Final

Preliminary Assessment/Site Inspection Report for the Ramona Burn Dump Site Cleveland National Forest San Diego County, California

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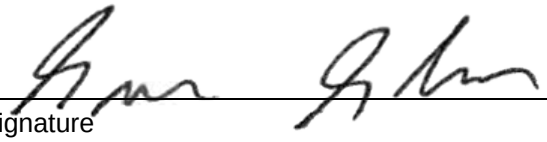
Submitted by Engineering/Remediation Resources Group, Inc.:



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Acronyms and Abbreviations

Allied Waste	Ramona Landfill Inc., Allied Waste Industries
bgs	below ground surface
BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chemical of concern
County	County of San Diego
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CIWMB	California Integrated Waste Management Board
DEH	Department of Environmental Health
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
ERRG	Engineering/Remediation Resources Group, Inc.
FEMA	Federal Emergency Management Agency
Forest Service	U.S. Department of Agriculture, Forest Service Region 5
LEA	Local Enforcement Agency
LLDPE	linear low-density polyethylene
MCCTC	Maximum Concentration of Contaminants for the Toxicity Characteristic
mg/kg	milligrams per kilogram
O&M	operation and maintenance
PA/SI	Preliminary Assessment/Site Inspection
PCBs	polychlorinated biphenyls
pg/g	picograms per gram
PRP	potentially responsible party
RCRA	Resource Conservation and Recovery Act
RSLs	regional screening levels
RWQCB	Regional Water Quality Control Board

Acronyms and Abbreviations *(continued)*

SCS	SCS Engineers
STLC	Soluble Threshold Limit Concentration
SVOCs	semivolatile organic compounds
SWRCB	State Water Resources Control Board
TCDD	tetrachlorodibenzo-p-dioxin
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	toxic equivalent quotient
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
TTLCs	Total Threshold Limits Concentrations
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WET	Waste Extraction Test
WRCC	Western Regional Climate Center
XRF	x-ray fluorescence
µg/kg	micrograms per kilogram
§	Section

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Section 1. Introduction

Engineering/Remediation Resources Group, Inc. (ERRG) has prepared this Preliminary Assessment/Site Inspection (PA/SI) Report for the U.S. Department of Agriculture, Forest Service Region 5 (Forest Service) for the Ramona Burn Dump Site in the Cleveland National Forest in San Diego County, California. This work was conducted under Regional Environmental Response Action Contract No. AG-91U4-D-09-0012. Prior to the start of PA/SI activities, ERRG prepared a work plan that was approved by the Forest Service (ERRG, 2009).

The purpose of the PA/SI was to determine if a release or threat of release of hazardous substances has occurred at the Ramona Burn Dump Site and if so, to evaluate the nature and extent of contaminants present. Specifically, this PA/SI includes:

- Assessment of the Ramona Burn Dump Site, including collection of soil and waste samples for analysis of potential site contaminants and characterization of the extent of contamination at the site.
- Identification of whether wastes are historic or of a more recent nature.
- Evaluation of remedial alternatives to achieve site closure.

This PA/SI was conducted in accordance with Comprehensive Environmental, Compensation, and Liability Act (CERCLA) guidelines (United States Environmental Protection Agency [EPA] 1991, 1992, and 1999a).

The remainder of this report is organized as follows:

- Section 2 describes the site and provides background information on historical activities at the site.
- Section 3 summarizes the PA/SI field activities.
- Section 4 provides the analytical results for soil and waste samples collected during the PA/SI field activities.
- Section 5 presents a preliminary analysis of potential environmental pathways at the site.
- Section 6 presents the conclusions of the PA/SI based on the site observations and analytical results.
- Section 7 presents an evaluation of remedial alternatives that could be implemented to achieve closure of the site.
- Section 8 lists the documents used to prepare this PA/SI Report.

Figures and tables are presented after Section 8. Appendices containing supplemental documentation include a photographic field log (Appendix A), x-ray fluorescence (XRF) field data (Appendix B), pothole and trench logs (Appendix C), waste quantity calculations (Appendix D), laboratory analytical data (Appendix E), and cost estimates for the alternatives evaluated (Appendix F).

Section 2. Background, Environmental Setting, and Previous Investigations

This section describes the Ramona Burn Dump Site and its background, the environmental setting, and previous investigations.

2.1. SITE DESCRIPTION AND BACKGROUND

The Ramona Burn Dump Site encompasses approximately 2.47 acres and is located in Wildcat Canyon, in Pamo Valley within Ramona, California (Figure 1). The site is immediately west of Pamo Road, north of Dump Road and the existing Ramona Landfill, within assessor's parcel number 244-100-17. The site is located within the Palomar Ranger District of the Cleveland National Forest in the southwest quarter, of the northeast quarter of Section 34 of Township 12 south, Range 1 East (San Bernardino Base Meridian), in San Diego County.

The Ramona Burn Dump Site was identified following the Witch Creek fires in November 2007, when vegetation in the area was burned and surface debris from the Ramona Burn Dump Site was exposed. The newly exposed former burn dump area included remnants of a fire pit and surface debris in the area of a former waste burn dump that was owned and operated by the County of San Diego (County) on lands that are now owned and operated as a landfill by Ramona Landfill Inc., Allied Waste Industries (Allied Waste), as well as surface debris in an area on National Forest System lands that had also been operated by the County, as a part of its burn dump operation on its private lands, under a special use permit issued by the Forest Service.

From approximately 1947 to 1974, the Ramona Burn Dump Site was operated by the County under a special use permit issued by the Cleveland National Forest as a part of its burn dump on its private lands (Forest Service, 2009). The County operated the burn dump for the disposal of trash and rubbish from the Community of Ramona and surrounding County areas. According to the special use permit, the County was to confine the dumping to constructed pits within the permit area, and ashes were to be placed in a separate pit (Forest Service, 2009 and 2010).

According to Forest Service records, the County's special use permit terminated on February 2, 1974, and the site was covered by soils. Typical capping and closure requirements in the early 1970s included placing 1 or 2 feet of native soil over waste materials.

On January 22, 2008, the County's Solid Waste Local Enforcement Agency (LEA) issued a notification to the Forest Service, the County, and Allied Waste alerting the parties to the presence of the burn dump areas on the properties and notifying them to bring the burn dump site into compliance with state minimum standards for cover soil, drainage, erosion control, and site security, as outlined in Title 27 California Code of Regulations (CCR) (County, 2008a). In 2007, the LEA completed a site identification form noting that the burn dump operated between 1948 and was closed in 1969 (California Integrated Waste Management Board [CIWMB], 2008a). The site was identified as a closed, unpermitted county disposal facility (CIWMB, 2008b). Since identifying the site, the LEA has conducted regular inspections of the property, consistently noting the following areas of concern: final cover, drainage and erosion control, and site security (County, 2008b and 2008c).

Limited historic information is available for the site from the County's Department of Public Works files, along with documentation provided in a previous investigation for the adjacent property, the landfill managed by Allied Waste (SCS Engineers [SCS], 2008). Historical aerial photographs of the National Forest lands show the burn dump area, dating back to 1949, with the concentrated area of disturbance and dumping extending approximately 300 to 400 feet along Dump Road and between 200 and 300 feet to the north (SCS, 2008). Fire break roads are evident on the aerial photographs, defining the boundaries of the burn dump area with the most active areas in what appear to be two large N-S trending trenches (see aerial photographs presented in Appendix A). Typical wastes observed and documented at the site include glass, pottery, metal, and plastic.

On September 29, 2008, the Forest Service determined that there was a release or threat of release of hazardous substances at the site and initiated a response action under its delegated authorities pursuant to Section 104 of CERCLA, as amended; Title 42 United States Code (U.S.C.) Section (§) 9604; and Executive Order 12580, to address the release. The County, a potentially responsible party (PRP) under CERCLA Section 107(a), 42 U.S.C. § 9607(a), was provided with the opportunity to conduct the site investigation for the Ramona Burn Dump Site under Forest Service oversight. The lack of a response from the County prompted the Forest Service to pursue the investigation of the source, extent, and nature of the release (and/or threat of release) of hazardous substances, pollutants, or contaminants (or hazardous wastes) on or about the Ramona Burn Dump Site. This PA/SI is being conducted as a part of the Forest Service's ongoing site investigation.

2.2. ENVIRONMENTAL SETTING

San Diego County exhibits a Mediterranean to semi-arid climate, typical of coastal southern California, with warm, dry summers and mild winters. The average temperature in the town of Ramona (approximately 4 miles south of the site) ranges from 46 to 77°F. Total average annual precipitation is about 16.5 inches, with more than 60 percent of the rainfall in winter (January through March) (Western Regional Climate Center [WRCC], 2006).

2.2.1. Geology and Hydrogeology

The regional geology of Ramona is characterized by fertile valleys surrounded by foothills and mountains of granitic and metamorphic rock. The Ramona Burn Dump Site is underlain by Cretaceous Tonalite of Alpine formation, consisting of medium- to coarse-grained biotite-hornblende tonalite and quartz diorite (U.S. Geological Survey [USGS], 2006).

The Ramona Burn Dump Site is located at an average elevation of 1,600 feet above mean sea level on a small ridge that trends roughly east–west and is flanked by two natural drainages that merge just east of the site (Figure 2). Downstream (to the east), the drainage becomes an unnamed ephemeral creek that joins Santa Ysabel Creek, within 0.5 mile of the site. Santa Ysabel Creek is a major tributary to the San Dieguito River watershed. Current beneficial uses of Santa Ysabel Creek include municipal and domestic water supply, agricultural and industrial supply, and recreational uses. Portions of Santa Ysabel Creek support high-quality aquatic habitats suitable for spawning fish (Regional Water Quality Control Board [RWQCB], 1994, as amended 2007). The Ramona Burn Dump Site is not located within a floodplain (Federal Emergency Management Agency [FEMA], 1997).

Regional vegetative communities include non-native agricultural and urban vegetation, as well as native mixed chaparral, oak woodland areas, grasslands, and riparian woodlands (County, 2009). The dominant vegetative cover at the Ramona Burn Dump Site is chapparal, with riparian vegetation downslope from the site, flanking the unnamed ephemeral creek. The vegetative cover at the Ramona Burn Dump Site is dominated by shrubs interspersed with ruderal areas.

Groundwater in the region is restricted by the limited storage capacity of regional aquifers, typically fractured crystalline rock. The estimated storage capacity of the fractured crystalline rock is less than 3 percent of the total rock volume (County, 2009). Groundwater beneath the Ramona Burn Dump Site is estimated to be deeper than 60 feet below ground surface (bgs) (CIWMB, 2008) and is assumed to flow to the east based on topographic information. Current beneficial uses for groundwater in the San Dieguito Hydrologic Unit are primarily municipal and agricultural. The Ramona Burn Dump Site is located within the Ramona Municipal Water District, and most potable water is provided by the water district because groundwater quality in the area is poor because of nitrate concentrations (Department of Public Works, 2010).

2.2.2. Land Use and Sensitive Environments

The area immediately surrounding the Ramona Burn Dump Site is zoned as open space under the County's Multiple Species Conservation Program. Adjacent lands are zoned as open space, or agricultural (County, 2010).

Santa Ysabel Creek has been designated as critical habitat for the federally-listed endangered arroyo toad (*Anaxyrus californicus*). Santa Ysabel Creek also provides freshwater wetland habitat along stretches that are within 4 miles of the site (U.S. Fish and Wildlife Service [USFWS], 2010). Other sensitive environments within a 4-mile radius of the Ramona Burn Dump Site include critical habitat for the coastal California gnat catcher (*Polioptila californica californica*), designated federally as a threatened species, and the federally-listed endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) (California Department of Fish and Game [CDFG], 2010). In addition, suitable habitat for the federally-listed endangered least bell's vireo (*Vireo bellii pusillus*) and the threatened San Diego thorn mint (*Acanthomintha ilicifolia*) may be present within a 4-mile radius of the site (CDFG, 2010).

2.3 PREVIOUS INVESTIGATIONS

In 2008, SCS completed an assessment of the old Ramona burn dump site on the Allied Waste property south and east of the Forest Service property (SCS, 2008). Based on the aerial photographs, it appears the Allied Waste and Forest Service properties were originally used as a single burn dump. Evidence of a historic incinerator on the Allied Waste property (observed during the job walk for this project) west of the site indicates that materials were historically burned on the Allied Waste property and disposed of on both properties.

As part of the 2008 assessment, Allied Waste excavated five trenches adjacent to the Forest Service's western property line (T18 through T21 and T23) and three trenches along the southern property line (T7, T8, and T9) (Figure 3). According to the trench logs, debris was encountered between 1 and 3 feet bgs in the trench (T7) at the northern extent of the western property line. Mixed burn ash and debris were encountered between 1 and 8 feet bgs in the two western trenches (T18 and T19) along the southern property line. No burn ash or debris was encountered in the eastern trenches (T20, T21, and T23) along the southern property line.

Results of SCS's initial XRF screening indicated elevated concentrations of chromium and zinc along the western property line (in trenches T7 and T9) and elevated concentrations of arsenic, cadmium, lead, mercury, and selenium along the southern property line (trenches T18 and T19) (SCS, 2008).

Soil samples from trenches T18 and T19 were analyzed by an off-site laboratory. Sample results for metals indicated that according to Title 22 6626261.24 the material would likely be characterized as California (non-Resource Conservation and Recovery Act [RCRA]) hazardous waste (SCS, 2008).

Additionally, four soil samples were analyzed for semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), and dioxins and furans. No SVOCs or PCBs were detected and the pH results were considered neutral. TPH in the motor oil range was detected in soil from trench T19 (up to 78 milligrams per kilogram [mg/kg]), and dioxins and furans were detected in soil from trench T18 at 94.06 and 103.96 picograms per gram (pg/g), respectively (SCS, 2008).

Section 3. Preliminary Assessment/Site Inspection Activities

The purpose of this PA/SI is to establish site physical characteristics and evaluate whether a release or threat of release of hazardous substances has occurred at the Ramona Burn Dump Site; and if so, evaluate the nature and extent of contaminants present.

The PA/SI and field sampling event included the following activities:

- Records evaluation
- Site reconnaissance
- Potholing and trenching activities
- Soil and waste sampling

3.1. RECORDS EVALUATION

ERRG reviewed electronic records for the site provided by the Forest Service from the Cleveland National Forest Supervisors office and physically reviewed records at the Palomar Ranger District office in Ramona, California, and at the LEA's office in San Diego, California. Available documentation included documents related to the County's special use permit for the burn dump site and documents related to current operations on the Allied Waste property, as well as copies of inspection forms and correspondence between the LEA and the Forest Service after the site was discovered (summarized in Section 2.2).

ERRG interviewed Mr. Thurston Thompson, of Allied Waste, during trips to the site in November 2009 and again in February 2010. Mr. Thompson was not familiar with historic activities on the Ramona Burn Dump Site, but was able to provide some detail on activities conducted by Allied Waste since the completion of SCS' evaluation. Mr. Thompson indicated that Allied Waste and its contractor had excavated portions of the historic waste along the southern property boundary and had removed the historic incinerator, located west of the site (Allied Waste, 2009). In February 2010, Mr. Thompson noted that he believed the southern property boundary of the Forest Service property extended up to approximately the fence line, just north of Dump Road (Allied Waste, 2010).

ERRG interviewed Mr. Christopher Spengler with SCS by telephone on February 4, 2010. SCS had completed a removal action for Allied Waste on November 13, 2009. Mr. Spengler stated that SCS

excavated material from the northern edge of dump road to the fence line that divides the Allied Waste and Forest Service properties. The total length of the excavation was approximately 440 feet, with an average width of 10 feet. Mr. Spengler noted that debris was present from the fence line to the road to an average depth of 10 feet bgs. Mr. Spengler also noted that they had found waste material under the site access road west of the Forest Service property (SCS, 2010).

ERRG completed a review of available historical documentation and environmental data, including reviewing previous documentation, aerial photographs, regional and local geologic maps, topographic maps, climate and flood plain data, and ecological data available from USGS, National Oceanic and Atmospheric Administration, WRCC, FEMA, Department of Resources Recycling and Recovery (formerly CIWMB), State Water Resources Control Board (SWRCB), CDFG, USFWS, the County, and RWQCB to establish the site's environmental setting (Section 2.2).

3.2. SITE RECONNAISSANCE

Initial site reconnaissance, including SI and sampling, was conducted between November 16 and 19, 2009. On February 1, 2010, a second site visit was completed to confirm property boundary information and to evaluate any changes in site conditions following heavy rains that occurred between the end of November 2009 and the end of January 2010.

The site is accessible by two-wheel drive vehicle and is adjacent to Dump Road, which is a paved private road, managed by Allied Waste, that provides access to the Ramona Landfill (Figure 2). The site is separated from Dump Road by a 4-foot-tall wire fence, limiting public access. An unpaved access road allows vehicular and pedestrian access to the site from Dump Road. A locked gate at the main entrance to the Ramona Landfill separates Dump Road from Pamo Road (Figure 2).

No man-made improvements are present on the site, which is vegetated with sage brush and other shrubs. Broken glass and pottery are visible on the surface across the area of the former burn dump. Erosion at the eastern portion of the site has exposed debris and ash in channels cut by stormwater flow. During the initial SI, Forest Service personnel present on site pointed out a permanent property monument and indicated that this monument was assumed to represent the southwestern Forest Service property corner (Figure 2). This assumption was consistent with field observations, which noted that Allied Waste and its subcontractor, SCS, had graded and hydroseeded the portion of the property that spans the distance between the property monument and the fence line (the unvegetated area shown on Figure 2).

During the second site visit, Mr. Thompson of Allied Waste indicated that he believed the fence line was approximately the property line. This statement is consistent with a subsequent statement from Mr. Spengler of SCS, who indicated that SCS regraded and hydroseeded the property known to belong to the Forest Service as a courtesy because that property had been impacted by earth-moving equipment during SCS' removal activities south of the property line (SCS, 2010). The Forest Service has since confirmed

with their surveyor that the property boundary is located approximately along the existing fence line (Forest Service, 2010), as shown on Figure 2.

3.3. POTHOLING AND TRENCHING ACTIVITIES

Prior to potholing and trenching, a hand-held field XRF device was used as an initial screening device to select the locations of potholes and trenches. XRF readings were taken at surface locations (representing capped areas) and just below the ground surface (representing burn ash below the cap) to help identify areas where burn ash was most likely to be encountered. Lead concentrations were used as a preliminary indicator that materials may contain elevated metals. In general, locations where XRF readings for lead exceeded 105 ppm were considered elevated with respect to background (this initial screening value is based on three times regional background concentrations for Riverside County, since no background data was available for San Diego County [USGS, 2001]). Lead concentrations were considered significantly elevated if they exceeded 1,000 ppm (the California Total Threshold Limits Concentrations [TTLCs] for lead).

Subsurface XRF readings were also collected from trenches and potholes to determine which materials to collect and submit for off-site laboratory analysis. For example, in areas where burn ash and soil were mixed, the XRF device was used to confirm that these materials contained elevated metal concentrations, and that a sample should be collected. Subsurface XRF readings were collected from trenches and potholes along the site and property boundaries to help delineate the lateral extent of burn ash and waste materials. The complete XRF data set is included as Appendix B. XRF sampling locations are presented on the pothole and trench logs in Appendix C.

The work plan proposed that eight trenches and eight potholes were to be excavated at the site (ERRG, 2009). Exact locations of potholes and trenches were determined in the field, based on areas where XRF readings indicated metals concentrations were elevated, areas of stressed or absent vegetation, and areas where waste was exposed on the surface. Trench and pothole locations were also selected to be representative of the entire dump area[1]. The pothole and trench locations are presented on Figure 2. Pothole and trench logs are presented in Appendix C.

Potholes and trenches were excavated until undisturbed native materials (loosely classified as decomposed granite) were observed. The trenches and potholes were backfilled with excavated material and compacted by tamping with the backhoe bucket and running the backhoe over backfilled excavations. Locations of potholes and trenches were staked and labeled with location identification numbers. Each location was surveyed with a global positioning system capable of submeter accuracy (Figure 2).

[1] As discussed in Section 3.2, the initial location of the property boundary was believed to be north of the fence line. Because the area south of the property boundary marker was assumed to belong to Allied Waste, and because SCS personnel on site during the November sampling event requested that the Forest Service not disturb areas they had recently hydroseeded, ERRG did not excavate any potholes or trenches within the unvegetated area shown on Figure 2.

Waste and debris encountered generally consisted of burn ash mixed to varying degrees with native soils and debris. Debris was composed primarily of glass and ceramic fragments, with lesser amounts of metal and brick; very little plastic was observed. All debris and waste material encountered during this investigation appeared to be historic (pre-1970s) in nature. Materials were generally observed to be dry (no evidence of seasonal wetting was noted).

During excavation activities, subsurface waste and burn ash was observed to extend past the Forest Service parcel boundary and onto Allied Waste property along both property boundaries. As a result, potholes—instead of trenches as initially proposed in the work plan (ERRG, 2009)—were excavated along the southern and eastern boundaries[2]. Table 1 summarizes the extent of burn ash and waste observed in the potholes and trenches.

An estimate of depth and quantity of burn ash and waste was established using the information obtained from potholing and trenching. The lateral and vertical extent of burn ash and waste was established by (1) walking the site and observing waste and burn ash in drainage features and at the ground surface, (2) compiling data on the extent of waste and burn ash from trench and pothole logs, (3) evaluating historical aerial photographs that show the extent of waste during placement, and (4) reviewing the extent of waste documented in trench logs adjacent to the Forest Service property (SCS, 2008). In addition, information provided by Mr. Spengler of SCS indicated that the deepest waste observed during SCS' excavation work along the southern property line was between 10 to 12 feet deep and was located between SCS trenches T18 and T19.

The approximate lateral extent of waste is represented on Figure 3. Calculations of the estimated waste volume are provided on Appendix D.

3.4. SOIL AND WASTE SAMPLING

Thirty-three samples of burn ash and other potentially contaminated materials observed in the trenches, potholes, and at the ground surface were collected throughout the site (Figure 2). In addition, two background surface samples (SS-3 and SS-4) were collected from upgradient, uncontaminated surface locations agreed upon with the Forest Service Contracting Officer Representative at the site (Figure 2). All ash, soil, and background samples were analyzed for California Assessment Manual 17 metals and pH. Leachability testing was performed on the three samples containing the highest metals concentrations.

While collecting samples of burn ash and other potentially contaminated materials, six samples were selected for additional analysis of SVOCs, PCBs, total recoverable petroleum hydrocarbons (TRPH), and

[2] Because the original location of the property boundary was assumed to extend only as far south as the permanent property monument, potholes completed along what was initially assumed to be the southern property boundary are now assumed to be located within Forest Service property (Figure 2).

dioxins and furans, in accordance with guidance for evaluating burn dump sites (Department of Toxic Substances Control [DTSC], 2003). The samples selected for additional analysis were PH-2G, PH-3I, PH-7AC, PH-8AI, TR-3S, and TR-4W. Sample locations were selected for additional analysis based on observed differences in the types of waste present in the potholes to be representative of all material types observed during excavation activities.

Analytical data results are discussed in Section 4. Laboratory analytical data are presented in Appendix E and summarized on trench and pothole logs presented in Appendix C.

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Section 4. Analytical Results

This section summarizes the analytical results and data screening for metals, SVOCs, PCBs, TRPH, and dioxins and furans in waste and soil samples collected during the PA/SI.

First, analytical data were compared with site-specific background concentrations (samples SS-3 and SS-4). Concentrations that were greater than three times the lowest concentration for individual chemicals in the background samples (or were detected in cases where a chemical was not detected in background samples) were considered elevated with respect to background.

Next, samples that contained concentrations greater then method detection limits were screened against EPA regional screening levels (RSLs) for industrial soil (EPA, 2009). Industrial RSLs were deemed appropriate for potential site visitors (e.g., the site worker or recreational user exposure scenario) typical for this site. To evaluate potential risk to the environment, concentrations exceeding background were also screened against the Bureau of Land Management (BLM)'s median risk management criteria for the protection of wildlife and livestock (BLM, 2004).

Finally, in accordance with DTSC's "Protocol for Burn Dump Site Investigation and Characterization" (DTSC, 2003), analytical results were also compared against criteria established by Title 22 §66216.24 TTLCs, Soluble Threshold Limit Concentration (STLC), and Maximum Concentration of Contaminants for the Toxicity Characteristic (MCCTC) as part of a hazardous waste screening evaluation. Sample results that exceed the TTLCs are considered California (non-RCRA) hazardous waste and, depending on their leaching potential, may be RCRA hazardous waste.

4.1. METALS

The following metals were detected in burn ash, waste and soil at the Ramona Burn Dump Site at concentrations that were considered elevated with respect to background: arsenic, barium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, and zinc. Of these, cadmium, copper, lead, and zinc also exceeded BLM risk management criteria for wildlife and livestock. Arsenic and lead concentrations exceeded their respective EPA RSLs for industrial use. Lead and zinc concentrations exceeded California TTLC hazardous waste criteria. Table 2 presents the concentrations of arsenic, lead, and zinc that exceeded screening criteria (EPA RSLs and TTLC). The following subsections summarize the screening results for metals that exceeded screening criteria in burn ash, waste and soil.

4.1.1. Arsenic

Arsenic was detected in 17 of 33 samples from burn ash and waste material at concentrations ranging from 4.0 mg/kg to 18 mg/kg, with an average concentration of 9 mg/kg. All detected concentrations were considered elevated with respect to background (arsenic was not detected in either background sample). Results for all 17 samples also exceeded the EPA industrial RSL for arsenic (1.6 mg/kg). No samples exceeded the BLM criteria for wildlife protection (275 mg/kg) or the TTLC (500 mg/kg). Based on the screening, arsenic is considered a chemical of concern (COC) for the site.

4.1.2. Cadmium

Cadmium was detected in 21 of 33 samples from burn ash and waste material at concentrations ranging from 0.6 mg/kg to 10 mg/kg, with an average concentration of 3.6 mg/kg. All detected concentrations were considered elevated with respect to background (cadmium was not detected in either background sample). Results for 11 samples also exceeded the BLM criteria for wildlife protection (3 mg/kg). No samples exceeded the EPA industrial RSL (800 mg/kg) or TTLC (100 mg/kg). Based on the screening, cadmium is considered a COC for ecological receptors at the site.

4.1.3. Copper

Copper was detected in all 33 samples from burn ash and waste material at concentrations ranging from 27 mg/kg to 870 mg/kg, with an average concentration of 202 mg/kg. Nineteen of these detections were considered elevated with respect to background (111 mg/kg). Of these, 18 exceeded the BLM criteria for wildlife protection (136 mg/kg). No samples exceeded the EPA industrial RSL (41,000 mg/kg or the TTLC (2,500 mg/kg). Based on the screening, copper is considered a COC for ecological receptors at the site.

4.1.4. Lead

Lead was detected in 31 of 33 samples from burn ash and waste material collected. Detected lead concentrations ranged from 3.5 mg/kg to 2,300 mg/kg, with an average concentration of 409 mg/kg. Twenty-nine samples contained lead concentrations that were considered elevated with respect to background (10.5 mg/kg). Of these, 22 exceeded the BLM criteria for wildlife protection (125 mg/kg). Four samples also contained lead at concentrations above the EPA industrial RSL of 800 mg/kg. Of the four exceedances, three exceeded the TTLC (1,000 mg/kg). Based on the screening evaluation, lead is considered a COC for the site.

4.1.5. Zinc

Zinc was detected in all 33 samples collected from burn ash and waste material at concentrations from 23 mg/kg to 6,400 mg/kg, with an average concentration of 1,073 mg/kg. Twenty-nine samples contained

zinc concentrations that were elevated with respect to background (51 mg/kg). Of these, 22 also exceeded the BLM criteria for wildlife protection (307 mg/kg). No samples contained zinc concentrations that exceeded the EPA industrial RSL (310,000 mg/kg), but one sample result exceeded the TTLC (5,000 mg/kg). Based on the screening, zinc is considered a COC for the site

4.1.6. Leachability Testing

Analytical results for metals were compared with 10 times the (STLC) and 20 times the (MCCTC) for each detected metal to identify which samples may exhibit leachability in a laboratory setting. The work plan stated that the three samples with metals concentrations exceeding 10 times the STLC and with the highest total metals concentrations would be prepared using the Waste Extraction Test (WET) method and analyzed for individual metals (ERRG, 2009). If any of the three samples also exceed 20 times the MCCTC, they were to be prepared using the Toxicity Characteristic Leaching Procedure (TCLP) and analyzed for individual metals. Because most samples exceeded the STLC and the MCCTC for lead, the three samples chosen for WET and TCLP testing were selected to represent various lead concentrations, rather than just the maximum. The selection of the three samples allowed for a more representative look at the leaching characteristics of lead in the ash and waste material.

The three samples chosen for leachability testing through both the WET method and TCLP were PH-1F, PH-8AG, and TR-4W. The results of the leachability testing are provided in Table 3.

Based on the pH range (5.87 to 8.27) found for the waste samples and the results of leachability testing, lead is the most likely metal to have leached to the subsurface. Arsenic and zinc are not considered likely to leach. Copper, which was detected in the leachability testing, is not likely to be present at concentrations that would classify the material as hazardous waste.

The lead concentrations detected through the WET for each of the samples would characterize the ash and waste material as a California (non-RCRA) hazardous waste. Results for sample PH-8AG indicate that portions of the burn waste with concentrations exceeding 200 mg/kg of lead have the potential to be classified as California (non-RCRA) hazardous waste based on leaching potential. For disposal estimating purposes, it was assumed that all waste would be classified as California (non-RCRA) hazardous waste. Based on the analytical results, it is not likely that any waste would be classified as RCRA hazardous waste.

4.2. SVOCS

Only one of six samples analyzed (TR-3S) contained detectable concentrations of SVOCs. The following SVOCs were detected in this sample:

- Anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Chrysene
- Indeno(1,2,3-cd) pyrene
- Fluoranthene
- Pentachlorophenol
- Pyrene

Each of the SVOCs—except for pentachlorophenol, which is generally used as a wood preservative—is a common byproduct of wood burning. The sample that contained the SVOCs was noted to have a noticeably higher ash content then what was typically seen in most potholes and trenches (Appendix C, TR-3S Trench Log). The presence of the SVOCs is attributed to historic wood burning at the site. None of the detected SVOC concentrations exceeded the industrial RSLs. Analytical data for SVOCs detected in the sample are presented in Table 4. Based on the screening, SVOCs are not considered COCs for the site because detected concentrations are all below the industrial RSLs.

4.3. PCBS

Three (PH-7AC, TR-3S, and TR-4W) of six samples analyzed contained detectable concentrations of PCB-1248. PCB-1248 was generally used as a hydraulic fluid, but has also been used as a heat transfer medium. None of the sample results exceeded the California hazard waste criterion of 50 mg/kg for non-liquid materials. Results of one sample (TR-4W) exceeded the EPA industrial RSL of 740 micrograms per kilogram (µg/kg). Analytical data for samples tested for PCBs are presented in Table 5. Although PCB-1248 was detected in one of six samples, PCBs are not generally considered a COC for the site because the concentration detected (1,200 µg/kg) was not considered significantly elevated with respect to the industrial RSL and because PCBs were inconsistently detected. It is likely that a source of PCBs exists within the burn dump area, but PCBs are not considered a primary COC driving risk for the site.

4.4. TRPH

Three (PH-8AI, TR-3S, and TR-4W) of six samples analyzed contained detectable concentrations of TRPH. None of the concentrations exceeded the California hazardous waste criterion of 3,000 mg/kg for TRPH in soils. Currently, no EPA RSL is available for TRPH. Analytical data for samples tested for TRPH are presented in Table 6.

4.5. DIOXINS AND FURANS

All six soil samples analyzed for dioxins and furans contained detectable concentrations of both. Total dioxins were detected at concentrations between 8 pg/g and 81,510 pg/g. The range of total furan concentrations was 8.6 pg/g to 17,200 pg/g.

The only one of the 16 isomers reported that has an industrial RSL is 2,3,7,8-tetrachlorodibenzo-p-dioxin (-TCDD). 2,3,7,8-TCDD is also the only isomer with a TTLC (10,000 pg/g) and an STLC (1,000 pg/g). Concentrations for 2,3,7,8-TCDD ranged from 1.8 pg/g to 39 pg/g. Five (PH-2G, PH-7AC, PH-8AI, TR-3S, and TR-4W) of the six samples contained 2,3,7,8-TCDD at concentrations exceeding the industrial RSL of 18 pg/g. The toxic equivalent quotient (TEQ) for the samples ranged from 0.9 pg/g to 540 pg/g. All concentrations were below the TTLC.

Polychlorinated dioxins and furans are commonly produced when wastes containing chemical mixes are burned and are commonly present at burn dump sites. Analytical data for samples tested for dioxins and furans are presented in Tables 7 through 12.

2,3,7,8-TCDD has a very low water solubility and, if released to soil, is not expected to leach; as a rule, the amount of TCDD detected more than 8 centimeters below the surface has been approximately 1/10 or less than that detected down to 8 centimeters (EPA, 1999b).

Based on the screening evaluation, 2,3,7,8-TCDD is considered a COC for the site because it was consistently detected at concentrations above the industrial RSL.

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Section 5. Analysis of Environmental Pathways

This section provides information on environmental pathways and preliminary data required to evaluate environmental hazards related to the Ramona Burn Dump Site. The information and data will support (1) an analysis of the environmental fate of contaminants found at the site; (2) characterization of soil, groundwater, and surface water; and (3) an assessment of exposure pathways and whether an imminent threat is posed to human health and the environment.

5.1. GROUNDWATER PATHWAY ANALYSIS

This section provides a preliminary discussion of the groundwater pathway, including geologic setting, pathway targets and use, and conclusions. Groundwater samples were not collected as part of this PA/SI.

5.1.1. Groundwater Setting

As discussed in Section 2.2.1, the regional geology of Ramona is characterized by plutonic crystalline bedrock of Cretaceous age (USGS, 2006). Groundwater in the region is restricted by the limited storage capacity of the fractured crystalline aquifer. The estimated storage capacity of the fractured crystalline rock is less than 3 percent of the total rock volume (County, 2009). Groundwater beneath the Ramona Burn Dump Site is estimated to be deeper than 60 feet bgs (CIWMB, 2008) and is assumed to flow to the east, based on topographic information and hydrologic information for the adjacent property (RWQCB, 2000). Groundwater monitoring data from the adjacent Ramona Landfill indicate that the depth to groundwater in adjacent wells ranges from 48 to 167 feet bgs (SWRCB, 2010).

The adjacent Ramona Landfill property is regulated by waste discharge requirements from San Diego RWQCB (2000). Groundwater contaminants (trichloroethene, chloride, sulfate, and total dissolved solids) have historically been detected at compliance monitoring points along the Ramona Landfill's southern and eastern boundaries (SWRCB, 2010). Groundwater monitoring results suggest leachate from the Ramona Landfill has migrated off site (downgradient) to the east and south (RWQCB, 2000). As a result, the San Diego RWQCB has supplied owners of downgradient wells with carbon filters to protect water quality (RWQCB, 2010).

5.1.2. Groundwater Pathway Targets and Use

The Town of Ramona and nearby residential and agricultural populations are located within a 4-mile radius of the Ramona Burn Dump Site. The Basin Plan (RWQCB, 1994) established the following beneficial uses of groundwater of the Santa Ysabel Hydrologic Area:

- Municipal and Domestic Supply
- Agricultural Supply

According to the Department of Environmental Health (DEH) for the State of California and for San Diego County (DEH, 2010a), approximately 500 groundwater wells are being used for drinking water or irrigation within a 5-mile radius of the site. About 115 of those wells are located within 1 mile of the site. All permitted wells are located either south or southeast of the site, and no wells are directly downgradient (east) of the landfill site. Because groundwater quality in the area is generally poor because of elevated nitrate levels (Department of Public Works, 2010), most potable water is provided by the Ramona Municipal Water District. Although a number of the nearby wells are permitted for domestic use, "very few" people are using groundwater as a drinking water source and many domestic wells may be used primarily for irrigation or agricultural purposes (DEH, 2010b).

5.1.3. Groundwater Conclusions

As discussed in Section 4.1 of this report, concentrations of metals (cadmium, copper, lead, and zinc) in burn ash and soil exceeded ecological screening criteria. Metals (arsenic, lead, and zinc) and one dioxin (2,3,7,8-TCDD) in burn ash and soil consistently exceeded human health screening criteria (Tables 2 and 7). Of these, lead has the most potential to leach to underlying soils or groundwater (Table 3). Because of its low water solubility, 2,3,4,8-TCDD is not considered likely to have leached to underlying native materials or groundwater (EPA, 1999b). The distance to the groundwater table (approximately 60 feet bgs), and because burn ash is underlain by crystalline rock with limited permeability, make it unlikely that lead from the site will leach to groundwater at concentrations that would pose a risk to the environment. This, combined with the fact that no permitted groundwater wells are directly downgradient from the site and that most permitted wells are being used for agricultural (irrigation) uses, indicate that COCs from the site are unlikely to have been released at concentrations that will pose risk to human health or the environment via the groundwater pathway.

5.2 SURFACE WATER PATHWAY ANALYSIS

This section provides a preliminary discussion of the surface water pathway, including hydrologic setting, pathway targets and uses, and conclusions. Surface water and sediment samples were not collected as part of this PA/SI.

5.2.1. Surface Water Setting

As discussed in Section 2.2.1, surface water flows from west to east across the Ramona Burn Dump Site in two primary channels: one on the north side of the site and one on the south side (see Figure 2). The channels converge on the east side of the site in an unnamed ephemeral creek that flows eastward and joins Santa Ysabel Creek, approximately 0.5 miles east of the site. Santa Ysabel Creek is a major tributary of the San Dieguito River watershed.

5.2.2. Surface Water Pathway Targets and Use

The Basin Plan established the following beneficial uses of inland surface waters of the Santa Ysabel Hydrologic Area (RWQCB, 1994):

- Municipal and Domestic Supply
- Agricultural Supply
- Industrial Service Supply
- Industrial Process Supply
- Water Contact Recreation
- Non-Contact Water Recreation
- Warm Freshwater Habitat
- Cold Freshwater Habitat
- Wildlife Habitat

As discussed in Section 2.2.2, Santa Ysabel Creek provides critical habitat for the federally-listed endangered arroyo toad approximately 4 miles downstream of the site (USFWS, 2010).

5.2.3. Surface Water Conclusions

As discussed in Section 4.1 of this report, concentrations of metals (cadmium, copper, lead, and zinc) in burn ash and soil exceeded ecological screening criteria. Metals (arsenic, lead, and zinc) and 2,3,7,8-TCDD in soil exceeded human health screening criteria. Waste from the Ramona Burn Dump Site was observed eroding into the unnamed ephemeral creek east of the site. Waste was observed within the ephemeral creek for approximately 240 feet downstream from the edge of the in-situ burn dump site (Figure 2). Based on field observations, waste and burn ash from the Ramona Burn Dump Site have been released to the downgradient ephemeral creek. Because this creek does not flow year-round, the impact that waste materials and associated COCs may have on downstream surface water and sediment in Santa Ysabel Creek and the San Dieguito River may be reduced.

Further action is recommended to address the release of burn ash and waste materials to the surface water pathway. Metals and TCDD from burn ash and waste materials at the Ramona Burn Dump Site may pose

a threat to downstream municipal surface water supplies and may ultimately have a negative impact on downstream sensitive environments, including critical habitat for the arroyo toad and downstream wetland habitat.

5.3 SOIL AND AIR PATHWAYS

The soil and air exposure pathways are not considered complete pathways and are therefore not evaluated as part of this study. The primary targets for the soil exposure pathway are recreational visitors to the site and potential site workers, including Forest Service personnel and their contractors. The site is accessible by 2-wheel drive vehicle or on foot, but access is restricted by fencing and signs. All visitors are required to sign in at the Allied Waste office trailer and access to the site would not be granted to unauthorized personnel. Observations made during the November 2009 and February 2010 sampling and SI events did not note evidence of recent human visitation (e.g., no recent fire pits or recent garbage was observed).

The soil exposure pathway was not evaluated because there are no known targets (nearby or adjacent residences). Evaluation of potential leachate from waste materials to underlying native materials (decomposed granitic rock) should be considered if any future actions for the site expose native materials previously covered by waste and cover materials.

The air exposure pathway was not evaluated because no known targets are present at the site and no air sampling data was available. Because the site is mostly covered with at least 6 inches of native soil, there is little potential for aerial dispersion of materials in the waste to human or environmental receptors. If future activities at the site expose the waste or disturb the current cover materials, air monitoring would be required to ensure no release of metals from waste materials and the air pathway should be considered a complete pathway, while wastes are uncovered.

Because there are no known targets associated with the soil or air pathways, neither pathway is considered likely to adversely impact human health or the environment.

Section 6. Preliminary Assessment/Site Inspection Conclusions

Burn ash and waste was observed over the entire site area, approximately 2.47 acres (Figure 3). The ash and waste varied from 1 foot to 11 feet thick, with the thickest portions corresponding to what appear to be two large north-south trending trenches on historical aerial photographs (Areas 2 and 4 on Figure 3). The existing cover material (native soil) was observed to be less than 1 foot thick over most of the site, with many areas that were covered by 6 inches of material or less. Portions of the site exhibited areas of scattered or concentrated surface debris (Figure 2).

Several erosional gullies were observed on the steeper eastern portion of the burn dump site during the initial SI. Following heavy rains between November and January, a new erosional gully was observed along the southern boundary of the site, merging with the natural drainage just east of the burn dump site footprint (Figure 2). Observations made during the January 2010 site visit indicated that the southern erosional gully had developed as a result of stormwater discharge from the Allied Waste property. Stormwater on Allied Waste's property is channelized in concrete-lined drainage ditches that discharge to an unlined ditch at the property boundary. The outflow from this ditch continues across the property boundary and appears to be responsible for the erosional gullies and scours exposing burn ash and waste on the southern side of the burn dump site (Figure 2).

Waste and soil samples were collected from surface soil and at depth (in potholes and trenches) and from two background locations. The waste and debris encountered at each location primarily consists of burn ash, ceramics, and glass, with lesser amounts of metal and brick. All debris and waste material encountered during this investigation appeared to be historic (pre-1970s) in nature. All samples were analyzed for metals, with a subset of samples analyzed for SVOCs, PCBs, TRPH, and dioxins and furans. Elevated concentrations of metals (arsenic, lead, and zinc) and 2,3,7,8-TCDD were consistently detected exceeding EPA industrial RSLs. Based on the pH range of waste samples, the results of leachability testing, and the solubility of each COC, it is likely that some leaching of lead has occurred. Arsenic and zinc were not shown to be likely to leach and 2,3,7,8-TCDD is considered unlikely to have leached because of its low water solubility (EPA, 1999b).

A preliminary groundwater pathway analysis concluded that COCs from the site are unlikely to have been released to groundwater at concentrations that will pose risk to human health or the environment.

The surface water pathway preliminary analysis recommended further action to address the release of burn ash and waste materials to the surface water pathway. Metals (especially lead) in burn ash and waste materials at the Ramona Burn Dump Site may pose a threat to downstream municipal surface water supplies and may ultimately have a negative impact on downstream sensitive environments, including critical habitat for the arroyo toad and sensitive wetland environments.

The preliminary analysis of soil and air pathways concluded that no known targets are associated with either pathway and neither pathway is considered likely to adversely impact human health or the environment.

An evaluation of alternatives to address the observed to the surface water pathway is presented in Section 7.

Section 7. Alternatives Evaluation

This section presents a preliminary evaluation of four alternatives to achieve closure of the site. The following alternatives were evaluated for the site:

1. On-site native soil cover
2. On-site capping
3. On-site consolidation and capping
4. Removal and off-site disposal

Each alternative was evaluated based on its ability to address the release of burn ash and waste to surface water and its ability to limit the likelihood of a future release. In addition, alternatives where waste materials will be left on site must satisfy closure requirements of Title 27 CCR, Chapter 3, Subchapter 5, which specifies closure and post-closure maintenance requirements for solid waste landfills.

The effectiveness of an alternative was screened based on its ability to protect human health and the environment in both the short- and long-term. The implementability of an alternative was screened by evaluating the availability of necessary materials and equipment and regulatory agency and community acceptance.

Cost estimates were prepared to aid in the evaluation of alternatives using information that is currently available. The costs are order-of-magnitude estimates for relative cost comparison purposes, with an intended accuracy of +50 to -30 percent. The cost estimates are not construction bid costs, nor are they final project costs. Final project costs will depend on actual labor and material costs, actual site conditions (including the ultimate yardage excavated and waste classifications), competitive market conditions, the final project scope, the final project schedule, and other variables. As a result, the final project costs will vary from these estimates. Alternatives with lower costs were preferred if the effectiveness and implementability criteria were judged to be similar.

7.1. ALTERNATIVE 1: ON-SITE NATIVE SOIL COVER

Alternative 1 involves placement of 2 feet of native soil over the existing site (approximately 2.47 acres), without excavating or transporting any contaminated materials. The site would be cleared and grubbed, 2 feet of clean fill would be installed and compacted, followed by installation of a surface drainage

system and hydroseeding. A pre-construction cap design and long-term maintenance of the cap would be required.

As noted in Title 27 CCR, Chapter 3, Subchapter 5, regarding the requirements for cover material over portions of historic waste management units "…if a portion of a Unit was completely closed in accordance with an approved closure plan by November 27, 1984, the cover over the closed portion does not need to be modified to conform to the SWRCB's additional closure requirements in these regulations, unless monitoring data indicate impairment of beneficial uses of ground water."

To date, no closure documentation for the Ramona Burn Dump Site has been obtained. Although there is no evidence of a release to groundwater at the site, in the absence of required closure documentation, it is likely that the site will be required to meet the closure requirements of Title 27 CCR, Chapter 3, Subchapter 5. Specifically, the multilayer cap requirements for on-site closure, which includes a 2-foot foundation layer, a low hydraulic conductivity layer, and a 1-foot erosion-resistant layer. Alternative 1 is retained for comparative purposes if an approved closure plan does exist or if this alternative would be considered appropriate and approved by the LEA, RWQCB, and other applicable agencies.

7.1.1. Effectiveness

Alternative 1 would minimize the potential for exposure to contaminants present at the site and would prevent exposure or continued erosion of waste materials from the site, thereby minimizing the potential for future or continued downstream releases. Appropriately designed and maintained surface water drainage and vegetative maintenance would limit future erosion of the cover materials and reduce the potential for future releases. This alternative would not prevent surface water infiltration through waste materials or minimize the potential for leachate development. This alternative would require long-term operation and maintenance (O&M) of the cover to ensure that no release of contaminants occurs in the future. Overall, an on-site native cover is considered effective in addressing exposed wastes and immediate threats to surface water, but not effective in addressing potential future releases to groundwater.

7.1.2. Implementability

Alternative 1 would be easily implemented using readily available equipment and technologies. The implementation phase of the project would require additional time prior to construction to design the cover and to ensure regulatory agency and community input on the design. The area of contaminated soil is relatively flat, and access to the site is easily achieved. No confirmation soil samples would be required.

Regulatory agency and community acceptance of this alternative is questionable because it would not meet the closure requirements of Title 27 CCR.

7.1.3. Cost

The present value for Alternative 1 is approximately $486,973. A cost breakdown for this alternative is presented in Appendix F. The following major assumptions were identified for this alternative:

- The total area estimated to be capped with 2 feet of native soil is 107,569 square feet.
- Site personnel would consist of a site engineer, a site superintendent, two operators, and three laborers.
- The estimated duration of field activities for cap installation is 16 workdays.
- An estimated $81,893 (present value) is assumed for long-term inspection and maintenance of the cap over the next 10 years, plus an additional 5 percent for project management tasks, and 20 percent contingency (EPA, 2000)[3].
- A value of 20 percent of the capital cost has been assumed for bid and scope contingency.

7.2. ALTERNATIVE 2: ON-SITE CAPPING

Alternative 2 involves placement of a multi-layer cap over the existing site (approximately 2.47 acres) without excavating or transporting any contaminated materials. As noted in Title 27 CCR, Chapter 3, Subchapter 5, regarding the requirements for cover material over portions of historic waste management units, "…if a portion of a Unit was completely closed in accordance with an approved closure plan by November 27, 1984, the cover over the closed portion does not need to be modified to conform to the SWRCB's additional closure requirements in these regulations, unless monitoring data indicate impairment of beneficial uses of ground water."

To date, no closure documentation for the Ramona Burn Dump Site has been obtained. In the absence of required closure documentation, it is likely that the site will be required to meet the closure requirements of Title 27 CCR, Chapter 3, Subchapter 5. Specifically, the multilayer cap requirements for on-site closure, which include a 2-foot foundation layer, a low hydraulic conductivity layer, and a 1-foot erosion-resistant layer.

To install the multilayer cap, the site would be cleared and grubbed, a 2-foot foundation layer would be installed and compacted, a linear low-density polyethylene (LLDPE) liner would be installed, followed by installation and compaction of an additional 1-foot-thick cap of clean soil and hydroseeding. For this analysis of alternatives, it was assumed on-site closure would require importing and compacting 1.5 feet of clean fill, which would be combined with native cover material to create the 2-foot foundation layer. Installation of the top foot of imported fill would create the erosion-resistant (vegetative) layer. A pre-construction cap design and long-term maintenance of the cap would be required.

[3] Using an annual discount rate of 2.7 percent http://www.whitehouse.gov/omb/circulars_a094_a94_appx-c/

7.2.1. Effectiveness

Alternative 2 is a proven alternative and would minimize the potential for exposure to contaminants present at the site and would prevent surface water infiltration through waste materials, thereby minimizing the potential for leachate development. This alternative would require long-term O&M of the cap to ensure that no release of contaminants occurs in the future. Overall, on-site containment and capping is considered effective in addressing COCs at the site.

7.2.2. Implementability

Alternative 2 may be easily implemented using readily available equipment and technologies. The implementation phase of the project would require additional time prior to construction to design the cap and to ensure regulatory agency and community input on the design. The burn dump area is relatively flat, and access to the site is easily achieved. No confirmation sampling would be required, but long-term O&M would be required.

Regulatory agency and community acceptance of this alternative is considered high because the site is not accessible to the public and the risk of exposure to contaminants is low.

7.2.3. Cost

The present value for Alternative 2 is approximately $680,491. A cost breakdown for this alternative is presented in Appendix F. The following major assumptions were identified for this alternative:

- The total area estimated to be capped is 107,569 square feet.
- Site personnel would consist of a site engineer, a site superintendent, two operators, and three laborers.
- The estimated duration of field activities for cap installation is 10 workdays.
- An estimated $95,744 (present value) is assumed for long-term inspection and maintenance of the cap over the next 10 years, plus an additional 5 percent for project management tasks, and 20 percent contingency (EPA, 2000)[4].
- A value of 20 percent of the capital cost has been assumed for bid and scope contingency.

7.3. ALTERNATIVE 3: ON-SITE CONSOLIDATION AND CAPPING

Alternative 3 involves (1) excavation of waste materials from the steepest portion of the site where waste is the thinnest, the eastern (downslope) portion of the site (Areas 5, 7, and 8, and the portion of Area 6 east of TR-8 on Figure 3) and (2) consolidation of excavated materials on the western portion of the site. Consolidating waste within the thickest and flattest portion of the site was evaluated for its potential to simplify grading work and installation of the multi-layer cap and to reduce the likelihood of erosion at the

[4] Using an annual discount rate of 2.7 percent http://www.whitehouse.gov/omb/circulars_a094_a94_appx-c/

downslope toe of the landfill. This alternative would require the excavation of approximately 3,200 cubic yards of material and consolidating it over an area of approximately 85,000 square feet. Excavation and consolidation would be followed by installation of a multilayer cap, as described for Alternative 2.

To install the multilayer cap, the site would be cleared and grubbed, a 2-foot foundation layer would be installed and compacted, and an LLDPE liner would be installed, followed by installation and compaction of an additional 1-foot-thick cap of clean soil and hydroseeding. For the analysis of this alternative, it was assumed on-site closure would require importing and compacting 1.5 feet of clean fill, which would be combined with native cover material to create the 2-foot foundation layer. Installation of the top foot of imported fill would create the erosion-resistant (vegetative) layer.

For this alternative, a repository design would be required prior to implementation of the remedy, as well as long-term maintenance of the cap. Soil samples would be collected following the removal of waste in areas to be consolidated to confirm that remaining concentrations of contaminants are less than cleanup goals.

7.3.1. Effectiveness

Alternative 3 is a proven alternative and would minimize the potential for exposure to contaminants present at the site. As with Alternative 2, this alternative would minimize the potential for exposure to contaminants present at the site and would prevent surface water infiltration through waste materials, thereby minimizing the potential for leachate development. This alternative would require long-term O&M of the cap to ensure that no release of contaminants occurs in the future. Overall, on-site containment and capping is considered effective in addressing COCs at the site.

7.3.2. Implementability

As with Alternative 2, Alternative 3 may be easily implemented using readily available equipment and technologies. The implementation phase of the project would require additional time prior to construction of the repository to design the repository and to ensure regulatory agency and community input on the design. This alternative would have a higher risk for short-term exposure of workers than Alternative 1, because site workers would be exposed to waste materials during excavation and consolidation. However, with proper procedures in place to protect workers, any risk from implementation of the alternative would be minimized.

The area of contaminated soil is relatively flat and would allow for stockpiling prior to disposal. Collection of confirmation samples from the area where soil was being removed would be required.

Regulatory agency and community acceptance of this alternative is considered high because the site is not accessible to the public and the risk of exposure to contaminants is low.

7.3.3. Cost

The total capital cost for Alternative 3 is approximately $895,370. A cost breakdown for this alternative is presented in Appendix F. The following major assumptions were identified for this alternative:

- The total area estimated to be excavated is 23,785 square feet, with a total waste volume to be excavated of approximately 3494 cubic yards.
- The total area estimated to be capped is 83,784 square feet.
- Site personnel would consist of a site engineer, a site superintendent, two operators, and three laborers.
- The estimated duration of field activities for waste consolidation and cap installation is 27 workdays.
- An estimated $91,530 (present value) is assumed for long-term inspection and maintenance of the cap over the next 10 years, plus an additional 5 percent for project management tasks, and 20 percent contingency (EPA, 2000)[5].
- A value of 20 percent of the capital cost has been assumed for bid and scope contingency.

7.4. ALTERNATIVE 4: REMOVAL AND OFF-SITE DISPOSAL

Alternative 4 involves excavation of all contaminated burn ash, waste, and soil, followed by transportation and disposal at an approved off-site facility. It is estimated that approximately 24,000 cubic yards of material would be excavated. Following excavation, soil samples would be collected to confirm that remaining concentrations of contaminants in soil were less than cleanup goals. This alternative would require preparation of a clean closure plan. No monitoring would be required following completion of this alternative.

7.4.1. Effectiveness

Alternative 4 is a proven alternative and would permanently reduce contaminants on site. This alternative is effective in both the short- and long-term in achieving cleanup goals for the site. Overall, the off-site disposal alternative is considered the most effective in addressing contaminated soils at the site because no contaminants would remain on site.

7.4.2. Implementability

Alternative 4 may be easily implemented using readily available equipment and technologies. The area of contaminated soil is relatively flat and would allow for stockpiling of soil for sampling prior to disposal. As with Alternative 3, this alternative would have a higher risk for short-term exposure of workers than Alternative 2, because site workers would be exposed to waste materials during excavation and consolidation. However, with proper procedures in place to protect workers, any risk from

[5] Using an annual discount rate of 2.7 percent http://www.whitehouse.gov/omb/circulars_a094_a94_appx-c/

implementation of the alternative would be minimized. Stockpile samples would be collected for approximately every 500 cubic yards of stockpiled soil and analyzed to meet disposal standards for the receiving facility. Depending on the results of the stockpile sampling, the material could be classified either as RCRA hazardous, Class I or non-RCRA hazardous, or Class II nonhazardous waste. Analytical results from the PA/SI indicate that most of the waste would likely be classified as Class I non-RCRA hazardous waste.

Regulatory agency and community acceptance of this alternative is considered high because this alternative would permanently remove contaminants from the site.

7.4.3. Cost

The total capital cost for Alternative 4 is approximately $4,961,803. Based on the results of leachability testing conducted during the PA/SI, it is assumed that all waste would be classified as Class I non-RCRA hazardous waste. This assumption is based on the leachability testing conducted as part of this PA/SI (Section 4.1.6). Based on the analytical results, it is not likely that any waste would be classified as RCRA hazardous waste. It is possible that a small portion (10 to 20 percent) of the waste would be classified as Class II non hazardous waste, in which case the costs for this alternative would be reduced slightly. A cost breakdown for this alternative is presented in Appendix F. The following major assumptions were identified for this alternative:

- The total volume of waste to be excavated and disposed of off site is approximately 31,000 tons.
- All waste is assumed to be classified as Class I non-RCRA hazardous waste for disposal purposes.
- Site personnel would consist of a site engineer, a site superintendent, three operators, and three laborers.
- The estimated duration of field activities for waste consolidation and cap installation is 27 workdays.
- Assumes 5 percent for project management tasks, and 20 percent contingency (EPA, 2000).
- A value of 20 percent of the capital cost has been assumed for bid and scope contingency.

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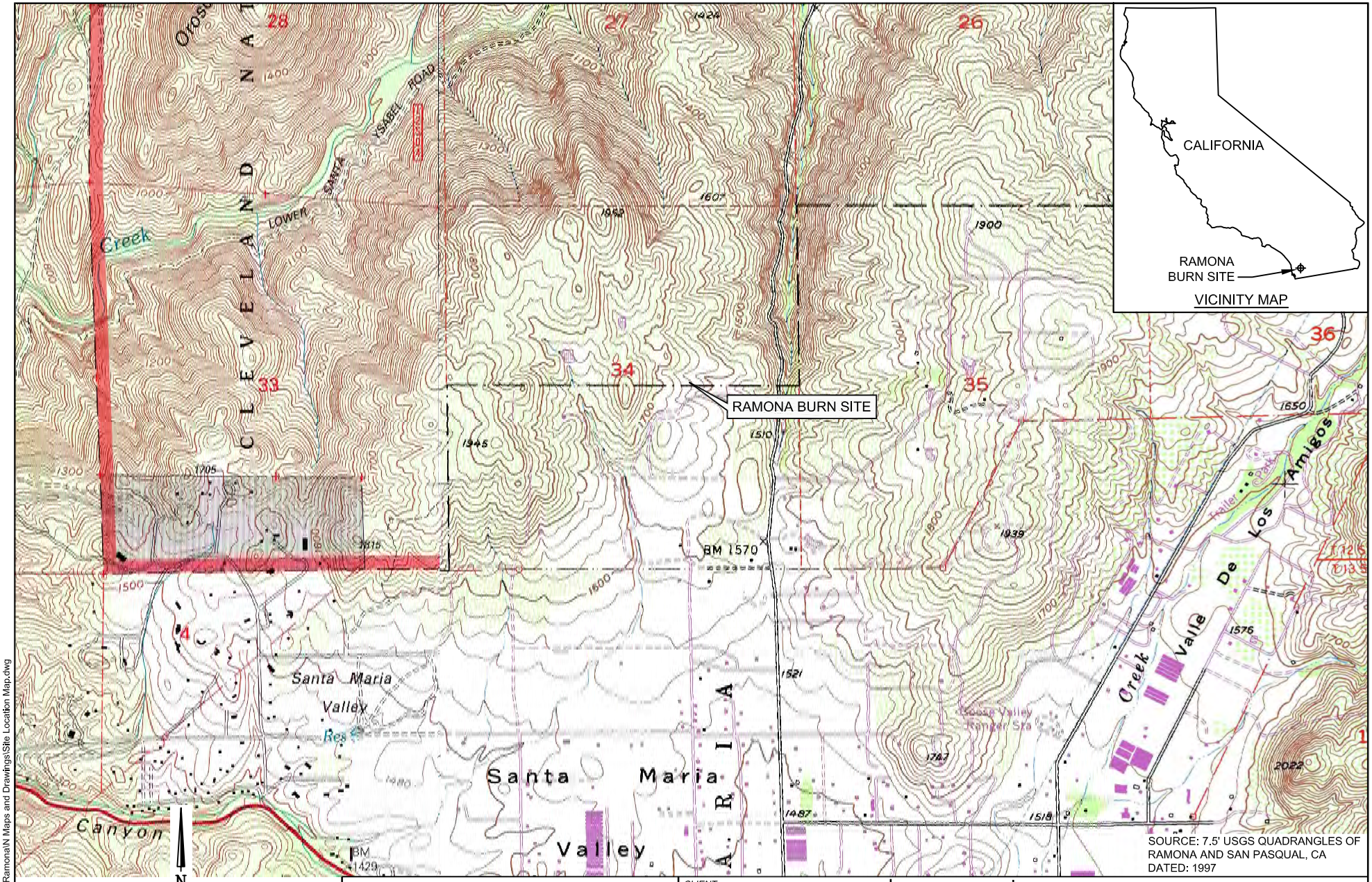
Figures



SOURCE: 7.5' USGS QUADRANGLES OF RAMONA AND SAN PASQUAL, CA DATED: 1997

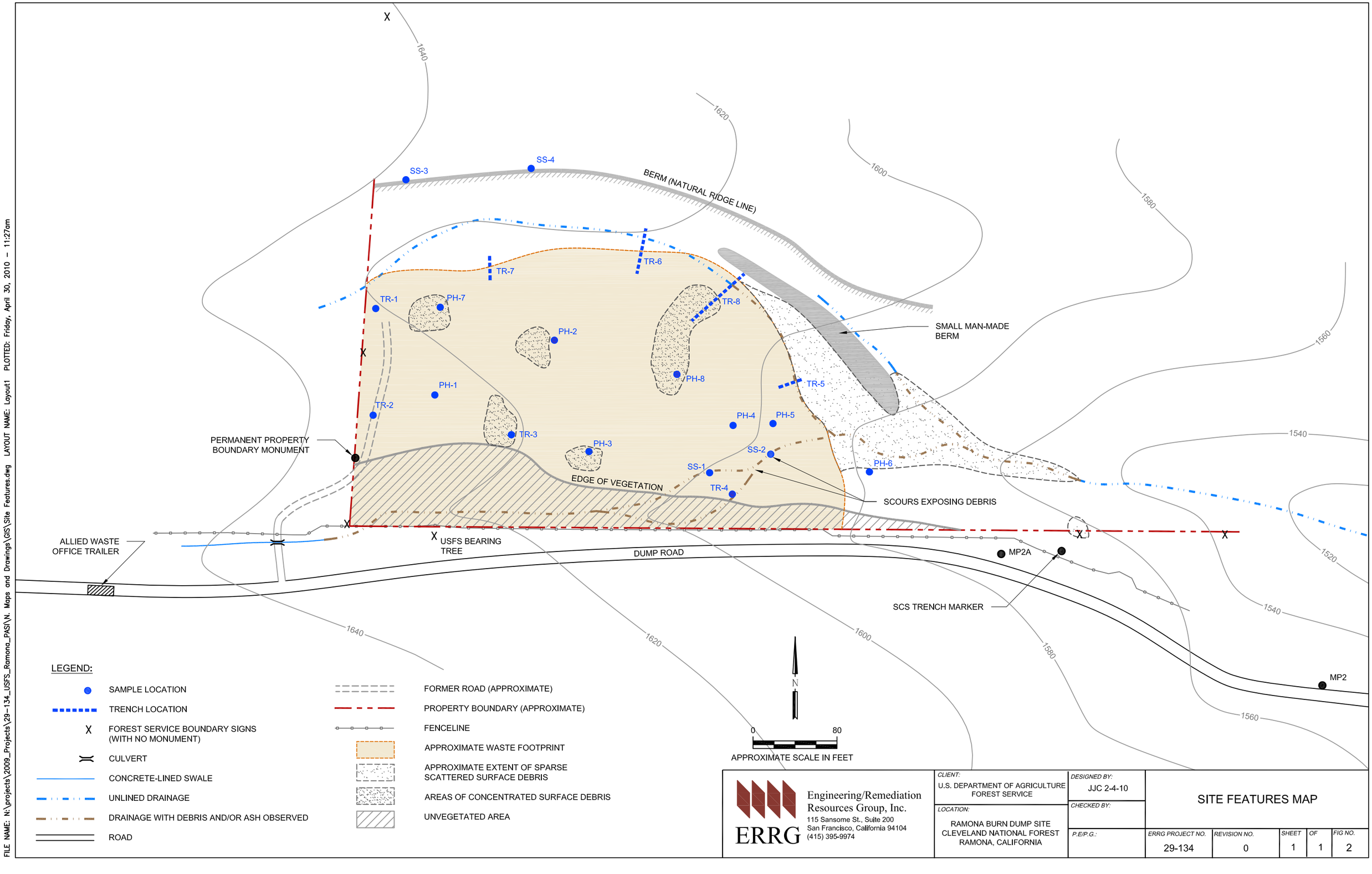
N:\2009 Projects\29-134 USFS RamonaIN Maps and Drawings\Site Location Map.dwg

ERRG
Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	US DEPARTMENT OF AGRICULTURE FOREST SERVICE
LOCATION:	RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA
DESIGNED BY:	RDB 8-18-09
CHECKED BY:	AHU 8-19-09
P.E/P.G.:	AHU 8-19-09

SITE LOCATION MAP

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	1



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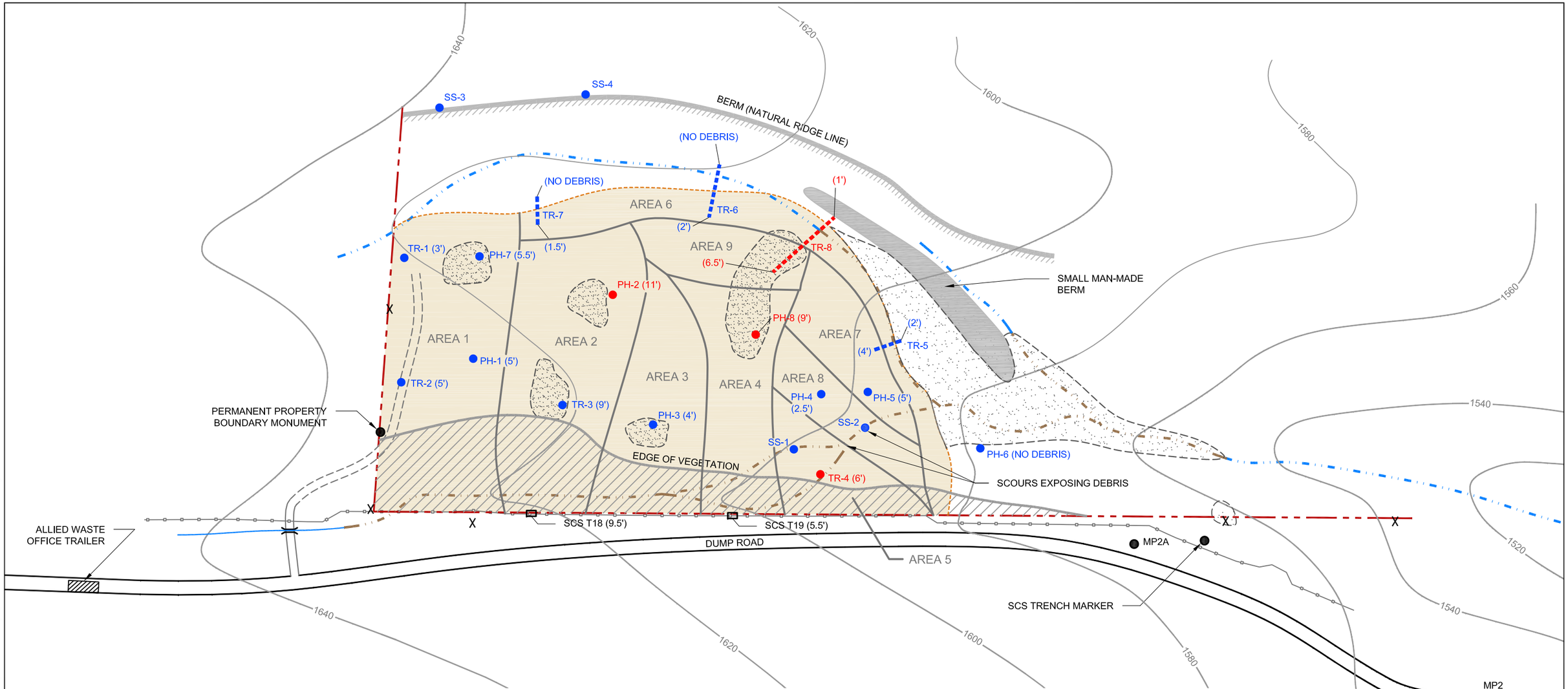
ERRG

Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT:	U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
LOCATION:	RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA
DESIGNED BY:	JJC 2-4-10
CHECKED BY:	
P.E/P.G.:	

SITE FEATURES MAP

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	2



LEGEND:

- SAMPLE LOCATION (DEPTH OF DEBRIS)
- TRENCH LOCATION
- METAL CONCENTRATIONS EXCEEDED CALIFORNIA TTLC HAZARDOUS WASTE CRITERIA
- (1.5') DEPTH OF DEBRIS
- WASTE ZONE BOUNDARY
- X FOREST SERVICE BOUNDARY SIGNS (WITH NO MONUMENT)
- CULVERT
- CONCRETE-LINED SWALE
- UNLINED DRAINAGE
- DRAINAGE WITH DEBRIS AND/OR ASH OBSERVED
- ROAD
- FORMER ROAD (APPROXIMATE)
- PROPERTY BOUNDARY (APPROXIMATE)
- FENCELINE
- APPROXIMATE WASTE FOOTPRINT
- APPROXIMATE EXTENT OF SCATTERED SURFACE DEBRIS / REDUCED VEGETATION
- AREAS OF CONCENTRATED SURFACE DEBRIS
- UNVEGETATED AREA

N

0 80

APPROXIMATE SCALE IN FEET

Landfill Sub-Area	Area, sf	Depth of debris, ft	Volume, cy
Area 1	24270.6	5.0	4494.6
Area 2	21689.0	10.0	8033.0
Area 3	13127.4	4.0	1944.8
Area 4	11621.6	9.0	3873.9
Area 5	6757.8	6.0	1501.7
Area 6	11368.9	2.0	842.1
Area 7	6728.2	4.5	1121.4
Area 8	5818.1	2.5	538.7
Area 9	6187.1	6.5	1489.5
Totals	**107568.7**		**23839.6**

ERRG

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CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: JJC 2-10-10

CHECKED BY: SJS 2-10-10

P.E/P.G.: SJS 2-10-10

ESTIMATED VOLUME OF ASH AND WASTE BY AREA

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	3

FILE NAME: N:\projects\2009_Projects\29-134_USFS_Ramona_PAS\N. Maps and Drawings\Site Features with ISO Lines.dwg LAYOUT NAME: Layout1 PLOTTED: Friday, April 30, 2010 - 11:47am

Tables

Table 1. Observed Extent of Burn Ash and Waste

Location ID No. (see Figure 3)	Type of Excavation	Depth to Debris (feet bgs)	Depth of Debris (feet)	Debris Thickness (feet)
PH-1	Pothole	0.25	5	4.75
PH-2	Pothole	0.25	11.25	11
PH-3	Pothole	0.25	4	3.75
PH-4	Pothole	0.42	2.5	2.08
PH-5	Pothole	0.25	5	4.75
PH-6	Pothole	None Found	NA	NA
PH-7	Pothole	0	5.5	5.5
PH-8	Pothole	0.25	9	9
TR-1	Pothole	0.66	3	1
TR-2	Pothole	0.66	5	3
TR-3	Pothole	0.75	9	8
TR-4	Pothole	0.75	6	5.34
TR-5	Trench	0	2.5	2.5
TR-6	Trench	0	0.5	1.5
TR-7	Trench	1.5	2–3	3.5–4.5
TR-8	Trench	0.5–1	2.5–6.5	2–5.5

Notes: Native material (Decomposed Granite) was encountered beneath debris for all trenches and potholes
bgs = below ground surface
NA = not applicable

Table 2. Metals Concentrations Exceeding Screening Criteria

Location ID No.	Sample Depth (feet bgs)	Concentration (mg/kg)	Material Type	Screening Criteria
Arsenic				
PH-1F	Surface	5.1	Cap	Lowest Background Concentration = ND BLM criteria for wildlife = 275 mg/kg EPA Industrial RSL = 1.6 mg/kg TTLC = 500 mg/kg
PH-2G	3.5	8.3	Waste	
PH-2H	11.25	4.8	Waste	
PH-4J	Surface	4.9	Cap	
PH-7AB	3.5	8.6	Waste	
PH-7AC	5.5	7.2	Waste	
PH-8AH	8	12	Waste	
PH-8AI	9	4	Waste	
TR-1N	2	4.5	Waste	
TR-3S	3	6.2	Waste	
TR-3T	9	5.4	Waste	
TR-4W	6	11	Waste	
TR-5X	2.5	6.5	Non-native fill	
TR-7Z	1.5	18	Waste	
TR-8AD	1	29	Waste	
TR-8AE	3	8.2	Waste	
TR-8AF	6.5	9.4	Waste	
Cadmium				
PH-1F	Surface	3.4	Cap	Lowest Background Concentration = ND BLM criteria for wildlife = 3 mg/kg EPA Industrial RSL = 800 mg/kg TTLC = 100 mg/kg
PH-2G	3.5	10	Waste	
TR-3S	3	6.6	Waste	
TR-3T	9	6.3	Waste	
TR-7Z	1.5	4.2	Waste	
PH-7AB	3.5	3.9	Waste	
PH-7AC	5.5	3.8	Waste	
TR-8AD	1	5	Waste	
TR-8AE	3	4.4	Waste	
PH-8AH	8	8.3	Waste	
PH-8AI	9	3.6	Waste	

Table 2. Metals Concentrations Exceeding Screening Criteria *(continued)*

Location ID No.	Sample Depth (feet bgs)	Concentration (mg/kg)	Material Type	Screening Criteria
Copper				
PH-1F	Surface	200	Cap	Lowest Background Concentration = 37 mg/kg BLM criteria for wildlife = 136 mg/kg EPA Industrial RSL = 41,000 mg/kg TTLC = 2,500 mg/kg
PH-2G	3.5	500	Waste	
PH-2H	11.25	770	Waste	
PH-5K	4.5	190	Waste	
TR-1N	2	190	Waste	
TR-3S	3	290	Waste	
TR-3T	9	200	Waste	
TR-4V	3	160	Waste	
TR-4W	6	300	Waste	
TR-5X	2.5	140	Non-native fill	
TR-7Z	1.5	360	Waste	
PH-7AB	3.5	250	Waste	
PH-7AC	5.5	290	Waste	
TR-8AD	1	290	Waste	
TR-8AE	3	290	Waste	
TR-8AF	6.5	220	Waste	
PH-8AH	8	870	Waste	
PH-8AI	9	240	Waste	
Lead				
SS-1A	Surface	120	Waste in drainage	Lowest Background Concentration = 3.5 mg/kg BLM criteria for wildlife = 125 mg/kg EPA Industrial RSL = 800 mg/kg TTLC = 1,000 mg/kg
PH-1F	Surface	470	Cap	
PH-2G	3.5	1,000	Waste	
PH-2H	11.25	650	Waste	
PH-4J	Surface	230	Ash at surface	
PH-5K	4.5	300	Waste	
TR-1N	2	340	Waste	
TR-3S	3	550	Waste	
TR-3T	9	380	Waste	
TR-4V	3	240	Waste	
TR-4W	6	2,300	Waste	
TR-5X	2.5	390	Waste	
TR-7Z	1.5	680	Waste	
PH-7AA	Surface	200	Waste at surface	
PH-7AB	3.5	650	Waste	
PH-7AC	5.5	550	Waste	

Table 2. Metals Concentrations Exceeding Screening Criteria *(continued)*

Location ID No.	Sample Depth (feet bgs)	Concentration (mg/kg)	Material Type	Screening Criteria
Lead *(continued)*				
TR-8AD	1	1,100	Waste	*(see above)*
TR-8AE	3	660	Waste	
TR-8AF	6.5	390	Waste	
PH 8-AG	Surface	200	Cap	
PH-8-AH	8	620	Waste	
PH-8AI	9	1,700	Waste	
Zinc				
SS-1A	Surface	350	Waste in drainage	Lowest Background Concentration = 17 mg/kg BLM criteria for wildlife = 307 mg/kg EPA Industrial RSL = 310,000 mg/kg TTLC = 5,000 mg/kg
PH-1F	Surface	1,300	Cap	
PH-2G	3.5	6,400	Waste	
PH-2H	11.25	1,400	Waste	
PH-4J	Surface	740	Ash at surface	
PH-5K	4.5	680	Waste	
TR-1N	2	950	Waste	
TR-3S	3	2,100	Waste	
TR-3T	9	2,300	Waste	
TR-4V	3	600	Waste	
TR-4W	6	1,400	Waste	
TR-5X	2.5	840	Non-native fill	
TR-7Z	1.5	1,700	Waste	
PH-7AA	Surface	590	Waste at surface	
PH-7AB	3.5	1,700	Waste	
PH-7AC	5.5	1,500	Waste	
TR-8AD	1	2,300	Waste	
TR-8AE	3	1,600	Waste	
TR-8AF	6.5	1,500	Waste	
PH 8-AG	Surface	540	Cap	
PH-8-AH	8	2,500	Waste	
PH-8-AI	9	1,500	Waste	

Notes:
bgs = below ground surface
BLM = Bureau of Land Management
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilogram
RSLs = regional screening levels
TTLC = total threshold limits concentration

Table 3. Leachability Testing Results

Sample ID No.	Metal Tested	Total Metals (mg/L)	WET Result (mg/L)	TCLP result (mg/L)	Waste Classification
PH-1F	Lead	470	75	0.25	California Hazardous Waste (non-RCRA)
PH-8AG	Lead	200	6.7	ND (<2.0)	California Hazardous Waste (non-RCRA)
TR-4W	Lead	2,300	11	0.13	California Hazardous Waste (non-RCRA)
TR-4W	Copper	300	24	ND	Nonhazardous

Notes:
mg/L = milligrams per liter
ND = not detected
TCLP = toxicity characteristic leaching procedure
WET = waste extraction test

Table 4. SVOCs Detected in Sample TR-3S

SVOC	Concentration (mg/kg)	EPA RSL (mg/kg)
Anthracene	0.14	170,000
Benzo(a)pyrene	0.092	0.21
Benzo(b)fluoranthene	0.17	0.21
Benzo(g,h,i)perylene	0.23	N/A
Chrysene	0.076	210
Indeno(1,2,3-cd) pyrene	0.13	2.1
Fluoranthene	0.14	22,000
Pentachlorophenol	0.49	9
Pyrene	0.13	17,000

Table 5. PCB Sample Concentrations

Sample ID No.	Sample Depth (feet bgs)	PCB Concentration (µg/kg)
PH-2G	3.5	ND
PH-3I	Surface	ND
PH-7AC	5.5	64
PH-8AI	9	ND
TR-3S	3	190
TR-4W	6	1,200

Table 6. TRPH Sample Concentrations

Location ID No.	Sample Depth (feet bgs)	TRPH Concentration (mg/kg)
PH-2G	3.5	ND
PH-3I	Surface	ND
PH-7AC	5.5	ND
PH-8AI	9	150
TR-3S	3	130
TR-4W	6	200

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TRPH = total recoverable petroleum hydrocarbons
µg/kg = micrograms per kilogram

Table 7. Dioxin and Furan Data for Sample PH-2G

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	39	0.34
1,2,3,7,8-PeCDD	110	0.6
1,2,3,4,7,8-HxCDD	82	0.91
1,2,3,6,7,8-HxCDD	140	0.84
1,2,3,7,8,9-HxCDD	62	0.79
1,2,3,4,6,7,8-HpCDD	620	0.61
OCDD	790*	1
2,3,7,8-TCDF	420	0.53
1,2,3,7,8-PeCDF	290	3.9
2,3,4,7,8-PeCDF	610	4.1
1,2,3,4,7,8-HxCDF	320	2.3
1,2,3,6,7,8-HxCDF	320	2.2
2,3,4,6,7,8-HxCDF	460	2.3
1,2,3,7,8,9-HxCDF	8.8	2.3
1,2,3,4,6,7,8-HpCDF	1,100	0.36
1,2,3,4,7,8,9-HpCDF	29	0.42
OCDF	92	0.32
Total TCDD	2,900	0.34
Total PeCDD	3,700	0.6
Total HxCDD	4,800	0.85
Total HpCDD	1,500	0.61
Total TCDF	7,700	1.5
Total PeCDF	5,200	4
Total HxCDF	3,000	2.3
Total HpCDF	1,300	0.39
TEQ	540	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Table 8. Dioxin and Furan Data for Sample PH-3I

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	ND	0.16
1,2,3,7,8-PeCDD	ND	0.25
1,2,3,4,7,8-HxCDD	ND	0.29
1,2,3,6,7,8-HxCDD	ND	0.27
1,2,3,7,8,9-HxCDD	ND	0.25
1,2,3,4,6,7,8-HpCDD	2.3*	0.19
OCDD	16*	0.31
2,3,7,8-TCDF	0.85*	0.13
1,2,3,7,8-PeCDF	0.21*	0.18
2,3,4,7,8-PeCDF	0.29*	0.19
1,2,3,4,7,8-HxCDF	0.4*	0.29
1,2,3,6,7,8-HxCDF	ND	0.27
2,3,4,6,7,8-HxCDF	0.32*	0.28
1,2,3,7,8,9-HxCDF	ND	0.29
1,2,3,4,6,7,8-HpCDF	1.3*	0.12
1,2,3,4,7,8,9-HpCDF	0.19*	0.14
OCDF	1*	0.3
Total TCDD	0.4	0.16
Total PeCDD	1.3	0.25
Total HxCDD	1.4	0.27
Total HpCDD	4.9	0.19
Total TCDF	3	0.13
Total PeCDF	2	0.18
Total HxCDF	1.4	0.28
Total HpCDF	2.2	0.13
TEQ	0.29	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ND = not detected
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Table 9. Dioxin and Furan Data for Sample PH-7AC

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	1.8	0.11
1,2,3,7,8-PeCDD	6.5	0.14
1,2,3,4,7,8-HxCDD	5	0.16
1,2,3,6,7,8-HxCDD	13	0.14
1,2,3,7,8,9-HxCDD	12	0.15
1,2,3,4,6,7,8-HpCDD	210	0.24
OCDD	1,000	0.38
2,3,7,8-TCDF	24	0.26
1,2,3,7,8-PeCDF	20	0.13
2,3,4,7,8-PeCDF	38	0.13
1,2,3,4,7,8-HxCDF	37	0.14
1,2,3,6,7,8-HxCDF	28	0.13
2,3,4,6,7,8-HxCDF	37	0.14
1,2,3,7,8,9-HxCDF	1.1	0.15
1,2,3,4,6,7,8-HpCDF	120	0.11
1,2,3,4,7,8,9-HpCDF	7.3	0.12
OCDF	58	0.11
Total TCDD	97	0.11
Total PeCDD	130	0.14
Total HxCDD	220	0.15
Total HpCDD	390	0.24
Total TCDF	430	0.063
Total PeCDF	360	0.13
Total HxCDF	260	0.14
Total HpCDF	170	0.12
TEQ	39.7	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ND = not detected
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Table 10. Dioxin and Furan Data for Sample PH-8I

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	11	0.072
1,2,3,7,8-PeCDD	10	0.19
1,2,3,4,7,8-HxCDD	8.4	0.14
1,2,3,6,7,8-HxCDD	20	0.13
1,2,3,7,8,9-HxCDD	18	0.13
1,2,3,4,6,7,8-HpCDD	260	0.41
OCDD	1,100	0.51
2,3,7,8-TCDF	33	0.49
1,2,3,7,8-PeCDF	30	0.22
2,3,4,7,8-PeCDF	55	0.23
1,2,3,4,7,8-HxCDF	48	0.15
1,2,3,6,7,8-HxCDF	42	0.14
2,3,4,6,7,8-HxCDF	50	0.15
1,2,3,7,8,9-HxCDF	1.8	0.17
1,2,3,4,6,7,8-HpCDF	180	0.22
1,2,3,4,7,8,9-HpCDF	11	0.25
OCDF	81	0.18
Total TCDD	160	0.072
Total PeCDD	180	0.19
Total HxCDD	290	0.13
Total HpCDD	480	0.41
Total TCDF	850	0.25
Total PeCDF	700	0.22
Total HxCDF	400	0.15
Total HpCDF	260	0.24
TEQ	65.4	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ND = not detected
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Table 11. Dioxin and Furan Data for Sample TR-3S

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	3.9	0.069
1,2,3,7,8-PeCDD	15	0.3
1,2,3,4,7,8-HxCDD	39	0.26
1,2,3,6,7,8-HxCDD	260	0.23
1,2,3,7,8,9-HxCDD	60	0.23
1,2,3,4,6,7,8-HpCDD	17,000	18
OCDD	220,000*	32
2,3,7,8-TCDF	57	0.27
1,2,3,7,8-PeCDF	47	0.19
2,3,4,7,8-PeCDF	92	0.2
1,2,3,4,7,8-HxCDF	94	0.21
1,2,3,6,7,8-HxCDF	66	0.2
2,3,4,6,7,8-HxCDF	85	0.21
1,2,3,7,8,9-HxCDF	3.4	0.23
1,2,3,4,6,7,8-HpCDF	2,000	0.71
1,2,3,4,7,8,9-HpCDF	97	0.8
OCDF	10,000	6.2
Total TCDD	200	0.069
Total PeCDD	310	0.3
Total HxCDD	3,000	0.24
Total HpCDD	78,000	18
Total TCDF	980	0.13
Total PeCDF	760	0.2
Total HxCDF	1,800	0.21
Total HpCDF	7,600	0.75
TEQ	370	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ND = not detected
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Table 12. Dioxin and Furan Data for Sample TR-4W

Isomer	Concentration (pg/g)	Method Detection Limit
2,3,7,8-TCDD	5.7	0.2
1,2,3,7,8-PeCDD	12	0.17
1,2,3,4,7,8-HxCDD	5.6	0.1
1,2,3,6,7,8-HxCDD	15	0.091
1,2,3,7,8,9-HxCDD	13	0.093
1,2,3,4,6,7,8-HpCDD	220	0.28
OCDD	1,400	0.61
2,3,7,8-TCDF	36	0.35
1,2,3,7,8-PeCDF	26	0.17
2,3,4,7,8-PeCDF	45	0.18
1,2,3,4,7,8-HxCDF	28	0.18
1,2,3,6,7,8-HxCDF	35	0.17
2,3,4,6,7,8-HxCDF	36	0.18
1,2,3,7,8,9-HxCDF	1.4	0.2
1,2,3,4,6,7,8-HpCDF	170	0.18
1,2,3,4,7,8,9-HpCDF	8.8	0.2
OCDF	89	0.16
Total TCDD	91	0.2
Total PeCDD	120	0.17
Total HxCDD	230	0.095
Total HpCDD	400	0.28
Total TCDF	570	0.15
Total PeCDF	480	0.2
Total HxCDF	370	0.19
Total HpCDF	230	0.19
TEQ	54	--

Notes:

HpCDF = heptachlorodibenzofuran
HxCDD = heptachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ND = not detected
OCDD = octachlorodibenzo-p-dioxin
OCDF = octachlorodibenzofuran
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg/g = picograms per gram
TCDD = tetrachlorodibenzo-p-dioxin
TEQ = toxic equivalent quotient
-- = not applicable
*= indicates an estimated value

Appendix A. Photograph Log

Photograph A-1. Site overview from the southwest. Foreground was recently cleared and reseeded as part of the Allied Waste cleanup efforts and was initially assumed to be Allied Waste property.

Photograph A-2. Overview of site from the north (on ridgeline) site looking southwest.

Photograph A-3. Overview of channelized surface water drainage from Allied Waste property onto Forest Service property (left side of photograph). Fenceline is approximate property boundary.

Photograph A-4. Drainage channel erosion along northeastern edge of site.

Photograph A-5. Metal debris in drainage channel along northeastern edge of site.

Photograph A-6. Typical burn ash exposed in potholes.

Photograph A-7. Subsurface metal debris, suspected water heater (PH-2).

Photograph A-8. Layered waste and burn ash deposits (PH-2).

Photograph A-9. Debris exposed in bottom of drainage channel at southeast edge of site.

Photograph A-10. Metal debris and ash mixed with soil (TR-2).

Photograph A-11. Newly eroded gully observed during second site visit along southern edge of site (in area recently hydroseeded by Allied Waste); facing west.

Photograph A-12. Glass, metal, and ceramic debris in newly eroded gully on southern edge of site.

Photograph A-13. Glass, metal, and ceramic debris in newly eroded gully on southern edge of site.

Photograph A-14. Metal surface debris (tank) exposed in drainage east of burn dump site.

Photograph A-15. Metal surface debris (roof of car) exposed in drainage east of burn dump site.

Photograph A-16. Closeup of burn ash and debris exposed in large scour in drainage along northeast edge of site.

Photograph A-17. Surface debris exposed in east of site.

Photograph A-18. Burned, flattened 55-gallon drum in drainage east of site. Drum appears to contain burn ash.

Photograph A-19. Metal surface debris (scatter) along slope south and east of site, near property line (assumed to be historic waste dumped over edge of gully).

Photograph A-20. Property line marker along N-S property line, originally assumed to represent southern extent of Forest Service property.

Appendix B. XRF Field Data

Appendix B

NITON XRF
Model # XLt898D
Serial # 11674
Tag # on gun R9174

Niton Data - Ramona Dump

XRF #	Location	Material	Pb (ppm)	+/-	As (ppm)	+/-	Zn (ppm)
16	PH-1	Waste	138.1	23.7	79.1	20.6	746.7
17	PH-1	Waste	170.4	25.3	ND	N/A	573.7
19	PH-1	Waste/DG Interface	94.4	18.7	ND	N/A	270.9
24	PH-2	Waste	**1090**	73	ND	N/A	4928
26	PH-2	Waste	470.5	38.5	ND	N/A	1623
27	PH-3	Cap	25.9	10.6	ND	N/A	144.5
29	PH-3	Waste	465.4	40.3	ND	N/A	1223
30	PH-4	Cap	232.3	29.8	ND	N/A	738
31	PH-5	Cap	108.8	20.7	ND	N/A	228.4
32	PH-5	Waste	**1262**	74	ND	N/A	1550
33	PH-5	Waste	332.5	34.7	ND	N/A	1044
34	PH-6	Cap	80.1	20.3	ND	N/A	337.4
35	PH-6	Native Material	ND		ND	N/A	ND
36	TR-1	Cap	ND		ND	N/A	36.2
37	TR-1	Waste	406.2	37	ND	N/A	1360
38	TR-1	Waste/DG Interface	36.6	14.3	ND	N/A	115.7
39	TR-2	Cap	ND		ND	N/A	181.7
40	TR-2	Waste/DG Interface	ND		ND	N/A	347.2
43	TR-3	Waste	797.8	51.2	ND	N/A	2745
44	TR-3	Waste	489.1	46.4	77.8	35.3	1621
45	TR-4	Cap	62	19.7	ND	N/A	187.2
46	TR-4	Waste	497.4	42.9	ND	N/A	1697
47	TR-4	Waste	**8470**	196	ND	N/A	2333
49	TR-5	Non-native fill	127.9	22.7	ND	N/A	348.6
50	TR-5	Waste/DG Interface	26.8	137.8	ND	N/A	137.8
53	TR-6	Waste/DG Interface	ND		ND	N/A	ND
54	TR-6	Waste/DG Interface	21	12	ND	N/A	ND
55	TR-6	Waste/DG Interface	ND		ND	N/A	66.6
56	TR-6	Waste/DG Interface	ND		ND	N/A	ND
57	TR-6	Waste/DG Interface	52.4	14.1	ND	N/A	63.3
58	TR-6	Waste/DG Interface	ND		ND	N/A	74.1
59	TR-6	Waste/DG Interface	ND		ND	N/A	ND
60	TR-7	Waste/DG Interface	ND		ND	N/A	57.4
61	TR-7	Waste/DG Interface	ND		ND	N/A	51.6
63	TR-7	Waste	151.8	25.2	ND	N/A	651.9
64	TR-7	Waste	700	50.7	ND	N/A	2123
65	PH-7	Cap	233.1	31.5	ND	N/A	1453
66	PH-7	Waste	504.2	40.8	ND	N/A	2106
68	PH-7	Waste	**1296**	72	ND	N/A	2666
69	TR-8	Waste/DG Interface	24.5	13.9	ND	N/A	93.7
71	TR-8	Waste/DG Interface	30.2	13.4	ND	N/A	102.7
72	TR-8	Waste	**1422**	80	150.8	59.6	4557
73	TR-8	Waste	**1006**	62	74.4	45.4	4632
79	TR-8	Waste/DG Interface	ND		ND	N/A	ND
80	PH-8	Cap	31.8	13.1	ND	N/A	138
81	PH-8	Waste	403.8	39	ND	N/A	4177
82	PH-8	Waste	761.9	52.8	ND	N/A	2947

Notes:

XRF numbers correspond to locations shown on trench and pothole logs (Appendix D)

Lead readings were used as indicator metals for selection of pothole and trench locations

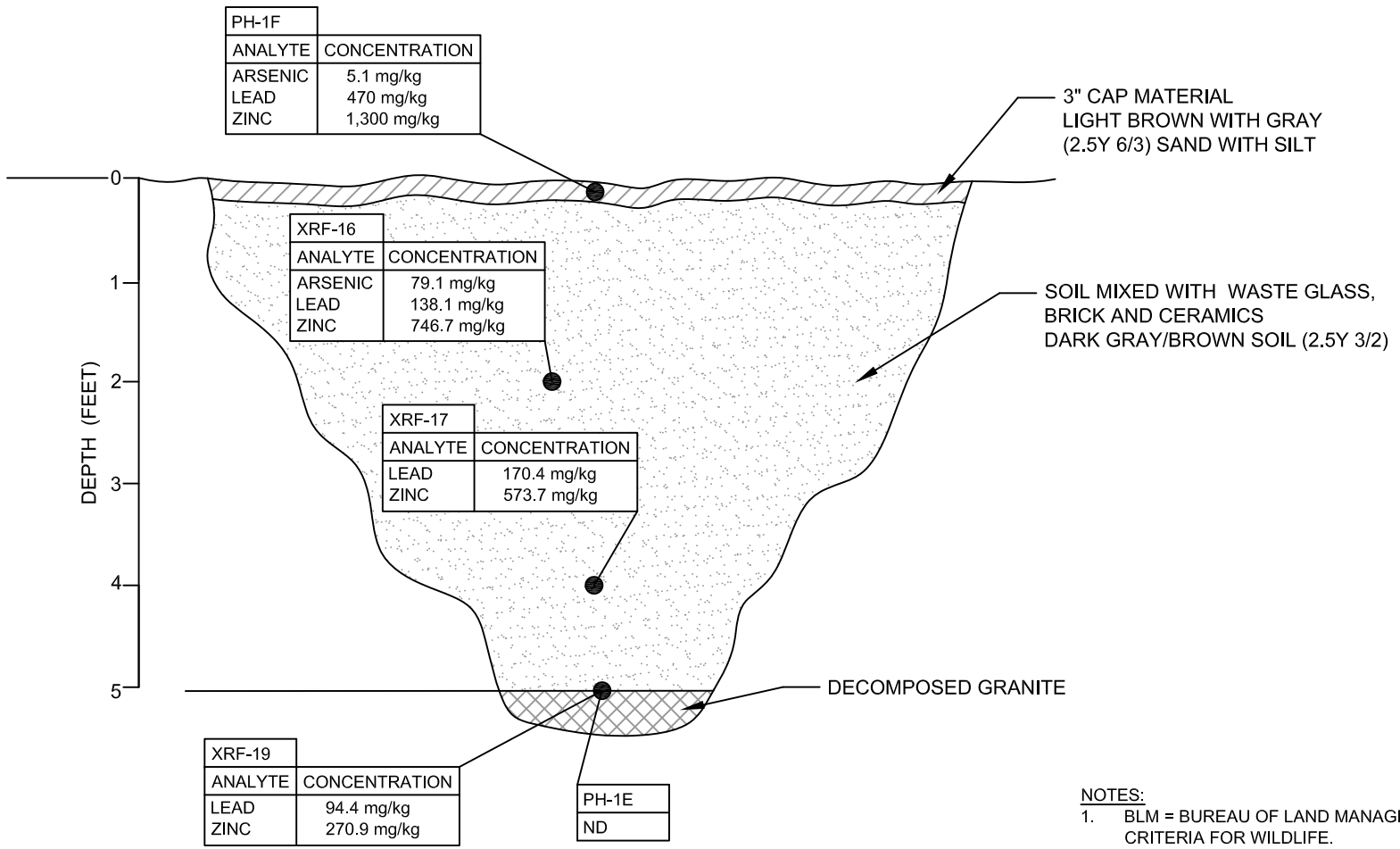
Bold concentrations exceed the TTLC (1,000 ppm)

DG = Decomposed Granite

Highlighted cells indicate lead concentrations are elevated with respect to regional background for lead.

Preliminary background screening of field XRF data was doneby comparing lead concentrations to 3-times regional background concentration (105 ppm; USGS, 2001). Site-specific background levels (As = ND; PB = ND; Zn = 17mg/kg) were used during final screening of the data. XRF data was used for preliminary field screening to estimate the extent of waste and identify areas to be sampled, it is presented here as originally screened. See sections 3.34 and 4 and Table 2 of main text.

Appendix C. Pothole and Trench Logs



NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

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San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: JJC 4/19/10

CHECKED BY: CEG 4/20/10

P.E/P.G.: CEG 4/20/10

POTHOLE 1, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
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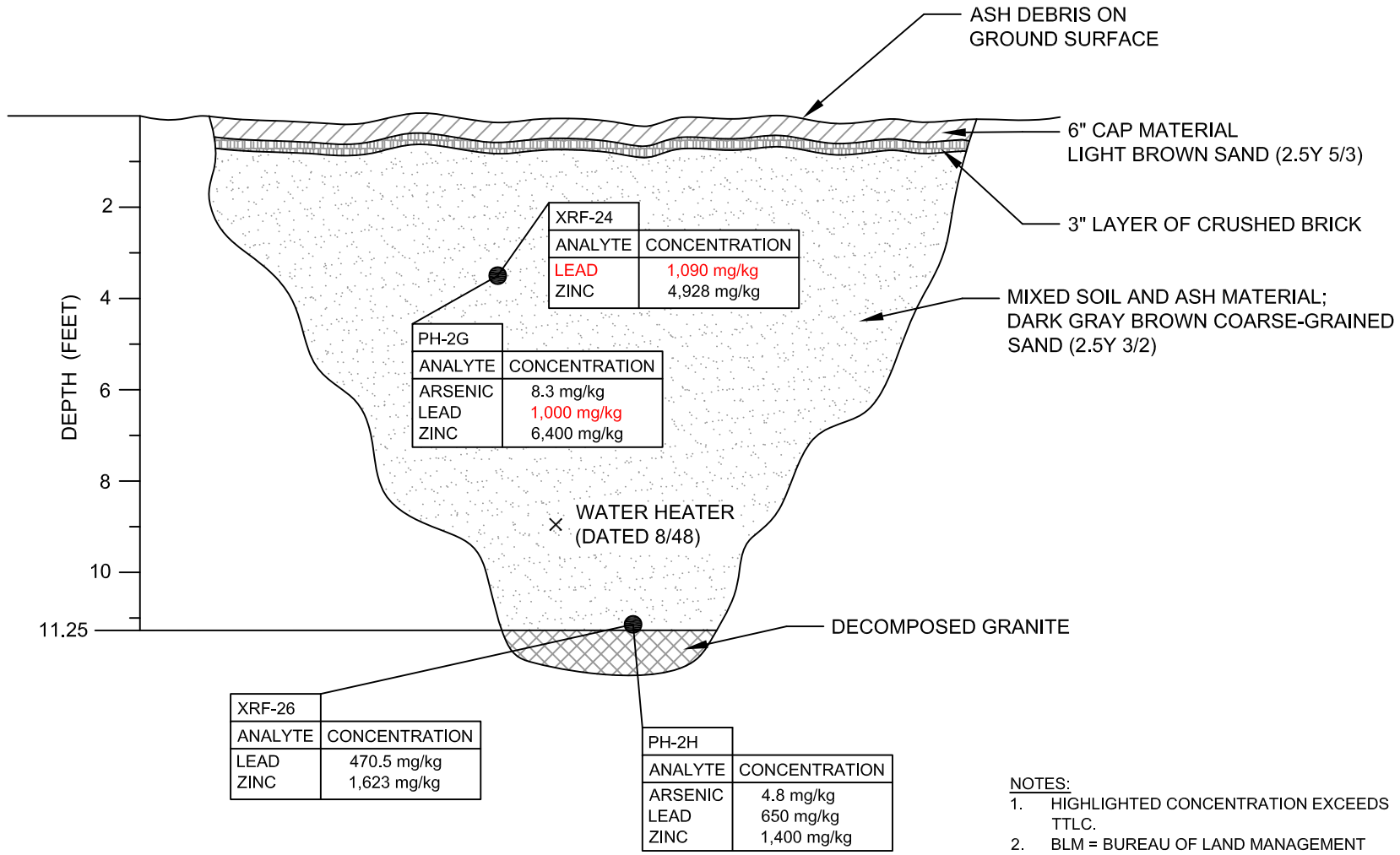

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ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. HIGHLIGHTED CONCENTRATION EXCEEDS TTLC.
2. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
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P.E/P.G.: CEG 4/20/10

POTHOLE 2, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	2

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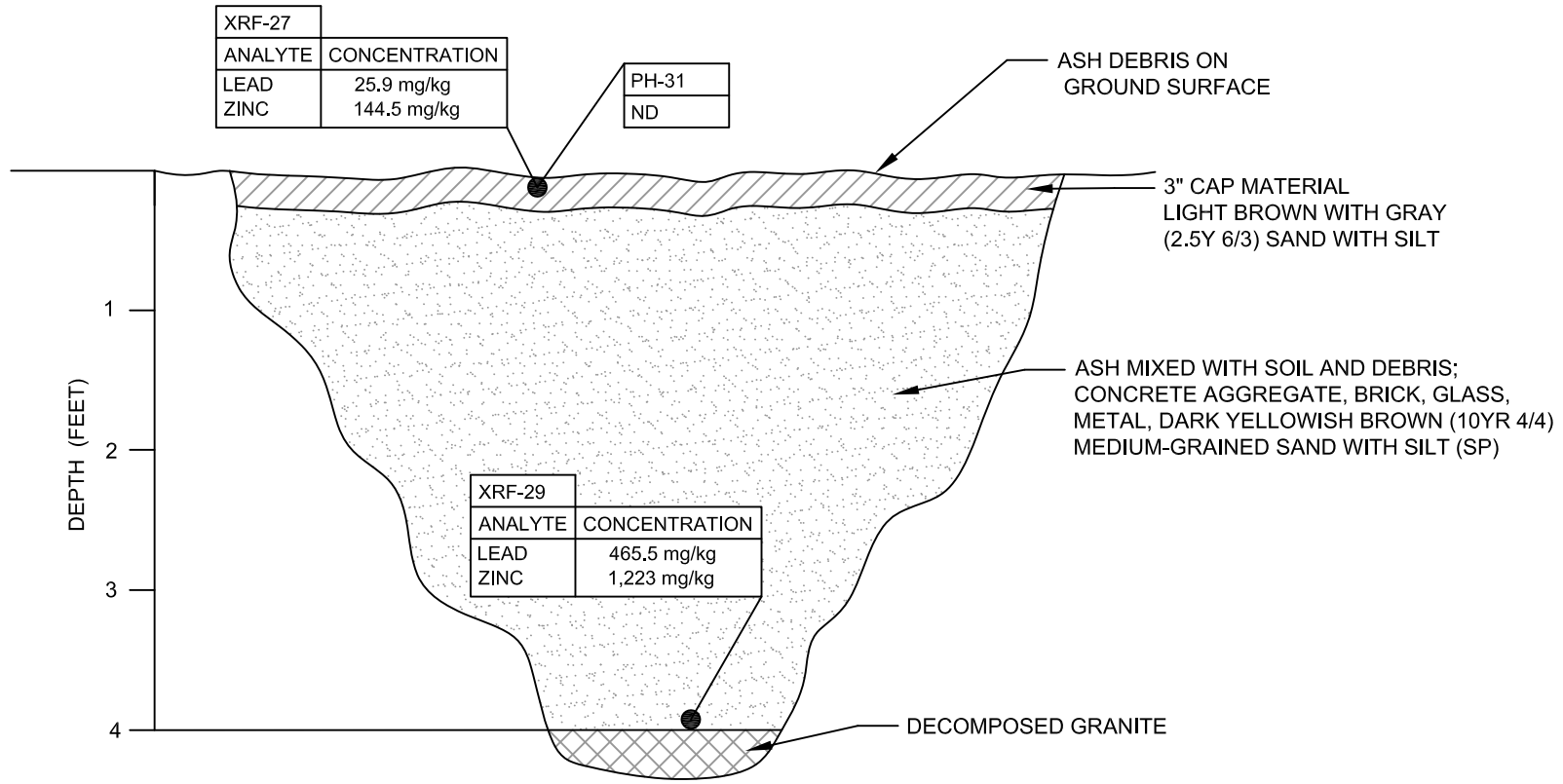

SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
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- TTLC = 500 mg/kg

LEAD
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- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
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3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

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LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

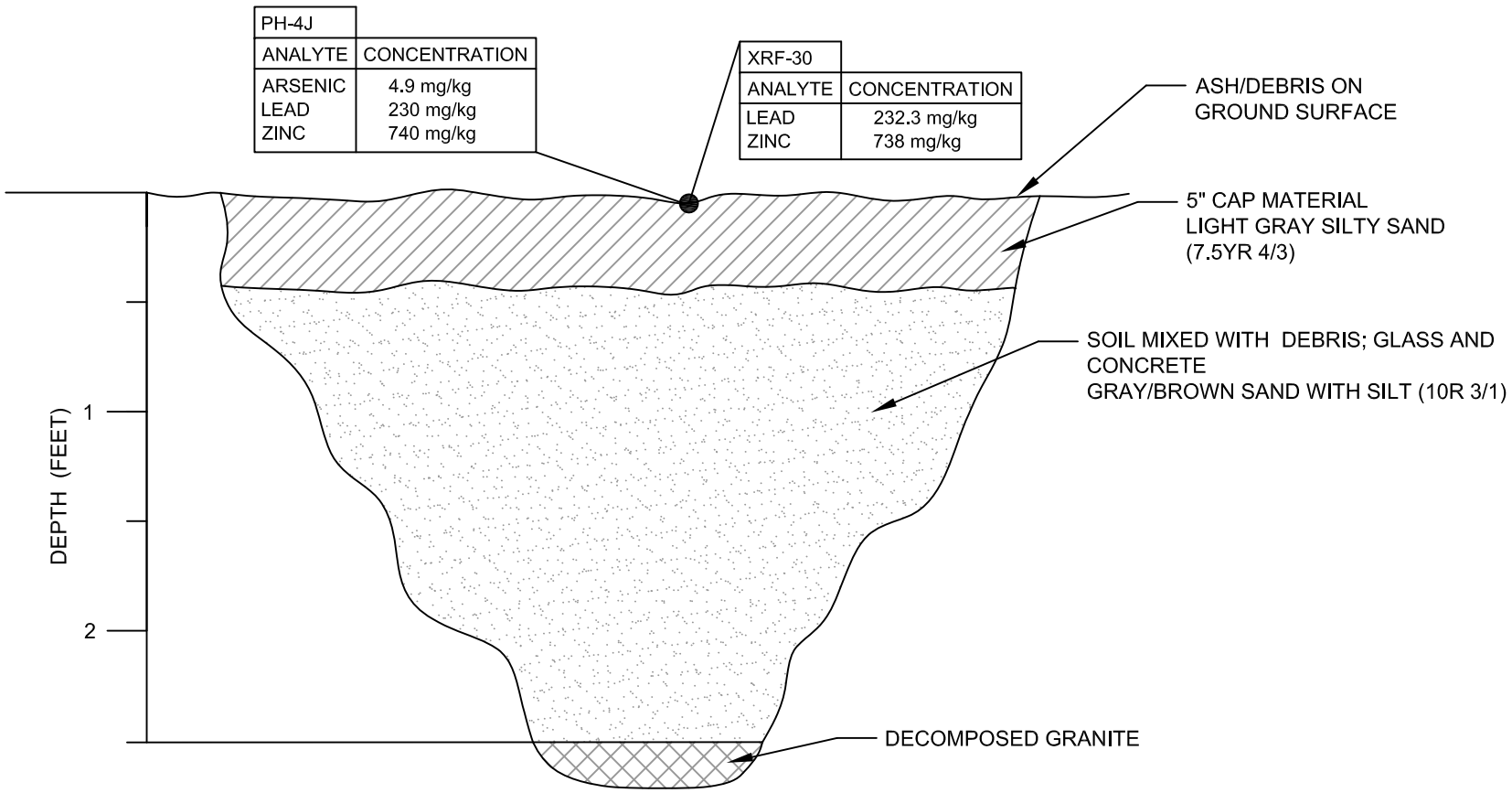
DESIGNED BY: JJC 4/19/10

CHECKED BY: CEG 4/20/10

P.E/P.G.: CEG 4/20/10

POTHOLE 3, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	3



SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
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3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

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LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: JJC 4/19/10

CHECKED BY: CEG 4/20/10

P.E/P.G.: CEG 4/20/10

POTHOLE 4, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	4

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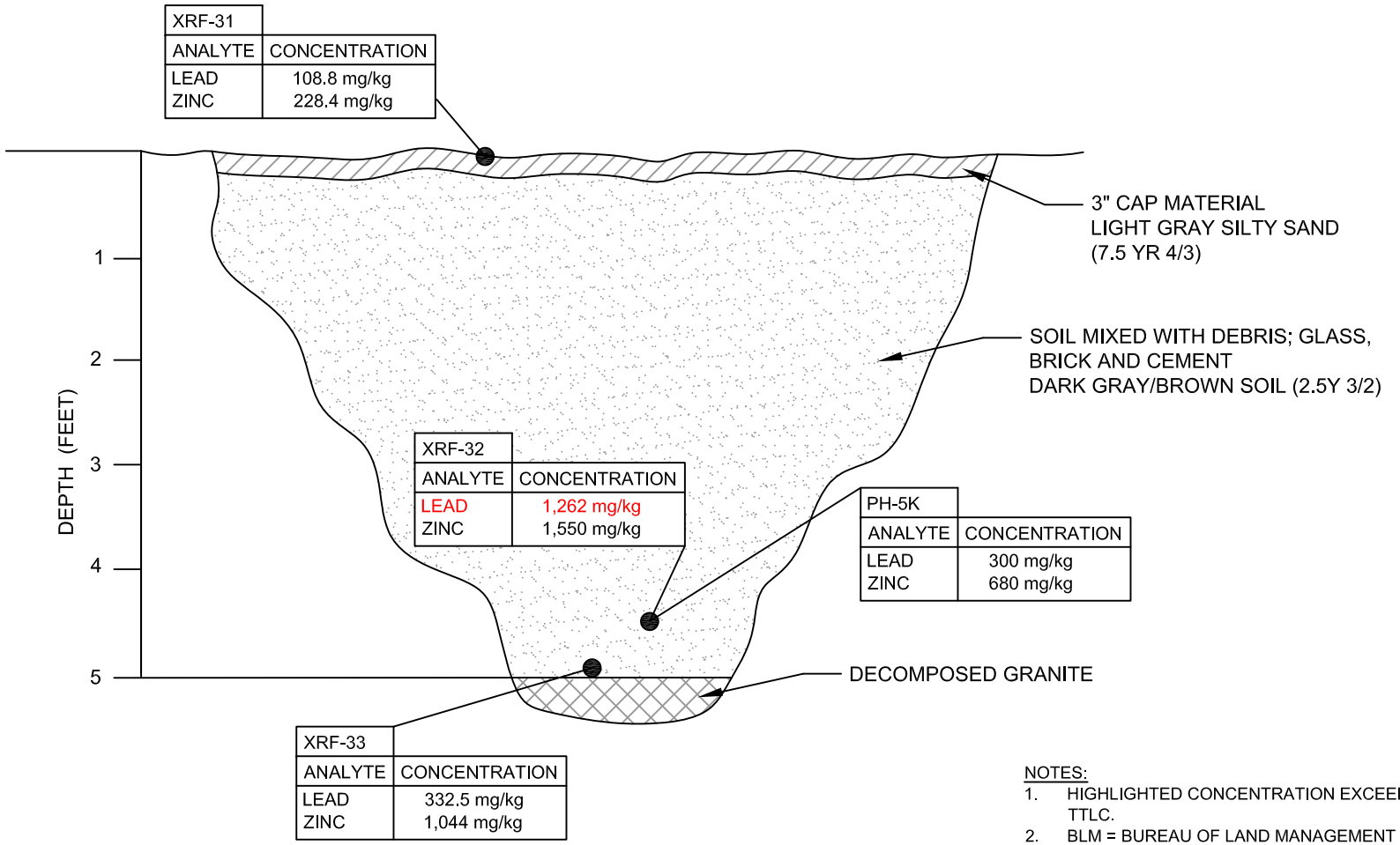

NOTES:
1. HIGHLIGHTED CONCENTRATION EXCEEDS TTLC.
2. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
3. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
4. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

SCREENING CRITERIA:
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LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

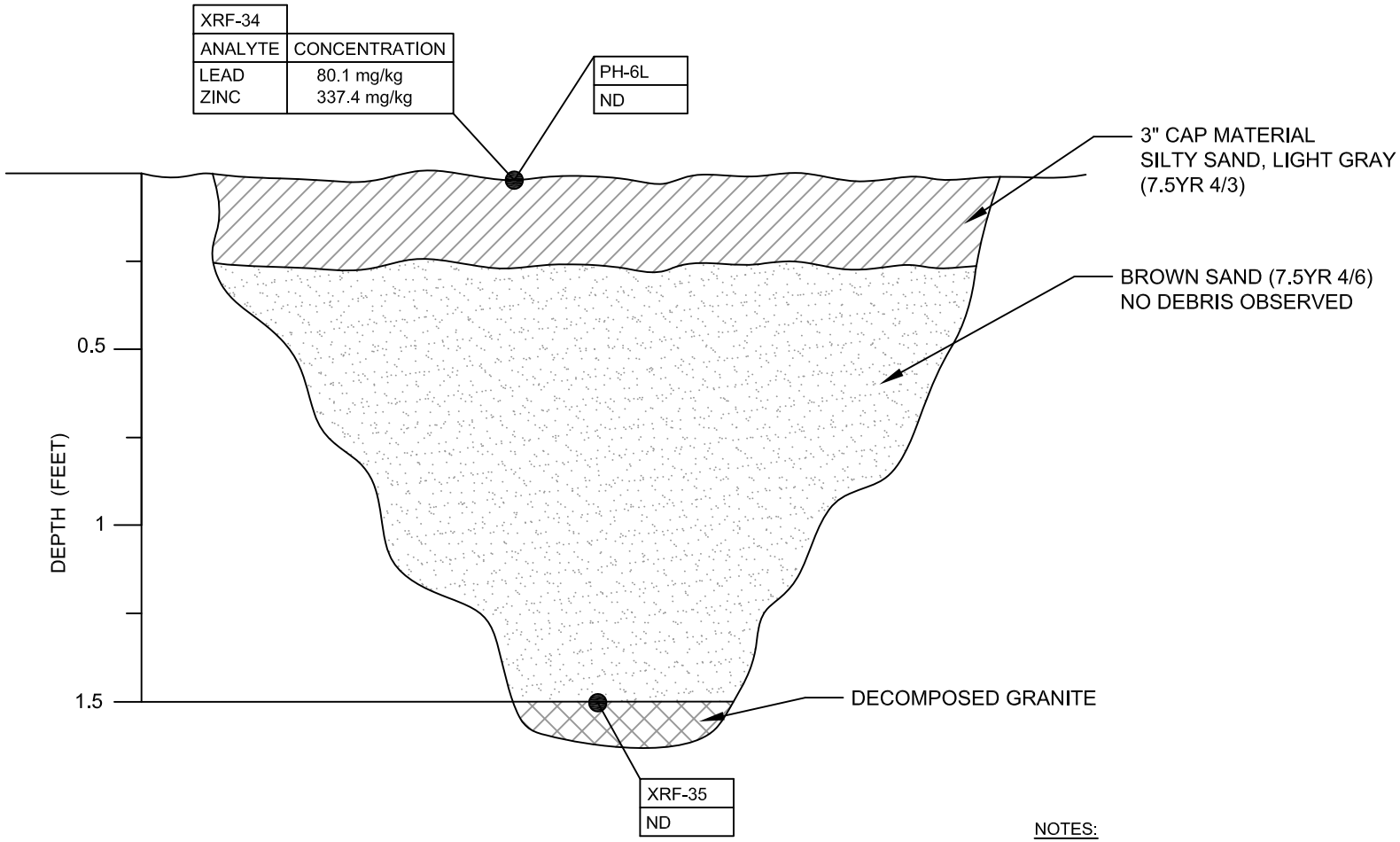
DESIGNED BY: JJC 4/19/10

CHECKED BY: CEG 4/20/10

P.E/P.G.: CEG 4/20/10

POTHOLE 5, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	5



SCREENING CRITERIA:

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LEAD
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ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
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NOTES:
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3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

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CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: JJC 4/19/10

CHECKED BY: CEG 4/20/10

P.E/P.G.: CEG 4/20/10

POTHOLE 6, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	6

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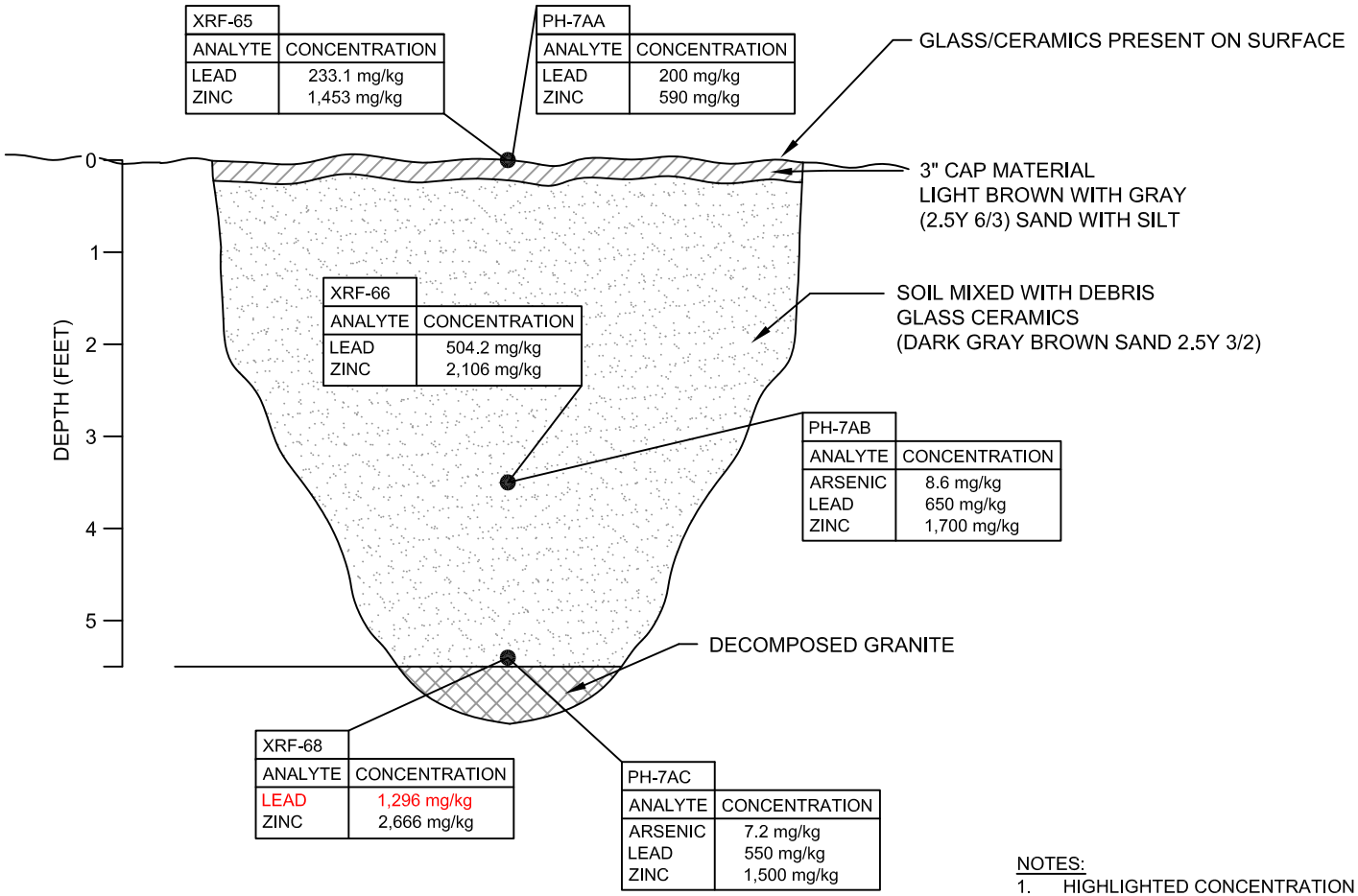

SCREENING CRITERIA:

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- BLM = 307 mg/kg
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NOTES:
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4. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

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CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

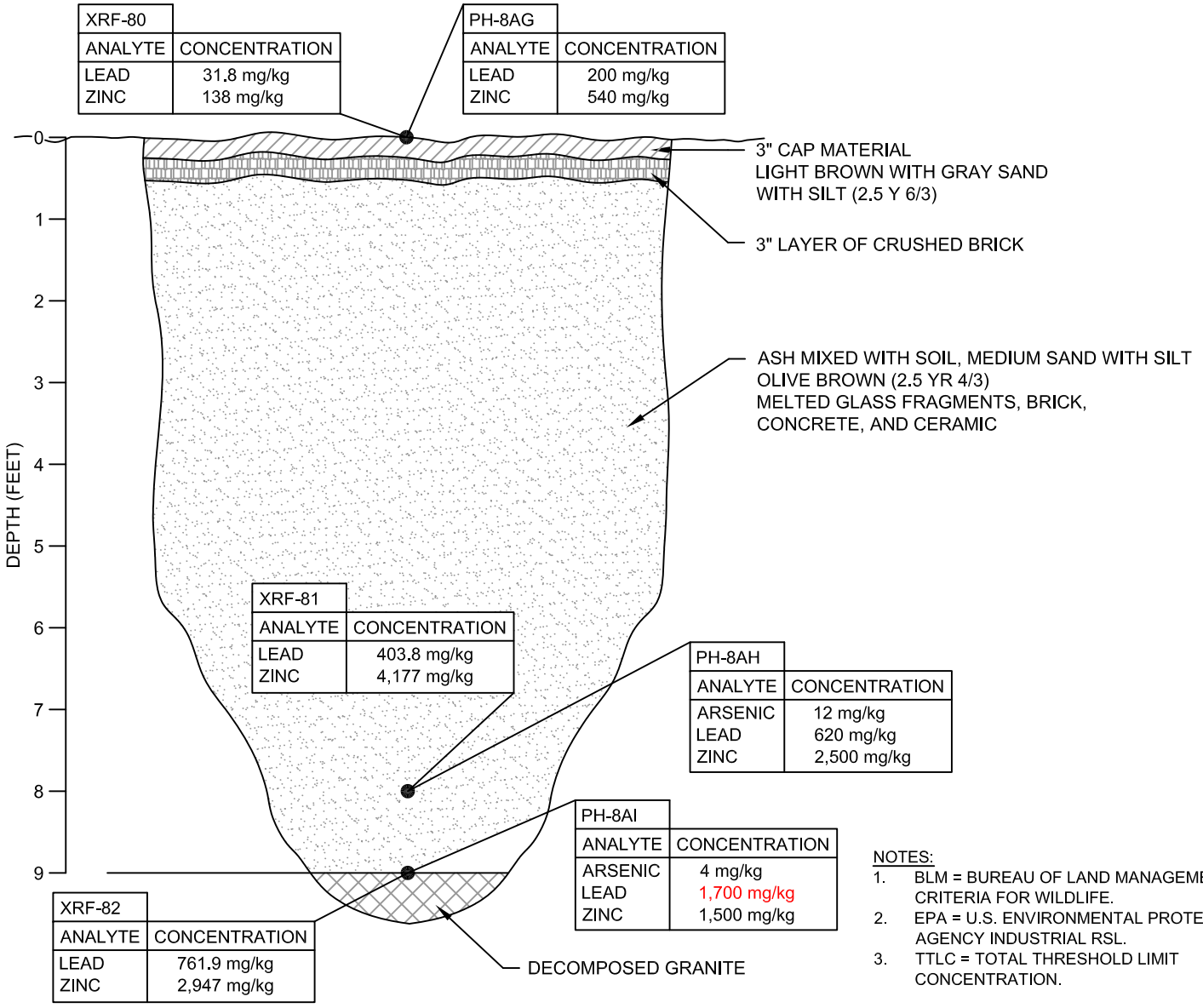
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E./P.G.: CEG 4-20-10

POTHOLE 7, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	7



SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

ERRG
Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

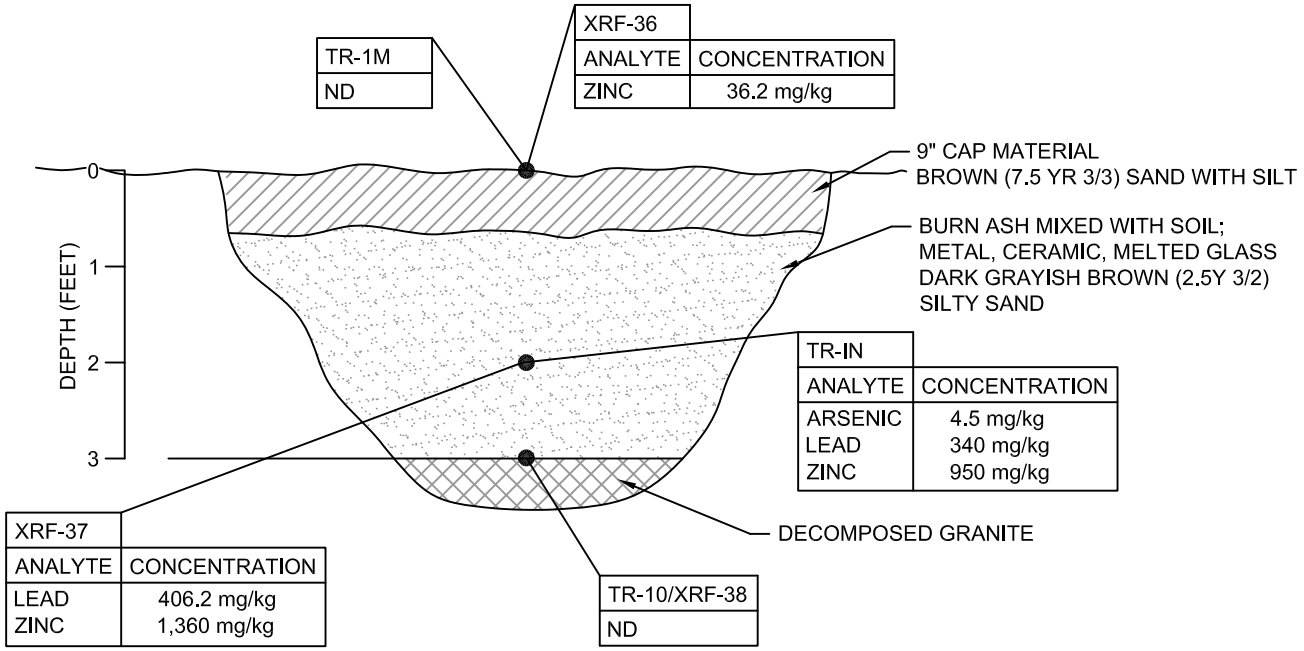
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

POTHOLE 8, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	8



SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
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CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

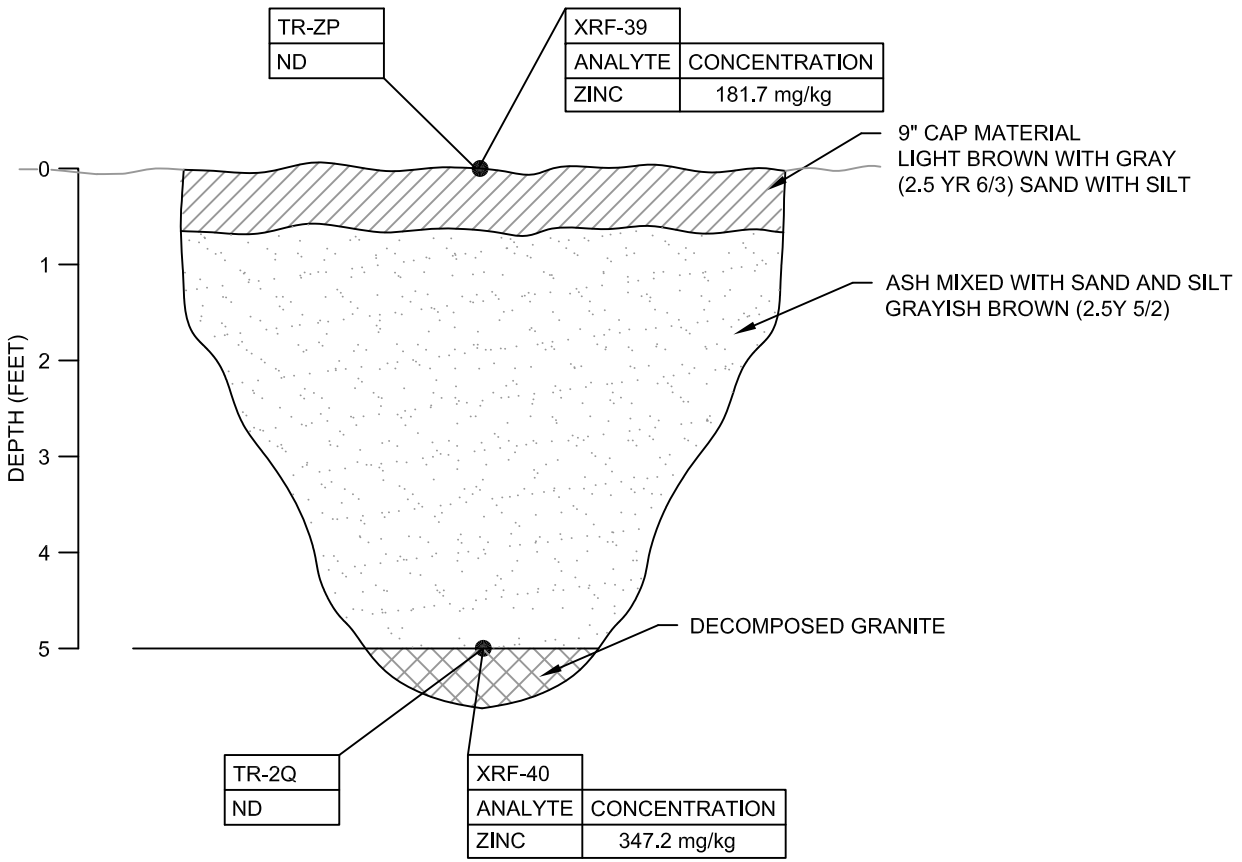
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 1, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	9



NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

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San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

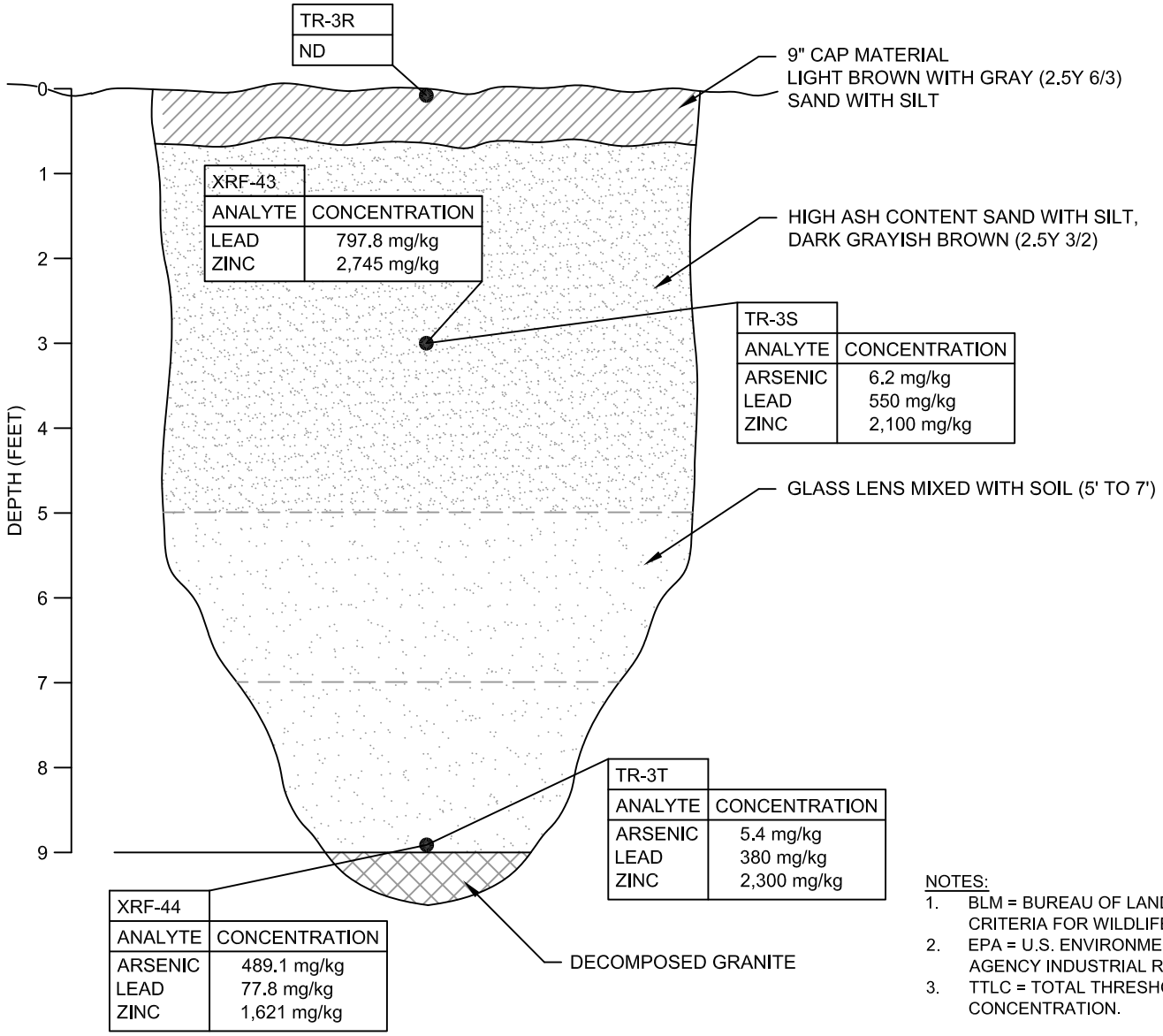
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 2, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	10



SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

ERRG
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San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

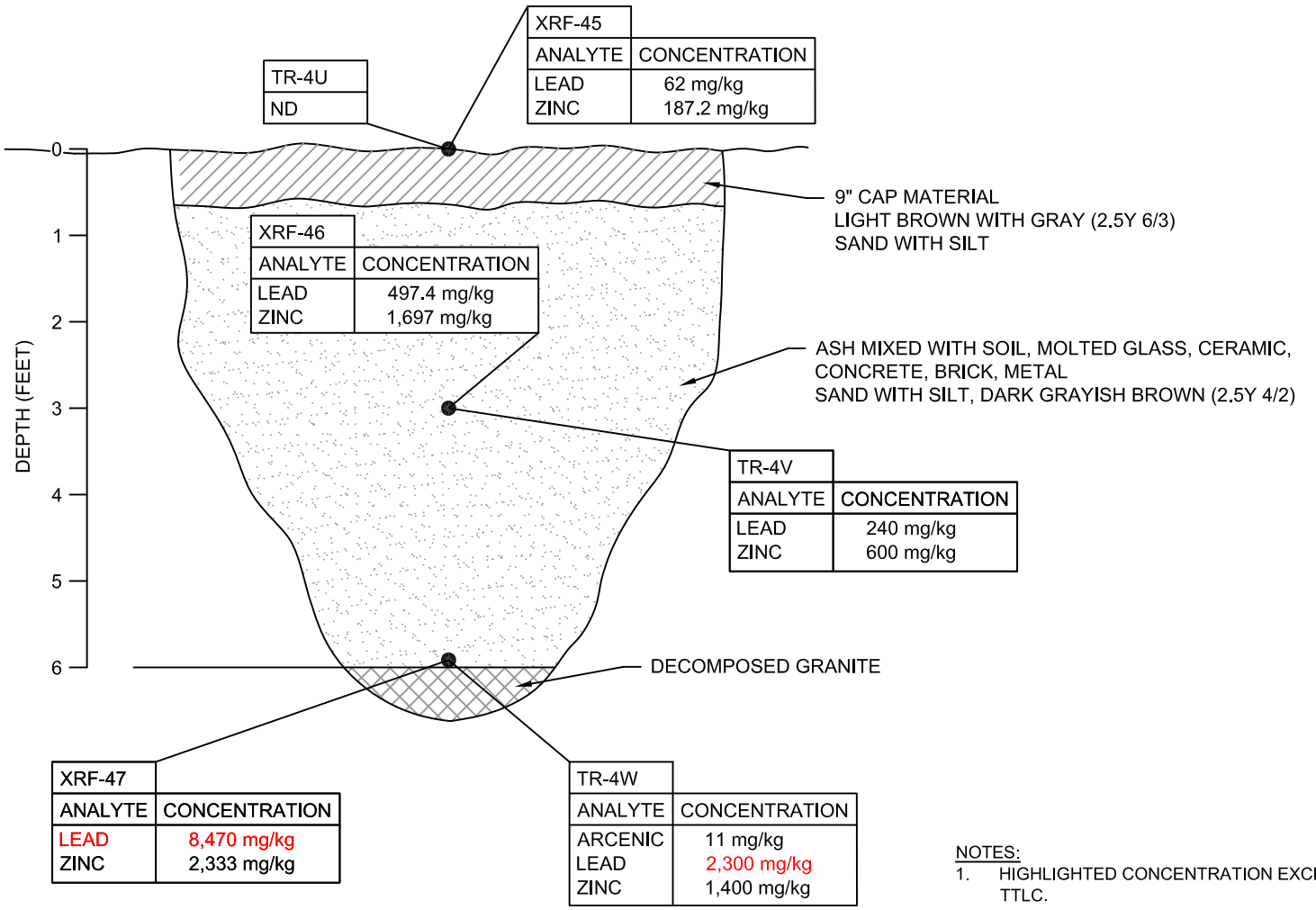
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 3, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	11



SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. HIGHLIGHTED CONCENTRATION EXCEEDS TTLC.
2. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
3. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
4. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

ERRG
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San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: VZC 4-19-10

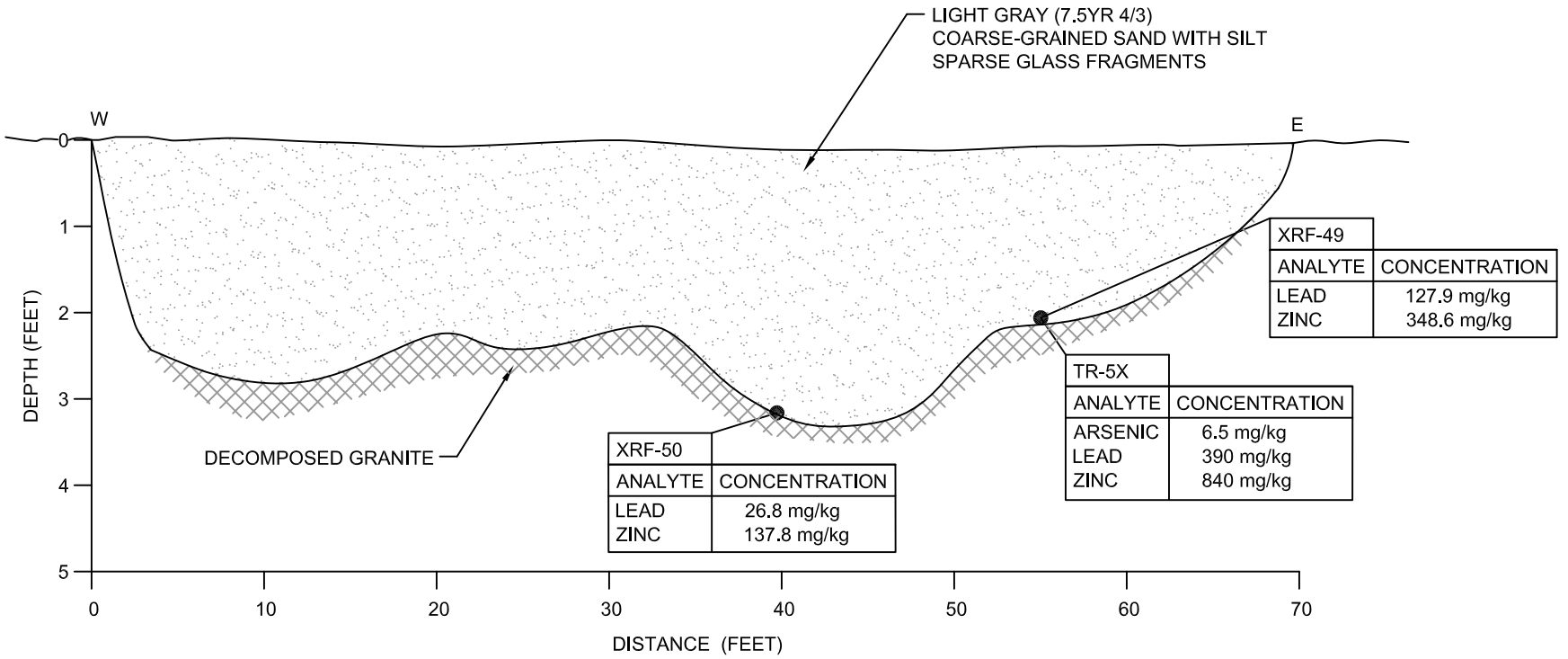
CHECKED BY: CEG 4-20-10

P.E./P.G.: CEG 4-20-10

TRENCH LOG 4, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	12

FILE NAME: N:\projects\2009_Projects\29-134_USFS_Ramona_PASI\N. Maps and Drawings\TRENCH LOG 4.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, May 03, 2010 - 3:50pm



SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

ERRG
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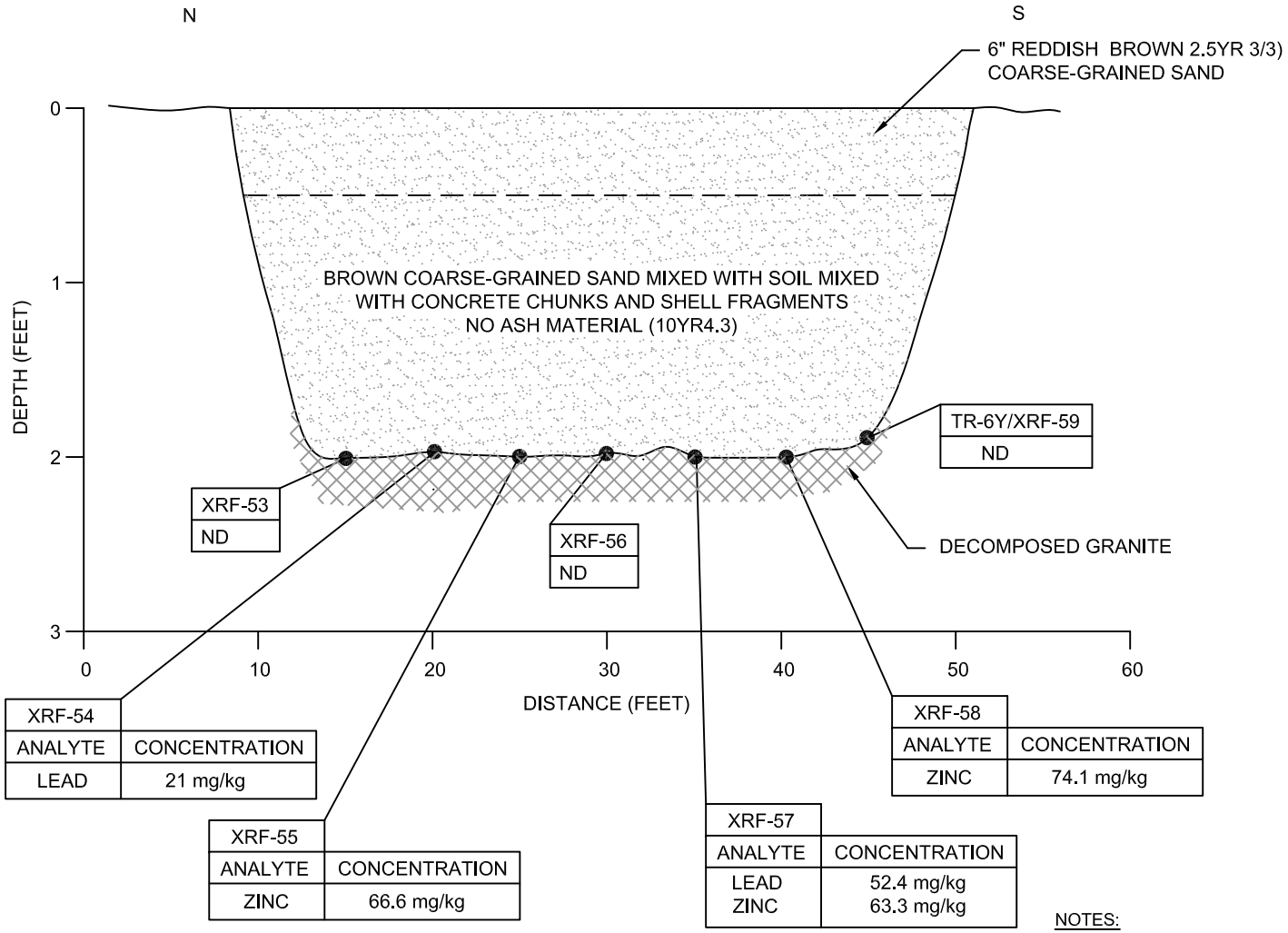
San Francisco, California 94104
(415) 395-9974

CLIENT:	U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE
LOCATION:	RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA
DESIGNED BY:	VZC 2-19-10
CHECKED BY:	SJS 2-4-10
P.E/P.G.:	CG 2-19-10

TRENCH LOG 5, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	13



SCREENING CRITERIA:
ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

ERRG
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115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

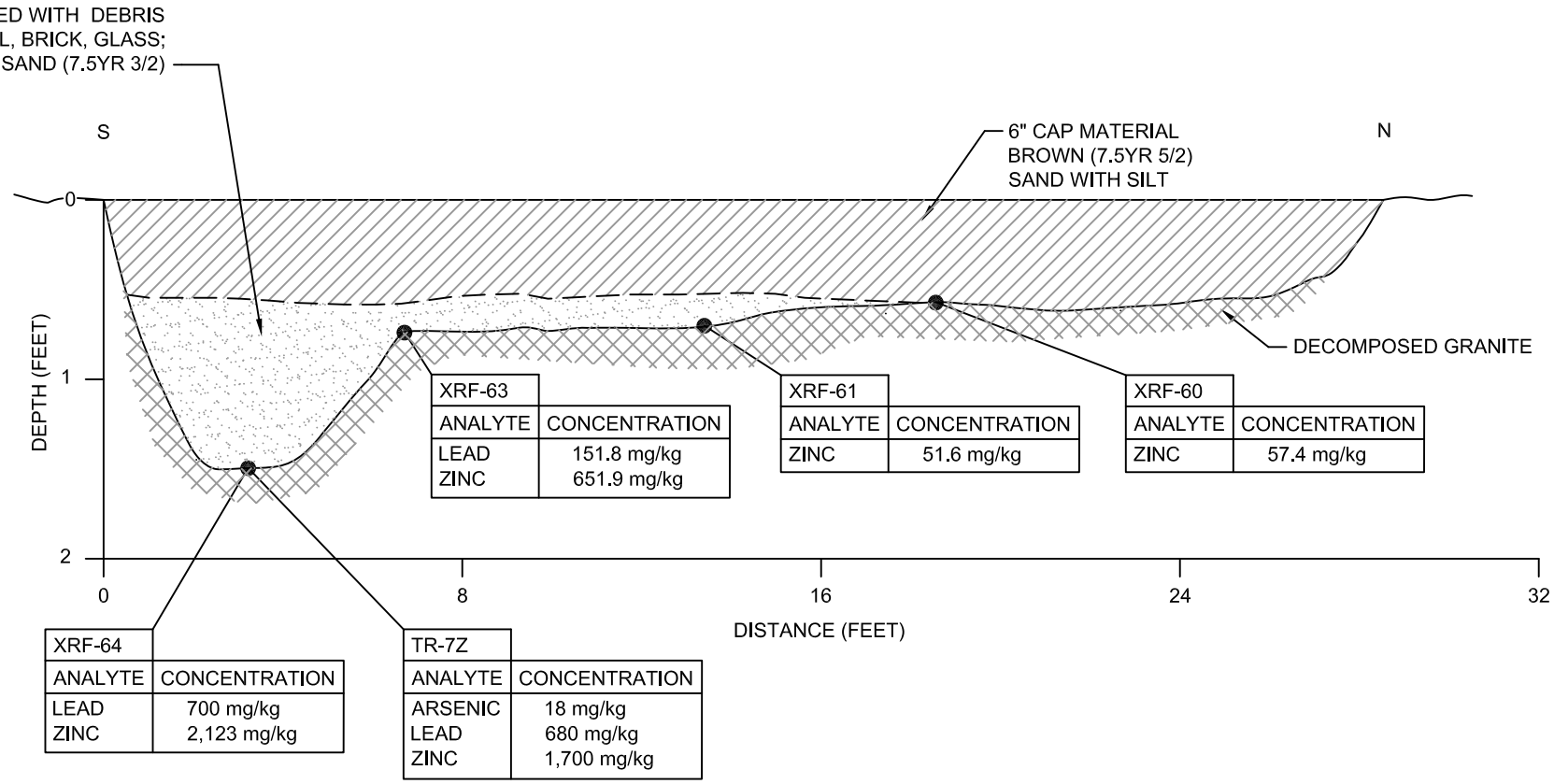
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 6, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	14



SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

NOTES:
1. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
2. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
3. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

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(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

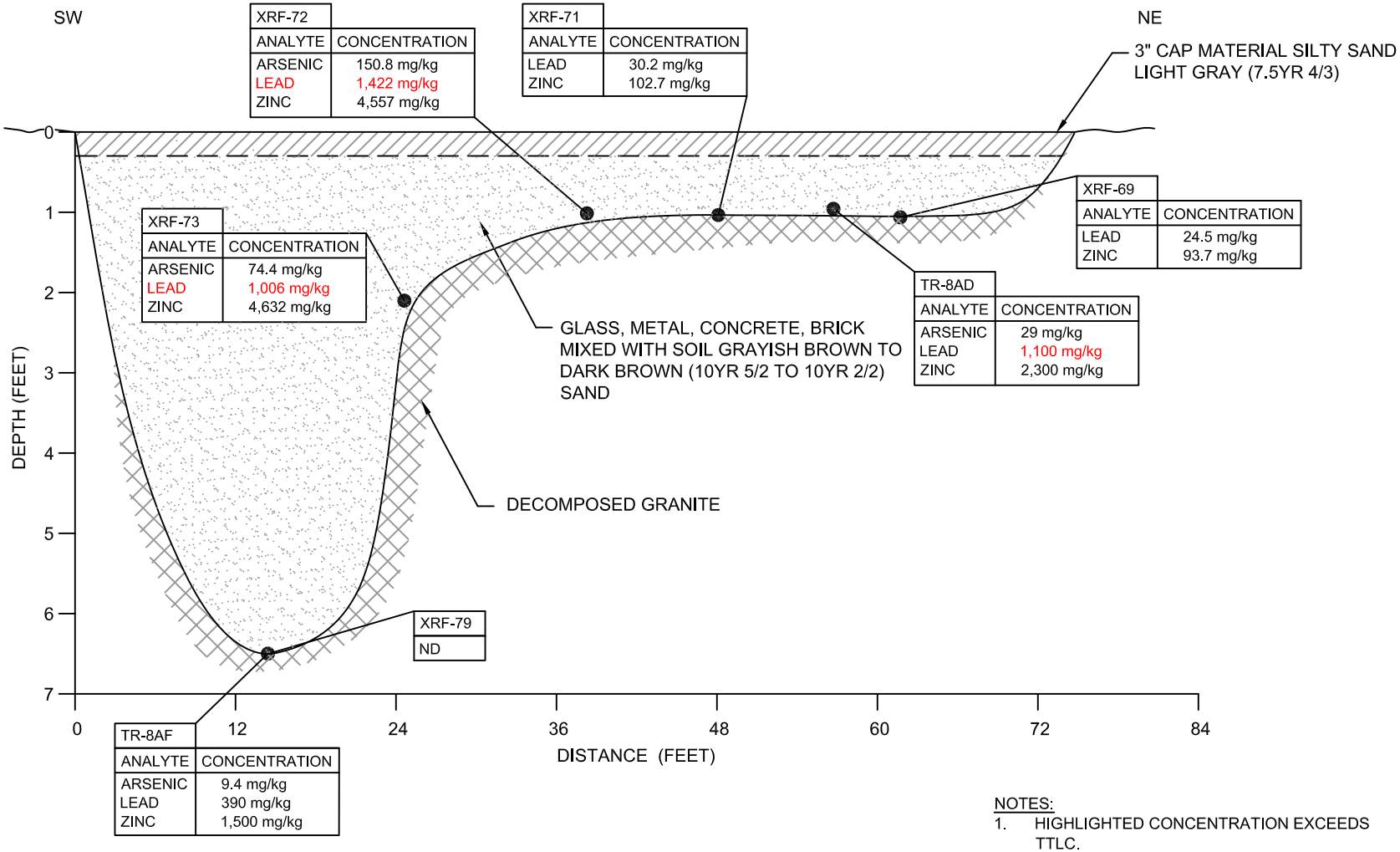
DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 7, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	15



NOTES:

1. HIGHLIGHTED CONCENTRATION EXCEEDS TTLC.
2. BLM = BUREAU OF LAND MANAGEMENT CRITERIA FOR WILDLIFE.
3. EPA = U.S. ENVIRONMENTAL PROTECTION AGENCY INDUSTRIAL RSL.
4. TTLC = TOTAL THRESHOLD LIMIT CONCENTRATION.

SCREENING CRITERIA:

ARSENIC
- BLM = 275 mg/kg
- EPA = 1.6 mg/kg
- TTLC = 500 mg/kg

LEAD
- BLM = 125 mg/kg
- EPA = 800 mg/kg
- TTLC = 1,000 mg/kg

ZINC
- BLM = 307 mg/kg
- EPA = 310,000 mg/kg
- TTLC = 5,000 mg/kg

ERRG
Engineering/Remediation Resources Group, Inc.
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

CLIENT: U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

LOCATION: RAMONA BURN DUMP SITE CLEVELAND NATIONAL FOREST RAMONA, CALIFORNIA

DESIGNED BY: VZC 4-19-10

CHECKED BY: CEG 4-20-10

P.E/P.G.: CEG 4-20-10

TRENCH LOG 8, SHOWING DETECTED CONCENTRATIONS OF ARSENIC, LEAD, AND ZINC

ERRG PROJECT NO.	REVISION NO.	SHEET	OF	FIG NO.
29-134	0	1	1	16

FILE NAME: N:\projects\2009_Projects\29-134_USFS_Ramona_PAS\N. Maps and Drawings\TRENCH 8.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, May 03, 2010 - 3:51pm

Appendix D. Waste Quantity Calculations

Prepared By: SJS	Date:	2/10/2009	Subject: Ramona Burn Dump Waste Quantity and Area Calculations	Sheet No. 1
Checked By:	Date:		US Forest Service - Ramona Burn Dump	Project No. 29-134

Scope: Determine the waste volumes associated with the Ramona Burn Dump site and material quantities required for closure alternatives

Method: All the volumes were calculated by multiplying the surface area (established using GPS survey data) by the estimated debris thickness or proposed cap thickness

- Landfill sub-areas (as shown on Figure 3 of the PA/SI text) were established based on:
  (1) aerial extent of surface debris observed on the surface and in site drainages
  (2) locations where debris was observed in potholes and trenches
  (3) evaluating historical aerial photographs* that show two large N-S trending trenches as the primary disposal areas on the Ramona Burn Site
  (4) evaluating the extent of waste documented in trenches completed by Allied Waste's contractor, SCS* for locations adjacent to the Forest Service property line

- The depth of debris was estimated by
  (1) evaluating depths of debris recorded in potholes and trenches
  (2) evaluating historical aerial photographs* that show two large N-S trending trenches as the primary disposal areas on the Ramona Burn Site
  (3) evaluating the depths of waste documented in trenches completed by Allied Waste's contractor, SCS* for locations adjacent to the Forest Service property line

** These items were provided in the SCS "Assessment of the Ramona Old Dump and Burn Site", 2008. Selected aerial photographs, maps, and logs from this report are appended to this calculation package for reference*

Volume = Surface Area x Estimated Depth of Material

The volumes for each layer were added cumulatively to get the total volumes associated with each activity.

Results:
The results of the calculations for each area are provided below:

Landfill Sub-Area*	Waste Surface Area (sf)	Waste Depth (ft)	Waste Volume (cf)	Waste Volume (cy)
Area 1	24,270.60	5.00	121,353.00	4,494.56
Area 2	21,689.00	10.00	216,890.00	8,032.96
Area 3	13,127.40	4.00	52,509.60	1,944.80
Area 4	11,621.60	9.00	104,594.40	3,873.87
Area 5	6,757.80	6.00	40,546.80	1,501.73
Area 6	11,368.90	2.00	22,737.80	842.14
Area 7	6,728.20	4.50	30,276.90	1,121.37
Area 8	5,818.10	2.50	14,545.25	538.71
Area 9	6,187.11	6.50	40,216.22	1,489.49
Totals	**107,568.71**			**23,839.63**

** Landfill sub areas are shown on Figure 3 of this PA/SI report*

Prepared By: SJS	Date:	2/10/2009	Subject: Ramona Burn Dump Waste Quantity and Area Calculations	Sheet No.	2
Checked By:	Date:		US Forest Service - Ramona Burn Dump	Project No.	29-134

Alternatives 1 and 2 - On-Site Native Soil Cover and On-Site Capping (with LLDPE liner)

Landfill Sub-Area*	Surface Area (sf)	Foundation Material Layer @ 1.5ft thick (cy)	Membrane Liner((sy)	Vegetated Low Erosivity Layer @ 1ft thick (cy)
Area 1	24,270.60	1,348.37	24,270.60	898.91
Area 2	21,689.00	1,204.94	21,689.00	803.30
Area 3	13,127.40	729.30	13,127.40	486.20
Area 4	11,621.60	645.64	11,621.60	430.43
Area 5	6,757.80	375.43	6,757.80	250.29
Area 6	11,368.90	631.61	11,368.90	421.07
Area 7	6,728.20	373.79	6,728.20	249.19
Area 8	5,818.10	323.23	5,818.10	215.49
Area 9	6,187.11	343.73	6,187.11	229.15
Totals	**107,568.71**	**5,976.04**	**107,568.71**	**3,984.03**

** Landfill sub areas are shown on Figure 3 of this PA/SI report*

Alternative 3 - On-Site Consolidate and Cap

Landfill Sub-Area*	Waste Surface Area (sf)	Waste Depth (ft)	Waste Volume (cf)	Foundation Layer (cy) 1.5' thick	Membrane Liner (sy)
Area 1 unconsolidated	24,270.60	5.00		1,348.37	24,270.60
Area 2	21,689.00	10.00		1,204.94	21,689.00
Area 3	13,127.40	4.00		729.30	13,127.40
Area 4	11,621.60	9.00		645.64	11,621.60
Area 5	6,757.80	6.00	1,501.73		
Area 6 unconsolidated	6,887.90	2.00		382.66	6,887.90
Area 6 consolidated	4,481.00	2.00	331.93		
Area 7	6,728.20	4.50	1,121.37		
Area 8	5,818.10	2.50	538.71		
Area 9	6,187.11	6.50		343.73	6,187.11
Totals	**107,568.71**		**3,493.74**	**4,654.65**	**83,783.61**

** Landfill sub areas are shown on Figure 3 of this PA/SI report*

Alternative 4 - Removal and Off-Site Disposal

Landfill Sub-Area*	Waste Surface Area (sf)	Waste Depth (ft)	Waste Volume (cf)	Waste Volume (cy)
Area 1	24,270.60	5.00	121,353.00	4,494.56
Area 2	21,689.00	10.00	216,890.00	8,032.96
Area 3	13,127.40	4.00	52,509.60	1,944.80
Area 4	11,621.60	9.00	104,594.40	3,873.87
Area 5	6,757.80	6.00	40,546.80	1,501.73
Area 6	11,368.90	2.00	22,737.80	842.14
Area 7	6,728.20	4.50	30,276.90	1,121.37
Area 8	5,818.10	2.50	14,545.25	538.71
Area 9	6,187.11	6.50	40,216.22	1,489.49
Totals	**107,568.71**			**23,839.63**

** Landfill sub areas are shown on Figure 3 of this PA/SI report*

Summary

Alternative 1 - Cap in Place:	Import	9,960.07	CY Fill
	Install	107,568.71	SF Liner
Alternative 2 - Consolidate and Cap:	Reconsolidate	3,493.74	CY Waste
	Import	7,757.74	CY Fill
	Install	83,783.61	SF Liner
Alternative 3 - Dig and Haul:	Remove	23,839.63	CY Waste
	Import	23,839.63	CY Fill

Appendix E. Analytical Data *(provided on CD only)*

ANALYTICAL REPORT

Job Number: 720-24203-1

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
11/30/2009 5:31 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
11/30/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method 8270C: The laboratory control sample (LCS) for batch #62026 exceeded control limits for the following analyte(s): Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61944 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61937 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61904 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-1	**SS-1A**				
Barium		210	2.0	mg/Kg	6010B
Cadmium		0.60	0.50	mg/Kg	6010B
Chromium		19	2.0	mg/Kg	6010B
Cobalt		11	0.79	mg/Kg	6010B
Copper		86	5.9	mg/Kg	6010B
Lead		120	2.0	mg/Kg	6010B
Nickel		13	2.0	mg/Kg	6010B
Vanadium		62	2.0	mg/Kg	6010B
Zinc		350	5.9	mg/Kg	6010B
Mercury		0.066	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		6.84	0.100	SU	9045C
720-24203-2	**SS-2B**				
Barium		85	1.9	mg/Kg	6010B
Chromium		14	1.9	mg/Kg	6010B
Cobalt		7.6	0.77	mg/Kg	6010B
Copper		30	5.8	mg/Kg	6010B
Lead		3.6	1.9	mg/Kg	6010B
Nickel		4.0	1.9	mg/Kg	6010B
Vanadium		51	1.9	mg/Kg	6010B
Zinc		36	5.8	mg/Kg	6010B
Soluble					
pH-Soluble		5.87	0.100	SU	9045C
720-24203-3	**SS-3C**				
Barium		130	2.0	mg/Kg	6010B
Chromium		14	2.0	mg/Kg	6010B
Cobalt		7.6	0.78	mg/Kg	6010B
Copper		37	5.9	mg/Kg	6010B
Lead		3.5	2.0	mg/Kg	6010B
Nickel		5.4	2.0	mg/Kg	6010B
Vanadium		72	2.0	mg/Kg	6010B
Zinc		17	5.9	mg/Kg	6010B
Mercury		0.038	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		6.55	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-4	**SS-4D**				
Barium		170	2.0	mg/Kg	6010B
Chromium		16	2.0	mg/Kg	6010B
Cobalt		9.9	0.79	mg/Kg	6010B
Copper		38	5.9	mg/Kg	6010B
Lead		4.1	2.0	mg/Kg	6010B
Nickel		6.0	2.0	mg/Kg	6010B
Vanadium		82	2.0	mg/Kg	6010B
Zinc		22	5.9	mg/Kg	6010B
Mercury		0.037	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		6.65	0.100	SU	9045C
720-24203-5	**PH-1E**				
Barium		86	2.0	mg/Kg	6010B
Chromium		9.4	2.0	mg/Kg	6010B
Cobalt		5.1	0.81	mg/Kg	6010B
Copper		33	6.1	mg/Kg	6010B
Lead		16	2.0	mg/Kg	6010B
Nickel		3.9	2.0	mg/Kg	6010B
Vanadium		34	2.0	mg/Kg	6010B
Zinc		72	6.1	mg/Kg	6010B
Soluble					
pH-Soluble		8.27	0.100	SU	9045C
720-24203-6	**PH-1F**				
Antimony		2.3	1.9	mg/Kg	6010B
Arsenic		5.1	3.8	mg/Kg	6010B
Barium		340	1.9	mg/Kg	6010B
Cadmium		3.4	0.48	mg/Kg	6010B
Chromium		27	1.9	mg/Kg	6010B
Cobalt		8.7	0.77	mg/Kg	6010B
Copper		200	5.8	mg/Kg	6010B
Lead		470	1.9	mg/Kg	6010B
Nickel		17	1.9	mg/Kg	6010B
Silver		1.6	0.96	mg/Kg	6010B
Vanadium		34	1.9	mg/Kg	6010B
Zinc		1300	5.8	mg/Kg	6010B
Mercury		0.15	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.91	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-7	**PH-2G**				
Antimony		5.8	1.9	mg/Kg	6010B
Arsenic		8.3	3.8	mg/Kg	6010B
Barium		580	1.9	mg/Kg	6010B
Cadmium		10	0.48	mg/Kg	6010B
Chromium		40	1.9	mg/Kg	6010B
Cobalt		39	0.76	mg/Kg	6010B
Copper		500	5.7	mg/Kg	6010B
Lead		1000	1.9	mg/Kg	6010B
Molybdenum		22	1.9	mg/Kg	6010B
Nickel		100	1.9	mg/Kg	6010B
Selenium		5.8	1.9	mg/Kg	6010B
Silver		2.6	0.95	mg/Kg	6010B
Vanadium		37	1.9	mg/Kg	6010B
Zinc		6400	29	mg/Kg	6010B
Mercury		0.35	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		6.42	0.100	SU	9045C
720-24203-8	**PH-2H**				
Antimony		3.4	1.9	mg/Kg	6010B
Arsenic		4.8	3.8	mg/Kg	6010B
Barium		290	1.9	mg/Kg	6010B
Cadmium		3.0	0.48	mg/Kg	6010B
Chromium		27	1.9	mg/Kg	6010B
Cobalt		10	0.76	mg/Kg	6010B
Copper		770	5.7	mg/Kg	6010B
Lead		650	1.9	mg/Kg	6010B
Molybdenum		2.0	1.9	mg/Kg	6010B
Nickel		25	1.9	mg/Kg	6010B
Silver		1.4	0.95	mg/Kg	6010B
Vanadium		41	1.9	mg/Kg	6010B
Zinc		1400	5.7	mg/Kg	6010B
Mercury		0.12	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.85	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-9	**PH-3I**				
Barium		110	2.0	mg/Kg	6010B
Chromium		12	2.0	mg/Kg	6010B
Cobalt		7.9	0.79	mg/Kg	6010B
Copper		36	5.9	mg/Kg	6010B
Lead		5.5	2.0	mg/Kg	6010B
Nickel		3.5	2.0	mg/Kg	6010B
Vanadium		55	2.0	mg/Kg	6010B
Zinc		37	5.9	mg/Kg	6010B
Soluble					
pH-Soluble		6.26	0.100	SU	9045C
720-24203-10	**PH-4J**				
Arsenic		4.9	4.0	mg/Kg	6010B
Barium		240	2.0	mg/Kg	6010B
Cadmium		2.3	0.51	mg/Kg	6010B
Chromium		26	2.0	mg/Kg	6010B
Cobalt		9.8	0.81	mg/Kg	6010B
Copper		120	6.1	mg/Kg	6010B
Lead		230	2.0	mg/Kg	6010B
Nickel		15	2.0	mg/Kg	6010B
Vanadium		51	2.0	mg/Kg	6010B
Zinc		740	6.1	mg/Kg	6010B
Mercury		0.15	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.85	0.100	SU	9045C
720-24203-11	**PH-5K**				
Barium		230	1.9	mg/Kg	6010B
Cadmium		0.94	0.48	mg/Kg	6010B
Chromium		26	1.9	mg/Kg	6010B
Cobalt		11	0.76	mg/Kg	6010B
Copper		190	5.7	mg/Kg	6010B
Lead		300	1.9	mg/Kg	6010B
Nickel		23	1.9	mg/Kg	6010B
Vanadium		71	1.9	mg/Kg	6010B
Zinc		680	5.7	mg/Kg	6010B
Mercury		0.078	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.63	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-12	**PH-6L**				
Barium		110	2.0	mg/Kg	6010B
Chromium		7.6	2.0	mg/Kg	6010B
Cobalt		7.9	0.78	mg/Kg	6010B
Copper		42	5.9	mg/Kg	6010B
Lead		27	2.0	mg/Kg	6010B
Nickel		4.4	2.0	mg/Kg	6010B
Vanadium		34	2.0	mg/Kg	6010B
Zinc		85	5.9	mg/Kg	6010B
Mercury		0.021	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		5.94	0.100	SU	9045C

METHOD SUMMARY

Client: ERRG

Job Number: 720-24203-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL SF	SW846 8270C	
Ultrasonic Extraction	TAL SF		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL SF	SW846 8082	
Ultrasonic Extraction	TAL SF		SW846 3550B
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B
Mercury (CVAA)	TAL SF	SW846 7471A	
Preparation, Mercury	TAL SF		SW846 7471A
pH	TAL SF	SW846 9045C	
Deionized Water Leaching Procedure	TAL SF		ASTM DI Leach
HEM	TAL SF	SW846 9071B	
HEM	TAL SF		SW846 9071B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24203-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24203-1	SS-1A	Solid	11/16/2009 1400	11/20/2009 0930
720-24203-2	SS-2B	Solid	11/16/2009 1410	11/20/2009 0930
720-24203-3	SS-3C	Solid	11/16/2009 1455	11/20/2009 0930
720-24203-4	SS-4D	Solid	11/16/2009 1505	11/20/2009 0930
720-24203-5	PH-1E	Solid	11/17/2009 1007	11/20/2009 0930
720-24203-6	PH-1F	Solid	11/17/2009 1025	11/20/2009 0930
720-24203-7	PH-2G	Solid	11/17/2009 1055	11/20/2009 0930
720-24203-8	PH-2H	Solid	11/17/2009 1147	11/20/2009 0930
720-24203-9	PH-3I	Solid	11/17/2009 1355	11/20/2009 0930
720-24203-10	PH-4J	Solid	11/17/2009 1440	11/20/2009 0930
720-24203-11	PH-5K	Solid	11/17/2009 1513	11/20/2009 0930
720-24203-12	PH-6L	Solid	11/17/2009 1610	11/20/2009 0930

Client: ERRG Job Number: 720-24203-1

Client Sample ID: **PH-2G**

Lab Sample ID: 720-24203-7 Date Sampled: 11/17/2009 1055
Client Matrix: Solid Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.05 g
Date Analyzed:	11/25/2009 1815			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.067
Bis(2-chloroethyl)ether		ND		0.067
2-Chlorophenol		ND		0.067
1,3-Dichlorobenzene		ND		0.067
1,4-Dichlorobenzene		ND		0.067
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.067
2-Methylphenol		ND		0.067
4-Methylphenol		ND		0.067
N-Nitrosodi-n-propylamine		ND		0.067
Hexachloroethane		ND		0.067
Nitrobenzene		ND		0.067
Isophorone		ND		0.067
2-Nitrophenol		ND		0.067
2,4-Dimethylphenol		ND		0.067
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.067
Naphthalene		ND		0.067
4-Chloroaniline		ND		0.067
Hexachlorobutadiene		ND		0.067
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.067
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.067
2,4,5-Trichlorophenol		ND		0.067
2-Chloronaphthalene		ND		0.067
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.067
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.067
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.067
2,4-Dinitrotoluene		ND		0.067
2,6-Dinitrotoluene		ND		0.067
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.067
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.067
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.067
Pentachlorophenol		ND		0.33

Client: ERRG Job Number: 720-24203-1

Client Sample ID: **PH-2G**

Lab Sample ID: 720-24203-7 Date Sampled: 11/17/2009 1055
Client Matrix: Solid Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.05 g
Date Analyzed:	11/25/2009 1815			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.067
Anthracene		ND		0.067
Di-n-butyl phthalate		ND		0.17
Fluoranthene		ND		0.067
Pyrene		ND		0.067
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		ND		0.067
Di-n-octyl phthalate		ND		1.0
Benzo[b]fluoranthene		ND		0.067
Benzo[a]pyrene		ND		0.067
Benzo[k]fluoranthene		ND		0.067
Indeno[1,2,3-cd]pyrene		ND		0.067
Benzo[g,h,i]perylene		ND		0.067
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.067
Dibenz(a,h)anthracene		ND		0.067

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	80		21 - 98
2-Fluorobiphenyl	80		38 - 96
Terphenyl-d14	72		32 - 117
2-Fluorophenol	87		28 - 98
Phenol-d5	84		23 - 101
2,4,6-Tribromophenol	91		37 - 114

Client: ERRG Job Number: 720-24203-1

Client Sample ID: **PH-3I**

Lab Sample ID: 720-24203-9 Date Sampled: 11/17/2009 1355
Client Matrix: Solid Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62132		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Date Analyzed:	11/27/2009 1214			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.067
Bis(2-chloroethyl)ether		ND		0.067
2-Chlorophenol		ND		0.067
1,3-Dichlorobenzene		ND		0.067
1,4-Dichlorobenzene		ND		0.067
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.067
2-Methylphenol		ND		0.067
4-Methylphenol		ND		0.067
N-Nitrosodi-n-propylamine		ND		0.067
Hexachloroethane		ND		0.067
Nitrobenzene		ND		0.067
Isophorone		ND		0.067
2-Nitrophenol		ND		0.067
2,4-Dimethylphenol		ND		0.067
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.067
Naphthalene		ND		0.067
4-Chloroaniline		ND		0.067
Hexachlorobutadiene		ND		0.067
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.067
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.067
2,4,5-Trichlorophenol		ND		0.067
2-Chloronaphthalene		ND		0.067
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.067
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.067
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.067
2,4-Dinitrotoluene		ND		0.067
2,6-Dinitrotoluene		ND		0.067
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.067
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.067
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.067
Pentachlorophenol		ND		0.33

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-3I**

Lab Sample ID: 720-24203-9
Client Matrix: Solid

Date Sampled: 11/17/2009 1355
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62132		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Date Analyzed:	11/27/2009 1214			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.067
Anthracene		ND		0.067
Di-n-butyl phthalate		ND		0.17
Fluoranthene		ND		0.067
Pyrene		ND		0.067
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		ND		0.067
Di-n-octyl phthalate		ND		0.99
Benzo[b]fluoranthene		ND		0.067
Benzo[a]pyrene		ND		0.067
Benzo[k]fluoranthene		ND		0.067
Indeno[1,2,3-cd]pyrene		ND		0.067
Benzo[g,h,i]perylene		ND		0.067
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.067
Dibenz(a,h)anthracene		ND		0.067

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	77		21 - 98
2-Fluorobiphenyl	73		38 - 96
Terphenyl-d14	64		32 - 117
2-Fluorophenol	85		28 - 98
Phenol-d5	81		23 - 101
2,4,6-Tribromophenol	79		37 - 114

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-2G**

Lab Sample ID: 720-24203-7
Client Matrix: Solid

Date Sampled: 11/17/2009 1055
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62016		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957		Initial Weight/Volume:	30.13 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	11/25/2009 1656			Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		32 - 112
DCB Decachlorobiphenyl	95		2 - 122

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-3I**

Lab Sample ID: 720-24203-9
Client Matrix: Solid

Date Sampled: 11/17/2009 1355
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62016		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957		Initial Weight/Volume:	30.26 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	11/25/2009 1718			Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	60		32 - 112
DCB Decachlorobiphenyl	69		2 - 122

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **SS-1A**

Lab Sample ID: 720-24203-1
Client Matrix: Solid

Date Sampled: 11/16/2009 1400
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/23/2009 1812			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		210		2.0
Beryllium		ND		0.40
Cadmium		0.60		0.50
Chromium		19		2.0
Cobalt		11		0.79
Copper		86		5.9
Lead		120		2.0
Molybdenum		ND		2.0
Nickel		13		2.0
Selenium		ND		2.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		62		2.0
Zinc		350		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1433			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.066		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **SS-2B**

Lab Sample ID: 720-24203-2
Client Matrix: Solid

Date Sampled: 11/16/2009 1410
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/23/2009 1817			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.8
Barium		85		1.9
Beryllium		ND		0.38
Cadmium		ND		0.48
Chromium		14		1.9
Cobalt		7.6		0.77
Copper		30		5.8
Lead		3.6		1.9
Molybdenum		ND		1.9
Nickel		4.0		1.9
Selenium		ND		1.9
Silver		ND		0.96
Thallium		ND		1.9
Vanadium		51		1.9
Zinc		36		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1436			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **SS-3C**

Lab Sample ID: 720-24203-3
Client Matrix: Solid

Date Sampled: 11/16/2009 1455
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/23/2009 1822			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		3.9
Barium		130		2.0
Beryllium		ND		0.39
Cadmium		ND		0.49
Chromium		14		2.0
Cobalt		7.6		0.78
Copper		37		5.9
Lead		3.5		2.0
Molybdenum		ND		2.0
Nickel		5.4		2.0
Selenium		ND		2.0
Silver		ND		0.98
Thallium		ND		2.0
Vanadium		72		2.0
Zinc		17		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/23/2009 1439			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.038		0.019

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **SS-4D**

Lab Sample ID: 720-24203-4
Client Matrix: Solid

Date Sampled: 11/16/2009 1505
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/23/2009 1828			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		170		2.0
Beryllium		ND		0.40
Cadmium		ND		0.50
Chromium		16		2.0
Cobalt		9.9		0.79
Copper		38		5.9
Lead		4.1		2.0
Molybdenum		ND		2.0
Nickel		6.0		2.0
Selenium		ND		2.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		82		2.0
Zinc		22		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	11/23/2009 1442			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.037		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-1E**

Lab Sample ID: 720-24203-5
Client Matrix: Solid

Date Sampled: 11/17/2009 1007
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/23/2009 1833			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		86		2.0
Beryllium		ND		0.40
Cadmium		ND		0.51
Chromium		9.4		2.0
Cobalt		5.1		0.81
Copper		33		6.1
Lead		16		2.0
Molybdenum		ND		2.0
Nickel		3.9		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		34		2.0
Zinc		72		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/23/2009 1444			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.019

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-1F**

Lab Sample ID: 720-24203-6
Client Matrix: Solid

Date Sampled: 11/17/2009 1025
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/23/2009 1849			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		2.3		1.9
Arsenic		5.1		3.8
Barium		340		1.9
Beryllium		ND		0.38
Cadmium		3.4		0.48
Chromium		27		1.9
Cobalt		8.7		0.77
Copper		200		5.8
Lead		470		1.9
Molybdenum		ND		1.9
Nickel		17		1.9
Selenium		ND		1.9
Silver		1.6		0.96
Thallium		ND		1.9
Vanadium		34		1.9
Zinc		1300		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/23/2009 1452			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.15		0.019

Client: ERRG | Job Number: 720-24203-1

Client Sample ID: **PH-2G**

Lab Sample ID: 720-24203-7 | Date Sampled: 11/17/2009 1055
Client Matrix: Solid | Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	11/23/2009 1854			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		5.8		1.9
Arsenic		8.3		3.8
Barium		580		1.9
Beryllium		ND		0.38
Cadmium		10		0.48
Chromium		40		1.9
Cobalt		39		0.76
Copper		500		5.7
Lead		1000		1.9
Molybdenum		22		1.9
Nickel		100		1.9
Selenium		5.8		1.9
Silver		2.6		0.95
Vanadium		37		1.9

Method:	6010B	Analysis Batch: 720-61970		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	20			Initial Weight/Volume:	1.05 g
Date Analyzed:	11/24/2009 1238			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Thallium		ND		9.5
Zinc		6400		29

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	11/23/2009 1455			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.35		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-2H**

Lab Sample ID: 720-24203-8
Client Matrix: Solid

Date Sampled: 11/17/2009 1147
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	11/23/2009 1859			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.4		1.9
Arsenic		4.8		3.8
Barium		290		1.9
Beryllium		ND		0.38
Cadmium		3.0		0.48
Chromium		27		1.9
Cobalt		10		0.76
Copper		770		5.7
Lead		650		1.9
Molybdenum		2.0		1.9
Nickel		25		1.9
Selenium		ND		1.9
Silver		1.4		0.95
Thallium		ND		1.9
Vanadium		41		1.9
Zinc		1400		5.7

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1457			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.12		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-3I**

Lab Sample ID: 720-24203-9
Client Matrix: Solid

Date Sampled: 11/17/2009 1355
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61944		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61849		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/23/2009 1904			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		110		2.0
Beryllium		ND		0.40
Cadmium		ND		0.50
Chromium		12		2.0
Cobalt		7.9		0.79
Copper		36		5.9
Lead		5.5		2.0
Molybdenum		ND		2.0
Nickel		3.5		2.0
Selenium		ND		2.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		55		2.0
Zinc		37		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/23/2009 1500			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.019

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-4J**

Lab Sample ID: 720-24203-10
Client Matrix: Solid

Date Sampled: 11/17/2009 1440
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61971		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61904		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/24/2009 1033			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		4.9		4.0
Barium		240		2.0
Beryllium		ND		0.40
Cadmium		2.3		0.51
Chromium		26		2.0
Cobalt		9.8		0.81
Copper		120		6.1
Lead		230		2.0
Molybdenum		ND		2.0
Nickel		15		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		51		2.0
Zinc		740		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/23/2009 1502			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.15		0.019

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-5K**

Lab Sample ID: 720-24203-11
Client Matrix: Solid

Date Sampled: 11/17/2009 1513
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61971		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61904		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	11/24/2009 1039			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.8
Barium		230		1.9
Beryllium		ND		0.38
Cadmium		0.94		0.48
Chromium		26		1.9
Cobalt		11		0.76
Copper		190		5.7
Lead		300		1.9
Molybdenum		ND		1.9
Nickel		23		1.9
Selenium		ND		1.9
Silver		ND		0.95
Thallium		ND		1.9
Vanadium		71		1.9
Zinc		680		5.7

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Date Analyzed:	11/23/2009 1504			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.078		0.020

Client: ERRG

Job Number: 720-24203-1

Client Sample ID: **PH-6L**

Lab Sample ID: 720-24203-12
Client Matrix: Solid

Date Sampled: 11/17/2009 1610
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61970		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/24/2009 1228			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		3.9
Barium		110		2.0
Beryllium		ND		0.39
Cadmium		ND		0.49
Chromium		7.6		2.0
Cobalt		7.9		0.78
Copper		42		5.9
Lead		27		2.0
Molybdenum		ND		2.0
Nickel		4.4		2.0
Selenium		ND		2.0
Silver		ND		0.98
Thallium		ND		2.0
Vanadium		34		2.0
Zinc		85		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/23/2009 1507			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.021		0.019

General Chemistry

Client Sample ID: **SS-1A**

Lab Sample ID: 720-24203-1 Date Sampled: 11/16/2009 1400

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.84		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1732 DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-2B**

Lab Sample ID: 720-24203-2 Date Sampled: 11/16/2009 1410

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	5.87		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1734 DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-3C**

Lab Sample ID: 720-24203-3 Date Sampled: 11/16/2009 1455
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.55		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1736 DryWt Corrected: N

General Chemistry

Client Sample ID: **SS-4D**

Lab Sample ID: 720-24203-4 Date Sampled: 11/16/2009 1505

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.65		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1738 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-1E**

Lab Sample ID: 720-24203-5 Date Sampled: 11/17/2009 1007

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	8.27		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1742 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-1F**

Lab Sample ID: 720-24203-6 Date Sampled: 11/17/2009 1025

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.91		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1744 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-2G**

Lab Sample ID: 720-24203-7 Date Sampled: 11/17/2009 1055
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	ND		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.42		SU	0.100	1.0	9045C
Analysis Batch: 720-62039	Date Analyzed: 11/23/2009 1746					DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-2H**

Lab Sample ID: 720-24203-8 Date Sampled: 11/17/2009 1147

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.85		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1748 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-3I**

Lab Sample ID: 720-24203-9 Date Sampled: 11/17/2009 1355
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	ND		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.26		SU	0.100	1.0	9045C
Analysis Batch: 720-62039	Date Analyzed: 11/23/2009 1752					DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-4J**

Lab Sample ID: 720-24203-10 Date Sampled: 11/17/2009 1440
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.85		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1755 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-5K**

Lab Sample ID: 720-24203-11 Date Sampled: 11/17/2009 1513
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.63		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1803 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-6L**

Lab Sample ID: 720-24203-12 Date Sampled: 11/17/2009 1610

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	5.94		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1805 DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: ERRG Job Number: 720-24203-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	RPD of the LCS and LCSD exceeds the control limits
Metals		
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	F	RPD of the MS and MSD exceeds the control limits

Client: ERRG

Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 720-62026					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-62026/1-A	Method Blank	T	Solid	3550B	
720-24203-7	PH-2G	T	Solid	3550B	
720-24203-9	PH-3I	T	Solid	3550B	
720-24203-9MS	Matrix Spike	T	Solid	3550B	
720-24203-9MSD	Matrix Spike Duplicate	T	Solid	3550B	
Analysis Batch:720-62116					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	8270C	720-62026
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	8270C	720-62026
MB 720-62026/1-A	Method Blank	T	Solid	8270C	720-62026
720-24203-7	PH-2G	T	Solid	8270C	720-62026
720-24203-9MS	Matrix Spike	T	Solid	8270C	720-62026
720-24203-9MSD	Matrix Spike Duplicate	T	Solid	8270C	720-62026
Analysis Batch:720-62132					
720-24203-9	PH-3I	T	Solid	8270C	720-62026

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 720-61957					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-61957/1-A	Method Blank	T	Solid	3550B	
720-24203-7	PH-2G	T	Solid	3550B	
720-24203-9	PH-3I	T	Solid	3550B	
Analysis Batch:720-62016					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	8082	720-61957
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	8082	720-61957
MB 720-61957/1-A	Method Blank	T	Solid	8082	720-61957
720-24203-7	PH-2G	T	Solid	8082	720-61957
720-24203-9	PH-3I	T	Solid	8082	720-61957

Report Basis
T = Total

Client: ERRG

Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-61849					
LCS 720-61849/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61849/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-61849/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-61849/1-A	Method Blank	T	Solid	3050B	
720-24203-1	SS-1A	T	Solid	3050B	
720-24203-1MS	Matrix Spike	T	Solid	3050B	
720-24203-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-24203-2	SS-2B	T	Solid	3050B	
720-24203-3	SS-3C	T	Solid	3050B	
720-24203-4	SS-4D	T	Solid	3050B	
720-24203-5	PH-1E	T	Solid	3050B	
720-24203-6	PH-1F	T	Solid	3050B	
720-24203-7	PH-2G	T	Solid	3050B	
720-24203-8	PH-2H	T	Solid	3050B	
720-24203-9	PH-3I	T	Solid	3050B	
Prep Batch: 720-61857					
LCS 720-61857/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-61857/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-61857/1-A	Method Blank	T	Solid	7471A	
720-24203-1	SS-1A	T	Solid	7471A	
720-24203-1MS	Matrix Spike	T	Solid	7471A	
720-24203-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-24203-2	SS-2B	T	Solid	7471A	
720-24203-3	SS-3C	T	Solid	7471A	
720-24203-4	SS-4D	T	Solid	7471A	
720-24203-5	PH-1E	T	Solid	7471A	
720-24203-6	PH-1F	T	Solid	7471A	
720-24203-7	PH-2G	T	Solid	7471A	
720-24203-8	PH-2H	T	Solid	7471A	
720-24203-9	PH-3I	T	Solid	7471A	
720-24203-10	PH-4J	T	Solid	7471A	
720-24203-11	PH-5K	T	Solid	7471A	
720-24203-12	PH-6L	T	Solid	7471A	
Prep Batch: 720-61904					
LCS 720-61904/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61904/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-61904/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-61904/1-A	Method Blank	T	Solid	3050B	
720-24203-10	PH-4J	T	Solid	3050B	
720-24203-10MS	Matrix Spike	T	Solid	3050B	
720-24203-10MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-24203-11	PH-5K	T	Solid	3050B	

Client: ERRG Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-61924					
LCS 720-61857/2-A	Lab Control Sample	T	Solid	7471A	720-61857
LCSD 720-61857/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-61857
MB 720-61857/1-A	Method Blank	T	Solid	7471A	720-61857
720-24203-1	SS-1A	T	Solid	7471A	720-61857
720-24203-1MS	Matrix Spike	T	Solid	7471A	720-61857
720-24203-1MSD	Matrix Spike Duplicate	T	Solid	7471A	720-61857
720-24203-2	SS-2B	T	Solid	7471A	720-61857
720-24203-3	SS-3C	T	Solid	7471A	720-61857
720-24203-4	SS-4D	T	Solid	7471A	720-61857
720-24203-5	PH-1E	T	Solid	7471A	720-61857
720-24203-6	PH-1F	T	Solid	7471A	720-61857
720-24203-7	PH-2G	T	Solid	7471A	720-61857
720-24203-8	PH-2H	T	Solid	7471A	720-61857
720-24203-9	PH-3I	T	Solid	7471A	720-61857
720-24203-10	PH-4J	T	Solid	7471A	720-61857
720-24203-11	PH-5K	T	Solid	7471A	720-61857
720-24203-12	PH-6L	T	Solid	7471A	720-61857
Prep Batch: 720-61937					
LCS 720-61937/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61937/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-61937/22-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-61937/1-A	Method Blank	T	Solid	3050B	
720-24203-12	PH-6L	T	Solid	3050B	
720-24205-A-9-C MS	Matrix Spike	T	Solid	3050B	
720-24205-A-9-D MSD	Matrix Spike Duplicate	T	Solid	3050B	
Analysis Batch:720-61944					
LCS 720-61849/2-A	Lab Control Sample	T	Solid	6010B	720-61849
LCSD 720-61849/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61849
LCSSRM 720-61849/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-61849
MB 720-61849/1-A	Method Blank	T	Solid	6010B	720-61849
720-24203-1	SS-1A	T	Solid	6010B	720-61849
720-24203-1MS	Matrix Spike	T	Solid	6010B	720-61849
720-24203-1MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61849
720-24203-2	SS-2B	T	Solid	6010B	720-61849
720-24203-3	SS-3C	T	Solid	6010B	720-61849
720-24203-4	SS-4D	T	Solid	6010B	720-61849
720-24203-5	PH-1E	T	Solid	6010B	720-61849
720-24203-6	PH-1F	T	Solid	6010B	720-61849
720-24203-7	PH-2G	T	Solid	6010B	720-61849
720-24203-8	PH-2H	T	Solid	6010B	720-61849
720-24203-9	PH-3I	T	Solid	6010B	720-61849

Client: ERRG

Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-61970					
LCS 720-61937/2-A	Lab Control Sample	T	Solid	6010B	720-61937
LCSD 720-61937/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61937
LCSSRM 720-61937/22-A	LCS-Standard Reference Material	T	Solid	6010B	720-61937
MB 720-61937/1-A	Method Blank	T	Solid	6010B	720-61937
720-24203-7	PH-2G	T	Solid	6010B	720-61849
720-24203-12	PH-6L	T	Solid	6010B	720-61937
720-24205-A-9-C MS	Matrix Spike	T	Solid	6010B	720-61937
720-24205-A-9-D MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61937
Analysis Batch:720-61971					
LCS 720-61904/2-A	Lab Control Sample	T	Solid	6010B	720-61904
LCSD 720-61904/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61904
LCSSRM 720-61904/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-61904
MB 720-61904/1-A	Method Blank	T	Solid	6010B	720-61904
720-24203-10	PH-4J	T	Solid	6010B	720-61904
720-24203-10MS	Matrix Spike	T	Solid	6010B	720-61904
720-24203-10MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61904
720-24203-11	PH-5K	T	Solid	6010B	720-61904

Report Basis

T = Total

Client: ERRG

Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 720-61895					
720-24203-1	SS-1A	S	Solid	DI Leach	
720-24203-2	SS-2B	S	Solid	DI Leach	
720-24203-3	SS-3C	S	Solid	DI Leach	
720-24203-4	SS-4D	S	Solid	DI Leach	
720-24203-5	PH-1E	S	Solid	DI Leach	
720-24203-6	PH-1F	S	Solid	DI Leach	
720-24203-7	PH-2G	S	Solid	DI Leach	
720-24203-7DU	Duplicate	S	Solid	DI Leach	
720-24203-8	PH-2H	S	Solid	DI Leach	
720-24203-9	PH-3I	S	Solid	DI Leach	
720-24203-10	PH-4J	S	Solid	DI Leach	
720-24203-11	PH-5K	S	Solid	DI Leach	
720-24203-12	PH-6L	S	Solid	DI Leach	
Analysis Batch:720-62039					
LCS 720-62039/1	Lab Control Sample	T	Water	9045C	
720-24203-1	SS-1A	S	Solid	9045C	
720-24203-2	SS-2B	S	Solid	9045C	
720-24203-3	SS-3C	S	Solid	9045C	
720-24203-4	SS-4D	S	Solid	9045C	
720-24203-5	PH-1E	S	Solid	9045C	
720-24203-6	PH-1F	S	Solid	9045C	
720-24203-7	PH-2G	S	Solid	9045C	
720-24203-7DU	Duplicate	S	Solid	9045C	
720-24203-8	PH-2H	S	Solid	9045C	
720-24203-9	PH-3I	S	Solid	9045C	
720-24203-10	PH-4J	S	Solid	9045C	
720-24203-11	PH-5K	S	Solid	9045C	
720-24203-12	PH-6L	S	Solid	9045C	
Prep Batch: 720-62048					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	
MB 720-62048/1-A	Method Blank	T	Solid	9071B	
720-24203-7	PH-2G	T	Solid	9071B	
720-24203-9	PH-3I	T	Solid	9071B	
720-24203-9MS	Matrix Spike	T	Solid	9071B	
720-24203-9MSD	Matrix Spike Duplicate	T	Solid	9071B	

Client: ERRG

Job Number: 720-24203-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:720-62058					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	720-62048
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	720-62048
MB 720-62048/1-A	Method Blank	T	Solid	9071B	720-62048
720-24203-7	PH-2G	T	Solid	9071B	720-62048
720-24203-9	PH-3I	T	Solid	9071B	720-62048
720-24203-9MS	Matrix Spike	T	Solid	9071B	720-62048
720-24203-9MSD	Matrix Spike Duplicate	T	Solid	9071B	720-62048

Report Basis

S = Soluble

T = Total

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
Phenol	ND		0.066
Bis(2-chloroethyl)ether	ND		0.066
2-Chlorophenol	ND		0.066
1,3-Dichlorobenzene	ND		0.066
1,4-Dichlorobenzene	ND		0.066
Benzyl alcohol	ND		0.17
1,2-Dichlorobenzene	ND		0.066
2-Methylphenol	ND		0.066
4-Methylphenol	ND		0.066
N-Nitrosodi-n-propylamine	ND		0.066
Hexachloroethane	ND		0.066
Nitrobenzene	ND		0.066
Isophorone	ND		0.066
2-Nitrophenol	ND		0.066
2,4-Dimethylphenol	ND		0.066
Bis(2-chloroethoxy)methane	ND		0.17
2,4-Dichlorophenol	ND		0.33
1,2,4-Trichlorobenzene	ND		0.066
Naphthalene	ND		0.066
4-Chloroaniline	ND		0.066
Hexachlorobutadiene	ND		0.066
4-Chloro-3-methylphenol	ND		0.17
2-Methylnaphthalene	ND		0.066
Hexachlorocyclopentadiene	ND		0.17
2,4,6-Trichlorophenol	ND		0.066
2,4,5-Trichlorophenol	ND		0.066
2-Chloronaphthalene	ND		0.066
2-Nitroaniline	ND		0.33
Dimethyl phthalate	ND		0.17
Acenaphthylene	ND		0.066
3-Nitroaniline	ND		0.17
Acenaphthene	ND		0.066
2,4-Dinitrophenol	ND		0.33
4-Nitrophenol	ND		0.33
Dibenzofuran	ND		0.066
2,4-Dinitrotoluene	ND		0.066
2,6-Dinitrotoluene	ND		0.066
Diethyl phthalate	ND		0.17
4-Chlorophenyl phenyl ether	ND		0.17
Fluorene	ND		0.066
4-Nitroaniline	ND		0.33

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		0.33
N-Nitrosodiphenylamine	ND		0.066
4-Bromophenyl phenyl ether	ND		0.17
Hexachlorobenzene	ND		0.066
Pentachlorophenol	ND		0.33
Phenanthrene	ND		0.066
Anthracene	ND		0.066
Di-n-butyl phthalate	ND		0.17
Fluoranthene	ND		0.066
Pyrene	ND		0.066
Butyl benzyl phthalate	ND		0.17
3,3'-Dichlorobenzidine	ND		0.17
Benzo[a]anthracene	ND		0.33
Bis(2-ethylhexyl) phthalate	ND		0.33
Chrysene	ND		0.066
Di-n-octyl phthalate	ND		0.99
Benzo[b]fluoranthene	ND		0.066
Benzo[a]pyrene	ND		0.066
Benzo[k]fluoranthene	ND		0.066
Indeno[1,2,3-cd]pyrene	ND		0.066
Benzo[g,h,i]perylene	ND		0.066
Benzoic acid	ND		0.33
Azobenzene	ND		0.066
Dibenz(a,h)anthracene	ND		0.066

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	76	21 - 98
2-Fluorobiphenyl	82	38 - 96
Terphenyl-d14	69	32 - 117
2-Fluorophenol	84	28 - 98
Phenol-d5	80	23 - 101
2,4,6-Tribromophenol	77	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-62026/2-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\2009
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.16 g
Date Analyzed:	11/25/2009 1531			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

LCSD Lab Sample ID:	LCSD 720-62026/3-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\200911
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.21 g
Date Analyzed:	11/25/2009 1603			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	72	65	48 - 115	10	35		
Bis(2-chloroethyl)ether	75	70	45 - 115	7	35		
2-Chlorophenol	75	68	48 - 115	10	35		
1,3-Dichlorobenzene	71	72	41 - 115	1	35		
1,4-Dichlorobenzene	76	71	40 - 115	6	35		
Benzyl alcohol	77	68	54 - 115	13	35		
1,2-Dichlorobenzene	72	61	44 - 115	17	35		
2-Methylphenol	80	74	54 - 115	8	35		
4-Methylphenol	79	78	50 - 115	2	35		
N-Nitrosodi-n-propylamine	75	66	46 - 115	14	35		
Hexachloroethane	72	67	44 - 115	7	35		
Nitrobenzene	77	75	48 - 115	3	35		
Isophorone	83	78	54 - 115	5	35		
2-Nitrophenol	78	77	48 - 115	0	35		
2,4-Dimethylphenol	78	79	52 - 115	1	35		
Bis(2-chloroethoxy)methane	75	72	46 - 115	4	35		
2,4-Dichlorophenol	75	75	49 - 100	1	35		
1,2,4-Trichlorobenzene	77	74	47 - 115	4	35		
Naphthalene	70	71	44 - 115	1	35		
4-Chloroaniline	48	46	30 - 115	3	35		
Hexachlorobutadiene	75	70	44 - 115	7	35		
4-Chloro-3-methylphenol	77	73	58 - 115	5	35		
2-Methylnaphthalene	75	72	49 - 115	4	35		
Hexachlorocyclopentadiene	76	78	42 - 132	2	35		
2,4,6-Trichlorophenol	78	78	45 - 115	0	35		
2,4,5-Trichlorophenol	74	71	48 - 115	5	35		
2-Chloronaphthalene	66	70	52 - 115	7	35		
2-Nitroaniline	81	76	54 - 115	6	35		
Dimethyl phthalate	76	75	64 - 119	1	35		
Acenaphthylene	83	79	61 - 129	6	35		
3-Nitroaniline	70	66	50 - 115	7	35		
Acenaphthene	68	67	50 - 115	1	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID: LCS 720-62026/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1531
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 1 mL
Injection Volume:

LCSD Lab Sample ID: LCSD 720-62026/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1603
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\200911
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	58	57	21 - 115	2	35		
4-Nitrophenol	88	86	54 - 125	2	35		
Dibenzofuran	76	70	55 - 115	9	35		
2,4-Dinitrotoluene	78	76	57 - 115	2	35		
2,6-Dinitrotoluene	75	71	54 - 119	5	35		
Diethyl phthalate	71	72	49 - 117	2	35		
4-Chlorophenyl phenyl ether	69	71	57 - 115	3	35		
Fluorene	72	68	54 - 115	6	35		
4-Nitroaniline	81	75	59 - 115	7	35		
2-Methyl-4,6-dinitrophenol	78	80	48 - 115	3	35		
N-Nitrosodiphenylamine	76	79	56 - 115	4	35		
4-Bromophenyl phenyl ether	76	73	53 - 115	4	35		
Hexachlorobenzene	70	75	55 - 115	7	35		
Pentachlorophenol	65	65	35 - 115	1	35		
Phenanthrene	76	77	54 - 115	0	35		
Anthracene	66	74	55 - 115	11	35		
Di-n-butyl phthalate	83	84	55 - 115	0	35		
Fluoranthene	84	84	54 - 115	0	35		
Pyrene	88	83	48 - 115	7	35		
Butyl benzyl phthalate	88	80	53 - 115	10	35		
3,3'-Dichlorobenzidine	85	78	42 - 115	9	35		
Benzo[a]anthracene	97	88	55 - 115	10	35		
Bis(2-ethylhexyl) phthalate	91	80	53 - 115	12	35		
Chrysene	81	77	58 - 115	5	35		
Di-n-octyl phthalate	86	73	53 - 115	16	35		
Benzo[b]fluoranthene	80	71	56 - 115	13	35		
Benzo[a]pyrene	83	80	55 - 115	5	35		
Benzo[k]fluoranthene	91	77	57 - 115	16	35		
Indeno[1,2,3-cd]pyrene	85	78	56 - 115	8	35		
Benzo[g,h,i]perylene	90	84	56 - 115	7	35		
Benzoic acid	11	16	10 - 115	39	35		*
Azobenzene	71	65	52 - 115	9	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-62026/2-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\2009
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.16 g
Date Analyzed:	11/25/2009 1531			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

LCSD Lab Sample ID:	LCSD 720-62026/3-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\200911
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.21 g
Date Analyzed:	11/25/2009 1603			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	97	88	58 - 115	10	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	78	21 - 98
2-Fluorobiphenyl	73	73	38 - 96
Terphenyl-d14	89	80	32 - 117
2-Fluorophenol	74	72	28 - 98
Phenol-d5	78	74	23 - 101
2,4,6-Tribromophenol	79	72	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	69	62	23 - 115	10	35		
Bis(2-chloroethyl)ether	76	72	27 - 115	6	35		
2-Chlorophenol	75	69	16 - 115	8	35		
1,3-Dichlorobenzene	76	75	22 - 115	2	35		
1,4-Dichlorobenzene	72	70	21 - 115	3	35		
Benzyl alcohol	75	69	28 - 115	9	35		
1,2-Dichlorobenzene	70	66	25 - 115	6	35		
2-Methylphenol	76	75	32 - 115	1	35		
4-Methylphenol	82	76	28 - 115	8	35		
N-Nitrosodi-n-propylamine	75	69	27 - 115	9	35		
Hexachloroethane	74	70	19 - 115	6	35		
Nitrobenzene	76	82	30 - 115	7	35		
Isophorone	82	88	36 - 115	6	35		
2-Nitrophenol	79	80	11 - 116	1	35		
2,4-Dimethylphenol	80	83	36 - 115	3	35		
Bis(2-chloroethoxy)methane	73	78	28 - 115	6	35		
2,4-Dichlorophenol	71	79	17 - 115	11	35		
1,2,4-Trichlorobenzene	76	77	29 - 115	2	35		
Naphthalene	72	76	22 - 115	6	35		
4-Chloroaniline	28	25	7 - 115	12	35		
Hexachlorobutadiene	79	81	26 - 115	2	35		
4-Chloro-3-methylphenol	75	79	42 - 115	5	35		
2-Methylnaphthalene	73	71	28 - 115	4	35		
Hexachlorocyclopentadiene	78	82	15 - 115	5	35		
2,4,6-Trichlorophenol	76	77	25 - 115	1	35		
2,4,5-Trichlorophenol	70	68	38 - 115	4	35		
2-Chloronaphthalene	72	71	38 - 115	2	35		
2-Nitroaniline	80	79	43 - 115	2	35		
Dimethyl phthalate	75	75	55 - 116	0	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthylene	83	85	49 - 120	2	35		
3-Nitroaniline	70	67	39 - 115	4	35		
Acenaphthene	69	69	42 - 115	0	35		
2,4-Dinitrophenol	57	53	13 - 122	8	35		
4-Nitrophenol	84	86	25 - 147	1	35		
Dibenzofuran	70	70	43 - 115	1	35		
2,4-Dinitrotoluene	78	76	47 - 115	2	35		
2,6-Dinitrotoluene	79	77	55 - 115	3	35		
Diethyl phthalate	72	73	48 - 115	2	35		
4-Chlorophenyl phenyl ether	72	68	44 - 115	5	35		
Fluorene	73	70	41 - 115	4	35		
4-Nitroaniline	74	77	47 - 120	4	35		
2-Methyl-4,6-dinitrophenol	79	79	19 - 132	0	35		
N-Nitrosodiphenylamine	80	82	43 - 115	3	35		
4-Bromophenyl phenyl ether	77	73	45 - 115	6	35		
Hexachlorobenzene	84	81	48 - 115	3	35		
Pentachlorophenol	69	69	7 - 132	1	35		
Phenanthrene	77	73	38 - 115	5	35		
Anthracene	77	76	47 - 115	3	35		
Di-n-butyl phthalate	85	88	46 - 115	3	35		
Fluoranthene	84	82	40 - 115	3	35		
Pyrene	77	80	35 - 115	3	35		
Butyl benzyl phthalate	76	73	40 - 115	4	35		
3,3'-Dichlorobenzidine	70	66	17 - 115	6	35		
Benzo[a]anthracene	81	84	42 - 115	3	35		
Bis(2-ethylhexyl) phthalate	79	84	42 - 115	6	35		
Chrysene	71	73	37 - 115	3	35		
Di-n-octyl phthalate	76	74	46 - 115	3	35		
Benzo[b]fluoranthene	82	79	43 - 115	5	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-9	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[a]pyrene	79	79	48 - 115	0	35		
Benzo[k]fluoranthene	78	80	39 - 115	4	35		
Indeno[1,2,3-cd]pyrene	83	89	50 - 115	7	35		
Benzo[g,h,i]perylene	89	92	43 - 115	4	35		
Benzoic acid	6	6	0 - 115	5	35		
Azobenzene	68	71	48 - 115	5	35		
Dibenz(a,h)anthracene	94	94	49 - 115	0	35		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	83	21 - 98
2-Fluorobiphenyl	77	72	38 - 96
Terphenyl-d14	79	78	32 - 117
2-Fluorophenol	77	70	28 - 98
Phenol-d5	82	73	23 - 101
2,4,6-Tribromophenol	80	80	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-61957

Method: 8082
Preparation: 3550B

Lab Sample ID: MB 720-61957/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1444
Date Prepared: 11/24/2009 1008

Analysis Batch: 720-62016
Prep Batch: 720-61957
Units: ug/Kg

Instrument ID: Agilent PCB 2
Lab File ID: m1125012.d
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		50
PCB-1221	ND		50
PCB-1232	ND		50
PCB-1242	ND		50
PCB-1248	ND		50
PCB-1254	ND		50
PCB-1260	ND		50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	93	32 - 112
DCB Decachlorobiphenyl	95	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61957

Method: 8082
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-61957/2-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125013.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.29 g
Date Analyzed:	11/25/2009 1506			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 720-61957/3-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125014.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.33 g
Date Analyzed:	11/25/2009 1528			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	104	107	69 - 120	3	20		
PCB-1260	105	106	73 - 114	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	93	92	32 - 112
DCB Decachlorobiphenyl	93	94	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-61849

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 720-61849/1-A	Analysis Batch:	720-61944	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61849	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/23/2009 1746			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

Analyte	Result	Qual	RL
Antimony	ND		0.49
Arsenic	ND		0.97
Barium	ND		0.49
Beryllium	ND		0.097
Cadmium	ND		0.12
Chromium	ND		0.49
Cobalt	ND		0.19
Copper	ND		1.5
Lead	ND		0.49
Molybdenum	ND		0.49
Nickel	ND		0.49
Selenium	ND		0.49
Silver	ND		0.24
Thallium	ND		0.49
Vanadium	ND		0.49
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

LCS-Standard Reference Material - Batch: 720-61849

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-61849/25-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 2012
Date Prepared: 11/20/2009 1740

Analysis Batch: 720-61944
Prep Batch: 720-61849
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	11.9	43	11 - 101	
Arsenic	22.7	20.4	90	69 - 119	
Barium	145	128	88	61 - 117	
Beryllium	1.09	0.956	88	56 - 102	
Cadmium	42.2	38.6	91	67 - 118	
Chromium	246	224	91	67 - 121	
Cobalt	65.1	65.0	100	64 - 133	
Copper	58.5	55.9	96	68 - 126	
Lead	44.1	37.1	84	62 - 113	
Molybdenum	61.0	55.6	91	62 - 128	
Nickel	96.8	87.3	90	65 - 117	
Selenium	165	147	89	63 - 126	
Silver	79.5	69.1	87	51 - 130	
Thallium	55.9	49.3	88	64 - 124	
Vanadium	56.7	53.4	94	67 - 123	
Zinc	44.0	37.5	85	62 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61849

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61849/2-A	Analysis Batch:	720-61944	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61849	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/23/2009 1751			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

LCSD Lab Sample ID:	LCSD 720-61849/3-A	Analysis Batch:	720-61944	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61849	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/23/2009 1757			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	100	100	80 - 120	0	20		
Arsenic	99	99	80 - 120	1	20		
Barium	104	102	80 - 120	2	20		
Beryllium	103	100	80 - 120	2	20		
Cadmium	102	101	80 - 120	1	20		
Chromium	104	100	80 - 120	3	20		
Cobalt	104	103	80 - 120	1	20		
Copper	103	102	80 - 120	1	20		
Lead	102	100	80 - 120	2	20		
Molybdenum	105	104	80 - 120	1	20		
Nickel	104	103	80 - 120	1	20		
Selenium	96	95	80 - 120	1	20		
Silver	99	97	80 - 120	2	20		
Thallium	101	100	80 - 120	1	20		
Vanadium	104	103	80 - 120	1	20		
Zinc	99	98	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61849

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24203-1	Analysis Batch:	720-61944	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61849	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.05 g
Date Analyzed:	11/23/2009 1802			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

MSD Lab Sample ID:	720-24203-1	Analysis Batch:	720-61944	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61849	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/23/2009 1807			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1740				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	29	31	75 - 125	10	20	F	F
Arsenic	96	98	75 - 125	7	20		
Barium	-55	76	75 - 125	30	20	4	4 F
Beryllium	106	99	75 - 125	1	20		
Cadmium	98	97	75 - 125	5	20		
Chromium	91	87	75 - 125	0	20		
Cobalt	94	90	75 - 125	1	20		
Copper	67	127	75 - 125	24	20	F	F
Lead	147	137	75 - 125	0	20	F	F
Molybdenum	88	87	75 - 125	5	20		
Nickel	85	95	75 - 125	13	20		
Selenium	97	94	75 - 125	3	20		
Silver	102	98	75 - 125	2	20		
Thallium	97	94	75 - 125	4	20		
Vanadium	73	65	75 - 125	2	20	F	F
Zinc	-98	108	75 - 125	29	20	4	4 F

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-61904

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-61904/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1005
Date Prepared: 11/23/2009 1215

Analysis Batch: 720-61971
Prep Batch: 720-61904
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		0.50
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

LCS-Standard Reference Material - Batch: 720-61904

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-61904/25-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1244
Date Prepared: 11/23/2009 1215

Analysis Batch: 720-61971
Prep Batch: 720-61904
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	13.7	50	11 - 101	
Arsenic	22.7	21.0	93	69 - 119	
Barium	145	133	92	61 - 117	
Beryllium	1.09	0.951	87	56 - 102	
Cadmium	42.2	38.8	92	67 - 118	
Chromium	246	227	92	67 - 121	
Cobalt	65.1	63.9	98	64 - 133	
Copper	58.5	54.2	93	68 - 126	
Lead	44.1	38.3	87	62 - 113	
Molybdenum	61.0	54.4	89	62 - 128	
Nickel	96.8	88.3	91	65 - 117	
Selenium	165	148	90	63 - 126	
Silver	79.5	74.3	94	51 - 130	
Thallium	55.9	50.3	90	64 - 124	
Vanadium	56.7	55.0	97	67 - 123	
Zinc	44.0	37.6	86	62 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61904

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61904/2-A	Analysis Batch:	720-61971	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61904	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1011			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

LCSD Lab Sample ID:	LCSD 720-61904/3-A	Analysis Batch:	720-61971	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61904	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.02 g
Date Analyzed:	11/24/2009 1016			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	100	99	80 - 120	2	20		
Arsenic	105	102	80 - 120	4	20		
Barium	104	102	80 - 120	2	20		
Beryllium	105	103	80 - 120	3	20		
Cadmium	104	101	80 - 120	4	20		
Chromium	106	103	80 - 120	3	20		
Cobalt	108	104	80 - 120	4	20		
Copper	105	102	80 - 120	3	20		
Lead	105	102	80 - 120	3	20		
Molybdenum	105	103	80 - 120	3	20		
Nickel	106	103	80 - 120	3	20		
Selenium	99	96	80 - 120	3	20		
Silver	100	98	80 - 120	2	20		
Thallium	104	102	80 - 120	3	20		
Vanadium	101	100	80 - 120	2	20		
Zinc	104	101	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61904

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24203-10	Analysis Batch:	720-61971	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61904	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1022			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

MSD Lab Sample ID:	720-24203-10	Analysis Batch:	720-61971	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61904	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1027			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1215				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	37	46	75 - 125	19	20	F	F
Arsenic	96	98	75 - 125	2	20		
Barium	0	39	75 - 125	7	20	4	4
Beryllium	102	103	75 - 125	0	20		
Cadmium	97	98	75 - 125	1	20		
Chromium	99	94	75 - 125	3	20		
Cobalt	96	100	75 - 125	4	20		
Copper	19	66	75 - 125	16	20	F	F
Lead	518	225	75 - 125	34	20	4	4 F
Molybdenum	90	90	75 - 125	1	20		
Nickel	90	100	75 - 125	9	20		
Selenium	92	93	75 - 125	1	20		
Silver	99	100	75 - 125	1	20		
Thallium	95	95	75 - 125	0	20		
Vanadium	82	93	75 - 125	5	20		
Zinc	-111	53	75 - 125	11	20	4	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-61937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 720-61937/1-A	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1022			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

Analyte	Result	Qual	RL
Antimony	ND		0.51
Arsenic	ND		1.0
Barium	ND		0.51
Beryllium	ND		0.10
Cadmium	ND		0.13
Chromium	ND		0.51
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.51
Molybdenum	ND		0.51
Nickel	ND		0.51
Selenium	ND		0.51
Silver	ND		0.26
Thallium	ND		0.51
Vanadium	ND		0.51
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

LCS-Standard Reference Material - Batch: 720-61937

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-61937/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1233
Date Prepared: 11/23/2009 1908

Analysis Batch: 720-61970
Prep Batch: 720-61937
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	10.4	38	11 - 101	
Arsenic	22.7	21.1	93	69 - 119	
Barium	145	137	94	61 - 117	
Beryllium	1.09	0.918	84	56 - 102	
Cadmium	42.2	39.7	94	67 - 118	
Chromium	246	207	84	67 - 121	
Cobalt	65.1	61.2	94	64 - 133	
Copper	58.5	56.7	97	68 - 126	
Lead	44.1	37.5	85	62 - 113	
Molybdenum	61.0	58.2	95	62 - 128	
Nickel	96.8	86.2	89	65 - 117	
Selenium	165	150	91	63 - 126	
Silver	79.5	64.9	82	51 - 130	
Thallium	55.9	50.1	90	64 - 124	
Vanadium	56.7	50.8	90	67 - 123	
Zinc	44.0	36.9	84	62 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61937

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61937/2-A	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.05 g
Date Analyzed:	11/24/2009 1027			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

LCSD Lab Sample ID:	LCSD 720-61937/3-A	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1033			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	99	103	80 - 120	5	20		
Arsenic	99	103	80 - 120	5	20		
Barium	102	105	80 - 120	4	20		
Beryllium	98	101	80 - 120	4	20		
Cadmium	100	103	80 - 120	4	20		
Chromium	99	103	80 - 120	4	20		
Cobalt	102	105	80 - 120	4	20		
Copper	102	106	80 - 120	4	20		
Lead	101	104	80 - 120	4	20		
Molybdenum	104	107	80 - 120	4	20		
Nickel	101	105	80 - 120	4	20		
Selenium	95	99	80 - 120	5	20		
Silver	96	99	80 - 120	4	20		
Thallium	100	103	80 - 120	4	20		
Vanadium	101	104	80 - 120	4	20		
Zinc	98	101	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61937

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24205-A-9-C MS	Analysis Batch: 720-61970	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-61937	Lab File ID: N/A
Dilution:	4.0		Initial Weight/Volume: 1.00 g
Date Analyzed:	11/24/2009 1038		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1908		

MSD Lab Sample ID:	720-24205-A-9-D MSD	Analysis Batch: 720-61970	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-61937	Lab File ID: N/A
Dilution:	4.0		Initial Weight/Volume: 0.99 g
Date Analyzed:	11/24/2009 1043		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1908		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	49	50	75 - 125	3	20	F	F
Arsenic	98	94	75 - 125	3	20		
Barium	76	-7	75 - 125	12	20	4	4
Beryllium	104	100	75 - 125	3	20		
Cadmium	102	99	75 - 125	2	20		
Chromium	90	71	75 - 125	12	20		F
Cobalt	94	91	75 - 125	2	20		
Copper	93	14	75 - 125	16	20	4	4
Lead	608	246	75 - 125	30	20	4	4 F
Molybdenum	96	92	75 - 125	3	20		
Nickel	106	78	75 - 125	18	20		
Selenium	98	97	75 - 125	0	20		
Silver	106	100	75 - 125	4	20		
Thallium	99	97	75 - 125	1	20		
Vanadium	100	88	75 - 125	6	20		
Zinc	203	-654	75 - 125	31	20	4	4 F

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Method Blank - Batch: 720-61857

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-61857/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1420
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.63 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.019

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61857

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-61857/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1422
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-61857/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1425
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	99	100	80 - 120	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61857

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	720-24203-1	Analysis Batch:	720-61924	Instrument ID:	LL HG Analyzer
Client Matrix:	Solid	Prep Batch:	720-61857	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1427			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

MSD Lab Sample ID:	720-24203-1	Analysis Batch:	720-61924	Instrument ID:	LL HG Analyzer
Client Matrix:	Solid	Prep Batch:	720-61857	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1430			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	101	106	75 - 125	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Lab Control Sample - Batch: 720-62039

Method: 9045C
Preparation: N/A

Lab Sample ID: LCS 720-62039/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2009 1350
Date Prepared: N/A

Analysis Batch: 720-62039
Prep Batch: N/A
Units: SU

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH-Soluble	7.00	7.090	101	99 - 101	

Duplicate - Batch: 720-62039

Method: 9045C
Preparation: N/A

Lab Sample ID: 720-24203-7
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1821
Date Prepared: N/A
Date Leached: 11/23/2009 1037

Analysis Batch: 720-62039
Prep Batch: N/A
Units: SU

Leachate Batch: 720-61895

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH-Soluble	6.42	6.370	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 720-62048

Method: 9071B
Preparation: 9071B

Lab Sample ID: MB 720-62048/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

Analyte	Result	Qual	RL
SGT-HEM	ND		100

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

LCS Lab Sample ID: LCS 720-62048/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 10.01 mL

LCSD Lab Sample ID: LCSD 720-62048/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
SGT-HEM	92	98	66 - 120	5	24		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

MS Lab Sample ID:	720-24203-9	Analysis Batch:	720-62058	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	720-62048	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10.08 g
Date Analyzed:	11/25/2009 1448			Final Weight/Volume:	10.08 mL
Date Prepared:	11/25/2009 1402				

MSD Lab Sample ID:	720-24203-9	Analysis Batch:	720-62058	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	720-62048	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10.02 g
Date Analyzed:	11/25/2009 1448			Final Weight/Volume:	10.02 mL
Date Prepared:	11/25/2009 1402				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
SGT-HEM	103	90	66 - 120	12	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

720-24203

TESTAMERICA San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120641

Date 19 Nov.09 Page 1 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome Street Suite 200
Phone: 415-710-2846 Email: Spencer.Slominski@errg.com
Bill To: ERRG
Sampled By: STS
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS	Anions : ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins + Furans 8290			Number of Containers
SS-1A	11/16/09	14.00	SS	None										X				X								1
SS-2B	11/16/09	14.10	SS	None										X				X								1
SS-3C	11/16/09	14.55	SS	None										X				X								1
SS-4D	11/16/09	15.05	SS	None										X				X								1
PH-1E	11/17/09	10.07	SS	None										X				X								1
PH-1F	11/17/09	10.25	SS	None										X				X								1
PH-2G	11/17/09	10.55	SS	None						X		X		X				X				X	X			2
PH-2H	11/17/09	11.47	SS	None										X				X								1
PH-3I	11/17/09	13.55	SS	None						X		X		X				X				X	X			2
PH-4J	11/17/09	14.40	SS	None										X				X								1

Project Info.

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.2°C
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: Spm Slm — Time: 16:02	Signature: — Time:	Signature: — Time:
Printed Name: Spencer Slominski — Date: 11/19/09	Printed Name: — Date:	Printed Name: — Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: Joan Mullen — Time: 930	Signature: — Time:	Signature: — Time:
Printed Name: Mullen — Date: 11-20-09	Printed Name: — Date:	Printed Name: — Date:
Company: TestAmerica	Company:	Company:

Rev09/09

720-24203

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120641

Date 19 Nov. 09 Page 2 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: Spencer.Slominski@errg.com
Bill To: ERRG
Sampled By: SJS
Attn: Caitlin Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4					Number of Containers
PH-5K	11/17/09	15:13	SS	None										X				X								1
PH-6L	11/17/09	16:10	SS	None										X				X								1

Project Info.

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.2°C
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 16:00	Signature: Time:	Signature: Time:
Printed Name: Spencer Slominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: test America	Company:	Company:

Rev09/09

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24203-1

Login Number: 24203

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24204-1

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
11/30/2009 6:06 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
11/30/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Job Narrative
720-24204-1

Comments
No additional comments.

Receipt
Sample TR-4V is listed twice on the COC. Logged only once.

All other samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method 8270C: The laboratory control sample (LCS) for batch #62026 exceeded control limits for the following analyte(s): Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC Semi VOA
Method 8082: Sample pattern does not match pattern of standards for 720-24204-7. However, it most closely matches the Aroclor 1248 standard. Also presence of 1254 and 1260 aroclors.

Method 8082: Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: TR-4W (720-24204-11).

Method 8082: The following sample(s) contained more than one Aroclor component: TR-4W (720-24204-11). Aroclors 1254 and 1260 are also present in addition to Aroclor 1248.

Method 8082: There is prescence of Aroclor 1254 in sample 720-24205-6. However, the pattern of the sample does not completely match the pattern of the calibration standard. Also prescence of Aroclor 1260.

Method 8082: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61957 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61914 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-1	**TR-1M**				
Barium		92	2.0	mg/Kg	6010B
Chromium		14	2.0	mg/Kg	6010B
Cobalt		7.2	0.82	mg/Kg	6010B
Copper		31	6.1	mg/Kg	6010B
Lead		4.3	2.0	mg/Kg	6010B
Nickel		2.4	2.0	mg/Kg	6010B
Vanadium		83	2.0	mg/Kg	6010B
Zinc		23	6.1	mg/Kg	6010B
Soluble					
pH-Soluble		6.23	0.100	SU	9045C
720-24204-2	**TR-1N**				
Antimony		3.8	1.9	mg/Kg	6010B
Arsenic		4.5	3.8	mg/Kg	6010B
Barium		310	1.9	mg/Kg	6010B
Cadmium		2.1	0.48	mg/Kg	6010B
Chromium		32	1.9	mg/Kg	6010B
Cobalt		10	0.77	mg/Kg	6010B
Copper		190	5.8	mg/Kg	6010B
Lead		340	1.9	mg/Kg	6010B
Nickel		18	1.9	mg/Kg	6010B
Vanadium		73	1.9	mg/Kg	6010B
Zinc		950	5.8	mg/Kg	6010B
Mercury		0.12	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		8.07	0.100	SU	9045C
720-24204-3	**TR-1O**				
Barium		170	2.0	mg/Kg	6010B
Chromium		16	2.0	mg/Kg	6010B
Cobalt		10	0.79	mg/Kg	6010B
Copper		87	5.9	mg/Kg	6010B
Lead		52	2.0	mg/Kg	6010B
Nickel		5.3	2.0	mg/Kg	6010B
Vanadium		82	2.0	mg/Kg	6010B
Zinc		190	5.9	mg/Kg	6010B
Soluble					
pH-Soluble		8.17	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-4	**TR-2P**				
Barium		180	1.9	mg/Kg	6010B
Chromium		14	1.9	mg/Kg	6010B
Cobalt		8.4	0.78	mg/Kg	6010B
Copper		27	5.8	mg/Kg	6010B
Lead		13	1.9	mg/Kg	6010B
Nickel		3.6	1.9	mg/Kg	6010B
Vanadium		78	1.9	mg/Kg	6010B
Zinc		140	5.8	mg/Kg	6010B
Soluble					
pH-Soluble		6.58	0.100	SU	9045C
720-24204-5	**TR-2Q**				
Barium		130	1.9	mg/Kg	6010B
Chromium		21	1.9	mg/Kg	6010B
Cobalt		8.4	0.78	mg/Kg	6010B
Copper		45	5.8	mg/Kg	6010B
Lead		21	1.9	mg/Kg	6010B
Nickel		9.3	1.9	mg/Kg	6010B
Vanadium		110	1.9	mg/Kg	6010B
Zinc		170	5.8	mg/Kg	6010B
Soluble					
pH-Soluble		7.27	0.100	SU	9045C
720-24204-6	**TR-3R**				
Barium		110	1.9	mg/Kg	6010B
Chromium		14	1.9	mg/Kg	6010B
Cobalt		7.8	0.77	mg/Kg	6010B
Copper		29	5.8	mg/Kg	6010B
Nickel		4.1	1.9	mg/Kg	6010B
Vanadium		55	1.9	mg/Kg	6010B
Zinc		28	5.8	mg/Kg	6010B
Soluble					
pH-Soluble		6.61	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-7	**TR-3S**				
Pentachlorophenol		0.49	0.33	mg/Kg	8270C
Anthracene		0.14	0.067	mg/Kg	8270C
Fluoranthene		0.14	0.067	mg/Kg	8270C
Pyrene		0.13	0.067	mg/Kg	8270C
Chrysene		0.076	0.067	mg/Kg	8270C
Benzo[b]fluoranthene		0.17	0.067	mg/Kg	8270C
Benzo[a]pyrene		0.092	0.067	mg/Kg	8270C
Indeno[1,2,3-cd]pyrene		0.13	0.067	mg/Kg	8270C
Benzo[g,h,i]perylene		0.23	0.067	mg/Kg	8270C
PCB-1248		190	50	ug/Kg	8082
Antimony		5.4	2.0	mg/Kg	6010B
Arsenic		6.2	3.9	mg/Kg	6010B
Barium		450	2.0	mg/Kg	6010B
Cadmium		6.6	0.49	mg/Kg	6010B
Chromium		46	2.0	mg/Kg	6010B
Cobalt		9.6	0.78	mg/Kg	6010B
Copper		290	5.9	mg/Kg	6010B
Lead		550	2.0	mg/Kg	6010B
Molybdenum		2.8	2.0	mg/Kg	6010B
Nickel		27	2.0	mg/Kg	6010B
Silver		1.7	0.98	mg/Kg	6010B
Vanadium		50	2.0	mg/Kg	6010B
Zinc		2100	5.9	mg/Kg	6010B
Mercury		0.18	0.020	mg/Kg	7471A
SGT-HEM		130	100	mg/Kg	9071B
Soluble					
pH-Soluble		7.43	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-8	**TR-3T**				
Antimony		3.1	2.0	mg/Kg	6010B
Arsenic		5.4	4.0	mg/Kg	6010B
Barium		300	2.0	mg/Kg	6010B
Cadmium		6.3	0.51	mg/Kg	6010B
Chromium		33	2.0	mg/Kg	6010B
Cobalt		7.7	0.81	mg/Kg	6010B
Copper		200	6.1	mg/Kg	6010B
Lead		380	2.0	mg/Kg	6010B
Molybdenum		2.1	2.0	mg/Kg	6010B
Nickel		28	2.0	mg/Kg	6010B
Vanadium		42	2.0	mg/Kg	6010B
Zinc		2300	6.1	mg/Kg	6010B
Mercury		0.51	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.50	0.100	SU	9045C
720-24204-9	**TR-4U**				
Barium		110	1.9	mg/Kg	6010B
Chromium		29	1.9	mg/Kg	6010B
Cobalt		8.8	0.77	mg/Kg	6010B
Copper		44	5.8	mg/Kg	6010B
Lead		25	1.9	mg/Kg	6010B
Nickel		4.7	1.9	mg/Kg	6010B
Vanadium		68	1.9	mg/Kg	6010B
Zinc		89	5.8	mg/Kg	6010B
Soluble					
pH-Soluble		6.23	0.100	SU	9045C
720-24204-10	**TR-4V**				
Barium		200	2.0	mg/Kg	6010B
Cadmium		1.0	0.51	mg/Kg	6010B
Chromium		25	2.0	mg/Kg	6010B
Cobalt		7.9	0.81	mg/Kg	6010B
Copper		160	6.1	mg/Kg	6010B
Lead		240	2.0	mg/Kg	6010B
Nickel		10	2.0	mg/Kg	6010B
Vanadium		67	2.0	mg/Kg	6010B
Zinc		600	6.1	mg/Kg	6010B
Mercury		0.11	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.71	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-11	**TR-4W**				
PCB-1248		1200	500	ug/Kg	8082
Antimony		7.0	2.0	mg/Kg	6010B
Arsenic		11	4.0	mg/Kg	6010B
Barium		180	2.0	mg/Kg	6010B
Cadmium		0.66	0.50	mg/Kg	6010B
Chromium		41	2.0	mg/Kg	6010B
Cobalt		14	0.79	mg/Kg	6010B
Copper		300	5.9	mg/Kg	6010B
Lead		2300	2.0	mg/Kg	6010B
Molybdenum		4.7	2.0	mg/Kg	6010B
Nickel		31	2.0	mg/Kg	6010B
Vanadium		32	2.0	mg/Kg	6010B
Zinc		1400	5.9	mg/Kg	6010B
Mercury		0.17	0.019	mg/Kg	7471A
SGT-HEM		200	100	mg/Kg	9071B
Soluble					
pH-Soluble		7.24	0.100	SU	9045C

METHOD SUMMARY

Client: ERRG

Job Number: 720-24204-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL SF	SW846 8270C	
Ultrasonic Extraction	TAL SF		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL SF	SW846 8082	
Ultrasonic Extraction	TAL SF		SW846 3550B
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B
Mercury (CVAA)	TAL SF	SW846 7471A	
Preparation, Mercury	TAL SF		SW846 7471A
pH	TAL SF	SW846 9045C	
Deionized Water Leaching Procedure	TAL SF		ASTM DI Leach
HEM	TAL SF	SW846 9071B	
HEM	TAL SF		SW846 9071B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24204-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24204-1	TR-1M	Solid	11/18/2009 0750	11/20/2009 0930
720-24204-2	TR-1N	Solid	11/18/2009 0800	11/20/2009 0930
720-24204-3	TR-1O	Solid	11/18/2009 0807	11/20/2009 0930
720-24204-4	TR-2P	Solid	11/18/2009 0823	11/20/2009 0930
720-24204-5	TR-2Q	Solid	11/18/2009 0834	11/20/2009 0930
720-24204-6	TR-3R	Solid	11/18/2009 0915	11/20/2009 0930
720-24204-7	TR-3S	Solid	11/18/2009 0925	11/20/2009 0930
720-24204-8	TR-3T	Solid	11/18/2009 0943	11/20/2009 0930
720-24204-9	TR-4U	Solid	11/18/2009 1015	11/20/2009 0930
720-24204-10	TR-4V	Solid	11/18/2009 1023	11/20/2009 0930
720-24204-11	TR-4W	Solid	11/18/2009 1046	11/20/2009 0930

Client: ERRG Job Number: 720-24204-1

Client Sample ID: **TR-3S**

Lab Sample ID: 720-24204-7 Date Sampled: 11/18/2009 0925
Client Matrix: Solid Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Date Analyzed:	11/25/2009 1847			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.067
Bis(2-chloroethyl)ether		ND		0.067
2-Chlorophenol		ND		0.067
1,3-Dichlorobenzene		ND		0.067
1,4-Dichlorobenzene		ND		0.067
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.067
2-Methylphenol		ND		0.067
4-Methylphenol		ND		0.067
N-Nitrosodi-n-propylamine		ND		0.067
Hexachloroethane		ND		0.067
Nitrobenzene		ND		0.067
Isophorone		ND		0.067
2-Nitrophenol		ND		0.067
2,4-Dimethylphenol		ND		0.067
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.067
Naphthalene		ND		0.067
4-Chloroaniline		ND		0.067
Hexachlorobutadiene		ND		0.067
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.067
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.067
2,4,5-Trichlorophenol		ND		0.067
2-Chloronaphthalene		ND		0.067
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.067
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.067
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.067
2,4-Dinitrotoluene		ND		0.067
2,6-Dinitrotoluene		ND		0.067
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.067
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.067
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.067
Pentachlorophenol		0.49		0.33

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-3S**

Lab Sample ID: 720-24204-7
Client Matrix: Solid

Date Sampled: 11/18/2009 0925
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Date Analyzed:	11/25/2009 1847			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.067
Anthracene		0.14		0.067
Di-n-butyl phthalate		ND		0.17
Fluoranthene		0.14		0.067
Pyrene		0.13		0.067
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		0.076		0.067
Di-n-octyl phthalate		ND		1.0
Benzo[b]fluoranthene		0.17		0.067
Benzo[a]pyrene		0.092		0.067
Benzo[k]fluoranthene		ND		0.067
Indeno[1,2,3-cd]pyrene		0.13		0.067
Benzo[g,h,i]perylene		0.23		0.067
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.067
Dibenz(a,h)anthracene		ND		0.067

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	71		21 - 98
2-Fluorobiphenyl	74		38 - 96
Terphenyl-d14	67		32 - 117
2-Fluorophenol	74		28 - 98
Phenol-d5	74		23 - 101
2,4,6-Tribromophenol	95		37 - 114

Client: ERRG Job Number: 720-24204-1

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11 Date Sampled: 11/18/2009 1046
Client Matrix: Solid Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Date Analyzed:	11/25/2009 1920			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.067
Bis(2-chloroethyl)ether		ND		0.067
2-Chlorophenol		ND		0.067
1,3-Dichlorobenzene		ND		0.067
1,4-Dichlorobenzene		ND		0.067
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.067
2-Methylphenol		ND		0.067
4-Methylphenol		ND		0.067
N-Nitrosodi-n-propylamine		ND		0.067
Hexachloroethane		ND		0.067
Nitrobenzene		ND		0.067
Isophorone		ND		0.067
2-Nitrophenol		ND		0.067
2,4-Dimethylphenol		ND		0.067
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.067
Naphthalene		ND		0.067
4-Chloroaniline		ND		0.067
Hexachlorobutadiene		ND		0.067
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.067
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.067
2,4,5-Trichlorophenol		ND		0.067
2-Chloronaphthalene		ND		0.067
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.067
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.067
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.067
2,4-Dinitrotoluene		ND		0.067
2,6-Dinitrotoluene		ND		0.067
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.067
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.067
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.067
Pentachlorophenol		ND		0.33

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11
Client Matrix: Solid

Date Sampled: 11/18/2009 1046
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Date Analyzed:	11/25/2009 1920			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.067
Anthracene		ND		0.067
Di-n-butyl phthalate		ND		0.17
Fluoranthene		ND		0.067
Pyrene		ND		0.067
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		ND		0.067
Di-n-octyl phthalate		ND		1.0
Benzo[b]fluoranthene		ND		0.067
Benzo[a]pyrene		ND		0.067
Benzo[k]fluoranthene		ND		0.067
Indeno[1,2,3-cd]pyrene		ND		0.067
Benzo[g,h,i]perylene		ND		0.067
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.067
Dibenz(a,h)anthracene		ND		0.067

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	69		21 - 98
2-Fluorobiphenyl	76		38 - 96
Terphenyl-d14	69		32 - 117
2-Fluorophenol	75		28 - 98
Phenol-d5	74		23 - 101
2,4,6-Tribromophenol	80		37 - 114

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-3S**

Lab Sample ID: 720-24204-7
Client Matrix: Solid

Date Sampled: 11/18/2009 0925
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62016	Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957	Initial Weight/Volume:	30.13 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	11/25/2009 1740		Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		190		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	102		32 - 112
DCB Decachlorobiphenyl	102		2 - 122

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11
Client Matrix: Solid

Date Sampled: 11/18/2009 1046
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62095		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957		Initial Weight/Volume:	30.30 g
Dilution:	10			Final Weight/Volume:	10 mL
Date Analyzed:	11/27/2009 1127			Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		500
PCB-1221		ND		500
PCB-1232		ND		500
PCB-1242		ND		500
PCB-1248		1200		500
PCB-1254		ND		500
PCB-1260		ND		500

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	0	D	32 - 112
DCB Decachlorobiphenyl	0	D	2 - 122

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-1M**

Lab Sample ID: 720-24204-1
Client Matrix: Solid

Date Sampled: 11/18/2009 0750
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1611			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.1
Barium		92		2.0
Beryllium		ND		0.41
Cadmium		ND		0.51
Chromium		14		2.0
Cobalt		7.2		0.82
Copper		31		6.1
Lead		4.3		2.0
Molybdenum		ND		2.0
Nickel		2.4		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		83		2.0
Zinc		23		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/23/2009 1510			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.019

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-1N**

Lab Sample ID: 720-24204-2
Client Matrix: Solid

Date Sampled: 11/18/2009 0800
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1617			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.8		1.9
Arsenic		4.5		3.8
Barium		310		1.9
Beryllium		ND		0.38
Cadmium		2.1		0.48
Chromium		32		1.9
Cobalt		10		0.77
Copper		190		5.8
Lead		340		1.9
Molybdenum		ND		1.9
Nickel		18		1.9
Selenium		ND		1.9
Silver		ND		0.96
Thallium		ND		1.9
Vanadium		73		1.9
Zinc		950		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/23/2009 1512			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.12		0.019

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-1O**

Lab Sample ID: 720-24204-3
Client Matrix: Solid

Date Sampled: 11/18/2009 0807
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1623			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		170		2.0
Beryllium		ND		0.40
Cadmium		ND		0.50
Chromium		16		2.0
Cobalt		10		0.79
Copper		87		5.9
Lead		52		2.0
Molybdenum		ND		2.0
Nickel		5.3		2.0
Selenium		ND		2.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		82		2.0
Zinc		190		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/23/2009 1514			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.019

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-2P**

Lab Sample ID: 720-24204-4
Client Matrix: Solid

Date Sampled: 11/18/2009 0823
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1629			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.9
Barium		180		1.9
Beryllium		ND		0.39
Cadmium		ND		0.49
Chromium		14		1.9
Cobalt		8.4		0.78
Copper		27		5.8
Lead		13		1.9
Molybdenum		ND		1.9
Nickel		3.6		1.9
Selenium		ND		1.9
Silver		ND		0.97
Thallium		ND		1.9
Vanadium		78		1.9
Zinc		140		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1521			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.020

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-2Q**

Lab Sample ID: 720-24204-5
Client Matrix: Solid

Date Sampled: 11/18/2009 0834
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1634			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.9
Barium		130		1.9
Beryllium		ND		0.39
Cadmium		ND		0.49
Chromium		21		1.9
Cobalt		8.4		0.78
Copper		45		5.8
Lead		21		1.9
Molybdenum		ND		1.9
Nickel		9.3		1.9
Selenium		ND		1.9
Silver		ND		0.97
Thallium		ND		1.9
Vanadium		110		1.9
Zinc		170		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/23/2009 1524			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.019

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-3R**

Lab Sample ID: 720-24204-6
Client Matrix: Solid

Date Sampled: 11/18/2009 0915
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1651			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.8
Barium		110		1.9
Beryllium		ND		0.38
Cadmium		ND		0.48
Chromium		14		1.9
Cobalt		7.8		0.77
Copper		29		5.8
Lead		ND		1.9
Molybdenum		ND		1.9
Nickel		4.1		1.9
Selenium		ND		1.9
Silver		ND		0.96
Thallium		ND		1.9
Vanadium		55		1.9
Zinc		28		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1526			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.020

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-3S**

Lab Sample ID: 720-24204-7
Client Matrix: Solid

Date Sampled: 11/18/2009 0925
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/24/2009 1657			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		5.4		2.0
Arsenic		6.2		3.9
Barium		450		2.0
Beryllium		ND		0.39
Cadmium		6.6		0.49
Chromium		46		2.0
Cobalt		9.6		0.78
Copper		290		5.9
Lead		550		2.0
Molybdenum		2.8		2.0
Nickel		27		2.0
Selenium		ND		2.0
Silver		1.7		0.98
Thallium		ND		2.0
Vanadium		50		2.0
Zinc		2100		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61924		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61857		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/23/2009 1528			Final Weight/Volume:	50 mL
Date Prepared:	11/20/2009 1957				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.18		0.020

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-3T**

Lab Sample ID: 720-24204-8
Client Matrix: Solid

Date Sampled: 11/18/2009 0943
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/24/2009 1703			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.1		2.0
Arsenic		5.4		4.0
Barium		300		2.0
Beryllium		ND		0.40
Cadmium		6.3		0.51
Chromium		33		2.0
Cobalt		7.7		0.81
Copper		200		6.1
Lead		380		2.0
Molybdenum		2.1		2.0
Nickel		28		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		42		2.0
Zinc		2300		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/24/2009 1035			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.51		0.019

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-4U**

Lab Sample ID: 720-24204-9
Client Matrix: Solid

Date Sampled: 11/18/2009 1015
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1709			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.8
Barium		110		1.9
Beryllium		ND		0.38
Cadmium		ND		0.48
Chromium		29		1.9
Cobalt		8.8		0.77
Copper		44		5.8
Lead		25		1.9
Molybdenum		ND		1.9
Nickel		4.7		1.9
Selenium		ND		1.9
Silver		ND		0.96
Thallium		ND		1.9
Vanadium		68		1.9
Zinc		89		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/24/2009 1037			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.020

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-4V**

Lab Sample ID: 720-24204-10
Client Matrix: Solid

Date Sampled: 11/18/2009 1023
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/24/2009 1714			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		4.0
Barium		200		2.0
Beryllium		ND		0.40
Cadmium		1.0		0.51
Chromium		25		2.0
Cobalt		7.9		0.81
Copper		160		6.1
Lead		240		2.0
Molybdenum		ND		2.0
Nickel		10		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		67		2.0
Zinc		600		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/24/2009 1040			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.11		0.020

Client: ERRG

Job Number: 720-24204-1

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11
Client Matrix: Solid

Date Sampled: 11/18/2009 1046
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1720			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		7.0		2.0
Arsenic		11		4.0
Barium		180		2.0
Beryllium		ND		0.40
Cadmium		0.66		0.50
Chromium		41		2.0
Cobalt		14		0.79
Copper		300		5.9
Lead		2300		2.0
Molybdenum		4.7		2.0
Nickel		31		2.0
Selenium		ND		2.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		32		2.0
Zinc		1400		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/24/2009 1042			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.17		0.019

General Chemistry

Client Sample ID: **TR-1M**

Lab Sample ID: 720-24204-1 Date Sampled: 11/18/2009 0750

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.23		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1807 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-1N**

Lab Sample ID: 720-24204-2 Date Sampled: 11/18/2009 0800

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	8.07		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1809 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-1O**

Lab Sample ID: 720-24204-3 Date Sampled: 11/18/2009 0807

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	8.17		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1811 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-2P**

Lab Sample ID: 720-24204-4 Date Sampled: 11/18/2009 0823

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.58		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1813 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-2Q**

Lab Sample ID: 720-24204-5 Date Sampled: 11/18/2009 0834

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.27		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1815 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-3R**

Lab Sample ID: 720-24204-6 Date Sampled: 11/18/2009 0915

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.61		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1817 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-3S**

Lab Sample ID: 720-24204-7 Date Sampled: 11/18/2009 0925
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	130		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.43		SU	0.100	1.0	9045C
Analysis Batch: 720-62039	Date Analyzed: 11/23/2009 1819					DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-3T**

Lab Sample ID: 720-24204-8 Date Sampled: 11/18/2009 0943

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.50		SU	0.100	1.0	9045C

Analysis Batch: 720-62039 Date Analyzed: 11/23/2009 1828 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-4U**

Lab Sample ID: 720-24204-9 Date Sampled: 11/18/2009 1015

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.23		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1720 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-4V**

Lab Sample ID: 720-24204-10 Date Sampled: 11/18/2009 1023

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.71		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1725 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11 Date Sampled: 11/18/2009 1046

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	200		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.24		SU	0.100	1.0	9045C
Analysis Batch: 720-62057	Date Analyzed: 11/24/2009 1730					DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: ERRG Job Number: 720-24204-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	RPD of the LCS and LCSD exceeds the control limits
GC Semi VOA		
	F	MS or MSD exceeds the control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Metals		
	F	MS or MSD exceeds the control limits

Client: ERRG

Job Number: 720-24204-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 720-62026					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-62026/1-A	Method Blank	T	Solid	3550B	
720-24203-A-9-E MS	Matrix Spike	T	Solid	3550B	
720-24203-A-9-F MSD	Matrix Spike Duplicate	T	Solid	3550B	
720-24204-7	TR-3S	T	Solid	3550B	
720-24204-11	TR-4W	T	Solid	3550B	
Analysis Batch:720-62116					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	8270C	720-62026
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	8270C	720-62026
MB 720-62026/1-A	Method Blank	T	Solid	8270C	720-62026
720-24203-A-9-E MS	Matrix Spike	T	Solid	8270C	720-62026
720-24203-A-9-F MSD	Matrix Spike Duplicate	T	Solid	8270C	720-62026
720-24204-7	TR-3S	T	Solid	8270C	720-62026
720-24204-11	TR-4W	T	Solid	8270C	720-62026

Report Basis
T = Total

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-61957					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-61957/1-A	Method Blank	T	Solid	3550B	
720-24204-7	TR-3S	T	Solid	3550B	
720-24204-11	TR-4W	T	Solid	3550B	
720-24205-A-6-F MS	Matrix Spike	T	Solid	3550B	
720-24205-A-6-G MSD	Matrix Spike Duplicate	T	Solid	3550B	
Analysis Batch:720-62016					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	8082	720-61957
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	8082	720-61957
MB 720-61957/1-A	Method Blank	T	Solid	8082	720-61957
720-24204-7	TR-3S	T	Solid	8082	720-61957
Analysis Batch:720-62095					
720-24204-11	TR-4W	T	Solid	8082	720-61957
720-24205-A-6-F MS	Matrix Spike	T	Solid	8082	720-61957
720-24205-A-6-G MSD	Matrix Spike Duplicate	T	Solid	8082	720-61957

Report Basis
T = Total

Client: ERRG

Job Number: 720-24204-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-61857					
LCS 720-61857/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-61857/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-61857/1-A	Method Blank	T	Solid	7471A	
720-24203-A-1-D MS	Matrix Spike	T	Solid	7471A	
720-24203-A-1-E MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-24204-1	TR-1M	T	Solid	7471A	
720-24204-2	TR-1N	T	Solid	7471A	
720-24204-3	TR-1O	T	Solid	7471A	
720-24204-4	TR-2P	T	Solid	7471A	
720-24204-5	TR-2Q	T	Solid	7471A	
720-24204-6	TR-3R	T	Solid	7471A	
720-24204-7	TR-3S	T	Solid	7471A	
Prep Batch: 720-61914					
LCS 720-61914/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61914/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
MB 720-61914/1-A	Method Blank	T	Solid	3050B	
720-24204-1	TR-1M	T	Solid	3050B	
720-24204-1MS	Matrix Spike	T	Solid	3050B	
720-24204-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-24204-2	TR-1N	T	Solid	3050B	
720-24204-3	TR-1O	T	Solid	3050B	
720-24204-4	TR-2P	T	Solid	3050B	
720-24204-5	TR-2Q	T	Solid	3050B	
720-24204-6	TR-3R	T	Solid	3050B	
720-24204-7	TR-3S	T	Solid	3050B	
720-24204-8	TR-3T	T	Solid	3050B	
720-24204-9	TR-4U	T	Solid	3050B	
720-24204-10	TR-4V	T	Solid	3050B	
720-24204-11	TR-4W	T	Solid	3050B	
Analysis Batch:720-61924					
LCS 720-61857/2-A	Lab Control Sample	T	Solid	7471A	720-61857
LCSD 720-61857/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-61857
MB 720-61857/1-A	Method Blank	T	Solid	7471A	720-61857
720-24203-A-1-D MS	Matrix Spike	T	Solid	7471A	720-61857
720-24203-A-1-E MSD	Matrix Spike Duplicate	T	Solid	7471A	720-61857
720-24204-1	TR-1M	T	Solid	7471A	720-61857
720-24204-2	TR-1N	T	Solid	7471A	720-61857
720-24204-3	TR-1O	T	Solid	7471A	720-61857
720-24204-4	TR-2P	T	Solid	7471A	720-61857
720-24204-5	TR-2Q	T	Solid	7471A	720-61857
720-24204-6	TR-3R	T	Solid	7471A	720-61857
720-24204-7	TR-3S	T	Solid	7471A	720-61857

Client: ERRG

Job Number: 720-24204-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-61925					
LCS 720-61925/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-61925/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-61925/1-A	Method Blank	T	Solid	7471A	
720-24204-8	TR-3T	T	Solid	7471A	
720-24204-8MS	Matrix Spike	T	Solid	7471A	
720-24204-8MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-24204-9	TR-4U	T	Solid	7471A	
720-24204-10	TR-4V	T	Solid	7471A	
720-24204-11	TR-4W	T	Solid	7471A	
Analysis Batch:720-61963					
LCS 720-61925/2-A	Lab Control Sample	T	Solid	7471A	720-61925
LCSD 720-61925/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-61925
MB 720-61925/1-A	Method Blank	T	Solid	7471A	720-61925
720-24204-8	TR-3T	T	Solid	7471A	720-61925
720-24204-8MS	Matrix Spike	T	Solid	7471A	720-61925
720-24204-8MSD	Matrix Spike Duplicate	T	Solid	7471A	720-61925
720-24204-9	TR-4U	T	Solid	7471A	720-61925
720-24204-10	TR-4V	T	Solid	7471A	720-61925
720-24204-11	TR-4W	T	Solid	7471A	720-61925
Analysis Batch:720-61997					
LCS 720-61914/2-A	Lab Control Sample	T	Solid	6010B	720-61914
LCSD 720-61914/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61914
MB 720-61914/1-A	Method Blank	T	Solid	6010B	720-61914
720-24204-1	TR-1M	T	Solid	6010B	720-61914
720-24204-1MS	Matrix Spike	T	Solid	6010B	720-61914
720-24204-1MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61914
720-24204-2	TR-1N	T	Solid	6010B	720-61914
720-24204-3	TR-1O	T	Solid	6010B	720-61914
720-24204-4	TR-2P	T	Solid	6010B	720-61914
720-24204-5	TR-2Q	T	Solid	6010B	720-61914
720-24204-6	TR-3R	T	Solid	6010B	720-61914
720-24204-7	TR-3S	T	Solid	6010B	720-61914
720-24204-8	TR-3T	T	Solid	6010B	720-61914
720-24204-9	TR-4U	T	Solid	6010B	720-61914
720-24204-10	TR-4V	T	Solid	6010B	720-61914
720-24204-11	TR-4W	T	Solid	6010B	720-61914

Report Basis

T = Total

Client: ERRG

Job Number: 720-24204-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 720-61895					
720-24203-A-7-D DU	Duplicate	S	Solid	DI Leach	
720-24204-1	TR-1M	S	Solid	DI Leach	
720-24204-2	TR-1N	S	Solid	DI Leach	
720-24204-3	TR-1O	S	Solid	DI Leach	
720-24204-4	TR-2P	S	Solid	DI Leach	
720-24204-5	TR-2Q	S	Solid	DI Leach	
720-24204-6	TR-3R	S	Solid	DI Leach	
720-24204-7	TR-3S	S	Solid	DI Leach	
720-24204-8	TR-3T	S	Solid	DI Leach	
Prep Batch: 720-61900					
720-24204-9	TR-4U	S	Solid	DI Leach	
720-24204-10	TR-4V	S	Solid	DI Leach	
720-24204-11	TR-4W	S	Solid	DI Leach	
720-24205-B-12-B DU	Duplicate	S	Solid	DI Leach	
Analysis Batch:720-62039					
LCS 720-62039/1	Lab Control Sample	T	Water	9045C	
720-24203-A-7-D DU	Duplicate	S	Solid	9045C	
720-24204-1	TR-1M	S	Solid	9045C	
720-24204-2	TR-1N	S	Solid	9045C	
720-24204-3	TR-1O	S	Solid	9045C	
720-24204-4	TR-2P	S	Solid	9045C	
720-24204-5	TR-2Q	S	Solid	9045C	
720-24204-6	TR-3R	S	Solid	9045C	
720-24204-7	TR-3S	S	Solid	9045C	
720-24204-8	TR-3T	S	Solid	9045C	
Prep Batch: 720-62048					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	
MB 720-62048/1-A	Method Blank	T	Solid	9071B	
720-24203-A-9-H MS	Matrix Spike	T	Solid	9071B	
720-24203-A-9-I MSD	Matrix Spike Duplicate	T	Solid	9071B	
720-24204-7	TR-3S	T	Solid	9071B	
720-24204-11	TR-4W	T	Solid	9071B	
Analysis Batch:720-62057					
LCS 720-62057/1	Lab Control Sample	T	Water	9045C	
720-24204-9	TR-4U	S	Solid	9045C	
720-24204-10	TR-4V	S	Solid	9045C	
720-24204-11	TR-4W	S	Solid	9045C	
720-24205-B-12-B DU	Duplicate	S	Solid	9045C	

Client: ERRG

Job Number: 720-24204-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:720-62058					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	720-62048
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	720-62048
MB 720-62048/1-A	Method Blank	T	Solid	9071B	720-62048
720-24203-A-9-H MS	Matrix Spike	T	Solid	9071B	720-62048
720-24203-A-9-I MSD	Matrix Spike Duplicate	T	Solid	9071B	720-62048
720-24204-7	TR-3S	T	Solid	9071B	720-62048
720-24204-11	TR-4W	T	Solid	9071B	720-62048

Report Basis

S = Soluble

T = Total

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
Phenol	ND		0.066
Bis(2-chloroethyl)ether	ND		0.066
2-Chlorophenol	ND		0.066
1,3-Dichlorobenzene	ND		0.066
1,4-Dichlorobenzene	ND		0.066
Benzyl alcohol	ND		0.17
1,2-Dichlorobenzene	ND		0.066
2-Methylphenol	ND		0.066
4-Methylphenol	ND		0.066
N-Nitrosodi-n-propylamine	ND		0.066
Hexachloroethane	ND		0.066
Nitrobenzene	ND		0.066
Isophorone	ND		0.066
2-Nitrophenol	ND		0.066
2,4-Dimethylphenol	ND		0.066
Bis(2-chloroethoxy)methane	ND		0.17
2,4-Dichlorophenol	ND		0.33
1,2,4-Trichlorobenzene	ND		0.066
Naphthalene	ND		0.066
4-Chloroaniline	ND		0.066
Hexachlorobutadiene	ND		0.066
4-Chloro-3-methylphenol	ND		0.17
2-Methylnaphthalene	ND		0.066
Hexachlorocyclopentadiene	ND		0.17
2,4,6-Trichlorophenol	ND		0.066
2,4,5-Trichlorophenol	ND		0.066
2-Chloronaphthalene	ND		0.066
2-Nitroaniline	ND		0.33
Dimethyl phthalate	ND		0.17
Acenaphthylene	ND		0.066
3-Nitroaniline	ND		0.17
Acenaphthene	ND		0.066
2,4-Dinitrophenol	ND		0.33
4-Nitrophenol	ND		0.33
Dibenzofuran	ND		0.066
2,4-Dinitrotoluene	ND		0.066
2,6-Dinitrotoluene	ND		0.066
Diethyl phthalate	ND		0.17
4-Chlorophenyl phenyl ether	ND		0.17
Fluorene	ND		0.066
4-Nitroaniline	ND		0.33

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		0.33
N-Nitrosodiphenylamine	ND		0.066
4-Bromophenyl phenyl ether	ND		0.17
Hexachlorobenzene	ND		0.066
Pentachlorophenol	ND		0.33
Phenanthrene	ND		0.066
Anthracene	ND		0.066
Di-n-butyl phthalate	ND		0.17
Fluoranthene	ND		0.066
Pyrene	ND		0.066
Butyl benzyl phthalate	ND		0.17
3,3'-Dichlorobenzidine	ND		0.17
Benzo[a]anthracene	ND		0.33
Bis(2-ethylhexyl) phthalate	ND		0.33
Chrysene	ND		0.066
Di-n-octyl phthalate	ND		0.99
Benzo[b]fluoranthene	ND		0.066
Benzo[a]pyrene	ND		0.066
Benzo[k]fluoranthene	ND		0.066
Indeno[1,2,3-cd]pyrene	ND		0.066
Benzo[g,h,i]perylene	ND		0.066
Benzoic acid	ND		0.33
Azobenzene	ND		0.066
Dibenz(a,h)anthracene	ND		0.066

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	76	21 - 98
2-Fluorobiphenyl	82	38 - 96
Terphenyl-d14	69	32 - 117
2-Fluorophenol	84	28 - 98
Phenol-d5	80	23 - 101
2,4,6-Tribromophenol	77	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-62026/2-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\2009
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.16 g
Date Analyzed:	11/25/2009 1531			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

LCSD Lab Sample ID:	LCSD 720-62026/3-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\200911
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.21 g
Date Analyzed:	11/25/2009 1603			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	72	65	48 - 115	10	35		
Bis(2-chloroethyl)ether	75	70	45 - 115	7	35		
2-Chlorophenol	75	68	48 - 115	10	35		
1,3-Dichlorobenzene	71	72	41 - 115	1	35		
1,4-Dichlorobenzene	76	71	40 - 115	6	35		
Benzyl alcohol	77	68	54 - 115	13	35		
1,2-Dichlorobenzene	72	61	44 - 115	17	35		
2-Methylphenol	80	74	54 - 115	8	35		
4-Methylphenol	79	78	50 - 115	2	35		
N-Nitrosodi-n-propylamine	75	66	46 - 115	14	35		
Hexachloroethane	72	67	44 - 115	7	35		
Nitrobenzene	77	75	48 - 115	3	35		
Isophorone	83	78	54 - 115	5	35		
2-Nitrophenol	78	77	48 - 115	0	35		
2,4-Dimethylphenol	78	79	52 - 115	1	35		
Bis(2-chloroethoxy)methane	75	72	46 - 115	4	35		
2,4-Dichlorophenol	75	75	49 - 100	1	35		
1,2,4-Trichlorobenzene	77	74	47 - 115	4	35		
Naphthalene	70	71	44 - 115	1	35		
4-Chloroaniline	48	46	30 - 115	3	35		
Hexachlorobutadiene	75	70	44 - 115	7	35		
4-Chloro-3-methylphenol	77	73	58 - 115	5	35		
2-Methylnaphthalene	75	72	49 - 115	4	35		
Hexachlorocyclopentadiene	76	78	42 - 132	2	35		
2,4,6-Trichlorophenol	78	78	45 - 115	0	35		
2,4,5-Trichlorophenol	74	71	48 - 115	5	35		
2-Chloronaphthalene	66	70	52 - 115	7	35		
2-Nitroaniline	81	76	54 - 115	6	35		
Dimethyl phthalate	76	75	64 - 119	1	35		
Acenaphthylene	83	79	61 - 129	6	35		
3-Nitroaniline	70	66	50 - 115	7	35		
Acenaphthene	68	67	50 - 115	1	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID: LCS 720-62026/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1531
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 1 mL
Injection Volume:

LCSD Lab Sample ID: LCSD 720-62026/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1603
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\200911
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	58	57	21 - 115	2	35		
4-Nitrophenol	88	86	54 - 125	2	35		
Dibenzofuran	76	70	55 - 115	9	35		
2,4-Dinitrotoluene	78	76	57 - 115	2	35		
2,6-Dinitrotoluene	75	71	54 - 119	5	35		
Diethyl phthalate	71	72	49 - 117	2	35		
4-Chlorophenyl phenyl ether	69	71	57 - 115	3	35		
Fluorene	72	68	54 - 115	6	35		
4-Nitroaniline	81	75	59 - 115	7	35		
2-Methyl-4,6-dinitrophenol	78	80	48 - 115	3	35		
N-Nitrosodiphenylamine	76	79	56 - 115	4	35		
4-Bromophenyl phenyl ether	76	73	53 - 115	4	35		
Hexachlorobenzene	70	75	55 - 115	7	35		
Pentachlorophenol	65	65	35 - 115	1	35		
Phenanthrene	76	77	54 - 115	0	35		
Anthracene	66	74	55 - 115	11	35		
Di-n-butyl phthalate	83	84	55 - 115	0	35		
Fluoranthene	84	84	54 - 115	0	35		
Pyrene	88	83	48 - 115	7	35		
Butyl benzyl phthalate	88	80	53 - 115	10	35		
3,3'-Dichlorobenzidine	85	78	42 - 115	9	35		
Benzo[a]anthracene	97	88	55 - 115	10	35		
Bis(2-ethylhexyl) phthalate	91	80	53 - 115	12	35		
Chrysene	81	77	58 - 115	5	35		
Di-n-octyl phthalate	86	73	53 - 115	16	35		
Benzo[b]fluoranthene	80	71	56 - 115	13	35		
Benzo[a]pyrene	83	80	55 - 115	5	35		
Benzo[k]fluoranthene	91	77	57 - 115	16	35		
Indeno[1,2,3-cd]pyrene	85	78	56 - 115	8	35		
Benzo[g,h,i]perylene	90	84	56 - 115	7	35		
Benzoic acid	11	16	10 - 115	39	35		*
Azobenzene	71	65	52 - 115	9	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-62026/2-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\2009
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.16 g
Date Analyzed:	11/25/2009 1531			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

LCSD Lab Sample ID:	LCSD 720-62026/3-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\200911
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.21 g
Date Analyzed:	11/25/2009 1603			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	97	88	58 - 115	10	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	78	21 - 98
2-Fluorobiphenyl	73	73	38 - 96
Terphenyl-d14	89	80	32 - 117
2-Fluorophenol	74	72	28 - 98
Phenol-d5	78	74	23 - 101
2,4,6-Tribromophenol	79	72	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	69	62	23 - 115	10	35		
Bis(2-chloroethyl)ether	76	72	27 - 115	6	35		
2-Chlorophenol	75	69	16 - 115	8	35		
1,3-Dichlorobenzene	76	75	22 - 115	2	35		
1,4-Dichlorobenzene	72	70	21 - 115	3	35		
Benzyl alcohol	75	69	28 - 115	9	35		
1,2-Dichlorobenzene	70	66	25 - 115	6	35		
2-Methylphenol	76	75	32 - 115	1	35		
4-Methylphenol	82	76	28 - 115	8	35		
N-Nitrosodi-n-propylamine	75	69	27 - 115	9	35		
Hexachloroethane	74	70	19 - 115	6	35		
Nitrobenzene	76	82	30 - 115	7	35		
Isophorone	82	88	36 - 115	6	35		
2-Nitrophenol	79	80	11 - 116	1	35		
2,4-Dimethylphenol	80	83	36 - 115	3	35		
Bis(2-chloroethoxy)methane	73	78	28 - 115	6	35		
2,4-Dichlorophenol	71	79	17 - 115	11	35		
1,2,4-Trichlorobenzene	76	77	29 - 115	2	35		
Naphthalene	72	76	22 - 115	6	35		
4-Chloroaniline	28	25	7 - 115	12	35		
Hexachlorobutadiene	79	81	26 - 115	2	35		
4-Chloro-3-methylphenol	75	79	42 - 115	5	35		
2-Methylnaphthalene	73	71	28 - 115	4	35		
Hexachlorocyclopentadiene	78	82	15 - 115	5	35		
2,4,6-Trichlorophenol	76	77	25 - 115	1	35		
2,4,5-Trichlorophenol	70	68	38 - 115	4	35		
2-Chloronaphthalene	72	71	38 - 115	2	35		
2-Nitroaniline	80	79	43 - 115	2	35		
Dimethyl phthalate	75	75	55 - 116	0	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthylene	83	85	49 - 120	2	35		
3-Nitroaniline	70	67	39 - 115	4	35		
Acenaphthene	69	69	42 - 115	0	35		
2,4-Dinitrophenol	57	53	13 - 122	8	35		
4-Nitrophenol	84	86	25 - 147	1	35		
Dibenzofuran	70	70	43 - 115	1	35		
2,4-Dinitrotoluene	78	76	47 - 115	2	35		
2,6-Dinitrotoluene	79	77	55 - 115	3	35		
Diethyl phthalate	72	73	48 - 115	2	35		
4-Chlorophenyl phenyl ether	72	68	44 - 115	5	35		
Fluorene	73	70	41 - 115	4	35		
4-Nitroaniline	74	77	47 - 120	4	35		
2-Methyl-4,6-dinitrophenol	79	79	19 - 132	0	35		
N-Nitrosodiphenylamine	80	82	43 - 115	3	35		
4-Bromophenyl phenyl ether	77	73	45 - 115	6	35		
Hexachlorobenzene	84	81	48 - 115	3	35		
Pentachlorophenol	69	69	7 - 132	1	35		
Phenanthrene	77	73	38 - 115	5	35		
Anthracene	77	76	47 - 115	3	35		
Di-n-butyl phthalate	85	88	46 - 115	3	35		
Fluoranthene	84	82	40 - 115	3	35		
Pyrene	77	80	35 - 115	3	35		
Butyl benzyl phthalate	76	73	40 - 115	4	35		
3,3'-Dichlorobenzidine	70	66	17 - 115	6	35		
Benzo[a]anthracene	81	84	42 - 115	3	35		
Bis(2-ethylhexyl) phthalate	79	84	42 - 115	6	35		
Chrysene	71	73	37 - 115	3	35		
Di-n-octyl phthalate	76	74	46 - 115	3	35		
Benzo[b]fluoranthene	82	79	43 - 115	5	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[a]pyrene	79	79	48 - 115	0	35		
Benzo[k]fluoranthene	78	80	39 - 115	4	35		
Indeno[1,2,3-cd]pyrene	83	89	50 - 115	7	35		
Benzo[g,h,i]perylene	89	92	43 - 115	4	35		
Benzoic acid	6	6	0 - 115	5	35		
Azobenzene	68	71	48 - 115	5	35		
Dibenz(a,h)anthracene	94	94	49 - 115	0	35		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	83	21 - 98
2-Fluorobiphenyl	77	72	38 - 96
Terphenyl-d14	79	78	32 - 117
2-Fluorophenol	77	70	28 - 98
Phenol-d5	82	73	23 - 101
2,4,6-Tribromophenol	80	80	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Method Blank - Batch: 720-61957

Method: 8082
Preparation: 3550B

Lab Sample ID: MB 720-61957/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1444
Date Prepared: 11/24/2009 1008

Analysis Batch: 720-62016
Prep Batch: 720-61957
Units: ug/Kg

Instrument ID: Agilent PCB 2
Lab File ID: m1125012.d
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		50
PCB-1221	ND		50
PCB-1232	ND		50
PCB-1242	ND		50
PCB-1248	ND		50
PCB-1254	ND		50
PCB-1260	ND		50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	93	32 - 112
DCB Decachlorobiphenyl	95	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61957

Method: 8082
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-61957/2-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125013.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.29 g
Date Analyzed:	11/25/2009 1506			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 720-61957/3-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125014.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.33 g
Date Analyzed:	11/25/2009 1528			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	104	107	69 - 120	3	20		
PCB-1260	105	106	73 - 114	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	93	92	32 - 112
DCB Decachlorobiphenyl	93	94	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61957

Method: 8082
Preparation: 3550B

MS Lab Sample ID:	720-24205-A-6-F MS	Analysis Batch: 720-62095	Instrument ID: Agilent PCB 2
Client Matrix:	Solid	Prep Batch: 720-61957	Lab File ID: m1127009.d
Dilution:	1.0		Initial Weight/Volume: 30.27 g
Date Analyzed:	11/27/2009 1210		Final Weight/Volume: 10 mL
Date Prepared:	11/24/2009 1008		Injection Volume: 1 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	720-24205-A-6-G MSD	Analysis Batch: 720-62095	Instrument ID: Agilent PCB 2
Client Matrix:	Solid	Prep Batch: 720-61957	Lab File ID: m1127010.d
Dilution:	1.0		Initial Weight/Volume: 30.16 g
Date Analyzed:	11/27/2009 1232		Final Weight/Volume: 10 mL
Date Prepared:	11/24/2009 1008		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	152	148	69 - 120	2	20	F	F
PCB-1260	165	167	73 - 114	1	20	F	F

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	90	91	32 - 112
DCB Decachlorobiphenyl	85	86	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Method Blank - Batch: 720-61914

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-61914/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1544
Date Prepared: 11/23/2009 1351

Analysis Batch: 720-61997
Prep Batch: 720-61914
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		0.50
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61914

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61914/2-A	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1549			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

LCSD Lab Sample ID:	LCSD 720-61914/3-A	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1555			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	99	98	80 - 120	2	20		
Arsenic	94	92	80 - 120	4	20		
Barium	99	99	80 - 120	2	20		
Beryllium	100	100	80 - 120	3	20		
Cadmium	98	97	80 - 120	3	20		
Chromium	101	100	80 - 120	3	20		
Cobalt	97	96	80 - 120	4	20		
Copper	96	95	80 - 120	3	20		
Lead	100	98	80 - 120	3	20		
Molybdenum	98	97	80 - 120	3	20		
Nickel	100	99	80 - 120	3	20		
Selenium	94	93	80 - 120	3	20		
Silver	99	99	80 - 120	2	20		
Thallium	97	97	80 - 120	3	20		
Vanadium	103	104	80 - 120	2	20		
Zinc	99	97	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61914

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24204-1	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1600			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

MSD Lab Sample ID:	720-24204-1	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1606			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	36	39	75 - 125	5	20	F	F
Arsenic	90	90	75 - 125	2	20		
Barium	92	90	75 - 125	2	20		
Beryllium	104	105	75 - 125	2	20		
Cadmium	96	98	75 - 125	1	20		
Chromium	106	101	75 - 125	6	20		
Cobalt	94	95	75 - 125	2	20		
Copper	101	101	75 - 125	1	20		
Lead	96	97	75 - 125	2	20		
Molybdenum	80	85	75 - 125	3	20		
Nickel	98	99	75 - 125	1	20		
Selenium	92	94	75 - 125	1	20		
Silver	103	105	75 - 125	1	20		
Thallium	95	97	75 - 125	1	20		
Vanadium	130	97	75 - 125	13	20	F	
Zinc	94	96	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 720-61857

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-61857/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1420
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.63 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.019

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61857

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-61857/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1422
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-61857/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1425
Date Prepared: 11/20/2009 1957

Analysis Batch: 720-61924
Prep Batch: 720-61857
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	99	100	80 - 120	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61857

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	720-24203-A-1-D MS	Analysis Batch: 720-61924	Instrument ID: LL HG Analyzer
Client Matrix:	Solid	Prep Batch: 720-61857	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 0.61 g
Date Analyzed:	11/23/2009 1427		Final Weight/Volume: 50 mL
Date Prepared:	11/20/2009 1957		

MSD Lab Sample ID:	720-24203-A-1-E MSD	Analysis Batch: 720-61924	Instrument ID: LL HG Analyzer
Client Matrix:	Solid	Prep Batch: 720-61857	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 0.61 g
Date Analyzed:	11/23/2009 1430		Final Weight/Volume: 50 mL
Date Prepared:	11/20/2009 1957		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	101	106	75 - 125	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Method Blank - Batch: 720-61925

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-61925/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1022
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.020

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61925

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-61925/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1026
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.61 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-61925/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1028
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	99	100	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61925

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	720-24204-8	Analysis Batch:	720-61963	Instrument ID:	LL HG Analyzer
Client Matrix:	Solid	Prep Batch:	720-61925	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	11/24/2009 1030			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

MSD Lab Sample ID:	720-24204-8	Analysis Batch:	720-61963	Instrument ID:	LL HG Analyzer
Client Matrix:	Solid	Prep Batch:	720-61925	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/24/2009 1033			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	113	87	75 - 125	18	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Lab Control Sample - Batch: 720-62039

Method: 9045C
Preparation: N/A

Lab Sample ID: LCS 720-62039/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2009 1350
Date Prepared: N/A

Analysis Batch: 720-62039
Prep Batch: N/A
Units: SU

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH-Soluble	7.00	7.090	101	99 - 101	

Duplicate - Batch: 720-62039

Method: 9045C
Preparation: N/A

Lab Sample ID: 720-24203-A-7-D DU
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2009 1821
Date Prepared: N/A
Date Leached: 11/23/2009 1037

Analysis Batch: 720-62039
Prep Batch: N/A
Units: SU

Leachate Batch: 720-61895

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH-Soluble	6.42	6.370	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Lab Control Sample - Batch: 720-62057

Method: 9045C
Preparation: N/A

Lab Sample ID: LCS 720-62057/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/24/2009 1648
Date Prepared: N/A

Analysis Batch: 720-62057
Prep Batch: N/A
Units: SU

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH-Soluble	7.00	7.070	101	99 - 101	

Duplicate - Batch: 720-62057

Method: 9045C
Preparation: N/A

Lab Sample ID: 720-24205-B-12-B DU
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1844
Date Prepared: N/A
Date Leached: 11/23/2009 1144

Analysis Batch: 720-62057
Prep Batch: N/A
Units: SU

Leachate Batch: 720-61900

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH-Soluble	7.34	7.370	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Method Blank - Batch: 720-62048

Method: 9071B
Preparation: 9071B

Lab Sample ID: MB 720-62048/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

Analyte	Result	Qual	RL
SGT-HEM	ND		100

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

LCS Lab Sample ID: LCS 720-62048/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 10.01 mL

LCSD Lab Sample ID: LCSD 720-62048/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
SGT-HEM	92	98	66 - 120	5	24		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

MS Lab Sample ID:	720-24203-A-9-H MS	Analysis Batch: 720-62058	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: 720-62048	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 10.08 g
Date Analyzed:	11/25/2009 1448		Final Weight/Volume: 10.08 mL
Date Prepared:	11/25/2009 1402		

MSD Lab Sample ID:	720-24203-A-9-I MSD	Analysis Batch: 720-62058	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: 720-62048	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 10.02 g
Date Analyzed:	11/25/2009 1448		Final Weight/Volume: 10.02 mL
Date Prepared:	11/25/2009 1402		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
SGT-HEM	103	90	66 - 120	12	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120610

Date 19 Nov. 09 Page 1 of 2

770-29704

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencer.slominski@erg.com
Bill To: ERRG
Sampled By: SS/KJ
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8260 ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH: EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease (EPA 1664) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	☐ WET (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins + Furans 8290			Number of Containers
TR-1M	11/18/09	7.50	SS	None										X				X							1
TR-1N	11/18/09	8.00	SS	None										X				X							1
TR-1O	11/18/09	8.07	SS	None										X				X							1
TR-2P	11/18/09	8.23	SS	None										X				X							1
TR-2Q	11/18/09	8.34	SS	None										X				X							1
TR-3R	11/18/09	9.15	SS	None										X				X							1
TR-3S	11/18/09	9.25	SS	None						X		X		X				X			X	X			2
TR-3T	11/18/09	9.43	SS	None										X				X							1
TR-4U	11/18/09	10.15	SS	None										X				X							1
TR-4V	11/18/09	10.23	SS	None										X				X							1

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Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 5.7°c
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID _____

See Terms and Conditions on reverse.
*TestAmerica SF reports 8015M from C_{10}-C_{36} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 16:30	Signature: Time:	Signature: Time:
Printed Name: Spencer Slominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 48[illegible]19 Fax: (925) 600-3002

Reference #: 29-134 120640

720-29204

Date 19 Nov. 09 Page 2 of 2

Report To

Attn: Spencer Stominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencer.stominski@erg.com
Bill To: ERRG
Sampled By: SSS/KS
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat. ID	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semi-Volatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	WET (STLC) ☐ ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TDS ☐ TSS	Anions: ☐ ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins* 8290 Furans			Number of Containers
TR-4V	11/18/09	1023	SS	None										X				X							1
TR-4W	11/18/09	1046	SS	None						X		X		X				X			X	X			2

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Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 5.7°C
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica SE reports 8015M from C_9-C_{36} (industry norm). Default for 8015B is C_{10}-C_{36}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [illegible] Time: 1600	Signature: Time:	Signature: Time:
Printed Name: Spencer Stominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [illegible] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

Rev09/09

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24204-1

Login Number: 24204

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24205-1

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
11/30/2009 5:38 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
11/30/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Job Narrative
720-24205-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method 8270C: The laboratory control sample (LCS) for batch #62026 exceeded control limits for the following analyte(s): Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

GC Semi VOA
Method 8082: There is prescence of Aroclor 1254 in sample 720-24205-6. However, the pattern of the sample does not completely match the pattern of the calibration standard. Also prescence of Aroclor 1260.

Method 8082: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61957 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61937 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61914 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 61959 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-1	**TR-5X**				
Antimony		3.8	2.0	mg/Kg	6010B
Arsenic		6.5	3.9	mg/Kg	6010B
Barium		220	2.0	mg/Kg	6010B
Cadmium		1.0	0.49	mg/Kg	6010B
Chromium		30	2.0	mg/Kg	6010B
Cobalt		11	0.78	mg/Kg	6010B
Copper		140	5.9	mg/Kg	6010B
Lead		390	2.0	mg/Kg	6010B
Nickel		21	2.0	mg/Kg	6010B
Vanadium		50	2.0	mg/Kg	6010B
Zinc		840	5.9	mg/Kg	6010B
Mercury		0.16	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.79	0.100	SU	9045C
720-24205-2	**TR-6Y**				
Barium		91	2.0	mg/Kg	6010B
Chromium		21	2.0	mg/Kg	6010B
Cobalt		6.6	0.78	mg/Kg	6010B
Copper		68	5.9	mg/Kg	6010B
Lead		16	2.0	mg/Kg	6010B
Nickel		3.1	2.0	mg/Kg	6010B
Vanadium		67	2.0	mg/Kg	6010B
Zinc		52	5.9	mg/Kg	6010B
Soluble					
pH-Soluble		7.42	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-3	**TR-7Z**				
Antimony		6.1	2.0	mg/Kg	6010B
Arsenic		18	4.1	mg/Kg	6010B
Barium		320	2.0	mg/Kg	6010B
Cadmium		4.2	0.51	mg/Kg	6010B
Chromium		110	2.0	mg/Kg	6010B
Cobalt		13	0.82	mg/Kg	6010B
Copper		360	6.1	mg/Kg	6010B
Lead		680	2.0	mg/Kg	6010B
Molybdenum		4.2	2.0	mg/Kg	6010B
Nickel		86	2.0	mg/Kg	6010B
Silver		2.1	1.0	mg/Kg	6010B
Vanadium		46	2.0	mg/Kg	6010B
Zinc		1700	6.1	mg/Kg	6010B
Mercury		0.22	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.50	0.100	SU	9045C
720-24205-4	**PH-7AA**				
Antimony		2.1	2.0	mg/Kg	6010B
Barium		180	2.0	mg/Kg	6010B
Chromium		23	2.0	mg/Kg	6010B
Cobalt		8.9	0.80	mg/Kg	6010B
Copper		110	6.0	mg/Kg	6010B
Lead		200	2.0	mg/Kg	6010B
Nickel		14	2.0	mg/Kg	6010B
Vanadium		60	2.0	mg/Kg	6010B
Zinc		590	6.0	mg/Kg	6010B
Mercury		0.039	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		6.92	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-5	**PH-7AB**				
Antimony		4.2	2.0	mg/Kg	6010B
Arsenic		8.6	4.1	mg/Kg	6010B
Barium		430	2.0	mg/Kg	6010B
Cadmium		3.9	0.51	mg/Kg	6010B
Chromium		38	2.0	mg/Kg	6010B
Cobalt		11	0.82	mg/Kg	6010B
Copper		250	6.1	mg/Kg	6010B
Lead		650	2.0	mg/Kg	6010B
Molybdenum		2.3	2.0	mg/Kg	6010B
Nickel		27	2.0	mg/Kg	6010B
Silver		1.5	1.0	mg/Kg	6010B
Vanadium		52	2.0	mg/Kg	6010B
Zinc		1700	6.1	mg/Kg	6010B
Mercury		0.21	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.18	0.100	SU	9045C
720-24205-6	**PH-7AC**				
PCB-1254		64	50	ug/Kg	8082
Antimony		3.7	2.0	mg/Kg	6010B
Arsenic		7.2	4.1	mg/Kg	6010B
Barium		400	2.0	mg/Kg	6010B
Cadmium		3.8	0.51	mg/Kg	6010B
Chromium		34	2.0	mg/Kg	6010B
Cobalt		10	0.82	mg/Kg	6010B
Copper		290	6.1	mg/Kg	6010B
Lead		550	2.0	mg/Kg	6010B
Molybdenum		2.6	2.0	mg/Kg	6010B
Nickel		26	2.0	mg/Kg	6010B
Silver		1.7	1.0	mg/Kg	6010B
Vanadium		55	2.0	mg/Kg	6010B
Zinc		1500	6.1	mg/Kg	6010B
Mercury		0.33	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.38	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-7	**TR-8AD**				
Antimony		8.4	1.9	mg/Kg	6010B
Arsenic		29	3.9	mg/Kg	6010B
Barium		320	1.9	mg/Kg	6010B
Cadmium		5.0	0.49	mg/Kg	6010B
Chromium		65	1.9	mg/Kg	6010B
Cobalt		25	0.78	mg/Kg	6010B
Copper		290	5.8	mg/Kg	6010B
Lead		1100	1.9	mg/Kg	6010B
Molybdenum		8.5	1.9	mg/Kg	6010B
Nickel		130	1.9	mg/Kg	6010B
Silver		1.5	0.97	mg/Kg	6010B
Vanadium		22	1.9	mg/Kg	6010B
Zinc		2300	5.8	mg/Kg	6010B
Mercury		0.16	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.81	0.100	SU	9045C
720-24205-8	**TR-8AE**				
Antimony		3.4	1.9	mg/Kg	6010B
Arsenic		8.2	3.8	mg/Kg	6010B
Barium		370	1.9	mg/Kg	6010B
Cadmium		4.4	0.48	mg/Kg	6010B
Chromium		37	1.9	mg/Kg	6010B
Cobalt		10	0.77	mg/Kg	6010B
Copper		290	5.8	mg/Kg	6010B
Lead		660	1.9	mg/Kg	6010B
Molybdenum		2.5	1.9	mg/Kg	6010B
Nickel		24	1.9	mg/Kg	6010B
Silver		1.8	0.96	mg/Kg	6010B
Vanadium		42	1.9	mg/Kg	6010B
Zinc		1600	5.8	mg/Kg	6010B
Mercury		0.12	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.33	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-9	**TR-8AF**				
Antimony		5.0	2.0	mg/Kg	6010B
Arsenic		9.4	4.0	mg/Kg	6010B
Barium		320	2.0	mg/Kg	6010B
Cadmium		2.7	0.50	mg/Kg	6010B
Chromium		34	2.0	mg/Kg	6010B
Cobalt		15	0.80	mg/Kg	6010B
Copper		220	6.0	mg/Kg	6010B
Lead		390	2.0	mg/Kg	6010B
Molybdenum		4.3	2.0	mg/Kg	6010B
Nickel		32	2.0	mg/Kg	6010B
Silver		1.0	1.0	mg/Kg	6010B
Vanadium		45	2.0	mg/Kg	6010B
Zinc		1500	6.0	mg/Kg	6010B
Mercury		0.080	0.020	mg/Kg	7471A
Soluble					
pH-Soluble		7.37	0.100	SU	9045C
720-24205-10	**PH-8AG**				
Barium		220	1.9	mg/Kg	6010B
Cadmium		1.7	0.49	mg/Kg	6010B
Chromium		19	1.9	mg/Kg	6010B
Cobalt		8.4	0.78	mg/Kg	6010B
Copper		110	5.8	mg/Kg	6010B
Lead		200	1.9	mg/Kg	6010B
Nickel		9.8	1.9	mg/Kg	6010B
Vanadium		52	1.9	mg/Kg	6010B
Zinc		540	5.8	mg/Kg	6010B
Mercury		0.064	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.10	0.100	SU	9045C

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-11	**PH-8AH**				
Antimony		2.5	2.0	mg/Kg	6010B
Arsenic		12	4.0	mg/Kg	6010B
Barium		360	2.0	mg/Kg	6010B
Cadmium		8.3	0.50	mg/Kg	6010B
Chromium		43	2.0	mg/Kg	6010B
Cobalt		13	0.79	mg/Kg	6010B
Copper		870	5.9	mg/Kg	6010B
Lead		620	2.0	mg/Kg	6010B
Molybdenum		4.1	2.0	mg/Kg	6010B
Nickel		61	2.0	mg/Kg	6010B
Selenium		3.5	2.0	mg/Kg	6010B
Silver		1.8	0.99	mg/Kg	6010B
Vanadium		34	2.0	mg/Kg	6010B
Zinc		2500	15	mg/Kg	6010B
Mercury		0.16	0.019	mg/Kg	7471A
Soluble					
pH-Soluble		7.16	0.100	SU	9045C
720-24205-12	**PH-8AI**				
Antimony		7.8	1.9	mg/Kg	6010B
Arsenic		4.0	3.8	mg/Kg	6010B
Barium		230	1.9	mg/Kg	6010B
Cadmium		3.6	0.48	mg/Kg	6010B
Chromium		36	1.9	mg/Kg	6010B
Cobalt		6.9	0.77	mg/Kg	6010B
Copper		240	5.8	mg/Kg	6010B
Lead		1700	1.9	mg/Kg	6010B
Nickel		24	1.9	mg/Kg	6010B
Silver		1.2	0.96	mg/Kg	6010B
Vanadium		33	1.9	mg/Kg	6010B
Zinc		1500	5.8	mg/Kg	6010B
Mercury		0.20	0.020	mg/Kg	7471A
SGT-HEM		150	100	mg/Kg	9071B
Soluble					
pH-Soluble		7.34	0.100	SU	9045C

METHOD SUMMARY

Client: ERRG

Job Number: 720-24205-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL SF	SW846 8270C	
Ultrasonic Extraction	TAL SF		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL SF	SW846 8082	
Ultrasonic Extraction	TAL SF		SW846 3550B
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B
Mercury (CVAA)	TAL SF	SW846 7471A	
Preparation, Mercury	TAL SF		SW846 7471A
pH	TAL SF	SW846 9045C	
Deionized Water Leaching Procedure	TAL SF		ASTM DI Leach
HEM	TAL SF	SW846 9071B	
HEM	TAL SF		SW846 9071B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24205-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24205-1	TR-5X	Solid	11/18/2009 1416	11/20/2009 0930
720-24205-2	TR-6Y	Solid	11/18/2009 1533	11/20/2009 0930
720-24205-3	TR-7Z	Solid	11/18/2009 1554	11/20/2009 0930
720-24205-4	PH-7AA	Solid	11/19/2009 0718	11/20/2009 0930
720-24205-5	PH-7AB	Solid	11/19/2009 0725	11/20/2009 0930
720-24205-6	PH-7AC	Solid	11/19/2009 0735	11/20/2009 0930
720-24205-7	TR-8AD	Solid	11/19/2009 0800	11/20/2009 0930
720-24205-8	TR-8AE	Solid	11/19/2009 0807	11/20/2009 0930
720-24205-9	TR-8AF	Solid	11/19/2009 0827	11/20/2009 0930
720-24205-10	PH-8AG	Solid	11/19/2009 0948	11/20/2009 0930
720-24205-11	PH-8AH	Solid	11/19/2009 1000	11/20/2009 0930
720-24205-12	PH-8AI	Solid	11/19/2009 1008	11/20/2009 0930

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AC**

Lab Sample ID: 720-24205-6
Client Matrix: Solid

Date Sampled: 11/19/2009 0735
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.31 g
Date Analyzed:	11/25/2009 1953			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.066
Bis(2-chloroethyl)ether		ND		0.066
2-Chlorophenol		ND		0.066
1,3-Dichlorobenzene		ND		0.066
1,4-Dichlorobenzene		ND		0.066
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.066
2-Methylphenol		ND		0.066
4-Methylphenol		ND		0.066
N-Nitrosodi-n-propylamine		ND		0.066
Hexachloroethane		ND		0.066
Nitrobenzene		ND		0.066
Isophorone		ND		0.066
2-Nitrophenol		ND		0.066
2,4-Dimethylphenol		ND		0.066
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.066
Naphthalene		ND		0.066
4-Chloroaniline		ND		0.066
Hexachlorobutadiene		ND		0.066
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.066
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.066
2,4,5-Trichlorophenol		ND		0.066
2-Chloronaphthalene		ND		0.066
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.066
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.066
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.066
2,4-Dinitrotoluene		ND		0.066
2,6-Dinitrotoluene		ND		0.066
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.066
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.066
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.066
Pentachlorophenol		ND		0.33

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AC**

Lab Sample ID: 720-24205-6
Client Matrix: Solid

Date Sampled: 11/19/2009 0735
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.31 g
Date Analyzed:	11/25/2009 1953			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.066
Anthracene		ND		0.066
Di-n-butyl phthalate		ND		0.17
Fluoranthene		ND		0.066
Pyrene		ND		0.066
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		ND		0.066
Di-n-octyl phthalate		ND		0.99
Benzo[b]fluoranthene		ND		0.066
Benzo[a]pyrene		ND		0.066
Benzo[k]fluoranthene		ND		0.066
Indeno[1,2,3-cd]pyrene		ND		0.066
Benzo[g,h,i]perylene		ND		0.066
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.066
Dibenz(a,h)anthracene		ND		0.066

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	80		21 - 98
2-Fluorobiphenyl	89		38 - 96
Terphenyl-d14	72		32 - 117
2-Fluorophenol	90		28 - 98
Phenol-d5	85		23 - 101
2,4,6-Tribromophenol	98		37 - 114

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AI**

Lab Sample ID: 720-24205-12
Client Matrix: Solid

Date Sampled: 11/19/2009 1008
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.27 g
Date Analyzed:	11/25/2009 2026			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenol		ND		0.066
Bis(2-chloroethyl)ether		ND		0.066
2-Chlorophenol		ND		0.066
1,3-Dichlorobenzene		ND		0.066
1,4-Dichlorobenzene		ND		0.066
Benzyl alcohol		ND		0.17
1,2-Dichlorobenzene		ND		0.066
2-Methylphenol		ND		0.066
4-Methylphenol		ND		0.066
N-Nitrosodi-n-propylamine		ND		0.066
Hexachloroethane		ND		0.066
Nitrobenzene		ND		0.066
Isophorone		ND		0.066
2-Nitrophenol		ND		0.066
2,4-Dimethylphenol		ND		0.066
Bis(2-chloroethoxy)methane		ND		0.17
2,4-Dichlorophenol		ND		0.33
1,2,4-Trichlorobenzene		ND		0.066
Naphthalene		ND		0.066
4-Chloroaniline		ND		0.066
Hexachlorobutadiene		ND		0.066
4-Chloro-3-methylphenol		ND		0.17
2-Methylnaphthalene		ND		0.066
Hexachlorocyclopentadiene		ND		0.17
2,4,6-Trichlorophenol		ND		0.066
2,4,5-Trichlorophenol		ND		0.066
2-Chloronaphthalene		ND		0.066
2-Nitroaniline		ND		0.33
Dimethyl phthalate		ND		0.17
Acenaphthylene		ND		0.066
3-Nitroaniline		ND		0.17
Acenaphthene		ND		0.066
2,4-Dinitrophenol		ND		0.33
4-Nitrophenol		ND		0.33
Dibenzofuran		ND		0.066
2,4-Dinitrotoluene		ND		0.066
2,6-Dinitrotoluene		ND		0.066
Diethyl phthalate		ND		0.17
4-Chlorophenyl phenyl ether		ND		0.17
Fluorene		ND		0.066
4-Nitroaniline		ND		0.33
2-Methyl-4,6-dinitrophenol		ND		0.33
N-Nitrosodiphenylamine		ND		0.066
4-Bromophenyl phenyl ether		ND		0.17
Hexachlorobenzene		ND		0.066
Pentachlorophenol		ND		0.33

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AI**

Lab Sample ID: 720-24205-12
Client Matrix: Solid

Date Sampled: 11/19/2009 1008
Date Received: 11/20/2009 0930

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 720-62116		Instrument ID:	SAT 2K2
Preparation:	3550B	Prep Batch: 720-62026		Lab File ID:	c:\saturnws\epdata\da
Dilution:	1.0			Initial Weight/Volume:	30.27 g
Date Analyzed:	11/25/2009 2026			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Phenanthrene		ND		0.066
Anthracene		ND		0.066
Di-n-butyl phthalate		ND		0.17
Fluoranthene		ND		0.066
Pyrene		ND		0.066
Butyl benzyl phthalate		ND		0.17
3,3'-Dichlorobenzidine		ND		0.17
Benzo[a]anthracene		ND		0.33
Bis(2-ethylhexyl) phthalate		ND		0.33
Chrysene		ND		0.066
Di-n-octyl phthalate		ND		0.99
Benzo[b]fluoranthene		ND		0.066
Benzo[a]pyrene		ND		0.066
Benzo[k]fluoranthene		ND		0.066
Indeno[1,2,3-cd]pyrene		ND		0.066
Benzo[g,h,i]perylene		ND		0.066
Benzoic acid		ND	*	0.33
Azobenzene		ND		0.066
Dibenz(a,h)anthracene		ND		0.066

Surrogate	%Rec	Qualifier	Acceptance Limits
Nitrobenzene-d5	79		21 - 98
2-Fluorobiphenyl	81		38 - 96
Terphenyl-d14	71		32 - 117
2-Fluorophenol	81		28 - 98
Phenol-d5	80		23 - 101
2,4,6-Tribromophenol	92		37 - 114

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AC**

Lab Sample ID: 720-24205-6
Client Matrix: Solid

Date Sampled: 11/19/2009 0735
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62095		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957		Initial Weight/Volume:	30.24 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	11/27/2009 1148			Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		64		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		32 - 112
DCB Decachlorobiphenyl	88		2 - 122

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AI**

Lab Sample ID: 720-24205-12
Client Matrix: Solid

Date Sampled: 11/19/2009 1008
Date Received: 11/20/2009 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-62016	Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-61957	Initial Weight/Volume:	30.25 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	11/25/2009 1929		Injection Volume:	1 uL
Date Prepared:	11/24/2009 1008		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	97		32 - 112
DCB Decachlorobiphenyl	77		2 - 122

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-5X**

Lab Sample ID: 720-24205-1
Client Matrix: Solid

Date Sampled: 11/18/2009 1416
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/24/2009 1726			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.8		2.0
Arsenic		6.5		3.9
Barium		220		2.0
Beryllium		ND		0.39
Cadmium		1.0		0.49
Chromium		30		2.0
Cobalt		11		0.78
Copper		140		5.9
Lead		390		2.0
Molybdenum		ND		2.0
Nickel		21		2.0
Selenium		ND		2.0
Silver		ND		0.98
Thallium		ND		2.0
Vanadium		50		2.0
Zinc		840		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Date Analyzed:	11/24/2009 1054			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.16		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-6Y**

Lab Sample ID: 720-24205-2
Client Matrix: Solid

Date Sampled: 11/18/2009 1533
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	11/24/2009 1732			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		ND		3.9
Barium		91		2.0
Beryllium		ND		0.39
Cadmium		ND		0.49
Chromium		21		2.0
Cobalt		6.6		0.78
Copper		68		5.9
Lead		16		2.0
Molybdenum		ND		2.0
Nickel		3.1		2.0
Selenium		ND		2.0
Silver		ND		0.98
Thallium		ND		2.0
Vanadium		67		2.0
Zinc		52		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Date Analyzed:	11/24/2009 1056			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-7Z**

Lab Sample ID: 720-24205-3
Client Matrix: Solid

Date Sampled: 11/18/2009 1554
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1737			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		6.1		2.0
Arsenic		18		4.1
Barium		320		2.0
Beryllium		ND		0.41
Cadmium		4.2		0.51
Chromium		110		2.0
Cobalt		13		0.82
Copper		360		6.1
Lead		680		2.0
Molybdenum		4.2		2.0
Nickel		86		2.0
Selenium		ND		2.0
Silver		2.1		1.0
Thallium		ND		2.0
Vanadium		46		2.0
Zinc		1700		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Date Analyzed:	11/24/2009 1059			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.22		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AA**

Lab Sample ID: 720-24205-4
Client Matrix: Solid

Date Sampled: 11/19/2009 0718
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	11/24/2009 1743			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		2.1		2.0
Arsenic		ND		4.0
Barium		180		2.0
Beryllium		ND		0.40
Cadmium		ND		0.50
Chromium		23		2.0
Cobalt		8.9		0.80
Copper		110		6.0
Lead		200		2.0
Molybdenum		ND		2.0
Nickel		14		2.0
Selenium		ND		2.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		60		2.0
Zinc		590		6.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/24/2009 1101			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.039		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AB**

Lab Sample ID: 720-24205-5
Client Matrix: Solid

Date Sampled: 11/19/2009 0725
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1800			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		4.2		2.0
Arsenic		8.6		4.1
Barium		430		2.0
Beryllium		ND		0.41
Cadmium		3.9		0.51
Chromium		38		2.0
Cobalt		11		0.82
Copper		250		6.1
Lead		650		2.0
Molybdenum		2.3		2.0
Nickel		27		2.0
Selenium		ND		2.0
Silver		1.5		1.0
Thallium		ND		2.0
Vanadium		52		2.0
Zinc		1700		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.59 g
Date Analyzed:	11/24/2009 1103			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.21		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-7AC**

Lab Sample ID: 720-24205-6
Client Matrix: Solid

Date Sampled: 11/19/2009 0735
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1806			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.7		2.0
Arsenic		7.2		4.1
Barium		400		2.0
Beryllium		ND		0.41
Cadmium		3.8		0.51
Chromium		34		2.0
Cobalt		10		0.82
Copper		290		6.1
Lead		550		2.0
Molybdenum		2.6		2.0
Nickel		26		2.0
Selenium		ND		2.0
Silver		1.7		1.0
Thallium		ND		2.0
Vanadium		55		2.0
Zinc		1500		6.1

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/24/2009 1106			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.33		0.019

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-8AD**

Lab Sample ID: 720-24205-7
Client Matrix: Solid

Date Sampled: 11/19/2009 0800
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1812			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		8.4		1.9
Arsenic		29		3.9
Barium		320		1.9
Beryllium		ND		0.39
Cadmium		5.0		0.49
Chromium		65		1.9
Cobalt		25		0.78
Copper		290		5.8
Lead		1100		1.9
Molybdenum		8.5		1.9
Nickel		130		1.9
Selenium		ND		1.9
Silver		1.5		0.97
Thallium		ND		1.9
Vanadium		22		1.9
Zinc		2300		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	11/24/2009 1108			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.16		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-8AE**

Lab Sample ID: 720-24205-8
Client Matrix: Solid

Date Sampled: 11/19/2009 0807
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61997		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-61914		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1818			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		3.4		1.9
Arsenic		8.2		3.8
Barium		370		1.9
Beryllium		ND		0.38
Cadmium		4.4		0.48
Chromium		37		1.9
Cobalt		10		0.77
Copper		290		5.8
Lead		660		1.9
Molybdenum		2.5		1.9
Nickel		24		1.9
Selenium		ND		1.9
Silver		1.8		0.96
Thallium		ND		1.9
Vanadium		42		1.9
Zinc		1600		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	11/24/2009 1111			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.12		0.019

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **TR-8AF**

Lab Sample ID: 720-24205-9
Client Matrix: Solid

Date Sampled: 11/19/2009 0827
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61970		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	11/24/2009 1048			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		5.0		2.0
Arsenic		9.4		4.0
Barium		320		2.0
Beryllium		ND		0.40
Cadmium		2.7		0.50
Chromium		34		2.0
Cobalt		15		0.80
Copper		220		6.0
Lead		390		2.0
Molybdenum		4.3		2.0
Nickel		32		2.0
Silver		1.0		1.0
Thallium		ND		2.0
Vanadium		45		2.0
Zinc		1500		6.0

Method:	6010B	Analysis Batch: 720-62143		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	11/27/2009 1532			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Selenium		ND		2.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Date Analyzed:	11/24/2009 1113			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1618				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.080		0.020

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AG**

Lab Sample ID: 720-24205-10
Client Matrix: Solid

Date Sampled: 11/19/2009 0948
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61970		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1053			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		1.9
Arsenic		ND		3.9
Barium		220		1.9
Beryllium		ND		0.39
Cadmium		1.7		0.49
Chromium		19		1.9
Cobalt		8.4		0.78
Copper		110		5.8
Lead		200		1.9
Molybdenum		ND		1.9
Nickel		9.8		1.9
Selenium		ND		1.9
Silver		ND		0.97
Thallium		ND		1.9
Vanadium		52		1.9
Zinc		540		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	11/24/2009 1120			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1621				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.064		0.019

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AH**

Lab Sample ID: 720-24205-11
Client Matrix: Solid

Date Sampled: 11/19/2009 1000
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-61970	Instrument ID: Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937	Lab File ID: N/A
Dilution:	4.0		Initial Weight/Volume: 1.01 g
Date Analyzed:	11/24/2009 1058		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1908		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		2.5		2.0
Arsenic		12		4.0
Barium		360		2.0
Beryllium		ND		0.40
Cadmium		8.3		0.50
Chromium		43		2.0
Cobalt		13		0.79
Copper		870		5.9
Lead		620		2.0
Molybdenum		4.1		2.0
Nickel		61		2.0
Selenium		3.5		2.0
Silver		1.8		0.99
Vanadium		34		2.0

Method:	6010B	Analysis Batch: 720-62034	Instrument ID: Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61937	Lab File ID: N/A
Dilution:	10		Initial Weight/Volume: 1.01 g
Date Analyzed:	11/24/2009 1951		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1908		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Thallium		ND		5.0
Zinc		2500		15

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963	Instrument ID: LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 0.62 g
Date Analyzed:	11/24/2009 1123		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1622		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.16		0.019

Client: ERRG

Job Number: 720-24205-1

Client Sample ID: **PH-8AI**

Lab Sample ID: 720-24205-12
Client Matrix: Solid

Date Sampled: 11/19/2009 1008
Date Received: 11/20/2009 0930

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-62033		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-61959		Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1848			Final Weight/Volume:	50 mL
Date Prepared:	11/24/2009 1033				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		7.8		1.9
Arsenic		4.0		3.8
Barium		230		1.9
Beryllium		ND		0.38
Cadmium		3.6		0.48
Chromium		36		1.9
Cobalt		6.9		0.77
Copper		240		5.8
Lead		1700		1.9
Molybdenum		ND		1.9
Nickel		24		1.9
Selenium		ND		1.9
Silver		1.2		0.96
Thallium		ND		1.9
Vanadium		33		1.9
Zinc		1500		5.8

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-61963		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-61925		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Date Analyzed:	11/24/2009 1125			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1622				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.20		0.020

General Chemistry

Client Sample ID: **TR-5X**

Lab Sample ID: 720-24205-1 Date Sampled: 11/18/2009 1416

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.79		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1735 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-6Y**

Lab Sample ID: 720-24205-2 Date Sampled: 11/18/2009 1533

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.42		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1740 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-7Z**

Lab Sample ID: 720-24205-3 Date Sampled: 11/18/2009 1554
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.50		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1744 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-7AA**

Lab Sample ID: 720-24205-4 Date Sampled: 11/19/2009 0718

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	6.92		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1748 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-7AB**

Lab Sample ID: 720-24205-5 Date Sampled: 11/19/2009 0725

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.18		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1752 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-7AC**

Lab Sample ID: 720-24205-6 Date Sampled: 11/19/2009 0735

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	ND		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.38		SU	0.100	1.0	9045C
Analysis Batch: 720-62057	Date Analyzed: 11/24/2009 1757					DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-8AD**

Lab Sample ID: 720-24205-7 Date Sampled: 11/19/2009 0800

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.81		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1803 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-8AE**

Lab Sample ID: 720-24205-8 Date Sampled: 11/19/2009 0807

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.33		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1822 DryWt Corrected: N

General Chemistry

Client Sample ID: **TR-8AF**

Lab Sample ID: 720-24205-9 Date Sampled: 11/19/2009 0827

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.37		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1826 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-8AG**

Lab Sample ID: 720-24205-10 Date Sampled: 11/19/2009 0948

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.10		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1830 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-8AH**

Lab Sample ID: 720-24205-11 Date Sampled: 11/19/2009 1000

Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.16		SU	0.100	1.0	9045C

Analysis Batch: 720-62057 Date Analyzed: 11/24/2009 1835 DryWt Corrected: N

General Chemistry

Client Sample ID: **PH-8AI**

Lab Sample ID: 720-24205-12 Date Sampled: 11/19/2009 1008
Client Matrix: Solid Date Received: 11/20/2009 0930

Analyte	Result	Qual	Units	RL	Dil	Method
SGT-HEM	150		mg/Kg	100	1.0	9071B
Analysis Batch: 720-62058	Date Analyzed: 11/25/2009 1448					DryWt Corrected: N
Prep Batch: 720-62048	Date Prepared: 11/25/2009 1402					

Analyte	Result	Qual	Units	RL	Dil	Method
pH-Soluble	7.34		SU	0.100	1.0	9045C
Analysis Batch: 720-62057	Date Analyzed: 11/24/2009 1839					DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: ERRG Job Number: 720-24205-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	RPD of the LCS and LCSD exceeds the control limits
GC Semi VOA		
	F	MS or MSD exceeds the control limits
Metals		
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	F	RPD of the MS and MSD exceeds the control limits

Client: ERRG

Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 720-62026					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-62026/1-A	Method Blank	T	Solid	3550B	
720-24203-A-9-E MS	Matrix Spike	T	Solid	3550B	
720-24203-A-9-F MSD	Matrix Spike Duplicate	T	Solid	3550B	
720-24205-6	PH-7AC	T	Solid	3550B	
720-24205-12	PH-8AI	T	Solid	3550B	
Analysis Batch:720-62116					
LCS 720-62026/2-A	Lab Control Sample	T	Solid	8270C	720-62026
LCSD 720-62026/3-A	Lab Control Sample Duplicate	T	Solid	8270C	720-62026
MB 720-62026/1-A	Method Blank	T	Solid	8270C	720-62026
720-24203-A-9-E MS	Matrix Spike	T	Solid	8270C	720-62026
720-24203-A-9-F MSD	Matrix Spike Duplicate	T	Solid	8270C	720-62026
720-24205-6	PH-7AC	T	Solid	8270C	720-62026
720-24205-12	PH-8AI	T	Solid	8270C	720-62026

Report Basis
T = Total

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-61957					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-61957/1-A	Method Blank	T	Solid	3550B	
720-24205-6	PH-7AC	T	Solid	3550B	
720-24205-6MS	Matrix Spike	T	Solid	3550B	
720-24205-6MSD	Matrix Spike Duplicate	T	Solid	3550B	
720-24205-12	PH-8AI	T	Solid	3550B	
Analysis Batch:720-62016					
LCS 720-61957/2-A	Lab Control Sample	T	Solid	8082	720-61957
LCSD 720-61957/3-A	Lab Control Sample Duplicate	T	Solid	8082	720-61957
MB 720-61957/1-A	Method Blank	T	Solid	8082	720-61957
720-24205-12	PH-8AI	T	Solid	8082	720-61957
Analysis Batch:720-62095					
720-24205-6	PH-7AC	T	Solid	8082	720-61957
720-24205-6MS	Matrix Spike	T	Solid	8082	720-61957
720-24205-6MSD	Matrix Spike Duplicate	T	Solid	8082	720-61957

Report Basis
T = Total

Client: ERRG Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-61914					
LCS 720-61914/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61914/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
MB 720-61914/1-A	Method Blank	T	Solid	3050B	
720-24204-A-1-F MS	Matrix Spike	T	Solid	3050B	
720-24204-A-1-G MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-24205-1	TR-5X	T	Solid	3050B	
720-24205-2	TR-6Y	T	Solid	3050B	
720-24205-3	TR-7Z	T	Solid	3050B	
720-24205-4	PH-7AA	T	Solid	3050B	
720-24205-5	PH-7AB	T	Solid	3050B	
720-24205-6	PH-7AC	T	Solid	3050B	
720-24205-7	TR-8AD	T	Solid	3050B	
720-24205-8	TR-8AE	T	Solid	3050B	
Prep Batch: 720-61925					
LCS 720-61925/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-61925/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-61925/1-A	Method Blank	T	Solid	7471A	
720-24204-A-8-C MS	Matrix Spike	T	Solid	7471A	
720-24204-A-8-D MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-24205-1	TR-5X	T	Solid	7471A	
720-24205-2	TR-6Y	T	Solid	7471A	
720-24205-3	TR-7Z	T	Solid	7471A	
720-24205-4	PH-7AA	T	Solid	7471A	
720-24205-5	PH-7AB	T	Solid	7471A	
720-24205-6	PH-7AC	T	Solid	7471A	
720-24205-7	TR-8AD	T	Solid	7471A	
720-24205-8	TR-8AE	T	Solid	7471A	
720-24205-9	TR-8AF	T	Solid	7471A	
720-24205-10	PH-8AG	T	Solid	7471A	
720-24205-11	PH-8AH	T	Solid	7471A	
720-24205-12	PH-8AI	T	Solid	7471A	
Prep Batch: 720-61937					
LCS 720-61937/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61937/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-61937/22-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-61937/1-A	Method Blank	T	Solid	3050B	
720-24205-9	TR-8AF	T	Solid	3050B	
720-24205-9MS	Matrix Spike	T	Solid	3050B	
720-24205-9MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-24205-10	PH-8AG	T	Solid	3050B	
720-24205-11	PH-8AH	T	Solid	3050B	

Client: ERRG

Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-61959					
LCS 720-61959/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-61959/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
MB 720-61959/1-A	Method Blank	T	Solid	3050B	
720-24205-12	PH-8AI	T	Solid	3050B	
720-24205-12MS	Matrix Spike	T	Solid	3050B	
720-24205-12MSD	Matrix Spike Duplicate	T	Solid	3050B	
Analysis Batch:720-61963					
LCS 720-61925/2-A	Lab Control Sample	T	Solid	7471A	720-61925
LCSD 720-61925/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-61925
MB 720-61925/1-A	Method Blank	T	Solid	7471A	720-61925
720-24204-A-8-C MS	Matrix Spike	T	Solid	7471A	720-61925
720-24204-A-8-D MSD	Matrix Spike Duplicate	T	Solid	7471A	720-61925
720-24205-1	TR-5X	T	Solid	7471A	720-61925
720-24205-2	TR-6Y	T	Solid	7471A	720-61925
720-24205-3	TR-7Z	T	Solid	7471A	720-61925
720-24205-4	PH-7AA	T	Solid	7471A	720-61925
720-24205-5	PH-7AB	T	Solid	7471A	720-61925
720-24205-6	PH-7AC	T	Solid	7471A	720-61925
720-24205-7	TR-8AD	T	Solid	7471A	720-61925
720-24205-8	TR-8AE	T	Solid	7471A	720-61925
720-24205-9	TR-8AF	T	Solid	7471A	720-61925
720-24205-10	PH-8AG	T	Solid	7471A	720-61925
720-24205-11	PH-8AH	T	Solid	7471A	720-61925
720-24205-12	PH-8AI	T	Solid	7471A	720-61925
Analysis Batch:720-61970					
LCS 720-61937/2-A	Lab Control Sample	T	Solid	6010B	720-61937
LCSD 720-61937/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61937
LCSSRM 720-61937/22-A	LCS-Standard Reference Material	T	Solid	6010B	720-61937
MB 720-61937/1-A	Method Blank	T	Solid	6010B	720-61937
720-24205-9	TR-8AF	T	Solid	6010B	720-61937
720-24205-9MS	Matrix Spike	T	Solid	6010B	720-61937
720-24205-9MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61937
720-24205-10	PH-8AG	T	Solid	6010B	720-61937
720-24205-11	PH-8AH	T	Solid	6010B	720-61937

Client: ERRG

Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-61997					
LCS 720-61914/2-A	Lab Control Sample	T	Solid	6010B	720-61914
LCSD 720-61914/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61914
MB 720-61914/1-A	Method Blank	T	Solid	6010B	720-61914
720-24204-A-1-F MS	Matrix Spike	T	Solid	6010B	720-61914
720-24204-A-1-G MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61914
720-24205-1	TR-5X	T	Solid	6010B	720-61914
720-24205-2	TR-6Y	T	Solid	6010B	720-61914
720-24205-3	TR-7Z	T	Solid	6010B	720-61914
720-24205-4	PH-7AA	T	Solid	6010B	720-61914
720-24205-5	PH-7AB	T	Solid	6010B	720-61914
720-24205-6	PH-7AC	T	Solid	6010B	720-61914
720-24205-7	TR-8AD	T	Solid	6010B	720-61914
720-24205-8	TR-8AE	T	Solid	6010B	720-61914
Analysis Batch:720-62033					
LCS 720-61959/2-A	Lab Control Sample	T	Solid	6010B	720-61959
LCSD 720-61959/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-61959
MB 720-61959/1-A	Method Blank	T	Solid	6010B	720-61959
720-24205-12	PH-8AI	T	Solid	6010B	720-61959
720-24205-12MS	Matrix Spike	T	Solid	6010B	720-61959
720-24205-12MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61959
Analysis Batch:720-62034					
720-24205-11	PH-8AH	T	Solid	6010B	720-61937
Analysis Batch:720-62088					
720-24205-12MSD	Matrix Spike Duplicate	T	Solid	6010B	720-61959
Analysis Batch:720-62143					
720-24205-9	TR-8AF	T	Solid	6010B	720-61937

Report Basis

T = Total

Client: ERRG

Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 720-61900					
720-24205-1	TR-5X	S	Solid	DI Leach	
720-24205-2	TR-6Y	S	Solid	DI Leach	
720-24205-3	TR-7Z	S	Solid	DI Leach	
720-24205-4	PH-7AA	S	Solid	DI Leach	
720-24205-5	PH-7AB	S	Solid	DI Leach	
720-24205-6	PH-7AC	S	Solid	DI Leach	
720-24205-7	TR-8AD	S	Solid	DI Leach	
720-24205-8	TR-8AE	S	Solid	DI Leach	
720-24205-9	TR-8AF	S	Solid	DI Leach	
720-24205-10	PH-8AG	S	Solid	DI Leach	
720-24205-11	PH-8AH	S	Solid	DI Leach	
720-24205-12	PH-8AI	S	Solid	DI Leach	
720-24205-12DU	Duplicate	S	Solid	DI Leach	
Prep Batch: 720-62048					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	
MB 720-62048/1-A	Method Blank	T	Solid	9071B	
720-24203-A-9-H MS	Matrix Spike	T	Solid	9071B	
720-24203-A-9-I MSD	Matrix Spike Duplicate	T	Solid	9071B	
720-24205-6	PH-7AC	T	Solid	9071B	
720-24205-12	PH-8AI	T	Solid	9071B	
Analysis Batch:720-62057					
LCS 720-62057/1	Lab Control Sample	T	Water	9045C	
720-24205-1	TR-5X	S	Solid	9045C	
720-24205-2	TR-6Y	S	Solid	9045C	
720-24205-3	TR-7Z	S	Solid	9045C	
720-24205-4	PH-7AA	S	Solid	9045C	
720-24205-5	PH-7AB	S	Solid	9045C	
720-24205-6	PH-7AC	S	Solid	9045C	
720-24205-7	TR-8AD	S	Solid	9045C	
720-24205-8	TR-8AE	S	Solid	9045C	
720-24205-9	TR-8AF	S	Solid	9045C	
720-24205-10	PH-8AG	S	Solid	9045C	
720-24205-11	PH-8AH	S	Solid	9045C	
720-24205-12	PH-8AI	S	Solid	9045C	
720-24205-12DU	Duplicate	S	Solid	9045C	

Client: ERRG

Job Number: 720-24205-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:720-62058					
LCS 720-62048/2-A	Lab Control Sample	T	Solid	9071B	720-62048
LCSD 720-62048/3-A	Lab Control Sample Duplicate	T	Solid	9071B	720-62048
MB 720-62048/1-A	Method Blank	T	Solid	9071B	720-62048
720-24203-A-9-H MS	Matrix Spike	T	Solid	9071B	720-62048
720-24203-A-9-I MSD	Matrix Spike Duplicate	T	Solid	9071B	720-62048
720-24205-6	PH-7AC	T	Solid	9071B	720-62048
720-24205-12	PH-8AI	T	Solid	9071B	720-62048

Report Basis

S = Soluble

T = Total

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
Phenol	ND		0.066
Bis(2-chloroethyl)ether	ND		0.066
2-Chlorophenol	ND		0.066
1,3-Dichlorobenzene	ND		0.066
1,4-Dichlorobenzene	ND		0.066
Benzyl alcohol	ND		0.17
1,2-Dichlorobenzene	ND		0.066
2-Methylphenol	ND		0.066
4-Methylphenol	ND		0.066
N-Nitrosodi-n-propylamine	ND		0.066
Hexachloroethane	ND		0.066
Nitrobenzene	ND		0.066
Isophorone	ND		0.066
2-Nitrophenol	ND		0.066
2,4-Dimethylphenol	ND		0.066
Bis(2-chloroethoxy)methane	ND		0.17
2,4-Dichlorophenol	ND		0.33
1,2,4-Trichlorobenzene	ND		0.066
Naphthalene	ND		0.066
4-Chloroaniline	ND		0.066
Hexachlorobutadiene	ND		0.066
4-Chloro-3-methylphenol	ND		0.17
2-Methylnaphthalene	ND		0.066
Hexachlorocyclopentadiene	ND		0.17
2,4,6-Trichlorophenol	ND		0.066
2,4,5-Trichlorophenol	ND		0.066
2-Chloronaphthalene	ND		0.066
2-Nitroaniline	ND		0.33
Dimethyl phthalate	ND		0.17
Acenaphthylene	ND		0.066
3-Nitroaniline	ND		0.17
Acenaphthene	ND		0.066
2,4-Dinitrophenol	ND		0.33
4-Nitrophenol	ND		0.33
Dibenzofuran	ND		0.066
2,4-Dinitrotoluene	ND		0.066
2,6-Dinitrotoluene	ND		0.066
Diethyl phthalate	ND		0.17
4-Chlorophenyl phenyl ether	ND		0.17
Fluorene	ND		0.066
4-Nitroaniline	ND		0.33

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-62026

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-62026/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1636
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	RL
2-Methyl-4,6-dinitrophenol	ND		0.33
N-Nitrosodiphenylamine	ND		0.066
4-Bromophenyl phenyl ether	ND		0.17
Hexachlorobenzene	ND		0.066
Pentachlorophenol	ND		0.33
Phenanthrene	ND		0.066
Anthracene	ND		0.066
Di-n-butyl phthalate	ND		0.17
Fluoranthene	ND		0.066
Pyrene	ND		0.066
Butyl benzyl phthalate	ND		0.17
3,3'-Dichlorobenzidine	ND		0.17
Benzo[a]anthracene	ND		0.33
Bis(2-ethylhexyl) phthalate	ND		0.33
Chrysene	ND		0.066
Di-n-octyl phthalate	ND		0.99
Benzo[b]fluoranthene	ND		0.066
Benzo[a]pyrene	ND		0.066
Benzo[k]fluoranthene	ND		0.066
Indeno[1,2,3-cd]pyrene	ND		0.066
Benzo[g,h,i]perylene	ND		0.066
Benzoic acid	ND		0.33
Azobenzene	ND		0.066
Dibenz(a,h)anthracene	ND		0.066

Surrogate	% Rec	Acceptance Limits
Nitrobenzene-d5	76	21 - 98
2-Fluorobiphenyl	82	38 - 96
Terphenyl-d14	69	32 - 117
2-Fluorophenol	84	28 - 98
Phenol-d5	80	23 - 101
2,4,6-Tribromophenol	77	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID: LCS 720-62026/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1531
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 1 mL
Injection Volume:

LCSD Lab Sample ID: LCSD 720-62026/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1603
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\200911
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	72	65	48 - 115	10	35		
Bis(2-chloroethyl)ether	75	70	45 - 115	7	35		
2-Chlorophenol	75	68	48 - 115	10	35		
1,3-Dichlorobenzene	71	72	41 - 115	1	35		
1,4-Dichlorobenzene	76	71	40 - 115	6	35		
Benzyl alcohol	77	68	54 - 115	13	35		
1,2-Dichlorobenzene	72	61	44 - 115	17	35		
2-Methylphenol	80	74	54 - 115	8	35		
4-Methylphenol	79	78	50 - 115	2	35		
N-Nitrosodi-n-propylamine	75	66	46 - 115	14	35		
Hexachloroethane	72	67	44 - 115	7	35		
Nitrobenzene	77	75	48 - 115	3	35		
Isophorone	83	78	54 - 115	5	35		
2-Nitrophenol	78	77	48 - 115	0	35		
2,4-Dimethylphenol	78	79	52 - 115	1	35		
Bis(2-chloroethoxy)methane	75	72	46 - 115	4	35		
2,4-Dichlorophenol	75	75	49 - 100	1	35		
1,2,4-Trichlorobenzene	77	74	47 - 115	4	35		
Naphthalene	70	71	44 - 115	1	35		
4-Chloroaniline	48	46	30 - 115	3	35		
Hexachlorobutadiene	75	70	44 - 115	7	35		
4-Chloro-3-methylphenol	77	73	58 - 115	5	35		
2-Methylnaphthalene	75	72	49 - 115	4	35		
Hexachlorocyclopentadiene	76	78	42 - 132	2	35		
2,4,6-Trichlorophenol	78	78	45 - 115	0	35		
2,4,5-Trichlorophenol	74	71	48 - 115	5	35		
2-Chloronaphthalene	66	70	52 - 115	7	35		
2-Nitroaniline	81	76	54 - 115	6	35		
Dimethyl phthalate	76	75	64 - 119	1	35		
Acenaphthylene	83	79	61 - 129	6	35		
3-Nitroaniline	70	66	50 - 115	7	35		
Acenaphthene	68	67	50 - 115	1	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID: LCS 720-62026/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1531
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\2009
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 1 mL
Injection Volume:

LCSD Lab Sample ID: LCSD 720-62026/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1603
Date Prepared: 11/25/2009 1148

Analysis Batch: 720-62116
Prep Batch: 720-62026
Units: mg/Kg

Instrument ID: Sat 2K2
Lab File ID: c:\saturnws\epdata\data\200911
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dinitrophenol	58	57	21 - 115	2	35		
4-Nitrophenol	88	86	54 - 125	2	35		
Dibenzofuran	76	70	55 - 115	9	35		
2,4-Dinitrotoluene	78	76	57 - 115	2	35		
2,6-Dinitrotoluene	75	71	54 - 119	5	35		
Diethyl phthalate	71	72	49 - 117	2	35		
4-Chlorophenyl phenyl ether	69	71	57 - 115	3	35		
Fluorene	72	68	54 - 115	6	35		
4-Nitroaniline	81	75	59 - 115	7	35		
2-Methyl-4,6-dinitrophenol	78	80	48 - 115	3	35		
N-Nitrosodiphenylamine	76	79	56 - 115	4	35		
4-Bromophenyl phenyl ether	76	73	53 - 115	4	35		
Hexachlorobenzene	70	75	55 - 115	7	35		
Pentachlorophenol	65	65	35 - 115	1	35		
Phenanthrene	76	77	54 - 115	0	35		
Anthracene	66	74	55 - 115	11	35		
Di-n-butyl phthalate	83	84	55 - 115	0	35		
Fluoranthene	84	84	54 - 115	0	35		
Pyrene	88	83	48 - 115	7	35		
Butyl benzyl phthalate	88	80	53 - 115	10	35		
3,3'-Dichlorobenzidine	85	78	42 - 115	9	35		
Benzo[a]anthracene	97	88	55 - 115	10	35		
Bis(2-ethylhexyl) phthalate	91	80	53 - 115	12	35		
Chrysene	81	77	58 - 115	5	35		
Di-n-octyl phthalate	86	73	53 - 115	16	35		
Benzo[b]fluoranthene	80	71	56 - 115	13	35		
Benzo[a]pyrene	83	80	55 - 115	5	35		
Benzo[k]fluoranthene	91	77	57 - 115	16	35		
Indeno[1,2,3-cd]pyrene	85	78	56 - 115	8	35		
Benzo[g,h,i]perylene	90	84	56 - 115	7	35		
Benzoic acid	11	16	10 - 115	39	35		*
Azobenzene	71	65	52 - 115	9	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-62026/2-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\2009
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.16 g
Date Analyzed:	11/25/2009 1531			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

LCSD Lab Sample ID:	LCSD 720-62026/3-A	Analysis Batch:	720-62116	Instrument ID:	Sat 2K2
Client Matrix:	Solid	Prep Batch:	720-62026	Lab File ID:	c:\saturnws\epdata\data\200911
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	30.21 g
Date Analyzed:	11/25/2009 1603			Final Weight/Volume:	1 mL
Date Prepared:	11/25/2009 1148			Injection Volume:	

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Dibenz(a,h)anthracene	97	88	58 - 115	10	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	78	21 - 98
2-Fluorobiphenyl	73	73	38 - 96
Terphenyl-d14	89	80	32 - 117
2-Fluorophenol	74	72	28 - 98
Phenol-d5	78	74	23 - 101
2,4,6-Tribromophenol	79	72	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	69	62	23 - 115	10	35		
Bis(2-chloroethyl)ether	76	72	27 - 115	6	35		
2-Chlorophenol	75	69	16 - 115	8	35		
1,3-Dichlorobenzene	76	75	22 - 115	2	35		
1,4-Dichlorobenzene	72	70	21 - 115	3	35		
Benzyl alcohol	75	69	28 - 115	9	35		
1,2-Dichlorobenzene	70	66	25 - 115	6	35		
2-Methylphenol	76	75	32 - 115	1	35		
4-Methylphenol	82	76	28 - 115	8	35		
N-Nitrosodi-n-propylamine	75	69	27 - 115	9	35		
Hexachloroethane	74	70	19 - 115	6	35		
Nitrobenzene	76	82	30 - 115	7	35		
Isophorone	82	88	36 - 115	6	35		
2-Nitrophenol	79	80	11 - 116	1	35		
2,4-Dimethylphenol	80	83	36 - 115	3	35		
Bis(2-chloroethoxy)methane	73	78	28 - 115	6	35		
2,4-Dichlorophenol	71	79	17 - 115	11	35		
1,2,4-Trichlorobenzene	76	77	29 - 115	2	35		
Naphthalene	72	76	22 - 115	6	35		
4-Chloroaniline	28	25	7 - 115	12	35		
Hexachlorobutadiene	79	81	26 - 115	2	35		
4-Chloro-3-methylphenol	75	79	42 - 115	5	35		
2-Methylnaphthalene	73	71	28 - 115	4	35		
Hexachlorocyclopentadiene	78	82	15 - 115	5	35		
2,4,6-Trichlorophenol	76	77	25 - 115	1	35		
2,4,5-Trichlorophenol	70	68	38 - 115	4	35		
2-Chloronaphthalene	72	71	38 - 115	2	35		
2-Nitroaniline	80	79	43 - 115	2	35		
Dimethyl phthalate	75	75	55 - 116	0	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthylene	83	85	49 - 120	2	35		
3-Nitroaniline	70	67	39 - 115	4	35		
Acenaphthene	69	69	42 - 115	0	35		
2,4-Dinitrophenol	57	53	13 - 122	8	35		
4-Nitrophenol	84	86	25 - 147	1	35		
Dibenzofuran	70	70	43 - 115	1	35		
2,4-Dinitrotoluene	78	76	47 - 115	2	35		
2,6-Dinitrotoluene	79	77	55 - 115	3	35		
Diethyl phthalate	72	73	48 - 115	2	35		
4-Chlorophenyl phenyl ether	72	68	44 - 115	5	35		
Fluorene	73	70	41 - 115	4	35		
4-Nitroaniline	74	77	47 - 120	4	35		
2-Methyl-4,6-dinitrophenol	79	79	19 - 132	0	35		
N-Nitrosodiphenylamine	80	82	43 - 115	3	35		
4-Bromophenyl phenyl ether	77	73	45 - 115	6	35		
Hexachlorobenzene	84	81	48 - 115	3	35		
Pentachlorophenol	69	69	7 - 132	1	35		
Phenanthrene	77	73	38 - 115	5	35		
Anthracene	77	76	47 - 115	3	35		
Di-n-butyl phthalate	85	88	46 - 115	3	35		
Fluoranthene	84	82	40 - 115	3	35		
Pyrene	77	80	35 - 115	3	35		
Butyl benzyl phthalate	76	73	40 - 115	4	35		
3,3'-Dichlorobenzidine	70	66	17 - 115	6	35		
Benzo[a]anthracene	81	84	42 - 115	3	35		
Bis(2-ethylhexyl) phthalate	79	84	42 - 115	6	35		
Chrysene	71	73	37 - 115	3	35		
Di-n-octyl phthalate	76	74	46 - 115	3	35		
Benzo[b]fluoranthene	82	79	43 - 115	5	35		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62026

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	720-24203-A-9-E MS	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\200
Dilution:	1.0		Initial Weight/Volume: 30.23 g
Date Analyzed:	11/25/2009 1709		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

MSD Lab Sample ID:	720-24203-A-9-F MSD	Analysis Batch: 720-62116	Instrument ID: Sat 2K2
Client Matrix:	Solid	Prep Batch: 720-62026	Lab File ID: c:\saturnws\epdata\data\2009
Dilution:	1.0		Initial Weight/Volume: 30.28 g
Date Analyzed:	11/25/2009 1742		Final Weight/Volume: 1 mL
Date Prepared:	11/25/2009 1148		Injection Volume:

	% Rec.					
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[a]pyrene	79	79	48 - 115	0	35		
Benzo[k]fluoranthene	78	80	39 - 115	4	35		
Indeno[1,2,3-cd]pyrene	83	89	50 - 115	7	35		
Benzo[g,h,i]perylene	89	92	43 - 115	4	35		
Benzoic acid	6	6	0 - 115	5	35		
Azobenzene	68	71	48 - 115	5	35		
Dibenz(a,h)anthracene	94	94	49 - 115	0	35		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5	79	83	21 - 98
2-Fluorobiphenyl	77	72	38 - 96
Terphenyl-d14	79	78	32 - 117
2-Fluorophenol	77	70	28 - 98
Phenol-d5	82	73	23 - 101
2,4,6-Tribromophenol	80	80	37 - 114

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-61957

Method: 8082
Preparation: 3550B

Lab Sample ID: MB 720-61957/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1444
Date Prepared: 11/24/2009 1008

Analysis Batch: 720-62016
Prep Batch: 720-61957
Units: ug/Kg

Instrument ID: Agilent PCB 2
Lab File ID: m1125012.d
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		50
PCB-1221	ND		50
PCB-1232	ND		50
PCB-1242	ND		50
PCB-1248	ND		50
PCB-1254	ND		50
PCB-1260	ND		50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	93	32 - 112
DCB Decachlorobiphenyl	95	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61957

Method: 8082
Preparation: 3550B

LCS Lab Sample ID:	LCS 720-61957/2-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125013.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.29 g
Date Analyzed:	11/25/2009 1506			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 720-61957/3-A	Analysis Batch:	720-62016	Instrument ID:	Agilent PCB 2
Client Matrix:	Solid	Prep Batch:	720-61957	Lab File ID:	m1125014.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	30.33 g
Date Analyzed:	11/25/2009 1528			Final Weight/Volume:	10 mL
Date Prepared:	11/24/2009 1008			Injection Volume:	1 uL
				Column ID:	PRIMARY

	% Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	104	107	69 - 120	3	20		
PCB-1260	105	106	73 - 114	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	93	92	32 - 112
DCB Decachlorobiphenyl	93	94	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61957

Method: 8082
Preparation: 3550B

MS Lab Sample ID:	720-24205-6	Analysis Batch: 720-62095	Instrument ID: Agilent PCB 2
Client Matrix:	Solid	Prep Batch: 720-61957	Lab File ID: m1127009.d
Dilution:	1.0		Initial Weight/Volume: 30.27 g
Date Analyzed:	11/27/2009 1210		Final Weight/Volume: 10 mL
Date Prepared:	11/24/2009 1008		Injection Volume: 1 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	720-24205-6	Analysis Batch: 720-62095	Instrument ID: Agilent PCB 2
Client Matrix:	Solid	Prep Batch: 720-61957	Lab File ID: m1127010.d
Dilution:	1.0		Initial Weight/Volume: 30.16 g
Date Analyzed:	11/27/2009 1232		Final Weight/Volume: 10 mL
Date Prepared:	11/24/2009 1008		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	152	148	69 - 120	2	20	F	F
PCB-1260	165	167	73 - 114	1	20	F	F

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	90	91	32 - 112
DCB Decachlorobiphenyl	85	86	2 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-61914

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-61914/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1544
Date Prepared: 11/23/2009 1351

Analysis Batch: 720-61997
Prep Batch: 720-61914
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		0.50
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61914

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61914/2-A	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1549			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

LCSD Lab Sample ID:	LCSD 720-61914/3-A	Analysis Batch:	720-61997	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61914	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1555			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1351				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	99	98	80 - 120	2	20		
Arsenic	94	92	80 - 120	4	20		
Barium	99	99	80 - 120	2	20		
Beryllium	100	100	80 - 120	3	20		
Cadmium	98	97	80 - 120	3	20		
Chromium	101	100	80 - 120	3	20		
Cobalt	97	96	80 - 120	4	20		
Copper	96	95	80 - 120	3	20		
Lead	100	98	80 - 120	3	20		
Molybdenum	98	97	80 - 120	3	20		
Nickel	100	99	80 - 120	3	20		
Selenium	94	93	80 - 120	3	20		
Silver	99	99	80 - 120	2	20		
Thallium	97	97	80 - 120	3	20		
Vanadium	103	104	80 - 120	2	20		
Zinc	99	97	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61914

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24204-A-1-F MS	Analysis Batch: 720-61997	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-61914	Lab File ID: N/A
Dilution:	4.0		Initial Weight/Volume: 1.01 g
Date Analyzed:	11/24/2009 1600		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1351		

MSD Lab Sample ID:	720-24204-A-1-G MSD	Analysis Batch: 720-61997	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-61914	Lab File ID: N/A
Dilution:	4.0		Initial Weight/Volume: 1.04 g
Date Analyzed:	11/24/2009 1606		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1351		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	36	39	75 - 125	5	20	F	F
Arsenic	90	90	75 - 125	2	20		
Barium	92	90	75 - 125	2	20		
Beryllium	104	105	75 - 125	2	20		
Cadmium	96	98	75 - 125	1	20		
Chromium	106	101	75 - 125	6	20		
Cobalt	94	95	75 - 125	2	20		
Copper	101	101	75 - 125	1	20		
Lead	96	97	75 - 125	2	20		
Molybdenum	80	85	75 - 125	3	20		
Nickel	98	99	75 - 125	1	20		
Selenium	92	94	75 - 125	1	20		
Silver	103	105	75 - 125	1	20		
Thallium	95	97	75 - 125	1	20		
Vanadium	130	97	75 - 125	13	20	F	
Zinc	94	96	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-61937

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-61937/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1022
Date Prepared: 11/23/2009 1908

Analysis Batch: 720-61970
Prep Batch: 720-61937
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.51
Arsenic	ND		1.0
Barium	ND		0.51
Beryllium	ND		0.10
Cadmium	ND		0.13
Chromium	ND		0.51
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.51
Molybdenum	ND		0.51
Nickel	ND		0.51
Selenium	ND		0.51
Silver	ND		0.26
Thallium	ND		0.51
Vanadium	ND		0.51
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

LCS-Standard Reference Material - Batch: 720-61937

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-61937/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1233
Date Prepared: 11/23/2009 1908

Analysis Batch: 720-61970
Prep Batch: 720-61937
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	10.4	38	11 - 101	
Arsenic	22.7	21.1	93	69 - 119	
Barium	145	137	94	61 - 117	
Beryllium	1.09	0.918	84	56 - 102	
Cadmium	42.2	39.7	94	67 - 118	
Chromium	246	207	84	67 - 121	
Cobalt	65.1	61.2	94	64 - 133	
Copper	58.5	56.7	97	68 - 126	
Lead	44.1	37.5	85	62 - 113	
Molybdenum	61.0	58.2	95	62 - 128	
Nickel	96.8	86.2	89	65 - 117	
Selenium	165	150	91	63 - 126	
Silver	79.5	64.9	82	51 - 130	
Thallium	55.9	50.1	90	64 - 124	
Vanadium	56.7	50.8	90	67 - 123	
Zinc	44.0	36.9	84	62 - 110	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61937

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61937/2-A	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.05 g
Date Analyzed:	11/24/2009 1027			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

LCSD Lab Sample ID:	LCSD 720-61937/3-A	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.04 g
Date Analyzed:	11/24/2009 1033			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	99	103	80 - 120	5	20		
Arsenic	99	103	80 - 120	5	20		
Barium	102	105	80 - 120	4	20		
Beryllium	98	101	80 - 120	4	20		
Cadmium	100	103	80 - 120	4	20		
Chromium	99	103	80 - 120	4	20		
Cobalt	102	105	80 - 120	4	20		
Copper	102	106	80 - 120	4	20		
Lead	101	104	80 - 120	4	20		
Molybdenum	104	107	80 - 120	4	20		
Nickel	101	105	80 - 120	4	20		
Selenium	95	99	80 - 120	5	20		
Silver	96	99	80 - 120	4	20		
Thallium	100	103	80 - 120	4	20		
Vanadium	101	104	80 - 120	4	20		
Zinc	98	101	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61937

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24205-9	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	11/24/2009 1038			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

MSD Lab Sample ID:	720-24205-9	Analysis Batch:	720-61970	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61937	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.99 g
Date Analyzed:	11/24/2009 1043			Final Weight/Volume:	50 mL
Date Prepared:	11/23/2009 1908				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	49	50	75 - 125	3	20	F	F
Arsenic	98	94	75 - 125	3	20		
Barium	76	-7	75 - 125	12	20	4	4
Beryllium	104	100	75 - 125	3	20		
Cadmium	102	99	75 - 125	2	20		
Chromium	90	71	75 - 125	12	20		F
Cobalt	94	91	75 - 125	2	20		
Copper	93	14	75 - 125	16	20	4	4
Lead	608	246	75 - 125	30	20	4	4 F
Molybdenum	96	92	75 - 125	3	20		
Nickel	106	78	75 - 125	18	20		
Selenium	98	97	75 - 125	0	20		
Silver	106	100	75 - 125	4	20		
Thallium	99	97	75 - 125	1	20		
Vanadium	100	88	75 - 125	6	20		
Zinc	203	-654	75 - 125	31	20	4	4 F

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-61959

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-61959/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1822
Date Prepared: 11/24/2009 1033

Analysis Batch: 720-62033
Prep Batch: 720-61959
Units: mg/Kg

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		0.50
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61959

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 720-61959/2-A	Analysis Batch:	720-62033	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61959	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.01 g
Date Analyzed:	11/24/2009 1827			Final Weight/Volume:	50 mL
Date Prepared:	11/24/2009 1033				

LCSD Lab Sample ID:	LCSD 720-61959/3-A	Analysis Batch:	720-62033	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61959	Lab File ID:	N/A
Dilution:	1.0	Units:	mg/Kg	Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1832			Final Weight/Volume:	50 mL
Date Prepared:	11/24/2009 1033				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	96	97	80 - 120	1	20		
Arsenic	100	100	80 - 120	1	20		
Barium	102	103	80 - 120	0	20		
Beryllium	103	105	80 - 120	0	20		
Cadmium	100	101	80 - 120	1	20		
Chromium	106	108	80 - 120	0	20		
Cobalt	102	103	80 - 120	1	20		
Copper	104	105	80 - 120	0	20		
Lead	102	103	80 - 120	0	20		
Molybdenum	104	106	80 - 120	0	20		
Nickel	104	105	80 - 120	1	20		
Selenium	97	98	80 - 120	1	20		
Silver	96	97	80 - 120	0	20		
Thallium	102	103	80 - 120	0	20		
Vanadium	100	101	80 - 120	1	20		
Zinc	101	102	80 - 120	0	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61959

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	720-24205-12	Analysis Batch:	720-62033	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61959	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	0.98 g
Date Analyzed:	11/24/2009 1837			Final Weight/Volume:	50 mL
Date Prepared:	11/24/2009 1033				

MSD Lab Sample ID:	720-24205-12	Analysis Batch:	720-62033	Instrument ID:	Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch:	720-61959	Lab File ID:	N/A
Dilution:	4.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/24/2009 1843			Final Weight/Volume:	50 mL
Date Prepared:	11/24/2009 1033				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	30	33	75 - 125	2	20	F	F
Arsenic	105	109	75 - 125	2	20		
Barium	189	211	75 - 125	2	20	4	4
Beryllium	107	102	75 - 125	10	20		
Cadmium	97	98	75 - 125	4	20		
Chromium	97	104	75 - 125	1	20		
Cobalt	104	106	75 - 125	3	20		
Copper	157	922	75 - 125	73	20	4	4 F
Lead	231	-1920	75 - 125	82	20	4	4 F
Molybdenum	98	116	75 - 125	11	20		
Nickel	95	94	75 - 125	4	20		
Selenium	99	101	75 - 125	3	20		
Silver	104	98	75 - 125	10	20		
Thallium	96	106	75 - 125	5	20		
Vanadium	104	96	75 - 125	7	20		
Zinc	644	1340	75 - 125	16	20	4	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-61925

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-61925/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1022
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.020

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-61925

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-61925/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1026
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.61 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-61925/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1028
Date Prepared: 11/23/2009 1618

Analysis Batch: 720-61963
Prep Batch: 720-61925
Units: mg/Kg

Instrument ID: LL HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	99	100	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-61925

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	720-24204-A-8-C MS	Analysis Batch: 720-61963	Instrument ID: LL HG Analyzer
Client Matrix:	Solid	Prep Batch: 720-61925	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 0.60 g
Date Analyzed:	11/24/2009 1030		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1618		

MSD Lab Sample ID:	720-24204-A-8-D MSD	Analysis Batch: 720-61963	Instrument ID: LL HG Analyzer
Client Matrix:	Solid	Prep Batch: 720-61925	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 0.62 g
Date Analyzed:	11/24/2009 1033		Final Weight/Volume: 50 mL
Date Prepared:	11/23/2009 1618		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	113	87	75 - 125	18	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Lab Control Sample - Batch: 720-62057

Method: 9045C
Preparation: N/A

Lab Sample ID: LCS 720-62057/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/24/2009 1648
Date Prepared: N/A

Analysis Batch: 720-62057
Prep Batch: N/A
Units: SU

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH-Soluble	7.00	7.070	101	99 - 101	

Duplicate - Batch: 720-62057

Method: 9045C
Preparation: N/A

Lab Sample ID: 720-24205-12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/24/2009 1844
Date Prepared: N/A
Date Leached: 11/23/2009 1144

Analysis Batch: 720-62057
Prep Batch: N/A
Units: SU

Leachate Batch: 720-61900

Instrument ID: Corning pH
Lab File ID: N/A
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH-Soluble	7.34	7.370	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Method Blank - Batch: 720-62048

Method: 9071B
Preparation: 9071B

Lab Sample ID: MB 720-62048/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

Analyte	Result	Qual	RL
SGT-HEM	ND		100

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

LCS Lab Sample ID: LCS 720-62048/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 10.01 mL

LCSD Lab Sample ID: LCSD 720-62048/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/25/2009 1448
Date Prepared: 11/25/2009 1402

Analysis Batch: 720-62058
Prep Batch: 720-62048
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10.00 g
Final Weight/Volume: 10.00 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
SGT-HEM	92	98	66 - 120	5	24		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-62048

Method: 9071B
Preparation: 9071B

MS Lab Sample ID:	720-24203-A-9-H MS	Analysis Batch: 720-62058	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: 720-62048	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 10.08 g
Date Analyzed:	11/25/2009 1448		Final Weight/Volume: 10.08 mL
Date Prepared:	11/25/2009 1402		

MSD Lab Sample ID:	720-24203-A-9-I MSD	Analysis Batch: 720-62058	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: 720-62048	Lab File ID: N/A
Dilution:	1.0		Initial Weight/Volume: 10.02 g
Date Analyzed:	11/25/2009 1448		Final Weight/Volume: 10.02 mL
Date Prepared:	11/25/2009 1402		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
SGT-HEM	103	90	66 - 120	12	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 170642

Date 19 Nov 09 Page 1 of 2

710-24205

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencer.slominski@errg.com
Bill To: ERRG
Sampled By: SS/AJ
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8321 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease (EPA 1664) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS)	☐ WET (STLC) ☐ TCLP	Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO4	TRPH 1664	Dioxins 8290 Furans			Number of Containers
TR-5X	11/18/09	14:16	SS	None										X				X							1
TR-6Y	11/18/09	3:33pm	SS	None										X				X							1
TR-7Z	11/19/09	3:54pm	SS	None										X				X							1
PH-7AA	11/19/09	7:18	SS	None										X				X							1
PH-7AB	11/19/09	7:25	SS	None										X				X							1
PH-7AC	11/19/09	7:35	SS	None						X		X		X				X			X	X			2
TR-8AD	11/19/09	8:00	SS	None										X				X							1
TR-8AE	11/19/09	8:07	SS	None										X				X							1
TR-8AF	11/19/09	8:27	SS	None										X				X							1
PH-8AG	11/19/09	9:48	SS	None										X				X							1

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Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.6°
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica GF reports 8015M from C_9-C_{24} (industry norm) | Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 16:00	Signature: Time:	Signature: Time:
Printed Name: Spencer Slominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

720-24205

Reference #: 29-134 120612

Date 19 Nov 09 Page 2 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St Suite 200
Phone: 415-710-2890 Email: spencer.slominski@errg.com
Bill To: ERRG
Sampled By: SJS/KJ
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat rix	Preserv	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins + Furans 8290			Number of Containers
PH-8AH	11/19/09	10:00	SS	None										X				X							1
PH-8AI	11/19/09	10:08	SS	None						X		X		X				X			X	X			2

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Project Info.

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.6°
Conforms to record:

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
[signature] 16:00		
Signature Time	Signature Time	Signature Time
Spencer Slominski 11/19/09		
Printed Name Date	Printed Name Date	Printed Name Date
ERRG		
Company	Company	Company

1) Received by:	2) Received by:	3) Received by:
[signature] 930		
Signature Time	Signature Time	Signature Time
Mullen 11-20-09		
Printed Name Date	Printed Name Date	Printed Name Date
Test America		
Company	Company	Company

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF

Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

Rev09/09

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24205-1

Login Number: 24205

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24203-2

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/16/2009 11:30 AM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/16/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

December 16, 2009

TestAmerica Project Number: G9K240410
PO/Contract: 720-24203

Dimple Sharma
TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

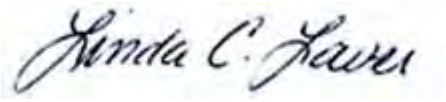
Dear Ms. Sharma,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on November 23, 2009. These samples are associated with your USFS Ramona project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,



Linda C. Laver
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G9K240410

Case Narrative

TestAmerica West Sacramento Project Number G9K240410

SOLID, 8290, Dioxins/Furans with Totals
Sample: 1
The analytical result for 2,3,7,8-TCDF is reported from the confirmation data that was analyzed on December 3, 2009. Analytical results are reported with a “CON” flag.

Sample: 2
Some analytes in this sample have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

There are no other anomalies associated with this project.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas	T104704399-08-TX
Connecticut	PH-0691	Utah*	QUAN1
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C1281
Hawaii	NA	West Virginia	9930C, 334
Illinois	200060	Wisconsin	998204680
Kansas*	E-10375	NFESC	NA
Louisiana*	30612	USACE	NA
Michigan	9947	USDA Foreign Plant	37-82605
Nevada	CA44	USDA Foreign Soil	P330-09-00055
New Jersey*	CA005	US Fish & Wildlife	LE148388-0
New Mexico	NA	Guam	09-014r

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G9K240410

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LP2KL	1	PH-2G (720-24203-7)	11/17/2009 10:55 AM	11/23/2009 04:00 PM
LP2KM	2	PH-3I (720-24203-9)	11/17/2009 01:55 PM	11/23/2009 04:00 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as “ND” were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

G9K240410

TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-7367.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 720-24203-2
Address: 880 Riverside Parkway, ,	Due Date Requested: 12/14/2009			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel)	PO #:			
Email:	WO #:			
Project Name: USFS Ramona	Project #: 72005845			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Dioxins & Furans-8290	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
PH-2G (720-24203-7)	11/17/09	10:55		Solid			X	1	
PH-3I (720-24203-9)	11/17/09	13:55		Solid			X	1	

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Loren Mullen	11-23-09 1310	SF	Ed Martinez	11-23-09 1310	TASF
2	Ed Martinez	11-23-09 1600	TASF	[illegible]	11/23/09 1600	
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica West Sacramento (916) 373 - 5600

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TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL-SF PM LL LOG # 62113

LOT# (QUANTIMS ID) G9K240410 QUOTE# 4240 LOCATION WIB

Checked (✓)

DATE RECEIVED 11/23/09 TIME RECEIVED 1600 ☑

DELIVERED BY ☐ FEDEX ☐ ON TRAC ☐ CLIENT

☐ GOLDENSTATE ☐ UPS ☐ GO-GETTERS ☐ OTHER

☐ TAL COURIER ☑ TAL SF ☐ VALLEY LOGISTICS ☑

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☑ N/A ☑

CUSTODY SEAL #(S) _____

SHIPPPING CONTAINER(S) ☐ TAL ☐ CLIENT ☑ N/A ☑

COC #(S) 720-7367.1 ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 4, 5, 4 Average 4 Corrected Average 4

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☑ ☐ OTHER _____ ☑

LL 11/23/09
Initials Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY..... ☑

LABELS CHECKED BY..... ☑

PEER REVIEW _____ ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A ☑

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

QV 11/24/09
Initials Date

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G9K240410

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ	/	/																		
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
_____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM

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LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES.

SOLID, 8290, Dioxins/Furans with Totals

TEQ: WHO 2005, ND = 0

TestAmerica San Francisco

Sample ID: PH-2G (720-24203-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 001	**Work Order #....:**	LP2KL1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	16
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.96	**Units.....:**	pg/g
Initial Wgt/Vol :	10.34 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	39		1.2	0.34	1	39
Total TCDD	2900		1.2	0.34		
1,2,3,7,8-PeCDD	110		5.8	0.60	1	110
Total PeCDD	3700		5.8	0.60		
1,2,3,4,7,8-HxCDD	82		5.8	0.91	0.1	8.2
1,2,3,6,7,8-HxCDD	140		5.8	0.84	0.1	14
1,2,3,7,8,9-HxCDD	62		5.8	0.79	0.1	6.2
Total HxCDD	4800		5.8	0.85		
1,2,3,4,6,7,8-HpCDD	620		5.8	0.61	0.01	6.2
Total HpCDD	1500		5.8	0.61		
OCDD	790	B	12	1.0	0.0003	0.24
2,3,7,8-TCDF	420	CON	1.5	0.53	0.1	42
Total TCDF	7700		1.2	1.5		
1,2,3,7,8-PeCDF	290		5.8	3.9	0.03	8.7
2,3,4,7,8-PeCDF	610		5.8	4.1	0.3	180
Total PeCDF	5200		5.8	4.0		
1,2,3,4,7,8-HxCDF	320		5.8	2.3	0.1	32
1,2,3,6,7,8-HxCDF	320		5.8	2.2	0.1	32
2,3,4,6,7,8-HxCDF	460		5.8	2.3	0.1	46
1,2,3,7,8,9-HxCDF	8.8		5.8	2.3	0.1	0.88
Total HxCDF	3000		5.8	2.3		
1,2,3,4,6,7,8-HpCDF	1100		5.8	0.36	0.01	11
1,2,3,4,7,8,9-HpCDF	29		5.8	0.42	0.01	0.29
Total HpCDF	1300		5.8	0.39		
OCDF	92		12	0.32	0.0003	0.028
Total TEQ Concentration						540

TestAmerica San Francisco

Sample ID: PH-2G (720-24203-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 001	**Work Order #....:**	LP2KL1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	16
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.96	**Units.....:**	pg/g
Initial Wgt/Vol :	10.34 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	40 - 135
13C-1,2,3,7,8-PeCDD	68	40 - 135
13C-1,2,3,6,7,8-HxCDD	76	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	92	40 - 135
13C-2,3,7,8-TCDF	77	40 - 135
13C-1,2,3,7,8-PeCDF	76	40 - 135
13C-1,2,3,4,7,8-HxCDF	81	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
CON	Confirmation analysis.

TestAmerica San Francisco

Sample ID: PH-3I (720-24203-9)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 002	**Work Order #....:**	LP2KM1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	2.1
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.98	**Units.....:**	pg/g
Initial Wgt/Vol :	10.2 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND		1.0	0.16	1	0
Total TCDD	**0.40**		**1.0**	**0.16**		
1,2,3,7,8-PeCDD	ND		5.0	0.25	1	0
Total PeCDD	**1.3**		**5.0**	**0.25**		
1,2,3,4,7,8-HxCDD	ND		5.0	0.29	0.1	0
1,2,3,6,7,8-HxCDD	ND		5.0	0.27	0.1	0
1,2,3,7,8,9-HxCDD	ND		5.0	0.25	0.1	0
Total HxCDD	**1.4**		**5.0**	**0.27**		
1,2,3,4,6,7,8-HpCDD	**2.3**	**J Q**	**5.0**	**0.19**	**0.01**	**0.023**
Total HpCDD	**4.9**		**5.0**	**0.19**		
OCDD	**16**	**B**	**10**	**0.31**	**0.0003**	**0.0048**
2,3,7,8-TCDF	**0.85**	**J**	**1.0**	**0.13**	**0.1**	**0.085**
Total TCDF	**3.0**		**1.0**	**0.13**		
1,2,3,7,8-PeCDF	**0.21**	**J Q**	**5.0**	**0.18**	**0.03**	**0.0063**
2,3,4,7,8-PeCDF	**0.29**	**J Q**	**5.0**	**0.19**	**0.3**	**0.087**
Total PeCDF	**2.0**		**5.0**	**0.18**		
1,2,3,4,7,8-HxCDF	**0.40**	**J Q**	**5.0**	**0.29**	**0.1**	**0.040**
1,2,3,6,7,8-HxCDF	ND		5.0	0.27	0.1	0
2,3,4,6,7,8-HxCDF	**0.32**	**J Q**	**5.0**	**0.28**	**0.1**	**0.032**
1,2,3,7,8,9-HxCDF	ND		5.0	0.29	0.1	0
Total HxCDF	**1.4**		**5.0**	**0.28**		
1,2,3,4,6,7,8-HpCDF	**1.3**	**J**	**5.0**	**0.12**	**0.01**	**0.013**
1,2,3,4,7,8,9-HpCDF	**0.19**	**J**	**5.0**	**0.14**	**0.01**	**0.0019**
Total HpCDF	**2.2**		**5.0**	**0.13**		
OCDF	**1.0**	**J**	**10**	**0.30**	**0.0003**	**0.00030**
Total TEQ Concentration						**0.29**

TestAmerica San Francisco

Sample ID: PH-3I (720-24203-9)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 002	**Work Order #....:**	LP2KM1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	2.1
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.98	**Units.....:**	pg/g
Initial Wgt/Vol :	10.2 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	40 - 135
13C-1,2,3,7,8-PeCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	73	40 - 135
13C-1,2,3,7,8-PeCDF	83	40 - 135
13C-1,2,3,4,7,8-HxCDF	77	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

QC DATA ASSOCIATION SUMMARY

G9K240410

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331279	
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331279	
	SOLID	ASTM D 2216-90		9328243	9328114

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 279B	**Work Order #....:**	LP71W1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331279	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.18	pg/g
Total TCDD	ND		1.0	0.18	pg/g
1,2,3,7,8-PeCDD	ND		5.0	0.24	pg/g
Total PeCDD	**0.57**		**5.0**	**0.24**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		5.0	0.27	pg/g
1,2,3,6,7,8-HxCDD	ND		5.0	0.25	pg/g
1,2,3,7,8,9-HxCDD	ND		5.0	0.23	pg/g
Total HxCDD	ND		5.0	0.27	pg/g
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.23	pg/g
Total HpCDD	ND		5.0	0.23	pg/g
OCDD	**1.3**	**J**	**10**	**0.34**	**pg/g**
2,3,7,8-TCDF	ND		1.0	0.10	pg/g
Total TCDF	ND		1.0	0.10	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.13	pg/g
2,3,4,7,8-PeCDF	ND		5.0	0.14	pg/g
Total PeCDF	ND		5.0	0.17	pg/g
1,2,3,4,7,8-HxCDF	ND		5.0	0.28	pg/g
1,2,3,6,7,8-HxCDF	ND		5.0	0.27	pg/g
2,3,4,6,7,8-HxCDF	ND		5.0	0.27	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.28	pg/g
Total HxCDF	ND		5.0	0.28	pg/g
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.15	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.17	pg/g
Total HpCDF	ND		5.0	0.17	pg/g
OCDF	ND		10	0.33	pg/g

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 279B	**Work Order #....:**	LP71W1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331279	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	40 - 135
13C-1,2,3,7,8-PeCDD	72	40 - 135
13C-1,2,3,6,7,8-HxCDD	77	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	84	40 - 135
13C-OCDD	85	40 - 135
13C-2,3,7,8-TCDF	68	40 - 135
13C-1,2,3,7,8-PeCDF	75	40 - 135
13C-1,2,3,4,7,8-HxCDF	71	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G9K240410	**Work Order # ...:**	LP71W1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	G9K270000 - 279				
Prep Date .....:	11/27/09	**Analysis Date ..:**	12/02/09		
Prep Batch # ...:	9331279				
Dilution Factor :	1				
Analyst ID.....:	Sonia Ouni	**Instrument ID..:**	1D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**20.9**	**pg/g**	**104**	**(77 - 130)**
1,2,3,7,8-PeCDD	**100**	**108**	**pg/g**	**108**	**(79 - 134)**
1,2,3,4,7,8-HxCDD	**100**	**97.9**	**pg/g**	**98**	**(65 - 144)**
1,2,3,6,7,8-HxCDD	**100**	**104**	**pg/g**	**104**	**(73 - 147)**
1,2,3,7,8,9-HxCDD	**100**	**102**	**pg/g**	**102**	**(80 - 143)**
1,2,3,4,6,7,8-HpCDD	**100**	**107**	**pg/g**	**107**	**(86 - 134)**
OCDD	**200**	**216**	**pg/g**	**108**	**(80 - 137)**
2,3,7,8-TCDF	**20.0**	**20.3**	**pg/g**	**101**	**(79 - 137)**
1,2,3,7,8-PeCDF	**100**	**105**	**pg/g**	**105**	**(81 - 134)**
2,3,4,7,8-PeCDF	**100**	**102**	**pg/g**	**102**	**(76 - 132)**
1,2,3,4,7,8-HxCDF	**100**	**106**	**pg/g**	**106**	**(72 - 140)**
1,2,3,6,7,8-HxCDF	**100**	**108**	**pg/g**	**108**	**(63 - 152)**
2,3,4,6,7,8-HxCDF	**100**	**110**	**pg/g**	**110**	**(72 - 151)**
1,2,3,7,8,9-HxCDF	**100**	**112**	**pg/g**	**112**	**(72 - 152)**
1,2,3,4,6,7,8-HpCDF	**100**	**102**	**pg/g**	**102**	**(81 - 137)**
1,2,3,4,7,8,9-HpCDF	**100**	**102**	**pg/g**	**102**	**(79 - 139)**
OCDF	**200**	**214**	**pg/g**	**107**	**(75 - 141)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(40 - 135)
13C-1,2,3,7,8-PeCDD	75	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	85	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	91	(40 - 135)
13C-OCDD	92	(40 - 135)
13C-2,3,7,8-TCDF	75	(40 - 135)
13C-1,2,3,7,8-PeCDF	78	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	76	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	90	(40 - 135)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SOLID, D 2216-90, Percent Moisture

TestAmerica San Francisco

Client Sample ID: PH-2G (720-24203-7)

General Chemistry

Lot-Sample #...: G9K240410-001 **Work Order #...:** LP2KL **Matrix.....:** SOLID
Date Sampled...: 11/17/09 **Date Received..:** 11/23/09
% Moisture.....: 16

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**16.3**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

TestAmerica San Francisco

Client Sample ID: PH-3I (720-24203-9)

General Chemistry

Lot-Sample #...: G9K240410-002 **Work Order #...:** LP2KM **Matrix.....:** SOLID
Date Sampled...: 11/17/09 **Date Received..:** 11/23/09
% Moisture.....: 2.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**2.1**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G9K240410

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331279	
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331279	
	SOLID	ASTM D 2216-90		9328243	9328114

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: G9K240410 **Work Order #...:** LP2J7-SMP LP2J7-DUP **Matrix.....:** SOLID

Date Sampled...: 11/19/09 **Date Received..:** 11/23/09

% Moisture.....: 6.2

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture						SD Lot-Sample #: G9K240408-001		
	6.2	4.8	%	27	(0-20)	ASTM D 2216-90	11/24-11/25/09	9328243

Dilution Factor: 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

720-24203

TESTAMERICA San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120641

Date 19 Nov.09 Page 1 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome Street Suite 200
Phone: 415-710-2846 Email: Spencer.Slominski@errg.com
Bill To: ERRG
Sampled By: STS
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS	Anions : ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins + Furans 8290			Number of Containers
SS-1A	11/16/09	14.00	SS	None										X				X								1
SS-2B	11/16/09	14.10	SS	None										X				X								1
SS-3C	11/16/09	14.55	SS	None										X				X								1
SS-4D	11/16/09	15.05	SS	None										X				X								1
PH-1E	11/17/09	10.07	SS	None										X				X								1
PH-1F	11/17/09	10.25	SS	None										X				X								1
PH-2G	11/17/09	10.55	SS	None						X		X		X				X				X	X			2
PH-2H	11/17/09	11.47	SS	None										X				X								1
PH-3I	11/17/09	13.55	SS	None						X		X		X				X				X	X			2
PH-4J	11/17/09	14.40	SS	None										X				X								1

Project Info.

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.2°c
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: Spm Slm — Time: 16:82	Signature: — Time:	Signature: — Time:
Printed Name: Spencer Slominski — Date: 11/19/09	Printed Name: — Date:	Printed Name: — Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: Joan Mullen — Time: 930	Signature: — Time:	Signature: — Time:
Printed Name: Mullen — Date: 11-20-09	Printed Name: — Date:	Printed Name: — Date:
Company: TestAmerica	Company:	Company:

Rev09/09

720-24203

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120641

Date 19 Nov. 09 Page 2 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: Spencer.Slominski@errg.com
Bill To: ERRG
Sampled By: SJS
Attn: Caitlin Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	Number of Containers
PH-5K	11/17/09	15:13	SS	None										X				X			1
PH-6L	11/17/09	16:10	SS	None										X				X			1

Project Info.

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.2°C
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID ___

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 16:00	Signature: Time:	Signature: Time:
Printed Name: Spencer Slominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24204-2

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/16/2009 12:38 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/16/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

December 16, 2009

TestAmerica Project Number: G9K240409
PO/Contract: 720-24204

Dimple Sharma
TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

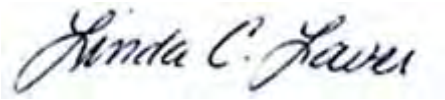
Dear Ms. Sharma,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on November 23, 2009. These samples are associated with your USFS Ramona project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,



Linda C. Laver
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G9K240409

Case Narrative

TestAmerica West Sacramento Project Number G9K240409

SOLID, 8290, Dioxins/Furans with Totals
Samples: 1, 2
The analytical result for 2,3,7,8-TCDF is reported from the confirmation data that was analyzed on December 9, 2009. Analytical results are reported with a “CON” flag. Also, the extract of sample 1 required a dilution for some analytes, which was performed on December 4, 2009, and that data is reported with “D” flags.

Sample: 1
The concentration of OCDD in this sample exceeds the upper quantitation level of the initial calibration curve, but the peak does not saturate the instrument detector. Historical data indicates that for the isotope dilution method, dilution and re-analysis will not produce significantly different results and the data is reported with an “E" flag.

There are no other anomalies associated with this project.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas	T104704399-08-TX
Connecticut	PH-0691	Utah*	QUAN1
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C1281
Hawaii	NA	West Virginia	9930C, 334
Illinois	200060	Wisconsin	998204680
Kansas*	E-10375	NFESC	NA
Louisiana*	30612	USACE	NA
Michigan	9947	USDA Foreign Plant	37-82605
Nevada	CA44	USDA Foreign Soil	P330-09-00055
New Jersey*	CA005	US Fish & Wildlife	LE148388-0
New Mexico	NA	Guam	09-014r

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G9K240409

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LP2KD	1	TR-3S (720-24204-7)	11/18/2009 09:25 AM	11/23/2009 04:00 PM
LP2KF	2	TR-4W (720-24204-11)	11/18/2009 10:46 AM	11/23/2009 04:00 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as “ND” were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

G9K240409

TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-7367.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 720-24204-2

Address: 880 Riverside Parkway, ,	Due Date Requested: 12/14/2009
City: West Sacramento	TAT Requested (days):
State, Zip: CA, 95605	
Phone: 916-373-5600(Tel)	PO #:
Email:	WO #:
Project Name: USFS Ramona	Project #: 72005845
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Dioxins & Furans-8290	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
TR-3S (720-24204-7)	11/18/09	9:25		Solid			X	1	
TR-4W (720-24204-11)	11/18/09	10:46		Solid			X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by: John Mullen	Date/Time: 11-23-09 1310	Company SF	Received by:	Date/Time: 11-23-09 1310	Company TAS
Relinquished by:	Date/Time: 11-23-09 1600	Company TAS	Received by:	Date/Time: 11/23/09 1600	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL-SF PM LL LOG # 62112

LOT# (QUANTIMS ID) G9K240409 QUOTE# 42410 LOCATION WIB

Checked (✓)

DATE RECEIVED 11/23/09 TIME RECEIVED 1600 ☑

DELIVERED BY ☐ FEDEX ☐ ON TRAC ☐ CLIENT

☐ GOLDENSTATE ☐ UPS ☐ GO-GETTERS ☐ OTHER

☐ TAL COURIER ☑ TAL SF ☐ VALLEY LOGISTICS ☑

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☑ N/A ☑

CUSTODY SEAL #(S) _____

SHIPPPING CONTAINER(S) ☐ TAL ☐ CLIENT ☑ N/A ☑

COC #(S) 720-7367.1 ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 4, 5, 4 Average 4 Corrected Average 4

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☑ ☐ OTHER _____ ☑

CR 11/23/09
Initials Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☑ N/A ☑

LABELED BY..... ☑

LABELS CHECKED BY..... ☑

PEER REVIEW _____ ☑ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☑ N/A ☑

VOA-ENCORES ☑ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☑ N/A ☑

☑ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☐ N/A ☑

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☑ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

CV 11/24/09
Initials Date

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G9K240409

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ	1	1																		
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM
Page 3

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES

SOLID, 8290, Dioxins/Furans with Totals

TEQ: WHO 2005, ND = 0

TestAmerica San Francisco

Sample ID: TR-3S (720-24204-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240409 - 001	**Work Order #....:**	LP2KD1AA	**Matrix....:**	SOLID
Date Sampled....:	11/18/09	**Date Received....:**	11/23/09	**Instrument ID....:**	3D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/06/09	**% Moisture....:**	4.4
Prep Batch # ....:	9331216	**Dilution Factor....:**	1	**Units.....:**	pg/g
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	3.9		1.0	0.069	1	3.9
Total TCDD	200		1.0	0.069		
1,2,3,7,8-PeCDD	15		5.2	0.30	1	15
Total PeCDD	310		5.2	0.30		
1,2,3,4,7,8-HxCDD	39		5.2	0.26	0.1	3.9
1,2,3,6,7,8-HxCDD	260		5.2	0.23	0.1	26
1,2,3,7,8,9-HxCDD	60		5.2	0.23	0.1	6.0
Total HxCDD	3000		5.2	0.24		
1,2,3,4,6,7,8-HpCDD	17000	D	260	18	0.01	170
Total HpCDD	78000	D	260	18		
OCDD	220000	E B D	520	32	0.0003	66
2,3,7,8-TCDF	57	CON	1.0	0.27	0.1	5.7
Total TCDF	980		1.0	0.13		
1,2,3,7,8-PeCDF	47		5.2	0.19	0.03	1.4
2,3,4,7,8-PeCDF	92		5.2	0.20	0.3	28
Total PeCDF	760		5.2	0.20		
1,2,3,4,7,8-HxCDF	94		5.2	0.21	0.1	9.4
1,2,3,6,7,8-HxCDF	66		5.2	0.20	0.1	6.6
2,3,4,6,7,8-HxCDF	85		5.2	0.21	0.1	8.5
1,2,3,7,8,9-HxCDF	3.4		5.2	0.23	0.1	0.34
Total HxCDF	1800		5.2	0.21		
1,2,3,4,6,7,8-HpCDF	2000		5.2	0.71	0.01	20
1,2,3,4,7,8,9-HpCDF	97		5.2	0.80	0.01	0.97
Total HpCDF	7600		5.2	0.75		
OCDF	10000	D	520	6.2	0.0003	3.0
Total TEQ Concentration						370

TestAmerica San Francisco

Sample ID: TR-3S (720-24204-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240409 - 001	**Work Order #....:**	LP2KD1AA	**Matrix....:**	SOLID
Date Sampled....:	11/18/09	**Date Received....:**	11/23/09	**Instrument ID....:**	3D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/06/09	**% Moisture....:**	4.4
Prep Batch # ....:	9331216	**Dilution Factor....:**	1	**Units.....:**	pg/g
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	40 - 135
13C-1,2,3,7,8-PeCDD	76	40 - 135
13C-1,2,3,6,7,8-HxCDD	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	88	40 - 135
13C-OCDD	103	40 - 135
13C-2,3,7,8-TCDF	74	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,4,7,8-HxCDF	85	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	88	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
CON	Confirmation analysis.
D	Result was obtained from the analysis of a dilution.
E	Estimated result. Result concentration exceeds the calibration range.

TestAmerica San Francisco

Sample ID: TR-4W (720-24204-11)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240409 - 002	**Work Order #....:**	LP2KF1AA	**Matrix....:**	SOLID
Date Sampled....:	11/18/09	**Date Received....:**	11/23/09	**Instrument ID....:**	3D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/06/09	**% Moisture....:**	5.0
Prep Batch # ....:	9331216	**Dilution Factor....:**	0.93	**Units.....:**	pg/g
Initial Wgt/Vol :	10.75 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	5.7		0.98	0.20	1	5.7
Total TCDD	91		0.98	0.20		
1,2,3,7,8-PeCDD	12		4.9	0.17	1	12
Total PeCDD	120		4.9	0.17		
1,2,3,4,7,8-HxCDD	5.6		4.9	0.10	0.1	0.56
1,2,3,6,7,8-HxCDD	15		4.9	0.091	0.1	1.5
1,2,3,7,8,9-HxCDD	13		4.9	0.093	0.1	1.3
Total HxCDD	230		4.9	0.095		
1,2,3,4,6,7,8-HpCDD	220		4.9	0.28	0.01	2.2
Total HpCDD	400		4.9	0.28		
OCDD	1400	B	9.8	0.61	0.0003	0.42
2,3,7,8-TCDF	36	CON	0.98	0.35	0.1	3.6
Total TCDF	570		0.98	0.15		
1,2,3,7,8-PeCDF	26		4.9	0.17	0.03	0.78
2,3,4,7,8-PeCDF	45		4.9	0.18	0.3	14
Total PeCDF	480		4.9	0.20		
1,2,3,4,7,8-HxCDF	28		4.9	0.18	0.1	2.8
1,2,3,6,7,8-HxCDF	35		4.9	0.17	0.1	3.5
2,3,4,6,7,8-HxCDF	36		4.9	0.18	0.1	3.6
1,2,3,7,8,9-HxCDF	1.4		4.9	0.20	0.1	0.14
Total HxCDF	370		4.9	0.19		
1,2,3,4,6,7,8-HpCDF	170		4.9	0.18	0.01	1.7
1,2,3,4,7,8,9-HpCDF	8.8		4.9	0.20	0.01	0.088
Total HpCDF	230		4.9	0.19		
OCDF	89		9.8	0.16	0.0003	0.027
Total TEQ Concentration						54

TestAmerica San Francisco

Sample ID: TR-4W (720-24204-11)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240409 - 002	**Work Order #....:**	LP2KF1AA	**Matrix....:**	SOLID
Date Sampled....:	11/18/09	**Date Received....:**	11/23/09	**Instrument ID....:**	3D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/06/09	**% Moisture....:**	5.0
Prep Batch # ....:	9331216	**Dilution Factor....:**	0.93	**Units.....:**	pg/g
Initial Wgt/Vol :	10.75 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	40 - 135
13C-1,2,3,7,8-PeCDD	75	40 - 135
13C-1,2,3,6,7,8-HxCDD	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82	40 - 135
13C-OCDD	74	40 - 135
13C-2,3,7,8-TCDF	74	40 - 135
13C-1,2,3,7,8-PeCDF	73	40 - 135
13C-1,2,3,4,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	85	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
CON	Confirmation analysis.

QC DATA ASSOCIATION SUMMARY

G9K240409

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 216B	**Work Order #....:**	LP7VJ1AA	**Matrix....:**	SOLID
Date Sampled....:	11/06/09	**Date Received....:**	11/21/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/03/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331216	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.13	pg/g
Total TCDD	**0.13**		**1.0**	**0.13**	**pg/g**
1,2,3,7,8-PeCDD	ND		5.0	0.21	pg/g
Total PeCDD	**0.43**		**5.0**	**0.21**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		5.0	0.23	pg/g
1,2,3,6,7,8-HxCDD	ND		5.0	0.21	pg/g
1,2,3,7,8,9-HxCDD	ND		5.0	0.20	pg/g
Total HxCDD	ND		5.0	0.23	pg/g
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.15	pg/g
Total HpCDD	**0.18**		**5.0**	**0.15**	**pg/g**
OCDD	**0.99**	**J**	**10**	**0.24**	**pg/g**
2,3,7,8-TCDF	ND		1.0	0.076	pg/g
Total TCDF	ND		1.0	0.076	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.12	pg/g
2,3,4,7,8-PeCDF	ND		5.0	0.13	pg/g
Total PeCDF	ND		5.0	0.16	pg/g
1,2,3,4,7,8-HxCDF	ND		5.0	0.18	pg/g
1,2,3,6,7,8-HxCDF	ND		5.0	0.17	pg/g
2,3,4,6,7,8-HxCDF	ND		5.0	0.17	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.18	pg/g
Total HxCDF	ND		5.0	0.18	pg/g
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.11	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.13	pg/g
Total HpCDF	ND		5.0	0.13	pg/g
OCDF	ND		10	0.23	pg/g

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 216B	**Work Order #....:**	LP7VJ1AA	**Matrix....:**	SOLID
Date Sampled....:	11/06/09	**Date Received....:**	11/21/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/03/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331216	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	93	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	106	40 - 135
13C-OCDD	112	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	78	40 - 135
13C-1,2,3,4,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	106	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G9K240409	**Work Order # ...:**	LP7VJ1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	G9K270000 - 216				
Prep Date .....:	11/27/09	**Analysis Date ..:**	12/03/09		
Prep Batch # ...:	9331216				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	1D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.6**	**pg/g**	**113**	**(77 - 130)**
1,2,3,7,8-PeCDD	**100**	**106**	**pg/g**	**106**	**(79 - 134)**
1,2,3,4,7,8-HxCDD	**100**	**106**	**pg/g**	**106**	**(65 - 144)**
1,2,3,6,7,8-HxCDD	**100**	**112**	**pg/g**	**112**	**(73 - 147)**
1,2,3,7,8,9-HxCDD	**100**	**107**	**pg/g**	**107**	**(80 - 143)**
1,2,3,4,6,7,8-HpCDD	**100**	**106**	**pg/g**	**106**	**(86 - 134)**
OCDD	**200**	**213**	**pg/g**	**106**	**(80 - 137)**
2,3,7,8-TCDF	**20.0**	**21.1**	**pg/g**	**105**	**(79 - 137)**
1,2,3,7,8-PeCDF	**100**	**116**	**pg/g**	**116**	**(81 - 134)**
2,3,4,7,8-PeCDF	**100**	**118**	**pg/g**	**118**	**(76 - 132)**
1,2,3,4,7,8-HxCDF	**100**	**104**	**pg/g**	**104**	**(72 - 140)**
1,2,3,6,7,8-HxCDF	**100**	**106**	**pg/g**	**106**	**(63 - 152)**
2,3,4,6,7,8-HxCDF	**100**	**102**	**pg/g**	**102**	**(72 - 151)**
1,2,3,7,8,9-HxCDF	**100**	**101**	**pg/g**	**101**	**(72 - 152)**
1,2,3,4,6,7,8-HpCDF	**100**	**105**	**pg/g**	**105**	**(81 - 137)**
1,2,3,4,7,8,9-HpCDF	**100**	**103**	**pg/g**	**103**	**(79 - 139)**
OCDF	**200**	**210**	**pg/g**	**105**	**(75 - 141)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(40 - 135)
13C-1,2,3,7,8-PeCDD	81	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	111	(40 - 135)
13C-OCDD	117	(40 - 135)
13C-2,3,7,8-TCDF	91	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	99	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	108	(40 - 135)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SOLID, D 2216-90, Percent Moisture

TestAmerica San Francisco

Client Sample ID: TR-3S (720-24204-7)

General Chemistry

Lot-Sample #...: G9K240409-001 **Work Order #...:** LP2KD **Matrix.....:** SOLID
Date Sampled...: 11/18/09 **Date Received..:** 11/23/09
% Moisture.....: 4.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**4.4**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

TestAmerica San Francisco

Client Sample ID: TR-4W (720-24204-11)

General Chemistry

Lot-Sample #...: G9K240409-002 **Work Order #...:** LP2KF **Matrix.....:** SOLID
Date Sampled...: 11/18/09 **Date Received..:** 11/23/09
% Moisture.....: 5.0

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**5.0**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G9K240409

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: G9K240409 **Work Order #...:** LP2J7-SMP LP2J7-DUP **Matrix.....:** SOLID

Date Sampled...: 11/19/09 **Date Received..:** 11/23/09

% Moisture.....: 6.2

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture						SD Lot-Sample #: G9K240408-001		
	6.2	4.8	%	27	(0-20)	ASTM D 2216-90	11/24-11/25/09	9328243

Dilution Factor: 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120610

770-24704

Date 19 Nov. 09 Page 1 of 2

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencerslominski@errg.com
Bill To: ERRG
Sampled By: SSS/KJ
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat rix	Preserv	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other	Low Level Metals by EPA 200.8/6020 (ICP-MS):	☐ W.E.T (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins + Furans 8290			Number of Containers
TR-1M	11/18/09	7:50	SS	None										X				X							1
TR-1N	11/18/09	8:00	SS	None										X				X							1
TR-1O	11/18/09	8:07	SS	None										X				X							1
TR-2P	11/18/09	8:23	SS	None										X				X							1
TR-2Q	11/18/09	8:34	SS	None										X				X							1
TR-3R	11/18/09	9:15	SS	None										X				X							1
TR-3S	11/18/09	9:25	SS	None						X		X		X				X			X	X			2
TR-3T	11/18/09	9:43	SS	None										X				X							1
TR-4U	11/18/09	10:15	SS	None										X				X							1
TR-4V	11/18/09	10:23	SS	None										X				X							1

Page 24 of 25

Project Info	Sample Receipt
Project Name: USFS Ramona	# of Containers:
Project#: 29-134	Head Space:
PO#	Temp: 5.7°C
Credit Card#:	Conforms to record:

TAT: ☐ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF
Special Instructions / Comments: ☐ Global ID ____________

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 16:30	Signature: Time:	Signature: Time:
Printed Name: Spencer Slominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mulley Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{36} (industry norm). Default for 8015B is C_{10}-C_{28}

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 Fax: (925) 600-3002

Reference #: 29-134 120640

720-29204

Date 19 Nov. 09 Page 2 of 2

Report To

Attn: Spencer Stominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencer.stominski@erg.com
Bill To: ERRG
Sampled By: SSS/KS
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat. ID	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semi-Volatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	WET (STLC) ☐ ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TDS ☐ TSS	Anions: ☐ ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4	TRPH 1664	Dioxins* 8290 Furans			Number of Containers
TR-4V	11/18/09	1023	SS	None										X				X							1
TR-4W	11/18/09	1046	SS	None						X		X		X				X			X	X			2

Page 25 of 25

Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 5.7°C
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica SE reports 8015M from C_9-C_{36} (industry norm). Default for 8015B is C_{10}-C_{36}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 1600	Signature: Time:	Signature: Time:
Printed Name: Spencer Stominski Date: 11/19/09	Printed Name: Date:	Printed Name: Date:
Company: ERRG	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 930	Signature: Time:	Signature: Time:
Printed Name: Mullen Date: 11-20-09	Printed Name: Date:	Printed Name: Date:
Company: TestAmerica	Company:	Company:

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24205-2

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/16/2009 12:42 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/16/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

December 16, 2009

TestAmerica Project Number: G9K240408
PO/Contract: 720-24205

Dimple Sharma
TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566

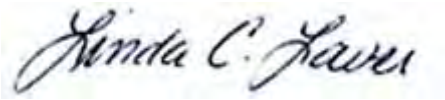
Dear Ms. Sharma,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on November 23, 2009. These samples are associated with your USFS Ramona project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,



Linda C. Laver
Project Manager

Table of Contents

TestAmerica West Sacramento Project Number G9K240408

Case Narrative

TestAmerica West Sacramento Project Number G9K240408

SOLID, 8290, Dioxins/Furans with Totals
Samples: 1, 2
The analytical result for 2,3,7,8-TCDF is reported from the confirmation data that was analyzed on December 9, 2009. Analytical results are reported with a “CON” flag.

There are no other anomalies associated with this project.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica Laboratories West Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	New York*	11666
Arizona	AZ0708	Oregon*	CA 200005
Arkansas	88-0691	Pennsylvania	68-1272
California*	01119CA	South Carolina	87014
Colorado	NA	Texas	T104704399-08-TX
Connecticut	PH-0691	Utah*	QUAN1
Florida*	E87570	Virginia	00178
Georgia	960	Washington	C1281
Hawaii	NA	West Virginia	9930C, 334
Illinois	200060	Wisconsin	998204680
Kansas*	E-10375	NFESC	NA
Louisiana*	30612	USACE	NA
Michigan	9947	USDA Foreign Plant	37-82605
Nevada	CA44	USDA Foreign Soil	P330-09-00055
New Jersey*	CA005	US Fish & Wildlife	LE148388-0
New Mexico	NA	Guam	09-014r

*NELAP accredited. A more detailed parameter list is available upon request. Updated 3/25/2009

QC Parameter Definitions

QC Batch: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

Method Blank: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD): An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

Duplicate Sample (DU): Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

Surrogates: Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

Matrix Spike and Matrix Spike Duplicate (MS/MSD): An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

Isotope Dilution: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

Control Limits: The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

Sample Summary

TestAmerica West Sacramento Project Number G9K240408

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LP2J7	1	PH-7AC (720-24205-6)	11/19/2009 07:35 AM	11/23/2009 04:00 PM
LP2J8	2	PH-8AI (720-24205-12)	11/19/2009 10:08 AM	11/23/2009 04:00 PM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as “ND” were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

G9K240408

TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-7367.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 720-24205-2
Address: 880 Riverside Parkway,	Due Date Requested: 12/14/2009			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel)	PO #:			
Email:	WO #:			
Project Name: USFS Ramona	Project #: 72005845			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Dioxins & Furans-8290	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X		X	
PH-7AC (720-24205-6)	11/19/09	7:35		Solid			X	1	
PH-8AI (720-24205-12)	11/19/09	10:08		Solid			X	1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Dawn Mullen	11-23-09 1310	SF	Ed Martinez	11-23-09 1310	TAS
2	Ed Martinez	11-23-09 1600	TAS	Cheng Shu	11/23/09 1600	
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT TAL-SF PM U LOG # 62111

LOT# (QUANTIMS ID) G9K240408 QUOTE# 42410 LOCATION W1B

Checked (✓)

DATE RECEIVED 11/23/09 TIME RECEIVED 1600 ☑

DELIVERED BY ☐ FEDEX ☐ ON TRAC ☐ CLIENT

☐ GOLDENSTATE ☐ UPS ☐ GO-GETTERS ☐ OTHER

☐ TAL COURIER ☒ TAL SF ☐ VALLEY LOGISTICS ☑

CUSTODY SEAL STATUS ☐ INTACT ☐ BROKEN ☒ N/A ☑

CUSTODY SEAL #(S) _____

SHIPPPING CONTAINER(S) ☐ TAL ☐ CLIENT ☒ N/A ☑

COC #(S) 720-7367.1 ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 4, 5, 4 Average 4 Corrected Average 4

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☒ ☐ OTHER _____ ☑

CV 11/23/09

Initials Date

---

pH MEASURED ☐ YES ☐ ANOMALY ☒ N/A ☑

LABELED BY..... ☑

LABELS CHECKED BY..... ☑

PEER REVIEW _____ ☒ NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING ☑

WETCHEM ☒ N/A ☑

VOA-ENCORES ☒ N/A ☑

☐ METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL ☒ N/A ☑

☒ COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES ☒ N/A CV 11/24/09 ☑

☐ CLOUSEAU ☐ TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 ☒ N/A

☐ WET ICE ☐ BLUE ICE ☐ GEL PACK ☐ NO COOLING AGENTS USED ☐ PM NOTIFIED

CV 11/24/09

Initials Date

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G9K240408

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VOA*																				
VOAh*																				
AGB																				
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ	/	/																		
PJ																				
PJn																				
500PJ																				
500PJn																				
500PJna																				
500PJzn/na																				
250PJ																				
250PJn																				
250PJna																				
250PJzn/na																				
Acetate Tube																				
____"CT																				
Encore																				
Folder/filter																				
PUF																				
Petri/Filter																				
XAD Trap																				
Ziploc																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

h = hydrochloric acid **s** = sulfuric acid **na** = sodium hydroxide **n** = nitric acid **zn** = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 5/05 EM
Page 3

G9K240408 TestAmerica West Sacramento (916) 373 - 5600 8 of 22

LEAVE NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES

QA-185 3/05 RKF Page 3

SOLID, 8290, Dioxins/Furans with Totals

TEQ: WHO 2005, ND = 0

TestAmerica San Francisco

Sample ID: PH-2G (720-24203-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 001	**Work Order #....:**	LP2KL1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	16
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.96	**Units.....:**	pg/g
Initial Wgt/Vol :	10.34 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	39		1.2	0.34	1	39
Total TCDD	2900		1.2	0.34		
1,2,3,7,8-PeCDD	110		5.8	0.60	1	110
Total PeCDD	3700		5.8	0.60		
1,2,3,4,7,8-HxCDD	82		5.8	0.91	0.1	8.2
1,2,3,6,7,8-HxCDD	140		5.8	0.84	0.1	14
1,2,3,7,8,9-HxCDD	62		5.8	0.79	0.1	6.2
Total HxCDD	4800		5.8	0.85		
1,2,3,4,6,7,8-HpCDD	620		5.8	0.61	0.01	6.2
Total HpCDD	1500		5.8	0.61		
OCDD	790	B	12	1.0	0.0003	0.24
2,3,7,8-TCDF	420	CON	1.5	0.53	0.1	42
Total TCDF	7700		1.2	1.5		
1,2,3,7,8-PeCDF	290		5.8	3.9	0.03	8.7
2,3,4,7,8-PeCDF	610		5.8	4.1	0.3	180
Total PeCDF	5200		5.8	4.0		
1,2,3,4,7,8-HxCDF	320		5.8	2.3	0.1	32
1,2,3,6,7,8-HxCDF	320		5.8	2.2	0.1	32
2,3,4,6,7,8-HxCDF	460		5.8	2.3	0.1	46
1,2,3,7,8,9-HxCDF	8.8		5.8	2.3	0.1	0.88
Total HxCDF	3000		5.8	2.3		
1,2,3,4,6,7,8-HpCDF	1100		5.8	0.36	0.01	11
1,2,3,4,7,8,9-HpCDF	29		5.8	0.42	0.01	0.29
Total HpCDF	1300		5.8	0.39		
OCDF	92		12	0.32	0.0003	0.028
Total TEQ Concentration						540

TestAmerica San Francisco

Sample ID: PH-2G (720-24203-7)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 001	**Work Order #....:**	LP2KL1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	16
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.96	**Units.....:**	pg/g
Initial Wgt/Vol :	10.34 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	70	40 - 135
13C-1,2,3,7,8-PeCDD	68	40 - 135
13C-1,2,3,6,7,8-HxCDD	76	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	92	40 - 135
13C-2,3,7,8-TCDF	77	40 - 135
13C-1,2,3,7,8-PeCDF	76	40 - 135
13C-1,2,3,4,7,8-HxCDF	81	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
CON	Confirmation analysis.

TestAmerica San Francisco

Sample ID: PH-3I (720-24203-9)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 002	**Work Order #....:**	LP2KM1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	2.1
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.98	**Units.....:**	pg/g
Initial Wgt/Vol :	10.2 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	TEF FACTOR	TEQ CONCENTRATION
2,3,7,8-TCDD	ND		1.0	0.16	1	0
Total TCDD	**0.40**		**1.0**	**0.16**		
1,2,3,7,8-PeCDD	ND		5.0	0.25	1	0
Total PeCDD	**1.3**		**5.0**	**0.25**		
1,2,3,4,7,8-HxCDD	ND		5.0	0.29	0.1	0
1,2,3,6,7,8-HxCDD	ND		5.0	0.27	0.1	0
1,2,3,7,8,9-HxCDD	ND		5.0	0.25	0.1	0
Total HxCDD	**1.4**		**5.0**	**0.27**		
1,2,3,4,6,7,8-HpCDD	**2.3**	**J Q**	**5.0**	**0.19**	**0.01**	**0.023**
Total HpCDD	**4.9**		**5.0**	**0.19**		
OCDD	**16**	**B**	**10**	**0.31**	**0.0003**	**0.0048**
2,3,7,8-TCDF	**0.85**	**J**	**1.0**	**0.13**	**0.1**	**0.085**
Total TCDF	**3.0**		**1.0**	**0.13**		
1,2,3,7,8-PeCDF	**0.21**	**J Q**	**5.0**	**0.18**	**0.03**	**0.0063**
2,3,4,7,8-PeCDF	**0.29**	**J Q**	**5.0**	**0.19**	**0.3**	**0.087**
Total PeCDF	**2.0**		**5.0**	**0.18**		
1,2,3,4,7,8-HxCDF	**0.40**	**J Q**	**5.0**	**0.29**	**0.1**	**0.040**
1,2,3,6,7,8-HxCDF	ND		5.0	0.27	0.1	0
2,3,4,6,7,8-HxCDF	**0.32**	**J Q**	**5.0**	**0.28**	**0.1**	**0.032**
1,2,3,7,8,9-HxCDF	ND		5.0	0.29	0.1	0
Total HxCDF	**1.4**		**5.0**	**0.28**		
1,2,3,4,6,7,8-HpCDF	**1.3**	**J**	**5.0**	**0.12**	**0.01**	**0.013**
1,2,3,4,7,8,9-HpCDF	**0.19**	**J**	**5.0**	**0.14**	**0.01**	**0.0019**
Total HpCDF	**2.2**		**5.0**	**0.13**		
OCDF	**1.0**	**J**	**10**	**0.30**	**0.0003**	**0.00030**
Total TEQ Concentration						**0.29**

\\qsacsql1\QDSApps\TEQ\WHO_2005_TEQ_ND_0.rpt 12/16/2009

TestAmerica San Francisco

Sample ID: PH-3I (720-24203-9)

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K240410 - 002	**Work Order #....:**	LP2KM1AA	**Matrix....:**	SOLID
Date Sampled....:	11/17/09	**Date Received....:**	11/23/09	**Instrument ID....:**	1D5
Prep Date....:	11/27/09	**Analysis Date....:**	12/02/09	**% Moisture....:**	2.1
Prep Batch # ....:	9331279	**Dilution Factor....:**	0.98	**Units.....:**	pg/g
Initial Wgt/Vol :	10.2 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	40 - 135
13C-1,2,3,7,8-PeCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	73	40 - 135
13C-1,2,3,7,8-PeCDF	83	40 - 135
13C-1,2,3,4,7,8-HxCDF	77	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	87	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

Notes:

WHO TEFs for human risk assessment based on the conclusions of the World Health Organization meeting in Geneva, Switzerland, June 2005.

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

QC DATA ASSOCIATION SUMMARY

G9K240408

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 216B	**Work Order #....:**	LP7VJ1AA	**Matrix....:**	SOLID
Date Sampled....:	11/06/09	**Date Received....:**	11/21/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/03/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331216	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.13	pg/g
Total TCDD	**0.13**		**1.0**	**0.13**	**pg/g**
1,2,3,7,8-PeCDD	ND		5.0	0.21	pg/g
Total PeCDD	**0.43**		**5.0**	**0.21**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		5.0	0.23	pg/g
1,2,3,6,7,8-HxCDD	ND		5.0	0.21	pg/g
1,2,3,7,8,9-HxCDD	ND		5.0	0.20	pg/g
Total HxCDD	ND		5.0	0.23	pg/g
1,2,3,4,6,7,8-HpCDD	ND		5.0	0.15	pg/g
Total HpCDD	**0.18**		**5.0**	**0.15**	**pg/g**
OCDD	**0.99**	**J**	**10**	**0.24**	**pg/g**
2,3,7,8-TCDF	ND		1.0	0.076	pg/g
Total TCDF	ND		1.0	0.076	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.12	pg/g
2,3,4,7,8-PeCDF	ND		5.0	0.13	pg/g
Total PeCDF	ND		5.0	0.16	pg/g
1,2,3,4,7,8-HxCDF	ND		5.0	0.18	pg/g
1,2,3,6,7,8-HxCDF	ND		5.0	0.17	pg/g
2,3,4,6,7,8-HxCDF	ND		5.0	0.17	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.18	pg/g
Total HxCDF	ND		5.0	0.18	pg/g
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.11	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.13	pg/g
Total HpCDF	ND		5.0	0.13	pg/g
OCDF	ND		10	0.23	pg/g

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G9K270000 - 216B	**Work Order #....:**	LP7VJ1AA	**Matrix....:**	SOLID
Date Sampled....:	11/06/09	**Date Received....:**	11/21/09	**Dilution Factor:**	1
Prep Date....:	11/27/09	**Analysis Date....:**	12/03/09	**Percent Moisture:**	0.0
Prep Batch # ....:	9331216	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	93	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	106	40 - 135
13C-OCDD	112	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	78	40 - 135
13C-1,2,3,4,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	106	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

J Estimated Result.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G9K240408	**Work Order # ...:**	LP7VJ1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	G9K270000 - 216				
Prep Date .....:	11/27/09	**Analysis Date ..:**	12/03/09		
Prep Batch # ...:	9331216				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	1D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.6**	**pg/g**	**113**	**(77 - 130)**
1,2,3,7,8-PeCDD	**100**	**106**	**pg/g**	**106**	**(79 - 134)**
1,2,3,4,7,8-HxCDD	**100**	**106**	**pg/g**	**106**	**(65 - 144)**
1,2,3,6,7,8-HxCDD	**100**	**112**	**pg/g**	**112**	**(73 - 147)**
1,2,3,7,8,9-HxCDD	**100**	**107**	**pg/g**	**107**	**(80 - 143)**
1,2,3,4,6,7,8-HpCDD	**100**	**106**	**pg/g**	**106**	**(86 - 134)**
OCDD	**200**	**213**	**pg/g**	**106**	**(80 - 137)**
2,3,7,8-TCDF	**20.0**	**21.1**	**pg/g**	**105**	**(79 - 137)**
1,2,3,7,8-PeCDF	**100**	**116**	**pg/g**	**116**	**(81 - 134)**
2,3,4,7,8-PeCDF	**100**	**118**	**pg/g**	**118**	**(76 - 132)**
1,2,3,4,7,8-HxCDF	**100**	**104**	**pg/g**	**104**	**(72 - 140)**
1,2,3,6,7,8-HxCDF	**100**	**106**	**pg/g**	**106**	**(63 - 152)**
2,3,4,6,7,8-HxCDF	**100**	**102**	**pg/g**	**102**	**(72 - 151)**
1,2,3,7,8,9-HxCDF	**100**	**101**	**pg/g**	**101**	**(72 - 152)**
1,2,3,4,6,7,8-HpCDF	**100**	**105**	**pg/g**	**105**	**(81 - 137)**
1,2,3,4,7,8,9-HpCDF	**100**	**103**	**pg/g**	**103**	**(79 - 139)**
OCDF	**200**	**210**	**pg/g**	**105**	**(75 - 141)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(40 - 135)
13C-1,2,3,7,8-PeCDD	81	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	111	(40 - 135)
13C-OCDD	117	(40 - 135)
13C-2,3,7,8-TCDF	91	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	99	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	108	(40 - 135)

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

SOLID, D 2216-90, Percent Moisture

TestAmerica San Francisco

Client Sample ID: PH-7AC (720-24205-6)

General Chemistry

Lot-Sample #...: G9K240408-001 **Work Order #...:** LP2J7 **Matrix.....:** SOLID
Date Sampled...: 11/19/09 **Date Received..:** 11/23/09
% Moisture.....: 6.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**6.2**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

TestAmerica San Francisco

Client Sample ID: PH-8AI (720-24205-12)

General Chemistry

Lot-Sample #...: G9K240408-002 **Work Order #...:** LP2J8 **Matrix.....:** SOLID
Date Sampled...: 11/19/09 **Date Received..:** 11/23/09
% Moisture.....: 14

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**14.2**	**0.10**	**%**	**ASTM D 2216-90**	**11/24-11/25/09**	**9328243**

Dilution Factor: 1

QC DATA ASSOCIATION SUMMARY

G9K240408

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114
002	SOLID	SW846 8290		9331216	9335172
	SOLID	ASTM D 2216-90		9328243	9328114

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: G9K240408 **Work Order #...:** LP2J7-SMP LP2J7-DUP **Matrix.....:** SOLID

Date Sampled...: 11/19/09 **Date Received..:** 11/23/09

% Moisture.....: 6.2

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture						SD Lot-Sample #: G9K240408-001		
	6.2	4.8	%	27	(0-20)	ASTM D 2216-90	11/24-11/25/09	9328243

Dilution Factor: 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 170642

Date 19 Nov 09 Page 1 of 2

710-24205

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St. Suite 200
Phone: 415-710-2846 Email: spencer.slominski@errg.com
Bill To: ERRG
Sampled By: SS/AJ
Attn: Caitlin Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat. ID	Preserv.	TPH EPA - ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B: ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease (EPA 1664) ☐ Petroleum ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☒ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS)	☐ WET (STLC) ☐ TCLP	☐ Hexavalent Chromium ☒ pH (24h hold time for H_2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ TDS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO4	TRPH 1664	Dioxins 8290 Furans			Number of Containers
TR-5X	11/18/09	14:16	SS	None										X				X							1
TR-6Y	11/18/09	3:33pm	SS	None										X				X							1
TR-7Z	11/18/09	3:54pm	SS	None										X				X							1
PH-7AA	11/19/09	7:18	SS	None										X				X							1
PH-7AB	11/19/09	7:25	SS	None										X				X							1
PH-7AC	11/19/09	7:35	SS	None						X		X		X				X			X	X			2
TR-8AD	11/19/09	8:00	SS	None										X				X							1
TR-8AE	11/19/09	8:07	SS	None										X				X							1
TR-8AF	11/19/09	8:27	SS	None										X				X							1
PH-8AG	11/19/09	9:48	SS	None										X				X							1

Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

Sample Receipt

of Containers:
Head Space:
Temp: 3.6°
Conforms to record:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm) | Default for 8015B is C_{10}-C_{28}

1) Relinquished by: [signature] 16:20
Signature Time
Spencer Slominski 11/19/09
Printed Name Date
ERRG
Company

2) Relinquished by:
Signature Time
Printed Name Date
Company

3) Relinquished by:
Signature Time
Printed Name Date
Company

1) Received by: [signature] 930
Signature Time
Mullen 11-20-09
Printed Name Date
TestAmerica
Company

2) Received by:
Signature Time
Printed Name Date
Company

3) Received by:
Signature Time
Printed Name Date
Company

Rev09/09

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TESTAMERICA San Francisco Chain of Custody
1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 600-3002

Reference #: 29-134 120612

Date 19 Nov 09 Page 2 of 2

770-24205

Report To

Attn: Spencer Slominski
Company: ERRG
Address: 115 Sansome St Suite 200
Phone: 415-710-2846 Email: spencer.slominski@erg.com
Bill To: ERRG
Sampled By: SJS/KJ
Attn: Caitlyn Gorman
Phone:

Analysis Request

Sample ID	Date	Time	Mat.	Preserv.	TPH EPA ☐ 8260B ☐ Gas w/ ☐ BTEX ☐ MTBE	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other	EPA 8260B ☐ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	(HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☒ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS)	☐ WET (STLC) ☐ TCLP ☐ ☐	☐ Hexavalent Chromium ☒ pH (24h hold time for H2O)	☐ Spec. Cond. ☐ Alkalinity ☐ TDS ☐ TSS	Anions ☐ Cl ☐ SO4 ☐ NO3 ☐ F ☐ Br ☐ NO2 ☐ PO4	TRPH 1664	Dioxins 8290 Furans			Number of Containers
PH-8AH	11/6/09	10:00	SS	None										X				X								1
PH-8AI	11/6/09	10:08	SS	None						X		X		X				X			X	X				2

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Project Info

Project Name: USFS Ramona
Project#: 29-134
PO#:
Credit Card#:

TAT: 5 Day | 3 Day | 2 Day | 1 Day | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank
Fund EDF
Special Instructions / Comments: ☐ Global ID

See Terms and Conditions on reverse
*TestAmerica SF reports 8015M from C_9-C_{24} (industry norm). Default for 8015B is C_6-C_{28}

Sample Receipt

of Containers:
Head Space:
Temp: 3.6°
Conforms to record:

Relinquished / Received

	1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature / Time	16:00		
Printed Name / Date	Spencer Slominski 11/19/09		
Company	ERRG		

	1) Received by:	2) Received by:	3) Received by:
Signature / Time	930		
Printed Name / Date	Mullen 11-20-09		
Company	Test America		

Rev09/09

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24203-3

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/18/2009 3:45 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/18/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24203-3

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24203-6	**PH-1F**				
STLC Citrate					
Lead		75	1.0	mg/L	6010B
TCLP					
Lead		0.25	0.12	mg/L	6010B

METHOD SUMMARY

Client: ERRG

Job Number: 720-24203-3

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL SF	SW846 6010B	
TCLP Extraction	TAL SF		SW846 1311
California - Waste Extraction Test with Citrate Leach	TAL SF		CA-WET CA WET Citrate
Preparation, Total Recoverable or Dissolved Metals	TAL SF		SW846 3005A
Preparation, Total Metals	TAL SF		SW846 3010A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

CA-WET = California Waste Extraction Test, from Title 22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24203-3

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24203-6	PH-1F	Solid	11/17/2009 1025	11/20/2009 0930

Client: ERRG

Job Number: 720-24203-3

Client Sample ID: **PH-1F**

Lab Sample ID: 720-24203-6
Client Matrix: Solid

Date Sampled: 11/17/2009 1025
Date Received: 11/20/2009 0930

6010B Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 720-63149		Instrument ID:	Thermo ICP
Preparation:	3010A	Prep Batch: 720-63065		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-63006		Initial Weight/Volume:	5 mL
Date Analyzed:	12/18/2009 1235			Final Weight/Volume:	50 mL
Date Prepared:	12/17/2009 1331				
Date Leached:	12/16/2009 1355				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		0.25		0.12

6010B Metals (ICP)-STLC Citrate

Method:	6010B	Analysis Batch: 720-63161		Instrument ID:	Thermo ICP
Preparation:	3005A	Prep Batch: 720-63152		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-62986		Initial Weight/Volume:	4 mL
Date Analyzed:	12/18/2009 1504			Final Weight/Volume:	40 mL
Date Prepared:	12/18/2009 1401				
Date Leached:	12/16/2009 1344				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		75		1.0

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: ERRG

Job Number: 720-24203-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-62986					
MB 720-62986/6-B	Method Blank	C	Solid	CA WET Citrate	
720-24203-6	PH-1F	C	Solid	CA WET Citrate	
720-24205-A-10-G MS	Matrix Spike	C	Solid	CA WET Citrate	
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	CA WET Citrate	
Prep Batch: 720-63006					
MB 720-63006/1-B	Method Blank	P	Solid	1311	
720-24203-6	PH-1F	P	Solid	1311	
720-24203-6MS	Matrix Spike	P	Solid	1311	
720-24203-6MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 720-63065					
LCS 720-63065/2-A	Lab Control Sample	T	Water	3010A	
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	3010A	
MB 720-63006/1-B	Method Blank	P	Solid	3010A	720-63006
720-24203-6	PH-1F	P	Solid	3010A	720-63006
720-24203-6MS	Matrix Spike	P	Solid	3010A	720-63006
720-24203-6MSD	Matrix Spike Duplicate	P	Solid	3010A	720-63006
Analysis Batch:720-63149					
MB 720-63006/1-B	Method Blank	P	Solid	6010B	720-63065
LCS 720-63065/2-A	Lab Control Sample	T	Water	6010B	720-63065
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	6010B	720-63065
720-24203-6	PH-1F	P	Solid	6010B	720-63065
720-24203-6MS	Matrix Spike	P	Solid	6010B	720-63065
720-24203-6MSD	Matrix Spike Duplicate	P	Solid	6010B	720-63065
Prep Batch: 720-63152					
LCS 720-63152/2-A	Lab Control Sample	R	Water	3005A	
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	3005A	
MB 720-62986/6-B	Method Blank	C	Solid	3005A	720-62986
720-24203-6	PH-1F	C	Solid	3005A	720-62986
720-24205-A-10-G MS	Matrix Spike	C	Solid	3005A	720-62986
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	3005A	720-62986
Analysis Batch:720-63161					
MB 720-62986/6-B	Method Blank	C	Solid	6010B	720-63152
LCS 720-63152/2-A	Lab Control Sample	R	Water	6010B	720-63152
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	6010B	720-63152
720-24203-6	PH-1F	C	Solid	6010B	720-63152
720-24205-A-10-G MS	Matrix Spike	C	Solid	6010B	720-63152
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	6010B	720-63152

Client: ERRG

Job Number: 720-24203-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis

C = STLC Citrate

P = TCLP

R = Total Recoverable

T = Total

Method Blank - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: MB 720-63006/1-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1207
Date Prepared: 12/17/2009 1331
Date Leached: 12/16/2009 1355

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Leachate Batch: 720-63006

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lead	ND		0.12

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A

LCS Lab Sample ID: LCS 720-63065/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1212
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-63065/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1218
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	102	104	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	720-24203-6	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1224		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	
MSD Lab Sample ID:	720-24203-6	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1229		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	104	103	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

Lab Sample ID: MB 720-62986/6-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1431
Date Prepared: 12/18/2009 1401
Date Leached: 12/16/2009 1344

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Leachate Batch: 720-62986

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Lead	ND		1.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
Total Recoverable

LCS Lab Sample ID: LCS 720-63152/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1437
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-63152/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1443
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	101	103	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24203-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

MS Lab Sample ID:	720-24205-A-10-G MS	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1448		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	
MSD Lab Sample ID:	720-24205-A-10-H MSD	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1453		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	101	106	80 - 120	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-24203-3
720-24204-3
720-24205-3

Sharma, Dimple

From: Spencer Slominski [Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:52 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

STLC and TCLP for Lead for on all three.

STLC for copper on TR-4W

Thanks

From: Sharma, Dimple [mailto:Dimple.Sharma@testamericainc.com]
Sent: Wednesday, December 16, 2009 12:45 PM
To: Spencer Slominski
Subject: RE: Files from 720-24205-2 USFS Ramona

What analytes you want for leachate testing.

DIMPLE SHARMA

Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane
Pleasanton, CA 94566
Tel 925.484.1919 | Fax 925.600.3002
www.testamericainc.com www.stl-inc.com

RUSH

-----Original Message-----
From: Spencer Slominski [mailto:Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:29 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

Hi Dimple,

Can we have the STLC and TCLP testing done on samples TR-4W, PH-1F, and PH-8AG? 24204-11 24204-6 24205-10

Thanks,

Spencer

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24203-3

Login Number: 24203

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

ANALYTICAL REPORT

Job Number: 720-24204-3

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/18/2009 3:47 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/18/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24204-3

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24204-11	**TR-4W**				
STLC Citrate					
Lead		11	1.0	mg/L	6010B
Copper		24	0.25	mg/L	6010B
TCLP					
Lead		0.13	0.12	mg/L	6010B

METHOD SUMMARY

Client: ERRG Job Number: 720-24204-3

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL SF	SW846 6010B	
TCLP Extraction	TAL SF		SW846 1311
California - Waste Extraction Test with Citrate Leach	TAL SF		CA-WET CA WET Citrate
Preparation, Total Recoverable or Dissolved Metals	TAL SF		SW846 3005A
Preparation, Total Metals	TAL SF		SW846 3010A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

CA-WET = California Waste Extraction Test, from Title 22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24204-3

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24204-11	TR-4W	Solid	11/18/2009 1046	11/20/2009 0930

Client: ERRG

Job Number: 720-24204-3

Client Sample ID: **TR-4W**

Lab Sample ID: 720-24204-11
Client Matrix: Solid

Date Sampled: 11/18/2009 1046
Date Received: 11/20/2009 0930

6010B Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 720-63149		Instrument ID:	Thermo ICP
Preparation:	3010A	Prep Batch: 720-63065		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-63006		Initial Weight/Volume:	5 mL
Date Analyzed:	12/18/2009 1241			Final Weight/Volume:	50 mL
Date Prepared:	12/17/2009 1331				
Date Leached:	12/16/2009 1355				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		0.13		0.12

6010B Metals (ICP)-STLC Citrate

Method:	6010B	Analysis Batch: 720-63161		Instrument ID:	Thermo ICP
Preparation:	3005A	Prep Batch: 720-63152		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-62986		Initial Weight/Volume:	4 mL
Date Analyzed:	12/18/2009 1510			Final Weight/Volume:	40 mL
Date Prepared:	12/18/2009 1401				
Date Leached:	12/16/2009 1344				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		11		1.0
Copper		24		0.25

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: ERRG

Job Number: 720-24204-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-62986					
MB 720-62986/6-B	Method Blank	C	Solid	CA WET Citrate	
720-24204-11	TR-4W	C	Solid	CA WET Citrate	
720-24205-A-10-G MS	Matrix Spike	C	Solid	CA WET Citrate	
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	CA WET Citrate	
Prep Batch: 720-63006					
MB 720-63006/1-B	Method Blank	P	Solid	1311	
720-24203-A-6-F MS	Matrix Spike	P	Solid	1311	
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	1311	
720-24204-11	TR-4W	P	Solid	1311	
Prep Batch: 720-63065					
LCS 720-63065/2-A	Lab Control Sample	T	Water	3010A	
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	3010A	
MB 720-63006/1-B	Method Blank	P	Solid	3010A	720-63006
720-24203-A-6-F MS	Matrix Spike	P	Solid	3010A	720-63006
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	3010A	720-63006
720-24204-11	TR-4W	P	Solid	3010A	720-63006
Analysis Batch:720-63149					
MB 720-63006/1-B	Method Blank	P	Solid	6010B	720-63065
LCS 720-63065/2-A	Lab Control Sample	T	Water	6010B	720-63065
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	6010B	720-63065
720-24203-A-6-F MS	Matrix Spike	P	Solid	6010B	720-63065
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	6010B	720-63065
720-24204-11	TR-4W	P	Solid	6010B	720-63065
Prep Batch: 720-63152					
LCS 720-63152/2-A	Lab Control Sample	R	Water	3005A	
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	3005A	
MB 720-62986/6-B	Method Blank	C	Solid	3005A	720-62986
720-24204-11	TR-4W	C	Solid	3005A	720-62986
720-24205-A-10-G MS	Matrix Spike	C	Solid	3005A	720-62986
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	3005A	720-62986
Analysis Batch:720-63161					
MB 720-62986/6-B	Method Blank	C	Solid	6010B	720-63152
LCS 720-63152/2-A	Lab Control Sample	R	Water	6010B	720-63152
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	6010B	720-63152
720-24204-11	TR-4W	C	Solid	6010B	720-63152
720-24205-A-10-G MS	Matrix Spike	C	Solid	6010B	720-63152
720-24205-A-10-H MSD	Matrix Spike Duplicate	C	Solid	6010B	720-63152

Client: ERRG

Job Number: 720-24204-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis

C = STLC Citrate

P = TCLP

R = Total Recoverable

T = Total

Method Blank - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: MB 720-63006/1-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1207
Date Prepared: 12/17/2009 1331
Date Leached: 12/16/2009 1355

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Leachate Batch: 720-63006

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lead	ND		0.12

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A

LCS Lab Sample ID: LCS 720-63065/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1212
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-63065/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1218
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	102	104	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	720-24203-A-6-F MS	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1224		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	
MSD Lab Sample ID:	720-24203-A-6-G MSD	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1229		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	104	103	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-3

Method Blank - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

Lab Sample ID: MB 720-62986/6-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1431
Date Prepared: 12/18/2009 1401
Date Leached: 12/16/2009 1344

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Leachate Batch: 720-62986

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Lead	ND		1.0
Copper	ND		0.25

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
Total Recoverable

LCS Lab Sample ID: LCS 720-63152/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1437
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-63152/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1443
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	101	103	80 - 120	2	20		
Copper	105	109	80 - 120	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24204-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

MS Lab Sample ID:	720-24205-A-10-G MS	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1448		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	
MSD Lab Sample ID:	720-24205-A-10-H MSD	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1453		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	101	106	80 - 120	3	20		
Copper	106	110	80 - 120	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-24203-3
720-24204-3
720-24205-3

Sharma, Dimple

From: Spencer Slominski [Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:52 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

STLC and TCLP for Lead for on all three.

STLC for copper on TR-4W.

Thanks

From: Sharma, Dimple [mailto:Dimple.Sharma@testamericainc.com]
Sent: Wednesday, December 16, 2009 12:45 PM
To: Spencer Slominski
Subject: RE: Files from 720-24205-2 USFS Ramona

What analytes you want for leachate testing.

DIMPLE SHARMA

Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane
Pleasanton, CA 94566
Tel 925.484.1919 | Fax 925.600.3002
www.testamericainc.com, www.stl-inc.com

RUSH

-----Original Message-----
From: Spencer Slominski [mailto:Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:29 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

Hi Dimple,

24204-11 24203-6 24205-10

Can we have the STLC and TCLP testing done on samples TR-4W, PH-1F, and PH-8AG?

Thanks,

Spencer

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24204-3

Login Number: 24204

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-24205-3

Job Description: USFS Ramona

For:
ERRG
115 Sansome Street
Suite 200
San Francisco, CA 94104

Attention: Mr. Spencer Slominski

Approved for release.
Dimple Sharma
Project Manager I
12/18/2009 3:48 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com
12/18/2009

cc: Ms. Caitlin Gorman

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: ERRG

Job Number: 720-24205-3

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-24205-10	**PH-8AG**				
STLC Citrate					
Lead		6.7	1.0	mg/L	6010B

METHOD SUMMARY

Client: ERRG Job Number: 720-24205-3

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL SF	SW846 6010B	
TCLP Extraction	TAL SF		SW846 1311
California - Waste Extraction Test with Citrate Leach	TAL SF		CA-WET CA WET Citrate
Preparation, Total Recoverable or Dissolved Metals	TAL SF		SW846 3005A
Preparation, Total Metals	TAL SF		SW846 3010A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

CA-WET = California Waste Extraction Test, from Title 22

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SAMPLE SUMMARY

Client: ERRG

Job Number: 720-24205-3

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-24205-10	PH-8AG	Solid	11/19/2009 0948	11/20/2009 0930

Client: ERRG

Job Number: 720-24205-3

Client Sample ID: **PH-8AG**

Lab Sample ID: 720-24205-10
Client Matrix: Solid

Date Sampled: 11/19/2009 0948
Date Received: 11/20/2009 0930

6010B Metals (ICP)-TCLP

Method:	6010B	Analysis Batch: 720-63149		Instrument ID:	Thermo ICP
Preparation:	3010A	Prep Batch: 720-63065		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-63006		Initial Weight/Volume:	5 mL
Date Analyzed:	12/18/2009 1247			Final Weight/Volume:	50 mL
Date Prepared:	12/17/2009 1331				
Date Leached:	12/16/2009 1355				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		ND		0.12

6010B Metals (ICP)-STLC Citrate

Method:	6010B	Analysis Batch: 720-63161		Instrument ID:	Thermo ICP
Preparation:	3005A	Prep Batch: 720-63152		Lab File ID:	N/A
Dilution:	2.5	Leachate Batch: 720-62986		Initial Weight/Volume:	4 mL
Date Analyzed:	12/18/2009 1458			Final Weight/Volume:	40 mL
Date Prepared:	12/18/2009 1401				
Date Leached:	12/16/2009 1344				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	RL
Lead		6.7		1.0

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: ERRG

Job Number: 720-24205-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-62986					
MB 720-62986/6-B	Method Blank	C	Solid	CA WET Citrate	
720-24205-10	PH-8AG	C	Solid	CA WET Citrate	
720-24205-10MS	Matrix Spike	C	Solid	CA WET Citrate	
720-24205-10MSD	Matrix Spike Duplicate	C	Solid	CA WET Citrate	
Prep Batch: 720-63006					
MB 720-63006/1-B	Method Blank	P	Solid	1311	
720-24203-A-6-F MS	Matrix Spike	P	Solid	1311	
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	1311	
720-24205-10	PH-8AG	P	Solid	1311	
Prep Batch: 720-63065					
LCS 720-63065/2-A	Lab Control Sample	T	Water	3010A	
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	3010A	
MB 720-63006/1-B	Method Blank	P	Solid	3010A	720-63006
720-24203-A-6-F MS	Matrix Spike	P	Solid	3010A	720-63006
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	3010A	720-63006
720-24205-10	PH-8AG	P	Solid	3010A	720-63006
Analysis Batch:720-63149					
MB 720-63006/1-B	Method Blank	P	Solid	6010B	720-63065
LCS 720-63065/2-A	Lab Control Sample	T	Water	6010B	720-63065
LCSD 720-63065/3-A	Lab Control Sample Duplicate	T	Water	6010B	720-63065
720-24203-A-6-F MS	Matrix Spike	P	Solid	6010B	720-63065
720-24203-A-6-G MSD	Matrix Spike Duplicate	P	Solid	6010B	720-63065
720-24205-10	PH-8AG	P	Solid	6010B	720-63065
Prep Batch: 720-63152					
LCS 720-63152/2-A	Lab Control Sample	R	Water	3005A	
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	3005A	
MB 720-62986/6-B	Method Blank	C	Solid	3005A	720-62986
720-24205-10	PH-8AG	C	Solid	3005A	720-62986
720-24205-10MS	Matrix Spike	C	Solid	3005A	720-62986
720-24205-10MSD	Matrix Spike Duplicate	C	Solid	3005A	720-62986
Analysis Batch:720-63161					
MB 720-62986/6-B	Method Blank	C	Solid	6010B	720-63152
LCS 720-63152/2-A	Lab Control Sample	R	Water	6010B	720-63152
LCSD 720-63152/3-A	Lab Control Sample Duplicate	R	Water	6010B	720-63152
720-24205-10	PH-8AG	C	Solid	6010B	720-63152
720-24205-10MS	Matrix Spike	C	Solid	6010B	720-63152
720-24205-10MSD	Matrix Spike Duplicate	C	Solid	6010B	720-63152

Client: ERRG

Job Number: 720-24205-3

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis

C = STLC Citrate

P = TCLP

R = Total Recoverable

T = Total

Method Blank - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: MB 720-63006/1-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1207
Date Prepared: 12/17/2009 1331
Date Leached: 12/16/2009 1355

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Leachate Batch: 720-63006

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lead	ND		0.12

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A

LCS Lab Sample ID: LCS 720-63065/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1212
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-63065/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1218
Date Prepared: 12/17/2009 1331

Analysis Batch: 720-63149
Prep Batch: 720-63065
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	102	104	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63065

Method: 6010B
Preparation: 3010A
TCLP

MS Lab Sample ID:	720-24203-A-6-F MS	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1224		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	
MSD Lab Sample ID:	720-24203-A-6-G MSD	Analysis Batch: 720-63149	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63065	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 5 mL
Date Analyzed:	12/18/2009 1229		Final Weight/Volume: 50 mL
Date Prepared:	12/17/2009 1331		
Date Leached:	12/16/2009 1355	Leachate Batch: 720-63006	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	104	103	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Method Blank - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

Lab Sample ID: MB 720-62986/6-B
Client Matrix: Solid
Dilution: 2.5
Date Analyzed: 12/18/2009 1431
Date Prepared: 12/18/2009 1401
Date Leached: 12/16/2009 1344

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Leachate Batch: 720-62986

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Lead	ND		1.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
Total Recoverable

LCS Lab Sample ID: LCS 720-63152/2-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1437
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-63152/3-A
Client Matrix: Water
Dilution: 2.5
Date Analyzed: 12/18/2009 1443
Date Prepared: 12/18/2009 1401

Analysis Batch: 720-63161
Prep Batch: 720-63152
Units: mg/L

Instrument ID: Thermo 6500 ICP
Lab File ID: N/A
Initial Weight/Volume: 4 mL
Final Weight/Volume: 40 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Lead	101	103	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: ERRG

Job Number: 720-24205-3

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-63152

Method: 6010B
Preparation: 3005A
STLC Citrate

MS Lab Sample ID:	720-24205-10	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1448		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	
MSD Lab Sample ID:	720-24205-10	Analysis Batch: 720-63161	Instrument ID: Thermo 6500 ICP
Client Matrix:	Solid	Prep Batch: 720-63152	Lab File ID: N/A
Dilution:	2.5		Initial Weight/Volume: 4 mL
Date Analyzed:	12/18/2009 1453		Final Weight/Volume: 40 mL
Date Prepared:	12/18/2009 1401		
Date Leached:	12/16/2009 1344	Leachate Batch: 720-62986	

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	101	106	80 - 120	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-24203-3
720-24204-3
720-24205-3

Sharma, Dimple

From: Spencer Slominski [Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:52 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

STLC and TCLP for Lead for on all three.

STLC for copper on TR-4W.

Thanks

From: Sharma, Dimple [mailto:Dimple.Sharma@testamericainc.com]
Sent: Wednesday, December 16, 2009 12:45 PM
To: Spencer Slominski
Subject: RE: Files from 720-24205-2 USFS Ramona

What analytes you want for leachate testing.

DIMPLE SHARMA

Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane
Pleasanton, CA 94566
Tel 925.484.1919 | Fax 925.600.3002
www.testamericainc.com www.stl-inc.com

RUSH

-----Original Message-----
From: Spencer Slominski [mailto:Spencer.Slominski@Errg.com]
Sent: Wednesday, December 16, 2009 12:29 PM
To: Sharma, Dimple
Subject: RE: Files from 720-24205-2 USFS Ramona

Hi Dimple,

24204-11 24203-6 24205-10

Can we have the STLC and TCLP testing done on samples TR-4W, PH-1F, and PH-8AG?

Thanks,

Spencer

Login Sample Receipt Check List

Client: ERRG

Job Number: 720-24205-3

Login Number: 24205

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Appendix F. Cost Estimates for Alternatives

APPENDIX F-1
ALTERNATIVE 1: ON-SITE NATIVE SOIL COVER

COST ESTIMATE SUMMARY

Site: Ramona Burn Site
Location: Cleveland National Forest
Estimate Range: (-30% / +50%)
Base Year: 2010

Description: Alternative 4 consists of implementing engineering controls to install 2-feet cover soil over the site.

CAPITAL COSTS:

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Mobilization/Demobilzation					
Equipment	3	TRIP	$500	$1,500	Excavators, loaders, up to 100 mi one way
Personnel	1	LS	$2,500	$2,500	Local labor, set up temporary lodging
HASP and EPP documents	1	LS	$15,000	$15,000	
SUBTOTAL:				$19,000	
Site Personnel					
Site Superintendent	10	DAY	$950	$9,500	
Operator 1 Dozer	10	DAY	$800	$8,000	
Operator 2 Loader	10	DAY	$800	$8,000	
Water Truck Driver	10	DAY	$800	$8,000	
Labor 1	10	DAY	$600	$6,000	
Labor 2	10	DAY	$600	$6,000	
Site Engineer	10	DAY	$750	$7,500	
SUBTOTAL:				$53,000	
Equipment					
Loader John Deere 644	10	DAY	$750	$7,500	
Dozer JD700	10	DAY	$705	$7,050	
Water Truck	10	DAY	$250	$2,500	
SUBTOTAL:				$17,050	
Site Facilities					Assume use of existing
Materials and Supplies					
Import - Top Soil	7968	CY	$20	$159,360	
Hydroseed (Sub)	107569	SF	0.07	$7,530	
SUBTOTAL:				$166,890	
SUBTOTAL:				$255,940	
Contingency			25%	$63,985	10% scope + 15% bid
SUBTOTAL:				$319,925	
Project Management			5%	$12,797	5% of Capital Costs
Engineering Design/Permitting		LS		$10,000	Design and pre-design studies
Post-Construction Submittals		LS		$3,500	
SUBTOTAL:				$26,297	
Prime Contractor Overhead			7%	$24,236	
Profit			10%	$34,622	
TOTAL CAPITAL COSTS:				**$405,079**	

OPERATION AND MAINTENANCE COSTS:

Field inspection	1	LS	$2,000	$2,000	
Minor Repair	1	LS	$4,000	$4,000	
SUBTOTAL O&M COSTS:				$6,000	
Project Management			10%	$600	
Contingency			20%	$1,320	10% scope and 10% bid
Prime Contractor Overhead			7%	$742	
Profit			10%	$792	
TOTAL ANNUAL O&M COSTS:				**$9,454**	

PRESENT VALUE ANALYSIS:

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR (2.7%)	PRESENT VALUE
Capital Cost	0	$405,079	$405,079	1.000	$405,079
Annual O&M Cost	1-10	$94,540	$9,454	8.7	$81,893
		$499,619			$486,973
TOTAL PRESENT VALUE OF ALTERNATIVE NO. 1					**$486,973**

ERRG

APPENDIX F-2
ALTERNATIVE 2: ON-SITE CAPPING

COST ESTIMATE SUMMARY

Site: Ramona Burn Site
Location: Cleveland National Forest
Estimate Range: (-30% / +50%)
Base Year: 2010

Description: Alternative 1 consists of implementing engineering controls to install 1.5-feet of fill to create a compacted foundation layer, installation of a lldpe liner, and installation of a 1-foot thick vegetated low erosivity layer over the existing delineated area

CAPITAL COSTS:

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Mobilization/Demobilzation					
Equipment	3	TRIP	$500	$1,500	Excavators, loaders, up to 100 mi one way
Personnel	1	LS	$2,500	$2,500	Local labor, set up temporary lodging
HASP and EPP documents	1	LS	$15,000	$15,000	
SUBTOTAL:				$19,000	
Site Personnel					
Site Superintendent	15	DAY	$950	$14,250	
Operator 1 Dozer	10	DAY	$800	$8,000	
Operator 2 Loader	15	DAY	$800	$12,000	
Water Truck Driver	15	DAY	$800	$12,000	
Labor 1	15	DAY	$600	$9,000	
Labor 2	10	DAY	$600	$6,000	
Site Engineer	15	DAY	$750	$11,250	
SUBTOTAL:				$72,500	
Equipment					
Loader John Deere 644	15	DAY	$750	$11,250	
Dozer JD700	10	DAY	$705	$7,050	
Water Truck	15	DAY	$250	$3,750	
SUBTOTAL:				$22,050	
Site Facilities					Assume use of existing
Materials and Supplies					
Import - Top Soil	9960	CY	$20	$199,200	
LLDPE liner	107569	SF	$0.50	$53,785	
Hydroseed (Sub)	107569	SF	0.07	$7,530	
SUBTOTAL:				$260,514	
SUBTOTAL:				$374,064	
Contingency			25%	$93,516	10% scope + 15% bid
SUBTOTAL:				$467,580	
Project Management			5%	$18,703	5% of Capital Costs
Engineering Design/Permitting		LS		$10,000	Design and pre-design studies
Post-Construction Submittals		LS		$3,500	
SUBTOTAL:				$32,203	
Prime Contractor Overhead			7%	$34,985	
Profit			10%	$49,978	
TOTAL CAPITAL COSTS:				**$584,747**	

OPERATION AND MAINTENANCE COSTS:

Field inspection	1	LS	$2,000	$2,000	
Minor Repair	1	LS	$7,000	$5,000	
SUBTOTAL O&M COSTS:				$7,000	
Project Management			10%	$700	
Contingency			20%	$1,540	10% scope and 10% bid
Prime Contractor Overhead			7%	$889	
Profit			10%	$924	
TOTAL ANNUAL O&M COSTS:				**$11,053**	

PRESENT VALUE ANALYSIS:

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER	DISCOUNT FACTOR (2.7%)	PRESENT VALUE
Capital Cost	0	$584,747	$584,747	1.000	$584,747
Annual O&M Cost	1-10	$110,530	$11,053	8.7	$95,744
		$695,277			$680,491
TOTAL PRESENT VALUE OF ALTERNATIVE NO. 1					**$680,491**

ERRG

APPENDIX F-3 **COST ESTIMATE SUMMARY**

ALTERNATIVE 3: ON-SITE CONSOLIDATION AND CAPPING

Site: Ramona Burn Site
Location: Cleveland National Forest
Estimate Range: (-30% / +50%)
Base Year: 2010

Description: Alternative 2 consists of excavating burn dump ash and waste from the eastern portion of the site and consolidating it on the large flat area to the west.

CAPITAL COSTS:

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Mobilization/Demobilzation					
Equipment	3	TRIP	$500	$1,500	
Personnel	1	LS	$2,500	$2,500	Local labor, set up temporary lodging
HASP and EPP documents	1	LS	$15,000	$15,000	
SUBTOTAL:				$19,000	
Site Personnel					
Site Superintendent	25	DAY	$950	$23,750	
Operator 1	25	DAY	$800	$20,000	
Operator 2	20	DAY	$800	$16,000	
Water Truck Driver	25	DAY	$800	$20,000	
Labor 1	25	DAY	$600	$15,000	
Labor 2	25	DAY	$600	$15,000	
Site Engineer	25	DAY	$750	$18,750	
SUBTOTAL:				$128,500	
Equipment					
Excavator	10	DAY	$800	$8,000	
Loader John Deere 644	25	DAY	$750	$18,750	
Dozer JD700	10	DAY	$705	$7,050	
Water Truck	25	DAY	$250	$6,250	
SUBTOTAL:				$40,050	
Site Facilities					Assume use of existing
Materials and Supplies					
PPE (Level D)	25	DAY	$20	$500	
Import - Top Soil	8758	CY	$20	$175,160	Cap area will be western three areas
LLDPE liner	83783	SF	$0.50	$41,892	
Fill for removal area	3500	CY	$20	$70,000	
Hydroseed (Sub)	1	LS	$10,000	$8,400	
SUBTOTAL:				$295,952	
Confirmation Sampling					
CAM-17 Metals	15	EA	$179	$2,685	
SUBTOTAL:				$486,187	
Contingency			20%	$97,237	10% scope + 10% bid
SUBTOTAL:				$583,424	
Project Management			10%	$48,619	10% of Capital Costs
Engineering Design/Permitting		LS		$40,000	
Post-Construction Submittals		LS		$15,000	
SUBTOTAL:				$103,619	
Prime Contractor Overhead			7%	$48,093	
Profit			10%	$68,704	
TOTAL CAPITAL COSTS:				**$803,840**	

OPERATION AND MAINTENANCE COSTS:

Field inspection	1	LS	$2,000	$2,000	
Minor Repair	1	LS	$7,500	$5,000	Assumes minimal repair of soil cap
SUBTOTAL O&M COSTS:				$7,000	
Project Management			5%	$350	
Contingency			20%	$1,470	10% scope and 10% bid
Prime Contractor Overhead			7%	$865	
Profit			10%	$882	
TOTAL ANNUAL O&M COSTS:				**$10,567**	

PRESENT VALUE ANALYSIS:

COST TYPE	YEAR	TOTAL COST	TOTAL COST PER	DISCOUNT FACTOR (2.7%)	PRESENT VALUE
Capital Cost	0	$803,840	$803,840	1.000	$803,840
Annual O&M Cost	1-10	$105,665	$10,567	8.7	$91,530
		$909,505			$895,370
TOTAL PRESENT VALUE OF ALTERNATIVE NO. 2					**$895,370**

ERRG

APPENDIX F-4
ALTERNATIVE 4: REMOVAL AND OFF-SITE DISPOSAL

COST ESTIMATE SUMMARY

Site: Ramona Burn Site
Location: Cleveland National Forest
Estimate Range: (-30% / +50%)
Base Year: 2010

Description: Alternative 3 consists of excavating all waste from the Ramona Burn Site, transporting to an off-site disposal facility, and importing fill to return site to existing conditions.

CAPITAL COSTS:

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Mobilization/Demobilzation					
Equipment	4	TRIP	$500	$2,000	Excavators, loaders, up to 100 mi one way
Personnel	1	LS	$2,500	$2,500	Local crews, set up temporary lodging
HASP and EPP documents	1	LS	$15,000	$15,000	
SUBTOTAL:				$19,500	
Site Personnel					
Site Superintendent	25	DAY	$950	$23,750	
Operator 1	25	DAY	$800	$20,000	
Operator 2	25	DAY	$800	$20,000	
Operator 3	10	DAY	$800	$8,000	
Water Truck Driver	25	DAY	$800	$20,000	
Labor 1	25	DAY	$600	$15,000	
Labor 2	25	DAY	$600	$15,000	
Site Engineer	25	DAY	$750	$18,750	
SUBTOTAL:				$140,500	
Equipment					
Excavator	25	DAY	$800	$20,000	
Dozer JD700	15	DAY	$705	$10,575	
Loader John Deere 644	10	DAY	$750	$7,500	
Sheepsfoot Roller	10	DAY	$350	$3,500	
Water Truck	25	DAY	$250	$6,250	
SUBTOTAL:				$47,825	
Site Facilities					Assume use of existing
Materials and Supplies					
PPE (Level D)	25	DAY	$20	$500	
Import - Clean Fill	23840	CY	$20	$476,800	
Hydroseed (Sub)	1	LS	$8,400	$8,400	
Off Site Transport/disposal Class I	31000	TON	$85.00	$2,635,000	Assume all Class I
SUBTOTAL:				$3,120,700	
Confirmation Sampling					
CAM-17 Metals	75	EA	$179	$13,425	
SUBTOTAL:				$3,341,950	
Contingency			20%	$668,390	10% scope + 10% bid
SUBTOTAL:				$4,010,340	
Project Management			6%	$200,517	6% of Capital Costs
Engineering Design/Permitting		LS		$15,000	Minimal design (slope restoration design only)
Post-Construction Submittals		LS		$15,000	Including Disposal documentation
SUBTOTAL:				$230,517	
Prime Contractor Overhead			7%	$296,860	
Profit			10%	$424,086	
TOTAL CAPITAL COSTS:				**$4,961,803**	

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