are not binding on cleanups conducted under other authorities, including actions conducted under CERCLA. NASA has also concluded that 40 CFR § 761.61(a)(4)(i) is not relevant and appropriate because it does not present adequate protection for the potential ecological and environmental risk associated with PCBs at AOI 14. After additional discussion with EPA and the Water Board, NASA will include the following sentence in Table B-1: "EPA would consider this provision to be an ARAR; however, because the ecological risk-based cleanup levels selected for the action meet the provision's requirements, EPA can concur with NASA's determination that it is not an ARAR for this action."

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD
Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
EPA ARARs 2.	With regard to the requirements specifically found in 40 CFR § 761.61(a)(4)(i)(A)(3), should levels greater than 25 ppm of PCBs remain at the site beneath a cap, then the requirements of this section would be ARARs. Specifically the requirements for the cap itself as well as institutional controls would be relevant and appropriate. The regulation requires a deed restriction; although a deed restriction would not be appropriate on federally-owned property, the substantive requirements would be required for a type of institutional control, including the type of notice "which is normally examined during a title search" including that there is PCB remediation waste, the existence of the cap and requirement for maintenance of it, and the applicable cleanup levels.	NASA assumes that EPA is referring to citation 40 CFR § 761.61(a)(4)(i)(B)(3) rather than 40 CFR § 761.61(a)(4)(i)(A)(3). Although NASA has not identified the self-implementing cleanup provisions as discussed in response to EPA ARAR Comment 1, the components of Alternative 2 would result in compliance with this self-implementing cleanup provision. Instead, NASA has identified the risk-based disposal provisions of 40 CFR § 761.61(c) for Alternative 2; the alternative that would leave concentrations of PCBs on AOI 14. Three of 358 samples collected had PCB concentrations greater than 25 mg/kg: · Aroclor-1260 at 88 mg/kg at sample location PEN-08; · Aroclor-1260 at 180 mg/kg at sample location PEN-26; and · Aroclor-1260 at 52 mg/kg at sample location PEN-27. Pursuant to the self-implementing cleanup provisions, a cap meeting the requirements of 40 CFR § 761.61(a)(7) and deed restrictions meeting the requirements of 40 CFR § 761.61(a)(8) are necessary when concentrations between 25 and 100 mg/kg remain on site. Under 40 CFR § 761.61(a)(7), a cap of compacted soil must have a minimum thickness of 25 centimeters (10 inches) and must be of sufficient strength to maintain its effectiveness and integrity during use of the cap surface. For Alternative 2, NASA evaluated a 2-foot soil cover that would overlay a 1.5-foot biotic layer of natural material, totaling approximately 3.5 feet of cover over PCB concentrations.

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
EPA ARARs 2. (Cont'd)		Therefore, although NASA has not identified the self-implementing cleanup option provisions as ARARs, the cover evaluated in Alternative 2 exceeds the criteria specified in the self-implementing cleanup provisions in 40 CFR § 761.61(a)(7) and will be protective of human health and the environment. Under 40 CFR § 761.61(a)(8), the owner of the site must maintain the cap in perpetuity and must record a deed notice and restriction when an activity conducted under the self-implementing cleanup option includes the use of a cap. As noted in EPA and Water Board Specific Comment 26, it is infeasible for NASA to execute and record a deed restriction in the title record. Instead, under Alternative 2, NASA would implement ICs requiring maintenance of the cover and prohibiting residential use of AOI 14. NASA would include these ICs in its appropriate documents and procedures. NASA would also include provisions in Alternative 2 requiring that these ICs be contained in deed restrictions and covenants to restrict use of property if AOI 14 is transferred to an owner other than the federal government. Again, although NASA has not identified the self-implementing cleanup provisions as potential ARARs, these components of Alternative 2 would result in compliance with this self-implementing cleanup provision.
EPA ARARs 3.	Table B-3, page 1 of 2 (p. 1795): Endangered Species Act: The objective of this action is to protect ecological receptors from "potential exposure" to contamination. Suggest removing the word "potential" from reference to the receptors and to the contamination.	NASA will remove the word "potential" from the reference to the receptors and contamination as requested.
EPA ARARs 4.	Table B-3, page 2 of 2 (p. 1796): Executive Order 11990: The comment correctly states that Executive Orders are not considered ARARs but can be To-Be-Considered requirements. Identify these requirements as TBCs in the ARAR determination category. Provide the citation for the exclusion of incidental fallback from the definition of dredge and fill material.	NASA will identify these requirements as to-be-considered (TBC) standards in the ARAR determination category and will provide the citation for the exclusion of incidental fallback from the definition of dredge and fill material.
EPA ARARs 5.	Table B-3, page 2 of 2 (p. 1796): CWA § 404 (33 USC § 1344): Provide the citation for the exclusion of incidental fallback from the definition of dredge and fill material.	NASA will provide the citation.
EPA ARARs 6.	Table B-5, page 1 of 5 (p. 1799): CWA §402, 40 CFR § 122.44(k)(2) and (4): Provide the citation for the 1 acre requirement cited in the ARARs analysis.	NASA will provide the citation.

TABLE E-1: RESPONSES TO COMMENTS FROM EPA AND THE WATER BOARD

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from EPA and Water Board		
EPA ARARs 7.	Table B-5, page 1 of 5 (p. 1799): 40 CFR 761.61(c): 40 CFR 761.61(c) is designated as "Not an ARAR" because the self-implementing cleanup goal in this regulation is not sufficiently protective for ecological receptors. EPA concurs with the conclusion regarding protectiveness and NASA's risk-based remediation level of 0.21 mg/kg of PCBs. However, EPA recommends that 40 CFR 761.61(c) is an ARAR and that the proposed action meets its requirements rather than deeming it not to be an ARAR for this action.	Table B-5 identifies the risk-based disposal option in 40 CFR § 761.61(c) as a potential ARAR for both Alternative 2 and Alternative 3 (see page 1,799 and 1,802). However, NASA will revise the determination for 40 CFR § 761.61(c) for Alternative 3 on page 1,802 from "applicable" to "relevant and appropriate."

REFERENCES:

Duvergé, Dylan Jacques. 2011. *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, Master's Thesis, San Francisco State University, San Francisco, California. December.

Scott, Christina M. 1995. Background Metal Concentrations in Soils in Northern Santa Clara County, California, Recent Geologic Studies in the San Francisco Bay Area, 1995. Society for Sedimentary Geology, Pacific Section, 2012.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

The table below summarizes the responses to comments submitted by the California Department of Fish and Wildlife (CDFW) on the "Draft Area of Investigation (AOI) 14 Engineering Evaluation/Cost Analysis (EE/CA)," dated February 20, 2015. Comments were received from CDFW on May 15, 2015.

Comment No.	Comment	Response
Responses to Comments from CDFW		
General Comments		
General 1.	The Navy had to meet two types of cleanup goals for its IR Site 25 Stormwater Retention Pond, which is adjacent to NASA's A0I14. The two types of goals were: an area-weighted average and a do-not-exceed value for the following 4 chemicals: lead (33 mg/kg and 93.8 mg/kg), zinc (180 mg/kg and 314 mg/kg), total DDT (16 ug/kg and 109 ug/kg), and total PCBs (200 ug/kg and 210 ug/kg). NASA proposes only to use the do-not-exceed goal for the entire 8 acres of the FSFA. In CDFW-OSPR's opinion, not having the area-weighted average as part of the removal goal would not meet the threshold criteria of protection of the environment and compliance with ARARs.	The National Aeronautics and Space Administration (NASA) has incorporated the use of the area-weighted average goal (or "site-wide average goal, as used in the Navy Installation Restoration (IR) Site 25 ROD) into the remedy for Area of Investigation (AOI) 14, as described in Section 3.2. The use of the site-wide average goal for each alternative is summarized below. Alternative 3 includes excavation and off-site disposal of soil containing concentrations of lead, total polychlorinated biphenyls (PCBs), and total dichlorodiphenyltrichloroethane (DDT) that exceed the cleanup goals (based on the do-not-exceed remediation goal). After the removal action is complete, the residual area-weighted (or site-wide) average concentration will be calculated using the results of the excavation confirmation samples. If the site-wide average concentration for the targeted chemicals exceeds the Navy IR Site 25 site-wide average remediation goal, additional soil may be excavated and transported off site to reduce the residual average concentration at the former soil fill area (FSFA). Alternative 2 includes a cover over the contaminated fill material at the FSFA. This cover will prevent ecological receptors from contact with contamination in the fill material, including any contaminated material at the FSFA with concentrations exceeding the Navy IR Site 25 site-wide average remediation goal.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
General 2.	The methodology of comparing the average, average concentration + 1 standard deviation and maximum concentration between site and "background" is not a standard comparison approach. Please revise the background analysis using the recommended approach from the Department of Toxic Substances Control (DTSC) guidance on evaluating background concentration (DTSC, 1997).	Concentrations of metals in site soil were compared with two background data sets. All metals, except for arsenic, were compared with a data set generated from data collected in northern Santa Clara County, within a 2-mile radius of the intersection of California State Highways 101 and 237 (Scott 1995). The background data set used for the comparison of arsenic concentrations was derived from a larger data set from data collected throughout the nine-county San Francisco Bay area (Duvergé 2011); this study evaluated background data based on geology type and included data from soils located near San Francisco Bay, similar to the soil at AOI 14. The Scott (1995) background data set has been accepted for use at Moffett Field and has been applied in previous reports, including the Environmental Issues Management Plan that was recently prepared for the NASA-leased areas occupied by Planetary Ventures. The reports on background data concentrations from Scott (1995) and Duvergé (2011) included only summary statistics; the entire data set used for the analysis was not available for either report. Therefore, a "2 sample" analysis (as described in the DTSC guidance) could not be conducted for soil at AOI 14. Background concentrations were evaluated using summary statistics, including the average, maximum, and standard deviation of the data. This methodology was discussed with the U.S. Environmental Protection Agency (EPA) and the Regional Water Quality Control Board (Water Board) during scoping meetings for the EE/CA and was used in other Moffett Field site documents, such as the Environmental Issues Management Plan. No metal was removed from consideration as a chemical of potential concern (COPC) in the EE/CA based solely on background comparisons.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
General 2a.	Looking at the distribution of cadmium at AOI 14, cadmium should be further evaluated as an ecological contaminant of potential concern. The maximum site concentration for cadmium is 15 mg/kg, with the average concentration + 1 standard deviation of 5.98 mg/kg, which puts cadmium as a suspected contaminant. As a point of reference, the U.S. Environmental Protection Agency (US EPA) ecological soil screening levels for cadmium for birds and mammals are 0.77 mg/kg and 0.36 mg/kg, respectively. Furthermore, the 75th percentile of cadmium background soil concentration is approximately 0.60 mg/kg (US EPA, 2005a), whereas the site average + 1 standard deviation and maximum soil concentrations are 5.98 mg/kg and 15 mg/kg, respectively.	The maximum cadmium concentration of 15 milligrams per kilogram (mg/kg) was detected 10 feet below ground surface, which is well below the depth of concern for ecological receptors (typically as deep as 6 feet for burrowing mammals [DTSC 1998]). This concentration was just slightly greater than the maximum detected concentration of 14 mg/kg in the background data set. All other detected concentrations of cadmium, which was detected in 15 of 52 samples (a detection frequency of 28 percent) ranged between 0.18 and 0.89 mg/kg within AOI 14. Given the low site-wide concentrations and the comparison of background concentrations, cadmium does not require further evaluation. Furthermore, as noted in Section 2.4.1, the location where 15 mg/kg was detected (PEN-09) is within the footprint of the removal action and will be no longer be a potential exposure concern once the removal action is conducted. The third paragraph of Section 2.4.2.3 has been revised to read (deleted text in strikethrough, new text in italics), "…concentrations of cadmium exceeded the Tier I ESL in only one sample (PEN-09), also at 10 feet bgs. *With the exception of this detection, all other detections of cadmium were within the range of detected background concentrations. As discussed in Section 2.4.1.3, the high detection of cadmium at PEN -09 likely is an outlier and does not represent wide-spread cadmium contamination at AOI 14. In addition, the depth of the sample (10 feet bgs) is below the depth of concern for ecological receptors (6 feet bgs).* ~~Due to the depths of these samples~~ *Therefore*, ecological receptors would not be exposed to these concentrations. ~~Therefore,~~ TPH-motor oil range organics and cadmium will not be addressed by the removal action *because they do not pose a risk to ecological receptors* at AOI 14".

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
General 2b.	We also have identified zinc as additional metals that should be evaluated further before eliminating them from further consideration. As a point of reference, the US EPA ecological soil screening level for zinc for birds and mammals are 46 mg/kg and 79 mg/kg, respectively. Furthermore, the 75th percentile of zinc soil concentration is approximately 75 mg/kg (US EPA, 2007), whereas the site average + 1 standard deviation and maximum soil concentrations are 86.2 mg/kg and 300 mg/kg, respectively.	Although the background comparison was considered "inconclusive," the average concentration of zinc at AOI 14 (86.2 mg/kg) is just slightly greater than that of the background data set (82.8 mg/kg), as shown in Table 5 of the EE/CA. Zinc does not exceed either ecological screening criterion listed in Table 7 and is below the Navy IR Site 25 remediation goals of 180 mg/kg (site-wide average) and 314 mg/kg (do-not exceed). Furthermore, concentrations that exceed the maximum background concentration (120 mg/kg) are all within the footprint of the removal action and will no longer be a potential exposure concern once the removal action is conducted. Therefore, zinc does not require further evaluation.
General 2c.	CDFW-OSPR would like to request a copy of the soil "background" report cited as "Scott, 1995" in the report. We note that in Scott's 1995 background report, the maximum concentration of cadmium is 14 mg/kg, lead is 54 mg/kg, and zinc is 120 mg/kg. These concentrations appear to be unusually high to serve as "background" concentrations in the Western United States (US EPA, 2005a; US EPA, 2005b; US EPA, 2007).	Scott 1995 has been accepted by EPA and the Water Board as appropriate background data for NASA Ames and sites on Moffett Field. A copy of "Background Metal Concentrations in Soil in Northern Santa Clara County, California" (Scott 1995) will be sent to CDFW by e-mail. Please see the response to CDFW General Comment 2 above for more information on the background data sets used in the draft EE/CA.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
General 3.	CDFW-OSPR recommends Alternative 3: Excavation and Off-Site Disposal. The cost for this alternative is $5.8 million vs. Alternative 2: Soil Cover and Institutional Controls which is projected at $5.2 million. The difference of 11% is within the allowed cost estimates.	The recommended alternative will be changed from Alternative 2 to Alternative 3 based on comments from and discussion with regulatory agencies and further analysis of the alternatives, including costs. The costs shown in Table 10 of the Draft EE/CA present an estimate of the anticipated costs to implement Alternatives 2 and 3. However, significant uncertainties are inherent with these costs due to the nature of the source of contamination (fill). These uncertainties are described in Sections 4.2.3.2 and 4.2.3.3 of the EE/CA. In addition, a sensitivity analysis was included in Appendix C to quantify the uncertainties in the cost estimate. The major uncertainties identified in the sensitivity analysis included (1) the volume of soil disposed of as hazardous waste versus nonhazardous waste, (2) the volume of material excavated and transported off site for disposal, (3) the frequency of inspection and maintenance of the soil cover (Alternative 2), and (4) the discount rate applied to operation and maintenance costs. Additionally, updates to the estimates for the Final EE/CA have been made as explained in the response to EPA and the Water Board General Comment 1 on Table E-1.
General 3a.	CDFW-OSPR notes that the cost estimate for the Navy's IR Site 25 total cleanup cost under Alternative 4 (which includes focused excavation, capping, off-site disposal, restoration, ecological and long-term monitoring, and institutional controls) is estimated to be $8 million (SulTech, 2007).	While the alternatives for Navy IR Site 25 and NASA AOI 14 both include excavation and off-site disposal, there are significant differences in the nature and extent of activities involved for AOI 14 Alternative 3, including the volume and depth of the soil. Therefore, the 2007 IR Site 25 estimate is not directly relevant to this EE/CA.
General 3b.	Please note that with institutional controls, the removal action would not be the final action because there would be a 5-year review requirement for sites that have not achieved a complete site close-out.	Alternative 2 includes ongoing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 5-year reviews in the description and estimate of costs for Alternative 2.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
General 4a.	CDFW-OSPR recommends the removal action objective be modified as follows: a. Modify the second objective to state: *Prevent exposure to surface and subsurface soil* ***and soil-associated biota*** *containing concentrations of lead, total DDT, and total PCBs above levels that are protective of terrestrial and* ***wetland*** *ecological receptors* [suggested text have been bolded and underlined].	The recommended changes to the removal action objective (RAO) are already incorporated into the existing RAOs for AOI 14. Soil-associated biota includes all organisms that spend a significant portion of their life cycle within a soil profile or at the soil-litter interface. Any risk to or from soil-associated biota or higher trophic-levels is already prevented by removing exposure to contaminated soil. In addition, this RAO was developed to address upland habitat. Wetland receptors were addressed by the first RAO listed in Section 3.2 of the EE/CA ("Prevent erosion of soil where concentrations of lead, total DDT, and total PCBs exceed remediation goals for adjacent Navy IR Site 25 to protect wetland receptors"). No changes will be made to the EE/CA based on this comment.
General 4b.	Add *"Prevent erosion and leaching of metals and organic contaminants of ecological concern into adjacent Navy IR Site 25 to protect wetland receptors."*	The recommended removal action objective is similar to the first RAO listed in Section 3.2 of the EE/CA ("Prevent erosion of soil where concentrations of lead, total DDT, and total PCBs exceed remediation goals for adjacent Navy IR Site 25 to protect wetland receptors"). The RAO listed in Section 3.2 specifies the three contaminants to be addressed by the removal action (lead, total DDT, and total PCBs). The RAO does not include leaching as a transport mechanism. As described in Sections 2.3.5 and 2.5, there is no evidence that contaminants are leaching from soil into groundwater or surface water. No changes will be made to the EE/CA based on this comment.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific Comments		
Specific 1.	*Page ES-3, Alternatives 2 and 3.* The EE/CA indicates that as part of Alternatives 2 and 3, there will be ecological restoration of sensitive habitat that is disturbed during remedial activities. According to the Navy, regarding IR Site 25, *"The polygons around A0I-14 that were not monitored are slated to be disturbed subsequently by NASA during RA* [Remedial Action] *of that site. As part of the RD/RAWP* [Remedial Design/Remedial Action Work Plan] *and Restoration Plan preparation, NASA agreed to assume revegetation around A0I-14, specifically at the portions of the polygons identified on Figure 2 of the Year 2 Vegetation Restoration Completion Report"* (Navy, 2015). These polygons should be included in the ecological restoration plan for Alternatives 2 and 3 at A0I14 and corresponding cost estimates for restoring these polygons should be included in the EE/CA.	NASA will restore sensitive habitat that is disturbed by this removal action; the estimated removal action area is shown on Plate 7. A portion of this area extends into the Navy IR Site 25 polygon areas. The areas disturbed during the removal action at AOI 14 will be revegetated and monitored as part of the removal action. The cost for addressing these areas are already incorporated into the estimates for Alternatives 2 and 3 as described in Tables C-4 and C-5. For Alternative 2, the specific line item in these tables that refer to restoring the polygons are “Excavation on MROSD and near SDS08.” For Alternative 3, the costs are subsumed into “Excavation of Soil and Confirmation Samples” and “Excavation and Grading of Clean Fill.”
Specific 2.	*Pages 26 to 27, Section 2.4.2.1 Ecological Setting.* In regards to the list of special status species that may occur at A0I 14, please add "State fully protected" to the designations for the following species: California Least Tern, Ridgway's Rail, salt marsh harvest mouse (SMHM), and California Black Rail. Other than collection for scientific research purposes for the recovery of the species, Fully Protected Species may not be "taken" or possessed at any time. CDFW is not authorized to issue a permit for the "take" of such Fully Protected Species, including trapping.	The list of species in Section 2.4.2.1 has been revised to include the fully protected status of the species identified in the comment. “State Fully Protected’ will be added to the designated species as requested.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 3.	*Page 37, Section 3.1.3 Potential Location-Specific ARARs, and Appendix B Potential ARARs Summary Tables, Table B-4: Potential State Location-Specific Applicable or Relevant and Appropriate Requirements*. CDFW-OSPR provided ARARs for the A0I 14 EE/CA on November 18, 2014 (Nakahara, 2014). Fish and Game Code sections 1908 (rare plants) and 5650 (placement of deleterious materials where they can enter waters of the State) were not included in the Draft EE/CA. Please include these regulations as ARARs for the removal activities at A0I 14 as the Navy included them as ARARs in their Record of Decision for IR Site 25. There is potential for rare plants to be impacted during the removal activities at A0I 14. These removal activities include the eradication of up to 40 acres of non-native perennial pepperweed (Lepidium latifolium). In addition, there is the potential that substances deleterious to fish, plants, mammals, or birds may be deposited or placed where they may pass into waters of the State during remedial activities. Deposition or placement may occur during work associated with A0I 14 as well as during work within IR Site 25 at Soil Sample Location FSFA-SDS08; during restoration of the IR Site 25 polygons around A0I14; and during pepperweed eradication.	NASA will revise the ARARs to accept California Fish and Game Code § 1908 and 5650 as applicable in the EE/CA.
Specific 4.	*Page 39, Section 3.3 Determination of Removal Schedule, and page 47, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls*. The text states, "*It is anticipated that construction will start in the fall and that construction within sensitive habitats will occur during September and October to avoid the wet season (late fall through early spring) and breeding seasons for threatened and endangered species in the area. Construction activities are expected to require approximately 6 to 9 months to complete*." Please note, the SMHM breeds from March to November (Fisler, 1965) and most birds protected by State and Federal ARARs, including threatened and endangered species, breed between February 1 and September 15. Therefore, construction activities will occur during the breeding season for some of these species. In addition, construction will be conducted within the habitat of several special status species. As a result, CDFW-OSPR requests a qualified biologist monitor for impacts to special status species, with the authority to stop work to protect such species, during all removal activities. The cost estimates for a qualified biologist to conduct ecological monitoring should be included in the EE/CA for Alternatives 2 and 3.	The costs for a qualified biologist to monitor for impacts to special status species are included for Alternatives 2 and 3. These costs are shown on Tables C-4 and C-5 in Appendix C of the EE/CA. However, instead of “qualified biologist,” the labor description is titled “senior scientist” because the cost estimating software does not include a labor category for a biologist. The labor category will be modified to “Senior Scientist (Qualified Biologist)” to identify the hours estimated for a biologist to train construction personnel, monitor the habitat during construction, and conduct ecological monitoring and mitigation.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 5.	*Page 44, Section 4.2.1 Description of Removal Alternatives, page 45, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls, and page 50, Section 4.2.1.3 Alternative 3: Excavation and Off-site Disposal*. The text discusses ecological monitoring and page 44 states, "Ecological monitoring may be necessary to measure the performance of activities conducted to restore ecological habitat present at the site before the removal actions." Ecological monitoring should also include monitoring by a qualified biologist to avoid and minimize any impacts to special status species and habitats during removal activities. Cost estimates for the qualified biological monitor and the implementation of appropriate avoidance and minimization measures should be included in the EE/CA for Alternatives 2 and 3.	Ecological monitoring will be tailored for the work occurring in the field and will be discussed in more detail in the design of the removal action. As discussed in the response to Specific Comment 4, the labor category shown for biological monitoring on Tables C-4 and C-5 for Alternatives 2 and 3 will be modified to “Senior Scientist (Qualified Biologist)” to identify the hours estimated for a biologist to train construction personnel, monitor the habitat during construction, and conduct ecological monitoring and mitigation.
Specific 6.	*Pages 45 and 47, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls.* The text indicates the soil cover will be reseeded with a mixture of native grasses and plants. CDFW-OSPR requests that plant stock from within the same watershed where the restoration occurs be used when feasible. Use of local species will preserve the local genetic stock and prevent hybridization of local plant populations with distant populations that may not be as well adapted to local environmental conditions. The proposed list of native species for the seeding and the seed sources should be reviewed and approved by CDFW-OSPR and the U.S. Fish and Wildlife Service (USFWS) prior to procurement. Cost estimates for use of local plant stock should be included in the EE/CA for Alternatives 2 and 3.	NASA will work with a qualified botanist to identify the most feasible method and seed stock for revegetation. The description of Alternative 2 in Section 4.2.1.2 will be modified to indicate that the area will be revegetated with native and local plant stock when feasible. The removal action design will provide more details on the species and sources of the selected vegetation.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 7.	*Pages 45 to 46, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls*. CDFW-OSPR requests NASA use another form of side slope protection that incorporates native vegetation, instead of rip rap. The use of rip rap will destroy upland habitat for State and Federal special status species SMHM, California Ridgway's Rail, and California Black Rail. Habitat for these species consists of the salt marsh, transitional areas, and adjacent uplands. All three species are cover dependent and use the uplands adjacent to salt marsh as refugia during periods when the marsh is flooded (Harvey, 1999a and 1999b; Shellhammer et al., 1982). The SMHM also eats green vegetation including grasses and seeds (Fisler, 1965). Although there is a difference of opinion about distances that SMHM will move across barren areas, it is highly unlikely SMHM will move long distances over inhospitable environments such as rip rap, and such areas present potential barriers to mouse movement (Shellhammer and Duke, 2010). Rip rap also acts as a similar barrier for other species such as frogs, salamanders, and turtles, restricting access to and from the water. In addition, rip rap provides habitat for predator species such as rats, feral cats, and raccoons which are known to prey upon SMHM, California Ridgway's Rails, California Black Rails, and other wildlife species.	See evaluation and responses to EPA/Water Board General Comments 1 and 2.
Specific 8.	*Page 46, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls*. The text states, "*Alternative biotic barrier materials, such as plastic mesh or asphalt, could result in a thinner cover*." CDFW-OSPR does not consider plastic mesh, geomembranes, or geotextile fabrics alone to be acceptable biotic barriers because of the potential for burrowing animals to chew through and damage these materials. The Navy has resorted to using pesticides to control burrowing animals at the NAS Moffett Field IR Site 1 Landfill to prevent damage to the geomembrane. CDFW-OSPR does not support the use of pesticides to control burrowing animals because of the potential for pesticides to kill non-target special status species. Therefore, we highly recommend the use of materials such as gravel and cobbles in the construction of the biotic barrier at AOI 14.	The reference to alternative barrier material in the EE/CA text will be removed. CDFW's concerns regarding the use of alternative barrier materials are noted and will be considered in selection of the biotic barrier materials during the design phase, if Alternative 2 is the chosen removal action alternative. The cost estimate for Alternative 2 presented in the EE/CA assumes the use of gravel and cobbles for construction of the biotic barrier.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 9a.	*Page 47, Section 4.2.1.2 Alternative 2: Soil Cover and Institutional Controls.* a. The text states, "*Construction of the removal action is unlikely to affect the adjacent wetlands if carefully planned and staged, but it may disturb sensitive ecological habitats*." Work within IR Site 25 at and around Soil Sample Location FSFA-SDS08 and restoration of the IR Site 25 polygons around A0I 14 will be conducted within wetlands. These areas have wetland soils, hydrology, and vegetation. Pickleweed, a wetland species, was previously present in some of the IR Site 25 polygons around A0I 14 and has started growing in previously submerged areas that have been exposed as a result of the drought. Please revise the statement accordingly.	Construction at soil sample location FSFA-SDS08 will occur in a jurisdictional wetland delineated by the U.S. Army Corps of Engineers in 1989. NASA will identify Clean Water Act § 404 as a potential ARAR in the EE/CA. This provision prohibits the discharge of dredge and fill material without a permit. NASA is not required to obtain a permit pursuant to CERCLA § 121(e)(1). However, NASA will comply with the substantive provisions of the U.S. Army Corps of Engineers Nationwide Permit 38 as a means of complying with the requirements under Clean Water Act § 404. Pursuant to Nationwide Permit 38, compensatory mitigation is not required for wetland losses that are 1/10 of an acre or less. NASA does not anticipate any wetland losses caused by removal activities evaluated under EE/CA Alternatives 2 and 3; however, the removal activities planned at soil sample location FSFA-SDS08 would affect less than 1/10 of an acre of the 1989 jurisdictional wetland. In addition, ecological habitat within wetland areas would be restored. Details of the habitat restoration would be presented in a mitigation plan developed as part of the removal design, which would be reviewed and commented on by the U.S. Fish and Wildlife Service (USFWS) and CDFW.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 9b.	The text states, "*A temporary barrier will be installed around the construction area and any animals within the barrier will be driven through temporary openings in the barrier*." Special status species may not be "driven" through openings in the barrier. Special status species include species that are Federally- or State-listed as threatened or endangered, candidate species, fully protected species, species of special concern, watch list species, rare species, sensitive species, nesting birds, etc. If a special status species is observed during removal activities, then work shall be stopped immediately by the qualified biologist, and the special status species shall be allowed to leave the area on its own volition. USFWS and CDFW-OSPR shall be notified of any such occurrences. If the special status species does not leave the area on its own volition, or if it is nesting, then no work shall commence until USFWS and CDFW-OSPR have made a determination on how work activities should be allowed to proceed. The barrier should be installed immediately following vegetation removal and before excavation activities begin to prevent entry of SMHM into cleared areas. Pickleweed and vegetation within 50 feet of pickleweed shall be removed under the supervision of a qualified biologist who will survey the area for special status species prior to vegetation removal. Vegetation removal may begin once the area has been surveyed and no mice are observed and will start from the edge farthest from the pickleweed and work will proceed towards the pickleweed. This method of removal provides cover for SMHM and allows SMHM to move towards the pickleweed on its own volition as vegetation is being removed. Vegetation shall be removed in these areas using non-motorized hand tools only. Non-hand held equipment will be limited to the areas where the vegetation has been cut. If non-special status species are present after vegetation removal is complete and the barrier is installed, non-special status species may be driven through openings in the barrier by a qualified biologist.	Section 4.2.1.2 will be revised to state, “A temporary barrier will be installed around the construction area and any animals within the barrier perimeter will be excluded before sampling and excavation begin to protect special status species.” The remaining details will be determined in the design and mitigation plan. CDFW and USFWS will be informed of any wildlife observations and measures taken to prevent impacts to special status species.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 9c.	The text states, "The barrier will be constructed outside of the area to be disturbed, as shown on Plate 9. The barrier will be made of plastic sheeting and will be approximately 4 feet high." Please note, the barrier should also be trenched into the ground and backfilled to prevent SMHM from moving underneath the barrier. The final design and proposed location of the barrier should be reviewed and approved by the CDFW-OSPR and the USFWS prior to placement. The cost estimates for the installation of the barrier should include trenching and backfilling.	The text has been revised to indicate that the barrier will also be trenched into the ground and backfilled. The costs for Alternatives 2 and 3 will be modified accordingly.
Specific 9d.	The text indicates that pickleweed will be restored as mitigation for disturbance to pickleweed habitat. Based on the difficulties the Navy had with restoring pickleweed in some of the IR Site 25 polygons with high soil salinities, CDFW-OSPR recommends using pickleweed cuttings from undisturbed areas at IR Site 25 for habitat restoration at and around A0I 14. The pickleweed on IR Site 25 has adapted to site conditions and therefore, should more readily re-establish itself on-site than pickleweed from off-site sources. The specific limits of the pickleweed harvest areas will be identified and staked in the field by the qualified biologist prior to initiation of harvesting activities. Pickleweed cuttings will be collected by work crews on foot, using non-mechanized hand tools. No disturbance to pickleweed outside of the designated harvest areas will be permitted. Harvesting activities will be implemented such that existing pickleweed cover in the harvest area will not be reduced by more than 30%. The restoration areas and pickleweed harvest areas will be monitored for 5 years or until vegetation performance criteria approved by CDFW-OSPR and USFWS have been met and suitable SMHM habitat has been reestablished. Cost estimates for pickleweed harvesting and restoration of the harvest areas should be included in the EE/CA for Alternatives 2 and 3.	Details of habitat restoration will be presented in a mitigation plan developed as part of removal design. NASA will consider CDFW's comment in developing the mitigation plan, and CDFW will have the opportunity to review and comment on the mitigation plan. Costs for ecological monitoring and mitigation have been included in the costs for Alternatives 2 and 3, in an appropriate level of detail for an EE/CA. These costs will be refined as the details of habitat restoration are developed.
Specific 9e.	The text states, "*This EE/CA also assumes that up to 40 acres of land immediately south of AOI 14 and located within the stormwater retention pond and the Eastern/Western Diked Marshes will be managed (Plate 7).*" Please explain what "managed' means.	Please see the response to EPA and Water Board Specific Comment 25.
Specific 10a.	Page 51, Section 4.2.1.3 Alternative 3: Excavation and Off-site Disposal. a. The text discusses pickleweed restoration. Please see Specific Comment 9d.	Please see the response to Specific Comment 9d.

TABLE E-2: RESPONSES TO COMMENTS FROM CDFW

Engineering Evaluation/Cost Analysis for AOI 14, NASA Ames, Moffett Field, California

Comment No.	Comment	Response
Responses to Comments from CDFW		
Specific 10b.	The text discusses construction of a temporary barrier. Please see Specific Comments 9b and 9c.	The description and costs for Alternative 3 will be modified to include trenching the barrier into the ground. Please see response to Specific Comments 9b and 9c for specific text to be added to Alternative 3.
Specific 11.	Appendix D Green and Sustainable Remediation Evaluation, page D-4, Section D4.0 Footprint Reduction Methods. The text states, "Use an engineered geotextile biotic barrier, which would eliminated the need for the use and transportation of the materials for the biotic barrier." Please see Specific Comment 8.	NASA will consider comments from CDFW, along with the potential impacts on Green and Sustainable Remediation (GSR) metrics, for alternative barrier material when designing the soil cover, if Alternative 2 is chosen as the removal action. Please see the response to Specific Comment 8.

REFERENCES:

Duvergé, Dylan Jacques. 2011. *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, Master's Thesis, San Francisco State University, San Francisco, California. December.

Scott, Christina M. 1995. Background Metal Concentrations in Soils in Northern Santa Clara County, California, Recent Geologic Studies in the San Francisco Bay Area, 1995. Society for Sedimentary Geology, Pacific Section, 2012.

ATTACHMENT 1
LABORATORY DATA REPORTS FOR SAMPLING AT SETTLING BASIN

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

January 23, 2015

Reply to Attn of: JQ: 204-15

Ms. Yvonne Fong
U.S. Environmental Protection Agency
Region IX, SFD 8-3
75 Hawthorne Street
San Francisco, CA 94105

Ms. Elizabeth Wells, P.E.
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

SUBJECT: NASA Ames Research Center
Stormwater Settling Basin
2014 Annual Monitoring Report

Dear Ms. Fong and Ms. Wells:

The referenced report is enclosed for your information. The report documents sediment sampling and analyses conducted in 2014 at NASA's Stormwater Settling Basin overflow and effluent outfall areas within the Eastern Diked Marsh.

Please contact me at 650-604-1254 or kimberly.s.finch@nasa.gov with any questions.

Sincerely,

Kimberly Finch, P.E.
Restoration Program Manager
Environmental Management Division

Enclosure

cc: (electronically)
John Chesnutt, USEPA
Scott Anderson, US Navy
204-15\D. Chuck

T20G-4\J. Lukas
File: chron

MEMORANDUM
INTER-OFFICE

TO: To Project File

FROM: Luke Metz

SUBJECT: Settling Basin Annual Monitoring

DATE: August 28th, 2014

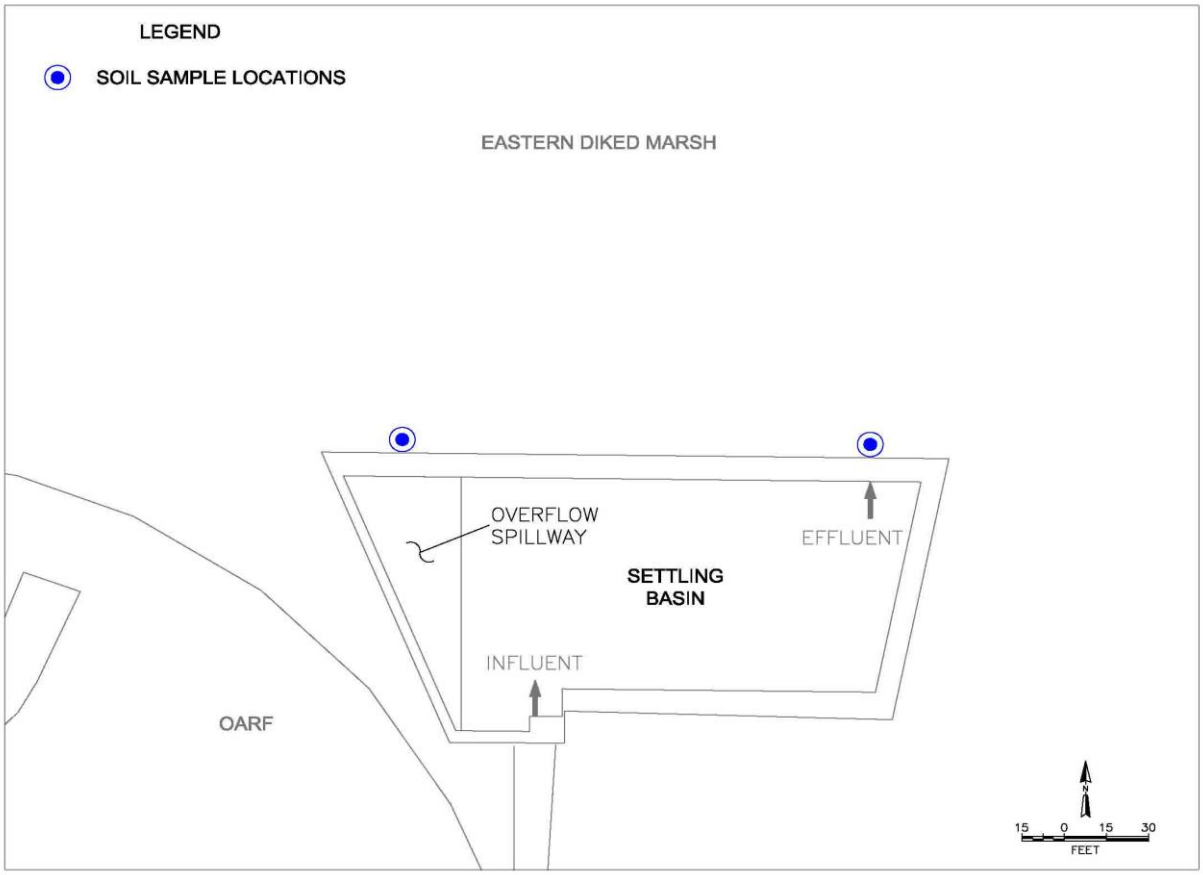
Listed below is a summary of the annual surface soil sampling at NASA Ames' storm water settling basin outfall and overflow areas. Overflow and effluent surface soil sampling and analysis are completed on an annual basis. A sample location map is included as Figure 1.

- Two surface soil samples were collected on August 28, 2014 from the Settling Basin overflow and effluent outfall areas. The samples were analyzed for PCBs (Including 1268), DDT, DDD & DDE by 8081A, Lead by 6010B/7000, and Zinc by 6010B/7000.
- The first sample was collected 5 feet north of the overflow spillway on the northwest side of the settling basin (Sample ID: SB-MON-OF-14) (See figure 1).
- The second sample was collected 5 feet north of the effluent outfall on the north east side of the settling basin (Sample ID: SB-MON-EF-14) (See figure 1).
- Lead and Zinc were detected below Navy IR Site 25 cleanup levels. PCBs and DDTs were not detected above laboratory reporting limits (See table 1).

Table 1
Results Summary

Analyte	Overflow (OF) (mg/kg)	Effluent (EF) (mg/kg)	Site 25Cleanup Levels (mg/kg)
Lead	4.3	13	93.8
Zinc	43	110	314
PCB's (total)	<0.020	<0.020	.210
DDTs (total)	<0.075	<0.075	0.109

Figure 1
Sample Location Map



CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

10 November 2014

CLS Work Order #: CXH1285

COC #:

Luke Metz

Earth Resource Technologies c/o NASA-Ames

Bldg T20G-4, Room 135

Moffet Field, CA 94053-1000

Project Name: Settling Basin Samples

Enclosed are the results of analyses for samples received by the laboratory on 08/28/14 15:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness. Any comments and exceptions are addressed under the Notes and Definitions section.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-MON-OF-14 (CXH1285-01) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25											
Lead	ZZZ	**4.3**	0.34	2.5	mg/kg	1	CX06131	09/03/14	09/03/14	EPA 6010B	
Zinc	ZZZ	**43**	0.14	5.0	"	1	"	"	"	"	
SB-MON-EF-14 (CXH1285-02) Soil Sampled: 08/28/14 09:10 Received: 08/28/14 15:25											
Lead	ZZZ	**13**	0.34	2.5	mg/kg	1	CX06131	09/03/14	09/03/14	EPA 6010B	
Zinc	ZZZ	**110**	0.14	5.0	"	1	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project:	Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-MON-OF-14 (CXH1285-01) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25											
Surrogate: Tetrachloro-meta-xylene	PF	*58 %*		*46-139*	µg/kg		*CX06097*	*09/02/14*	*09/04/14*	*EPA 8081A*	
Surrogate: Decachlorobiphenyl	PF	*66 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	PF	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	PF	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	PF	ND	2.4	75	"	10	"	"	"	"	
SB-MON-EF-14 (CXH1285-02) Soil Sampled: 08/28/14 09:10 Received: 08/28/14 15:25											
Surrogate: Tetrachloro-meta-xylene	PF	*34 %*		*46-139*	µg/kg		*CX06097*	*09/02/14*	*09/04/14*	*EPA 8081A*	*QS-4*
Surrogate: Decachlorobiphenyl	PF	*57 %*		*52-141*	"		*"*	*"*	*"*	*"*	
4,4´-DDT	PF	ND	1.2	75	"	10	"	"	"	"	
4,4´-DDE	PF	ND	2.2	75	"	10	"	"	"	"	
4,4´-DDD	PF	ND	2.4	75	"	10	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Analyst	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-MON-OF-14 (CXH1285-01) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25											
Surrogate: Decachlorobiphenyl	ahs	*100 %*		*50-150*	µg/kg		*CX06114*	*09/02/14*	*09/04/14*	*EPA 8082A*	
Aroclor 1268	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	ahs	ND	2.1	20	"	1	"	"	"	"	
Aroclor 1254	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	ahs	ND	2.1	20	"	1	"	"	"	"	
SB-MON-EF-14 (CXH1285-02) Soil Sampled: 08/28/14 09:10 Received: 08/28/14 15:25											
Surrogate: Decachlorobiphenyl	ahs	*68 %*		*50-150*	µg/kg		*CX06114*	*09/02/14*	*09/04/14*	*EPA 8082A*	
Aroclor 1268	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1260	ahs	ND	2.1	20	"	1	"	"	"	"	
Aroclor 1254	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1248	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1242	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1232	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1221	ahs	ND	3.0	20	"	1	"	"	"	"	
Aroclor 1016	ahs	ND	2.1	20	"	1	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06131 - EPA 3050B											
Blank (CX06131-BLK1)					Prepared & Analyzed: 09/03/14						
Zinc	ND	0.14	5.0	mg/kg							
Lead	ND	0.34	2.5	"							
LCS (CX06131-BS1)					Prepared & Analyzed: 09/03/14						
Zinc	84.5	0.14	5.0	mg/kg	100		85	75-125			
Lead	80.7	0.34	2.5	"	100		81	75-125			
Matrix Spike (CX06131-MS1)		**Source: CXH1320-21**			Prepared & Analyzed: 09/03/14						
Lead	78.5	0.34	2.5	mg/kg	100	1.79	77	75-125			
Zinc	111	0.14	5.0	"	100	29.0	82	75-125			
Matrix Spike Dup (CX06131-MSD1)		**Source: CXH1320-21**			Prepared & Analyzed: 09/03/14						
Lead	71.2	0.34	2.5	mg/kg	100	1.79	69	75-125	10	30	QM-5
Zinc	99.7	0.14	5.0	"	100	29.0	71	75-125	11	30	QM-5

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06097 - EPA method 3545											
Blank (CX06097-BLK1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Toxaphene	ND	2.6	20	µg/kg							
Mirex	ND	0.54	10	"							
Methoxychlor	ND	0.15	15	"							
Heptachlor epoxide	ND	0.13	2.0	"							
Heptachlor	ND	0.11	5.0	"							
Endrin aldehyde	ND	0.13	15	"							
Endrin	ND	0.092	15	"							
Endosulfan sulfate	ND	0.13	15	"							
Endosulfan II	ND	0.15	15	"							
Endosulfan I	ND	0.13	15	"							
Dieldrin	ND	0.19	1.0	"							
4,4´-DDT	ND	0.12	15	"							
4,4´-DDE	ND	0.22	15	"							
4,4´-DDD	ND	0.24	15	"							
Chlordane-technical	ND	1.0	20	"							
gamma-BHC (Lindane)	ND	0.70	10	"							
delta-BHC	ND	0.12	10	"							
beta-BHC	ND	0.12	10	"							
alpha-BHC	ND	0.00061	2.0	"							
Aldrin	ND	0.13	1.0	"							
Surrogate: Decachlorobiphenyl	*31.8*			*"*	*41.7*		*76*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*22.3*			*"*	*41.7*		*53*	*46-139*			
LCS (CX06097-BS1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Heptachlor	25.1	0.11	5.0	µg/kg	33.3		75	33-148			
Endrin	31.1	0.092	15	"	33.3		93	30-147			
Dieldrin	29.9	0.19	1.0	"	33.3		90	44-143			
4,4´-DDT	33.4	0.12	15	"	33.3		100	46-137			
gamma-BHC (Lindane)	27.8	0.70	10	"	33.3		83	56-133			
Aldrin	26.8	0.13	1.0	"	33.3		80	47-132			
Surrogate: Decachlorobiphenyl	*25.3*			*"*	*41.7*		*61*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*21.3*			*"*	*41.7*		*51*	*46-139*			

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Organochlorine Pesticides by EPA Method 8081A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06097 - EPA method 3545											
LCS Dup (CX06097-BSD1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Heptachlor	25.7	0.11	5.0	µg/kg	33.3		77	33-148	2	30	
Endrin	33.9	0.092	15	"	33.3		102	30-147	8	30	
Dieldrin	31.2	0.19	1.0	"	33.3		94	44-143	4	30	
4,4´-DDT	34.9	0.12	15	"	33.3		105	46-137	4	30	
gamma-BHC (Lindane)	29.0	0.70	10	"	33.3		87	56-133	4	30	
Aldrin	27.8	0.13	1.0	"	33.3		84	47-132	4	30	
Surrogate: Decachlorobiphenyl	*25.3*			*"*	*41.7*		*61*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*21.3*			*"*	*41.7*		*51*	*46-139*			
Matrix Spike (CX06097-MS1)		**Source: CXH1285-01**			Prepared: 09/02/14 Analyzed: 09/04/14						
Heptachlor	33.6	1.1	50	µg/kg	33.3	ND	101	36-155			J
Endrin	40.2	0.92	150	"	33.3	ND	121	34-149			J
Dieldrin	38.1	1.9	10	"	33.3	ND	114	46-155			
4,4´-DDT	43.2	1.2	150	"	33.3	ND	130	41-157			J
gamma-BHC (Lindane)	34.4	7.0	100	"	33.3	ND	103	38-144			J
Aldrin	32.1	1.3	10	"	33.3	ND	96	47-138			
Surrogate: Decachlorobiphenyl	*29.7*			*"*	*41.7*		*71*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*24.5*			*"*	*41.7*		*59*	*46-139*			
Matrix Spike Dup (CX06097-MSD1)		**Source: CXH1285-01**			Prepared: 09/02/14 Analyzed: 09/04/14						
Heptachlor	28.6	1.1	50	µg/kg	33.3	ND	86	36-155	16	35	J
Endrin	35.4	0.92	150	"	33.3	ND	106	34-149	13	35	J
Dieldrin	35.2	1.9	10	"	33.3	ND	106	46-155	8	35	
4,4´-DDT	39.2	1.2	150	"	33.3	ND	118	41-157	10	35	J
gamma-BHC (Lindane)	31.2	7.0	100	"	33.3	ND	94	38-144	10	35	J
Aldrin	28.2	1.3	10	"	33.3	ND	85	47-138	13	35	
Surrogate: Decachlorobiphenyl	*25.4*			*"*	*41.7*		*61*	*52-141*			
Surrogate: Tetrachloro-meta-xylene	*21.9*			*"*	*41.7*		*53*	*46-139*			

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06114 - EPA method 3545											
Blank (CX06114-BLK1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Aroclor 1268	ND	3.0	20	µg/kg							
Aroclor 1260	ND	2.1	20	"							
Aroclor 1254	ND	3.0	20	"							
Aroclor 1248	ND	3.0	20	"							
Aroclor 1242	ND	3.0	20	"							
Aroclor 1232	ND	3.0	20	"							
Aroclor 1221	ND	3.0	20	"							
Aroclor 1016	ND	2.1	20	"							
Surrogate: Decachlorobiphenyl	*21.3*			*"*	*16.7*		*128*	*50-150*			
LCS (CX06114-BS1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Aroclor 1260	132	2.1	20	µg/kg	167		79	29-131			
Surrogate: Decachlorobiphenyl	*21.3*			*"*	*16.7*		*128*	*50-150*			
LCS Dup (CX06114-BSD1)					Prepared: 09/02/14 Analyzed: 09/04/14						
Aroclor 1260	129	2.1	20	µg/kg	167		78	29-131	2	30	
Surrogate: Decachlorobiphenyl	*22.2*			*"*	*16.7*		*133*	*50-150*			
Matrix Spike (CX06114-MS1)		**Source: CXH1285-01**			Prepared: 09/02/14 Analyzed: 09/04/14						
Aroclor 1260	122	2.1	20	µg/kg	167	ND	73	29-131			
Surrogate: Decachlorobiphenyl	*20.3*			*"*	*16.7*		*122*	*50-150*			
Matrix Spike Dup (CX06114-MSD1)		**Source: CXH1285-01**			Prepared: 09/02/14 Analyzed: 09/04/14						
Aroclor 1260	121	2.1	20	µg/kg	167	ND	73	29-131	0.7	30	
Surrogate: Decachlorobiphenyl	*18.5*			*"*	*16.7*		*111*	*50-150*			

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project:	Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

Notes and Definitions

QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number: 03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager: Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES CHAIN OF CUSTODY CLS ID. NO. CXH1285 (___of___)

Report To:

Name and Address: ERT
NASA Ames Research Center
Moffett Field, CA
Project Manager: Luke Metz (650) 604-2753
Project Name: Settling Basin Samples
Sampled By: Luke Metz
Job Description: Overflow and Effluent Sampling
Site Location

Client Job Number: 03602-705

Destination Laboratory:
☑ CLS (916) 638-7301
3249 Fitzgerald Road
Rancho Cordova, CA
95742
www.californialab.com

☐ OTHER

GEOTRACKER
EDF REPORT ☐ YES X NO
GLOBAL ID.

FIELD CONDITIONS:
COMPOSITE:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	PCB's (incl 1268) by 8080	Lead by 6010B/7000	Zinc by 6010B/7000	DDT, DDD, DDE by 8081A				TURNAROUND TIME IN DAYS 1	2	5	10	SPECIAL INSTRUCTIONS
8/28/14	9:00	SB-MON-OF-14		Soil	2	8oz Jar	3	X	X	X	X						X		
8/28/14	9:10	SB-MON-EF-14		Soil	2	8oz Jar	3	X	X	X	X						X		

INVOICE TO:
PO#
QUOTE#

SUSPECTED CONSTITUENTS
SAMPLE RETENTION TIME
PRESERVATIVES (1) HCL (3) = COLD (2) HNO_3 (4)

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
Luke Metz	Luke Metz – Leidos / ERT	8-28-14 / 10:00 – 12:57		CLS
	CLS	8/28/14 12:57		

RECEIVED AT LAB BY: DATE/TIME: 8/28/14 1525 CONDITIONS/COMMENTS: (4.6)

SHIPPED BY: ☐ FED EX ☐ UPS X OTHER CLS Courier AIR BILL #

CALIFORNIA LABORATORY SERVICES

11/10/14 11:33

Earth Resource Technologies c/o NASA-Ames	Project:	Settling Basin Samples	
Bldg T20G-4, Room 135	Project Number:	03602-705	**CLS Work Order #: CXH1285**
Moffet Field CA, 94053-1000	Project Manager:	Luke Metz	COC #:

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

September 05, 2014

CLS Work Order #: CXH1284
COC #:

Chelsea Candelaria
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: Settling Basin Cleanout 2014

Enclosed are the results of analyses for samples received by the laboratory on 08/28/14 15:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: Settling Basin Cleanout 2014
Project Number: 3602-817
Project Manager: Chelsea Candelaria

CLS Work Order #: CXH1284
COC #:

CXH 1284

ERT CHAIN OF CUSTODY

Report To: **Chelsea Candelaria**
ERT/NASA Ames
M/S T20G-4, Room 142
Moffett Field, CA 94035-1000
(650) 604-1129
chelsea.m.candelaria@

LAB: **CLS** (916) 638-7301 ☒
3249 Fitzgerald Rd.
Rancho Cordova, CA 95742

Invoice t Earth Resources Technology
Accounts Payable
6100 Frost Place, Suite A
Laurel, MD, 20707

Project Numb 3602-817
Projec Descriptio Settling Basin Cleanout 2014
Project Na Storm Water

ANALYSIS REQUESTED

LAB ID #:
Please composite as follows:
A (1-2); B (1-2); C (1-2)
D (1-2); E (1-2);
Influent (1-2)
Effluent (1-2)

DATE	TIME	SAMPLE ID	MATRIX	CONTAINER(S) No./TYPE	PRESER-VATIVE	Priority Pollutant Metals	STLC for Lead	TPH-JP4, JP5, JP8, Gas, Diesel, Motor Oil	TCLP Pb Only	PCBs (1016, 1221, 1232, 1242, 1248, 1254, 1260, 1268)	TURN AROUND TIME	SPECIAL INSTRUCTIONS
8/28/2014	8:00 AM	SB - A1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:05 AM	SB - A2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:10 AM	SB - B1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for
8/28/2014	8:15 AM	SB - B2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:20 AM	SB - C1 - 13	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for
8/28/2014	8:25 AM	SB - C2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:30 AM	SB - D1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:35 AM	SB - D2- 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:40 AM	SB - E1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:45 AM	SB - E2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:50 AM	SB - Influent - 1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:55 AM	SB - Influent -2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	9:00 AM	SB - Effluent - 1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	9:05 AM	SB - Effluent - 2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	

SAMPLER: Chelsea Candelaria — DATE/TIME: 8/28/2014 - 10:40 AM — RECEIVED BY:
RELINQUISHED BY: — DATE/TIME: 8/28/14 - 12:15 — RECEIVED BY: OCT
RELINQUISHED BY: — DATE/TIME: 8/28/14 1527 — RECEIVED AT LAB BY:
8-28-14 1525 2.9

CALIFORNIA LABORATORY SERVICES

 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**300**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*111 %*	*65-135*		*"*	"	*"*	*"*	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**350**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**370**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**290**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**380**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Surrogate: o-Terphenyl		*%*	*65-135*		*CX06148*	"	*09/04/14*	*EPA 8015M*	*QS-1*
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**210**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**87**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*76 %*	*65-135*		*"*	"	*"*	*"*	

CALIFORNIA LABORATORY SERVICES

 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Mercury	**0.34**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.98**	0.50	"	"	"	"	"	"	
Chromium	**12**	1.0	"	"	"	"	"	"	
Copper	**42**	1.0	"	"	"	"	"	"	
Lead	**54**	2.5	"	"	"	"	"	"	
Nickel	**12**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**330**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Mercury	**0.24**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.58**	0.50	"	"	"	"	"	"	
Chromium	**9.0**	1.0	"	"	"	"	"	"	
Copper	**21**	1.0	"	"	"	"	"	"	
Lead	**30**	2.5	"	"	"	"	"	"	
Nickel	**8.6**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**160**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

CALIFORNIA LABORATORY SERVICES

 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Mercury	**0.13**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**8.5**	1.0	"	"	"	"	"	"	
Copper	**21**	1.0	"	"	"	"	"	"	
Lead	**28**	2.5	"	"	"	"	"	"	
Nickel	**8.4**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**160**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Mercury	**0.17**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**7.4**	1.0	"	"	"	"	"	"	
Copper	**19**	1.0	"	"	"	"	"	"	
Lead	**27**	2.5	"	"	"	"	"	"	
Nickel	**8.0**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**190**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Mercury	**0.19**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**6.7**	1.0	"	"	"	"	"	"	
Copper	**17**	1.0	"	"	"	"	"	"	
Lead	**24**	2.5	"	"	"	"	"	"	
Nickel	**7.0**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**150**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Mercury	**0.41**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.70**	0.50	"	"	"	"	"	"	
Chromium	**13**	1.0	"	"	"	"	"	"	
Copper	**36**	1.0	"	"	"	"	"	"	
Lead	**46**	2.5	"	"	"	"	"	"	
Nickel	**10**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**240**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Mercury	**0.15**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.55**	0.50	"	"	"	"	"	"	
Chromium	**5.8**	1.0	"	"	"	"	"	"	
Copper	**70**	1.0	"	"	"	"	"	"	
Lead	**25**	2.5	"	"	"	"	"	"	
Nickel	**10**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**1700**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Aroclor 1016	ND	100	µg/kg	5	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**610**	100	"	"	"	"	"	"	
Aroclor 1268	**960**	100	"	"	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*288 %*		*50-150*		"	"	"	*QS-4*
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	
Aroclor 1268	**440**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*200 %*		*50-150*		"	"	"	*QS-4*
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**180**	20	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Aroclor 1268	**440**	100	µg/kg	5	CX06096	"	09/03/14	EPA 8082A	PCB-2
Surrogate: Decachlorobiphenyl		*200 %*		*50-150*		"	"	"	*QS-4*
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	**420**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*219 %*		*50-150*		"	"	"	*QS-4*
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	**610**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*235 %*		*50-150*		"	"	"	*QS-4*

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Aroclor 1016	ND	100	µg/kg	5	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**570**	100	"	"	"	"	"	"	
Aroclor 1268	**1100**	200	"	10	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*222 %*		*50-150*		*"*	*"*	*"*	*QS-4*
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**140**	20	"	"	"	"	"	"	
Aroclor 1268	**300**	40	"	2	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*127 %*		*50-150*		*"*	*"*	*"*	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

STLC (WET) Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89 %*	*65-135*		″	"	″	″	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*46 %*	*65-135*		″	"	″	″	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*55 %*	*65-135*		″	"	″	″	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*40 %*	*65-135*		″	"	″	″	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*50 %*	*65-135*		″	"	″	″	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									**QS-MS**
Surrogate: o-Chlorotoluene (Gas)		*52 %*	*65-135*		*CX06095*	"	*09/02/14*	*EPA 8015M*	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*31 %*	*65-135*		*"*	"	*"*	*"*	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06148 - CA LUFT - orb shaker										
Blank (CX06148-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
JP-5/JP-8	ND	1.0	"							
Surrogate: o-Terphenyl	*0.476*		*"*	*0.500*		*95*	*65-135*			
LCS (CX06148-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	50.2	1.0	mg/kg	50.0		100	65-135			
Surrogate: o-Terphenyl	*0.594*		*"*	*0.500*		*119*	*65-135*			
LCS Dup (CX06148-BSD1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	49.2	1.0	mg/kg	50.0		98	65-135	2	30	
Surrogate: o-Terphenyl	*0.615*		*"*	*0.500*		*123*	*65-135*			
Matrix Spike (CX06148-MS1)		**Source: CXH1282-01**		Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	54.5	1.0	mg/kg	50.0	ND	109	59-138			
Surrogate: o-Terphenyl	*0.589*		*"*	*0.500*		*118*	*65-135*			
Matrix Spike Dup (CX06148-MSD1)		**Source: CXH1282-01**		Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	55.8	1.0	mg/kg	50.0	ND	112	59-138	2	37	
Surrogate: o-Terphenyl	*0.598*		*"*	*0.500*		*120*	*65-135*			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06067 - EPA 3010A										
Blank (CX06067-BLK1)				Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	ND	5.0	mg/kg							
Beryllium	ND	0.50	"							
Cadmium	ND	1.0	"							
Arsenic	ND	0.50	"							
Selenium	ND	0.50	"							
Chromium	ND	2.0	"							
Copper	ND	2.0	"							
Lead	ND	5.0	"							
Nickel	ND	2.0	"							
Silver	ND	1.0	"							
Zinc	ND	2.0	"							
Thallium	ND	0.50	"							
LCS (CX06067-BS1)				Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	95.6	5.0	mg/kg	100		96	75-125			
Beryllium	97.7	0.50	"	100		98	75-125			
Arsenic	93.3	5.0	"	100		93	75-125			
Cadmium	97.9	1.0	"	100		98	75-125			
Selenium	92.6	5.0	"	100		93	75-125			
Chromium	96.6	2.0	"	100		97	75-125			
Copper	98.0	2.0	"	100		98	75-125			
Lead	100	5.0	"	100		100	75-125			
Nickel	97.7	2.0	"	100		98	75-125			
Silver	45.2	1.0	"	100		45	75-125			QM-1
Zinc	101	2.0	"	100		101	75-125			
Thallium	91.3	5.0	"	100		91	75-125			
Matrix Spike (CX06067-MS1)	**Source: CXH1134-02**			Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	42.7	5.0	mg/kg	100	ND	43	75-125			QM-5
Beryllium	93.6	0.50	"	100	ND	94	75-125			
Cadmium	92.3	1.0	"	100	ND	92	75-125			
Arsenic	93.8	5.0	"	100	7.72	86	75-125			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06067 - EPA 3010A										
Matrix Spike (CX06067-MS1)		**Source: CXH1134-02**		Prepared: 08/29/14 Analyzed: 09/02/14						
Chromium	139	2.0	mg/kg	100	39.8	99	75-125			
Selenium	84.0	5.0	"	100	ND	84	75-125			
Copper	151	2.0	"	100	65.1	86	75-125			
Lead	350	5.0	"	100	298	52	75-125			QM-5
Nickel	140	2.0	"	100	42.3	98	75-125			
Silver	81.5	1.0	"	100	ND	81	75-125			
Zinc	334	2.0	"	100	201	133	75-125			QM-5
Thallium	88.3	5.0	"	100	ND	88	75-125			
Matrix Spike Dup (CX06067-MSD1)		**Source: CXH1134-02**		Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	42.5	5.0	mg/kg	100	ND	42	75-125	0.6	30	QM-5
Beryllium	92.8	0.50	"	100	ND	93	75-125	0.8	30	
Arsenic	91.5	5.0	"	100	7.72	84	75-125	2	30	
Cadmium	92.3	1.0	"	100	ND	92	75-125	0.005	30	
Chromium	141	2.0	"	100	39.8	101	75-125	2	30	
Selenium	82.3	5.0	"	100	ND	82	75-125	2	30	
Copper	154	2.0	"	100	65.1	88	75-125	2	30	
Lead	350	5.0	"	100	298	52	75-125	0.2	30	QM-5
Nickel	141	2.0	"	100	42.3	98	75-125	0.08	30	
Silver	82.6	1.0	"	100	ND	83	75-125	1	30	
Zinc	336	2.0	"	100	201	135	75-125	0.5	30	QM-5
Thallium	85.9	5.0	"	100	ND	86	75-125	3	30	
Batch CX06106 - EPA 7471A										
Blank (CX06106-BLK1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	ND	0.10	mg/kg							

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06106 - EPA 7471A										
LCS (CX06106-BS1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	0.268	0.10	mg/kg	0.250		107	75-125			
Matrix Spike (CX06106-MS1)		**Source: CXH1284-03**		Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	1.40	0.50	mg/kg	0.250	0.342	421	75-125			QM-5
Matrix Spike Dup (CX06106-MSD1)		**Source: CXH1284-03**		Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	0.960	0.50	mg/kg	0.250	0.342	247	75-125	37	25	QM-5

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06096 - EPA method 3545										
Blank (CX06096-BLK1)				Prepared: 09/01/14 Analyzed: 09/03/14						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*28.5*		*"*	*41.7*		*68*	*50-150*			
LCS (CX06096-BS1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	170	20	µg/kg	167		102	29-131			
Surrogate: Decachlorobiphenyl	*28.2*		*"*	*41.7*		*68*	*50-150*			
LCS Dup (CX06096-BSD1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	174	20	µg/kg	167		104	29-131	2	30	
Surrogate: Decachlorobiphenyl	*29.0*		*"*	*41.7*		*70*	*50-150*			
Matrix Spike (CX06096-MS1)		**Source: CXH1284-21**		Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	257	20	µg/kg	167	136	73	29-131			
Surrogate: Decachlorobiphenyl	*23.0*		*"*	*16.7*		*138*	*50-150*			
Matrix Spike Dup (CX06096-MSD1)		**Source: CXH1284-21**		Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	222	20	µg/kg	167	136	52	29-131	15	30	
Surrogate: Decachlorobiphenyl	*29.5*		*"*	*16.7*		*177*	*50-150*			*QM-7*

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

STLC (WET) Metals by 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06136 - EPA 3010A										
Blank (CX06136-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	ND	0.50	mg/L							
LCS (CX06136-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.4	0.50	mg/L	50.0		97	75-125			
Matrix Spike (CX06136-MS1)	**Source: CXH1318-01**			Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	45.3	0.50	mg/L	50.0	0.480	90	75-125			
Matrix Spike Dup (CX06136-MSD1)	**Source: CXH1318-01**			Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	43.3	0.50	mg/L	50.0	0.480	86	75-125	5	30	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TCLP Metals by 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06150 - EPA 3010A TCLP										
Blank (CX06150-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	ND	0.50	mg/L							
LCS (CX06150-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.5	0.50	mg/L	50.0		97	75-125			
Matrix Spike (CX06150-MS1)		**Source: CXH1284-03**		Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.0	0.50	mg/L	50.0	0.0918	96	75-125			
Matrix Spike Dup (CX06150-MSD1)		**Source: CXH1284-03**		Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	46.6	0.50	mg/L	50.0	0.0918	93	75-125	3	30	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06095 - EPA 5030 Soil GC										
Blank (CX06095-BLK1)				Prepared & Analyzed: 09/02/14						
Gasoline	ND	0.20	mg/kg							
Surrogate: o-Chlorotoluene (Gas)	*0.0190*		*"*	*0.0200*		*95*	*65-135*			
LCS (CX06095-BS1)				Prepared & Analyzed: 09/02/14						
Gasoline	0.816	0.20	mg/kg	1.00		82	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0214*		*"*	*0.0200*		*107*	*65-135*			
LCS Dup (CX06095-BSD1)				Prepared & Analyzed: 09/02/14						
Gasoline	0.824	0.20	mg/kg	1.00		82	65-135	1	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0207*		*"*	*0.0200*		*103*	*65-135*			
Matrix Spike (CX06095-MS1)		**Source: CXH1284-03**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.0956	0.20	mg/kg	1.00	0.0680	3	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0141*		*"*	*0.0200*		*71*	*65-135*			
Matrix Spike (CX06095-MS2)		**Source: CXI0042-01**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.503	0.20	mg/kg	1.00	0.0532	45	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0162*		*"*	*0.0200*		*81*	*65-135*			
Matrix Spike Dup (CX06095-MSD1)		**Source: CXH1284-03**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.0725	0.20	mg/kg	1.00	0.0680	0.5	63-124	27	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0215*		*"*	*0.0200*		*108*	*65-135*			
Matrix Spike Dup (CX06095-MSD2)		**Source: CXI0042-01**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.489	0.20	mg/kg	1.00	0.0532	44	63-124	3	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0144*		*"*	*0.0200*		*72*	*65-135*			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Notes and Definitions

QS-MS	Surrogate recovery outside of acceptance window confirmed as matrix effect by analysis of MS/MSD on this sample.
QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QS-1	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-1	The spike recovery was outside acceptance limits for the LCS or LCSD. The batch was accepted based on acceptable MS/MSD recoveries & RPD's.
QC-2H	The recovery of one CCV was greater than the acceptance limit. However, all analytes in the associated samples were ND; therefore a reanalysis was not performed.
PCB-2	Adjacent Aroclors have overlap peaks which cause interferences. The detected concentration is greater than the estimated interferences; therefore, the detected result is reported even though it is probably biased high..
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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3249 Fitzgerald Road Rancho Cordova, CA 95742

September 05, 2014

CLS Work Order #: CXH1284
COC #:

Chelsea Candelaria
Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project Name: Settling Basin Cleanout 2014

Enclosed are the results of analyses for samples received by the laboratory on 08/28/14 15:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

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 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames
Bldg T20G-4, Room 135
Moffet Field, CA 94053-1000

Project: Settling Basin Cleanout 2014
Project Number: 3602-817
Project Manager: Chelsea Candelaria

CLS Work Order #: CXH1284
COC #:

CXH 1284

ERT CHAIN OF CUSTODY

Report To: **Chelsea Candelaria**
ERT/NASA Ames
M/S T20G-4, Room 142
Moffett Field, CA 94035-1000
(650) 604-1129
chelsea.m.candelaria@

LAB: **CLS** (916) 638-7301 ☒
3249 Fitzgerald Rd.
Rancho Cordova, CA 95742

Invoice t Earth Resources Technology
Accounts Payable
6100 Frost Place, Suite A
Laurel, MD, 20707

Project Numb 3602-817
Projec Descriptio Settling Basin Cleanout 2014
Project Na Storm Water

ANALYSIS REQUESTED

LAB ID #:
Please composite as follows:
A (1-2); B (1-2); C (1-2)
D (1-2); E (1-2);
Influent (1-2)
Effluent (1-2)

DATE	TIME	SAMPLE ID	MATRIX	CONTAINER(S) No./TYPE	PRESER-VATIVE	Priority Pollutant Metals	STLC for Lead	TPH-JP4, JP5, JP8, Gas, Diesel, Motor Oil	TCLP Pb Only	PCBs (1016, 1221, 1232, 1242, 1248, 1254, 1260, 1268)	TURN AROUND TIME	SPECIAL INSTRUCTIONS
8/28/2014	8:00 AM	SB - A1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:05 AM	SB - A2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:10 AM	SB - B1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for
8/28/2014	8:15 AM	SB - B2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:20 AM	SB - C1 - 13	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for
8/28/2014	8:25 AM	SB - C2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:30 AM	SB - D1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:35 AM	SB - D2- 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:40 AM	SB - E1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:45 AM	SB - E2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	8:50 AM	SB - Influent - 1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	8:55 AM	SB - Influent -2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	
8/28/2014	9:00 AM	SB - Effluent - 1 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	COMPOSITE (use lowest limits possible) Please note analysis for Aroclor 1268
8/28/2014	9:05 AM	SB - Effluent - 2 - 14	Soil	1 - 8 oz glass jar	cold	X	X	X	X	X	5 days	

SAMPLER: Chelsea Candelaria — DATE/TIME: 8/28/2014 - 10:40 AM — RECEIVED BY:
RELINQUISHED BY: — DATE/TIME: 8/28/14 - 12:15 — RECEIVED BY: OCT
RELINQUISHED BY: — DATE/TIME: 8/28/14 1527 — RECEIVED AT LAB BY:
8-28-14 1525 2.9

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 09/05/14 14:51

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**300**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*111 %*	*65-135*		*"*	"	*"*	*"*	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**350**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**370**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**290**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**380**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Surrogate: o-Terphenyl		*%*	*65-135*		*CX06148*	"	*09/04/14*	*EPA 8015M*	*QS-1*
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**210**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*%*	*65-135*		*"*	"	*"*	*"*	*QS-1*
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Diesel	ND	5.0	mg/kg	5	CX06148	09/03/14	09/04/14	EPA 8015M	
Motor Oil	**87**	5.0	"	"	"	"	"	"	
JP-5/JP-8	ND	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*76 %*	*65-135*		*"*	"	*"*	*"*	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Mercury	**0.34**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.98**	0.50	"	"	"	"	"	"	
Chromium	**12**	1.0	"	"	"	"	"	"	
Copper	**42**	1.0	"	"	"	"	"	"	
Lead	**54**	2.5	"	"	"	"	"	"	
Nickel	**12**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**330**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Mercury	**0.24**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.58**	0.50	"	"	"	"	"	"	
Chromium	**9.0**	1.0	"	"	"	"	"	"	
Copper	**21**	1.0	"	"	"	"	"	"	
Lead	**30**	2.5	"	"	"	"	"	"	
Nickel	**8.6**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**160**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Mercury	**0.13**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**8.5**	1.0	"	"	"	"	"	"	
Copper	**21**	1.0	"	"	"	"	"	"	
Lead	**28**	2.5	"	"	"	"	"	"	
Nickel	**8.4**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**160**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Mercury	**0.17**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**7.4**	1.0	"	"	"	"	"	"	
Copper	**19**	1.0	"	"	"	"	"	"	
Lead	**27**	2.5	"	"	"	"	"	"	
Nickel	**8.0**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**190**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Mercury	**0.19**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	ND	0.50	"	"	"	"	"	"	
Chromium	**6.7**	1.0	"	"	"	"	"	"	
Copper	**17**	1.0	"	"	"	"	"	"	
Lead	**24**	2.5	"	"	"	"	"	"	
Nickel	**7.0**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**150**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Mercury	**0.41**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.70**	0.50	"	"	"	"	"	"	
Chromium	**13**	1.0	"	"	"	"	"	"	
Copper	**36**	1.0	"	"	"	"	"	"	
Lead	**46**	2.5	"	"	"	"	"	"	
Nickel	**10**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**240**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Mercury	**0.15**	0.10	mg/kg	1	CX06106	09/02/14	09/03/14	EPA 7471A	
Antimony	ND	2.5	"	"	CX06067	08/29/14	09/02/14	EPA 6010B	
Beryllium	ND	0.25	"	"	"	"	"	"	
Cadmium	**0.55**	0.50	"	"	"	"	"	"	
Chromium	**5.8**	1.0	"	"	"	"	"	"	
Copper	**70**	1.0	"	"	"	"	"	"	
Lead	**25**	2.5	"	"	"	"	"	"	
Nickel	**10**	1.0	"	"	"	"	"	"	
Silver	ND	0.50	"	"	"	"	"	"	QC-2H
Zinc	**1700**	1.0	"	"	"	"	"	"	
Arsenic	ND	2.5	"	10	"	"	09/02/14	EPA 7000	
Selenium	ND	2.5	"	"	"	"	"	"	
Thallium	ND	2.5	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Aroclor 1016	ND	100	µg/kg	5	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**610**	100	"	"	"	"	"	"	
Aroclor 1268	**960**	100	"	"	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*288 %*		*50-150*		"	"	"	*QS-4*
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**190**	20	"	"	"	"	"	"	
Aroclor 1268	**440**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*200 %*		*50-150*		"	"	"	*QS-4*
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**180**	20	"	"	"	"	"	"	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Aroclor 1268	**440**	100	µg/kg	5	CX06096	"	09/03/14	EPA 8082A	PCB-2
Surrogate: Decachlorobiphenyl		*200 %*		*50-150*		"	"	"	*QS-4*
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**150**	20	"	"	"	"	"	"	
Aroclor 1268	**420**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*219 %*		*50-150*		"	"	"	*QS-4*
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**160**	20	"	"	"	"	"	"	
Aroclor 1268	**610**	100	"	5	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*235 %*		*50-150*		"	"	"	*QS-4*

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Aroclor 1016	ND	100	µg/kg	5	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	100	"	"	"	"	"	"	
Aroclor 1232	ND	100	"	"	"	"	"	"	
Aroclor 1242	ND	100	"	"	"	"	"	"	
Aroclor 1248	ND	100	"	"	"	"	"	"	
Aroclor 1254	ND	100	"	"	"	"	"	"	
Aroclor 1260	**570**	100	"	"	"	"	"	"	
Aroclor 1268	**1100**	200	"	10	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*222 %*		*50-150*		*"*	*"*	*"*	*QS-4*
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Aroclor 1016	ND	20	µg/kg	1	CX06096	09/02/14	09/03/14	EPA 8082A	
Aroclor 1221	ND	20	"	"	"	"	"	"	
Aroclor 1232	ND	20	"	"	"	"	"	"	
Aroclor 1242	ND	20	"	"	"	"	"	"	
Aroclor 1248	ND	20	"	"	"	"	"	"	
Aroclor 1254	ND	20	"	"	"	"	"	"	
Aroclor 1260	**140**	20	"	"	"	"	"	"	
Aroclor 1268	**300**	40	"	2	"	"	"	"	PCB-2
Surrogate: Decachlorobiphenyl		*127 %*		*50-150*		*"*	*"*	*"*	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

STLC (WET) Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06136	09/03/14	09/04/14	EPA 6010B	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									
Lead	ND	0.50	mg/L	1	CX06150	09/03/14	09/04/14	EPA 6010B	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A (1-2) (CXH1284-03) Soil Sampled: 08/28/14 08:00 Received: 08/28/14 15:25									
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*89 %*	*65-135*		″	"	″	″	
B (1-2) (CXH1284-06) Soil Sampled: 08/28/14 08:10 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*46 %*	*65-135*		″	"	″	″	
C (1-2) (CXH1284-09) Soil Sampled: 08/28/14 08:20 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*55 %*	*65-135*		″	"	″	″	
D (1-2) (CXH1284-12) Soil Sampled: 08/28/14 08:30 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*40 %*	*65-135*		″	"	″	″	
E (1-2) (CXH1284-15) Soil Sampled: 08/28/14 08:40 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*50 %*	*65-135*		″	"	″	″	
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Influent (1-2) (CXH1284-18) Soil Sampled: 08/28/14 08:50 Received: 08/28/14 15:25									**QS-MS**
Surrogate: o-Chlorotoluene (Gas)		*52 %*	*65-135*		*CX06095*	"	*09/02/14*	*EPA 8015M*	
Effluent (1-2) (CXH1284-21) Soil Sampled: 08/28/14 09:00 Received: 08/28/14 15:25									**QS-MS**
JP-4	ND	0.20	mg/kg	1	CX06095	09/02/14	09/02/14	EPA 8015M	
Gasoline	ND	0.20	"	"	"	"	"	"	
Surrogate: o-Chlorotoluene (Gas)		*31 %*	*65-135*		*"*	"	*"*	*"*	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Extractable Petroleum Hydrocarbons by EPA Method 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06148 - CA LUFT - orb shaker										
Blank (CX06148-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	ND	1.0	mg/kg							
Motor Oil	ND	1.0	"							
Mineral Oil	ND	1.0	"							
JP-5/JP-8	ND	1.0	"							
Surrogate: o-Terphenyl	*0.476*		*"*	*0.500*		*95*	*65-135*			
LCS (CX06148-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	50.2	1.0	mg/kg	50.0		100	65-135			
Surrogate: o-Terphenyl	*0.594*		*"*	*0.500*		*119*	*65-135*			
LCS Dup (CX06148-BSD1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	49.2	1.0	mg/kg	50.0		98	65-135	2	30	
Surrogate: o-Terphenyl	*0.615*		*"*	*0.500*		*123*	*65-135*			
Matrix Spike (CX06148-MS1)		**Source: CXH1282-01**		Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	54.5	1.0	mg/kg	50.0	ND	109	59-138			
Surrogate: o-Terphenyl	*0.589*		*"*	*0.500*		*118*	*65-135*			
Matrix Spike Dup (CX06148-MSD1)		**Source: CXH1282-01**		Prepared: 09/03/14 Analyzed: 09/04/14						
Diesel	55.8	1.0	mg/kg	50.0	ND	112	59-138	2	37	
Surrogate: o-Terphenyl	*0.598*		*"*	*0.500*		*120*	*65-135*			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06067 - EPA 3010A										
Blank (CX06067-BLK1)				Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	ND	5.0	mg/kg							
Beryllium	ND	0.50	"							
Cadmium	ND	1.0	"							
Arsenic	ND	0.50	"							
Selenium	ND	0.50	"							
Chromium	ND	2.0	"							
Copper	ND	2.0	"							
Lead	ND	5.0	"							
Nickel	ND	2.0	"							
Silver	ND	1.0	"							
Zinc	ND	2.0	"							
Thallium	ND	0.50	"							
LCS (CX06067-BS1)				Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	95.6	5.0	mg/kg	100		96	75-125			
Beryllium	97.7	0.50	"	100		98	75-125			
Arsenic	93.3	5.0	"	100		93	75-125			
Cadmium	97.9	1.0	"	100		98	75-125			
Selenium	92.6	5.0	"	100		93	75-125			
Chromium	96.6	2.0	"	100		97	75-125			
Copper	98.0	2.0	"	100		98	75-125			
Lead	100	5.0	"	100		100	75-125			
Nickel	97.7	2.0	"	100		98	75-125			
Silver	45.2	1.0	"	100		45	75-125			QM-1
Zinc	101	2.0	"	100		101	75-125			
Thallium	91.3	5.0	"	100		91	75-125			
Matrix Spike (CX06067-MS1)	**Source: CXH1134-02**			Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	42.7	5.0	mg/kg	100	ND	43	75-125			QM-5
Beryllium	93.6	0.50	"	100	ND	94	75-125			
Cadmium	92.3	1.0	"	100	ND	92	75-125			
Arsenic	93.8	5.0	"	100	7.72	86	75-125			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06067 - EPA 3010A										
Matrix Spike (CX06067-MS1)		**Source: CXH1134-02**		Prepared: 08/29/14 Analyzed: 09/02/14						
Chromium	139	2.0	mg/kg	100	39.8	99	75-125			
Selenium	84.0	5.0	"	100	ND	84	75-125			
Copper	151	2.0	"	100	65.1	86	75-125			
Lead	350	5.0	"	100	298	52	75-125			QM-5
Nickel	140	2.0	"	100	42.3	98	75-125			
Silver	81.5	1.0	"	100	ND	81	75-125			
Zinc	334	2.0	"	100	201	133	75-125			QM-5
Thallium	88.3	5.0	"	100	ND	88	75-125			
Matrix Spike Dup (CX06067-MSD1)		**Source: CXH1134-02**		Prepared: 08/29/14 Analyzed: 09/02/14						
Antimony	42.5	5.0	mg/kg	100	ND	42	75-125	0.6	30	QM-5
Beryllium	92.8	0.50	"	100	ND	93	75-125	0.8	30	
Arsenic	91.5	5.0	"	100	7.72	84	75-125	2	30	
Cadmium	92.3	1.0	"	100	ND	92	75-125	0.005	30	
Chromium	141	2.0	"	100	39.8	101	75-125	2	30	
Selenium	82.3	5.0	"	100	ND	82	75-125	2	30	
Copper	154	2.0	"	100	65.1	88	75-125	2	30	
Lead	350	5.0	"	100	298	52	75-125	0.2	30	QM-5
Nickel	141	2.0	"	100	42.3	98	75-125	0.08	30	
Silver	82.6	1.0	"	100	ND	83	75-125	1	30	
Zinc	336	2.0	"	100	201	135	75-125	0.5	30	QM-5
Thallium	85.9	5.0	"	100	ND	86	75-125	3	30	
Batch CX06106 - EPA 7471A										
Blank (CX06106-BLK1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	ND	0.10	mg/kg							

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06106 - EPA 7471A										
LCS (CX06106-BS1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	0.268	0.10	mg/kg	0.250		107	75-125			
Matrix Spike (CX06106-MS1)		**Source: CXH1284-03**		Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	1.40	0.50	mg/kg	0.250	0.342	421	75-125			QM-5
Matrix Spike Dup (CX06106-MSD1)		**Source: CXH1284-03**		Prepared: 09/02/14 Analyzed: 09/03/14						
Mercury	0.960	0.50	mg/kg	0.250	0.342	247	75-125	37	25	QM-5

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Polychlorinated Biphenyls by EPA Method 8082A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06096 - EPA method 3545										
Blank (CX06096-BLK1)				Prepared: 09/01/14 Analyzed: 09/03/14						
Aroclor 1016	ND	20	µg/kg							
Aroclor 1221	ND	20	"							
Aroclor 1232	ND	20	"							
Aroclor 1242	ND	20	"							
Aroclor 1248	ND	20	"							
Aroclor 1254	ND	20	"							
Aroclor 1260	ND	20	"							
Aroclor 1268	ND	20	"							
Surrogate: Decachlorobiphenyl	*28.5*		*"*	*41.7*		*68*	*50-150*			
LCS (CX06096-BS1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	170	20	µg/kg	167		102	29-131			
Surrogate: Decachlorobiphenyl	*28.2*		*"*	*41.7*		*68*	*50-150*			
LCS Dup (CX06096-BSD1)				Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	174	20	µg/kg	167		104	29-131	2	30	
Surrogate: Decachlorobiphenyl	*29.0*		*"*	*41.7*		*70*	*50-150*			
Matrix Spike (CX06096-MS1)		**Source: CXH1284-21**		Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	257	20	µg/kg	167	136	73	29-131			
Surrogate: Decachlorobiphenyl	*23.0*		*"*	*16.7*		*138*	*50-150*			
Matrix Spike Dup (CX06096-MSD1)		**Source: CXH1284-21**		Prepared: 09/02/14 Analyzed: 09/03/14						
Aroclor 1260	222	20	µg/kg	167	136	52	29-131	15	30	
Surrogate: Decachlorobiphenyl	*29.5*		*"*	*16.7*		*177*	*50-150*			*QM-7*

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

STLC (WET) Metals by 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06136 - EPA 3010A										
Blank (CX06136-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	ND	0.50	mg/L							
LCS (CX06136-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.4	0.50	mg/L	50.0		97	75-125			
Matrix Spike (CX06136-MS1)	**Source: CXH1318-01**			Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	45.3	0.50	mg/L	50.0	0.480	90	75-125			
Matrix Spike Dup (CX06136-MSD1)	**Source: CXH1318-01**			Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	43.3	0.50	mg/L	50.0	0.480	86	75-125	5	30	

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Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
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Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TCLP Metals by 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06150 - EPA 3010A TCLP										
Blank (CX06150-BLK1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	ND	0.50	mg/L							
LCS (CX06150-BS1)				Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.5	0.50	mg/L	50.0		97	75-125			
Matrix Spike (CX06150-MS1)		**Source: CXH1284-03**		Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	48.0	0.50	mg/L	50.0	0.0918	96	75-125			
Matrix Spike Dup (CX06150-MSD1)		**Source: CXH1284-03**		Prepared: 09/03/14 Analyzed: 09/04/14						
Lead	46.6	0.50	mg/L	50.0	0.0918	93	75-125	3	30	

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

TPH-Gasoline by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CX06095 - EPA 5030 Soil GC										
Blank (CX06095-BLK1)				Prepared & Analyzed: 09/02/14						
Gasoline	ND	0.20	mg/kg							
Surrogate: o-Chlorotoluene (Gas)	*0.0190*		*"*	*0.0200*		*95*	*65-135*			
LCS (CX06095-BS1)				Prepared & Analyzed: 09/02/14						
Gasoline	0.816	0.20	mg/kg	1.00		82	65-135			
Surrogate: o-Chlorotoluene (Gas)	*0.0214*		*"*	*0.0200*		*107*	*65-135*			
LCS Dup (CX06095-BSD1)				Prepared & Analyzed: 09/02/14						
Gasoline	0.824	0.20	mg/kg	1.00		82	65-135	1	30	
Surrogate: o-Chlorotoluene (Gas)	*0.0207*		*"*	*0.0200*		*103*	*65-135*			
Matrix Spike (CX06095-MS1)		**Source: CXH1284-03**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.0956	0.20	mg/kg	1.00	0.0680	3	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0141*		*"*	*0.0200*		*71*	*65-135*			
Matrix Spike (CX06095-MS2)		**Source: CXI0042-01**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.503	0.20	mg/kg	1.00	0.0532	45	63-124			
Surrogate: o-Chlorotoluene (Gas)	*0.0162*		*"*	*0.0200*		*81*	*65-135*			
Matrix Spike Dup (CX06095-MSD1)		**Source: CXH1284-03**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.0725	0.20	mg/kg	1.00	0.0680	0.5	63-124	27	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0215*		*"*	*0.0200*		*108*	*65-135*			
Matrix Spike Dup (CX06095-MSD2)		**Source: CXI0042-01**		Prepared & Analyzed: 09/02/14						**QM-7**
Gasoline	0.489	0.20	mg/kg	1.00	0.0532	44	63-124	3	35	
Surrogate: o-Chlorotoluene (Gas)	*0.0144*		*"*	*0.0200*		*72*	*65-135*			

Earth Resource Technologies c/o NASA-Ames	Project: Settling Basin Cleanout 2014	
Bldg T20G-4, Room 135	Project Number: 3602-817	**CLS Work Order #: CXH1284**
Moffet Field, CA 94053-1000	Project Manager: Chelsea Candelaria	COC #:

Notes and Definitions

QS-MS	Surrogate recovery outside of acceptance window confirmed as matrix effect by analysis of MS/MSD on this sample.
QS-4	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QS-1	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-5	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-1	The spike recovery was outside acceptance limits for the LCS or LCSD. The batch was accepted based on acceptable MS/MSD recoveries & RPD's.
QC-2H	The recovery of one CCV was greater than the acceptance limit. However, all analytes in the associated samples were ND; therefore a reanalysis was not performed.
PCB-2	Adjacent Aroclors have overlap peaks which cause interferences. The detected concentration is greater than the estimated interferences; therefore, the detected result is reported even though it is probably biased high..
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference