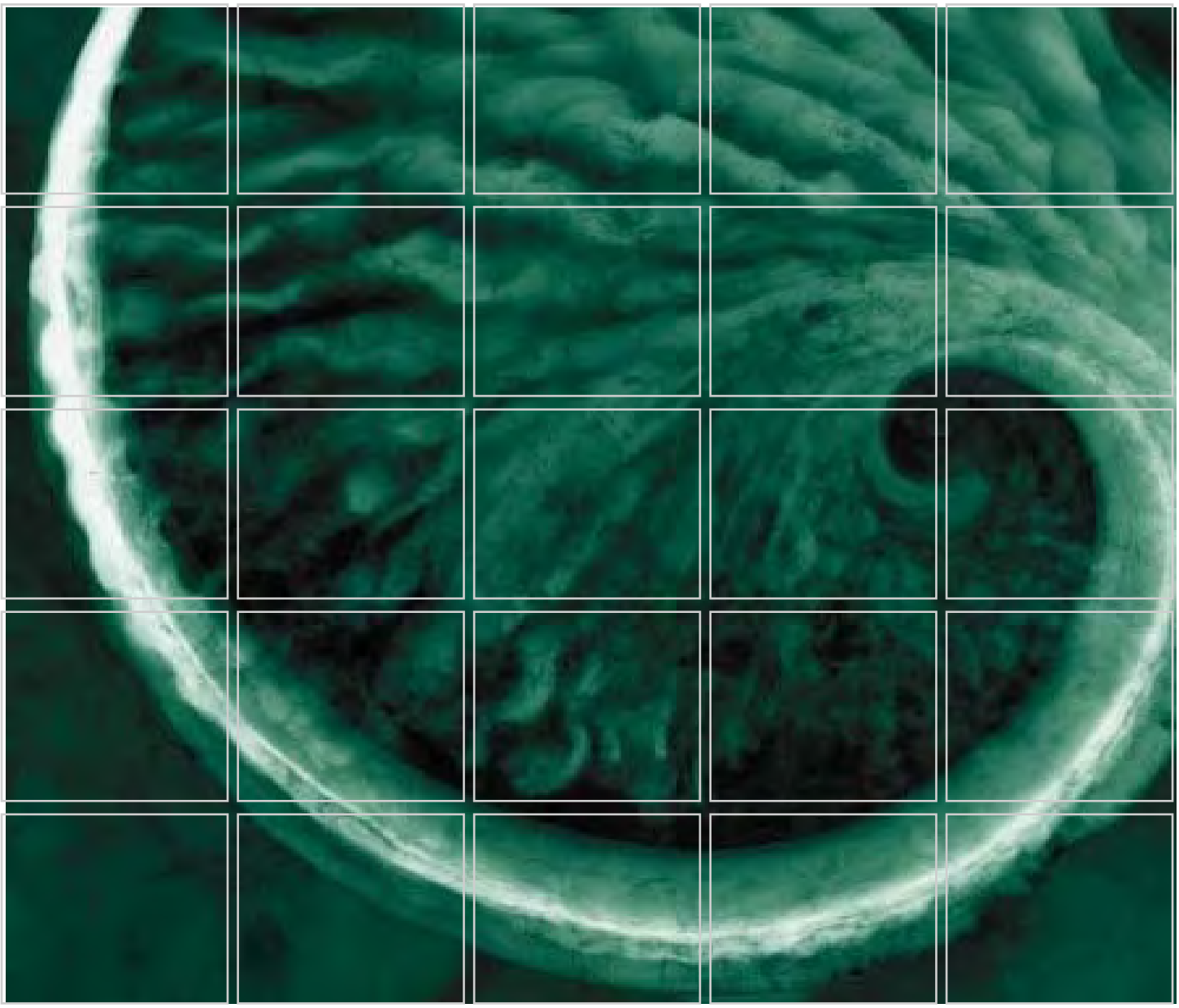

Data Gaps Investigation Report

Arkema, Inc. Facility
Portland, Oregon

Prepared for:
Legacy Site Services, LLC

June 2010

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Legacy Site Services, LLC

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Arkema, Inc. Facility, Portland, Oregon

June 2010

Project No. 111208

Brendan Robinson, P.E.
Senior Engineer

Erik Ipsen, P.E.
Partner

Environmental Resources Management
101 SW Main Street, Suite 804
Portland, Oregon 97204
T: 503-488-5282
F: 503-488-5142

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LIST OF ACRONYMS AND ABREVIATIONS

Work Plan Addendum	Former Arkema Portland Plant Addendum to Data Gaps Assessment Work Plan
Arkema	Arkema, Inc.
Bgs	Below ground surface
CDD	chlorinated dioxins
CDF	chlorinated furans
Consent Order	Administrative Order on Consent between Arkema and ODEQ
CSM	Conceptual Site Model
Work Plan	Draft Data Gaps Assessment Work Plan
DDT	dichloro diphenyl trichloroethane
Diamond	The new chlorine cell room at the site
DDX	4,4′-DDT, and the breakdown products 4,4′-DDD, and 4,4′-DDE, collectively
ERM	Environmental Resources Management
FS	Feasibility study
LSS	Legacy Site Services, LLC
Mg/kg	milligrams per kilogram
OCDD	octachlorodibenzo-p-dioxin
OCS	octachlorostyrene
ODEQ	Oregon Department of Environmental Quality
PCP	pentachlorophenol
PCN	Polychlorinated naphthalene
Pg/g	Picograms per gram
RI	Remedial Investigation
RSL	Regional Screening Level
Site	Arkema Inc. facility in Portland, Oregon
TEQ	Toxic equivalency quotients
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

Environmental Resources Management (ERM) has prepared this *Data Gaps Investigation Report* on behalf of Legacy Site Services, LLC (LSS), agent for Arkema, Inc. (Arkema), to describe the soil sampling activities conducted in accordance with the *Draft Data Gaps Assessment Work Plan* (Work Plan) and the *Former Arkema Portland Plant Addendum to Data Gaps Assessment Work Plan* (Work Plan Addendum). This report also updates the dioxin and furan conceptual site model (CSM), originally provided in the Work Plan.

1.1 OBJECTIVES

The objectives of the soil investigation were to:

- Identify and fill data gaps sufficient to evaluate remedial technology alternatives in the uplands feasibility study (FS);
- Collect data to update the CSM for chlorinated dioxins (CDD) and chlorinated furans (CDF); and
- Evaluate the presence/absence of polychlorinated naphthalenes (PCNs) and octachlorostyrene (OCS).

1.2 REPORT ORGANIZATION

This report is organized as follows:

- Section 2 provides a description of the site and the site history, focusing on potential sources of D/F at the site.
- Section 3 describes the procedures used for the field investigation.
- Section 4 details the results of the field investigation.
- Section 5 provides an updated CSM, focusing on D/F at the site.
- Section 6 lists the references cited.

2.0 SITE BACKGROUND

2.1 BACKGROUND

The site history is documented in the *Uplands Remedial Investigation Report Lots 3 & 4 and Tract A – Revision 1* (ERM 2005). A brief description of the historical activities and sources of groundwater impacts are provided below.

2.1.1 Site Description

The site is located at 6400 NW Front Avenue in the Northwest Industrial Area of Portland, Oregon (the site). The facility is bounded by Front Avenue on the north and west, the Willamette River on the east, and an asphalt roofing manufacturer on the south. The site is located on the southwest bank of the lower Willamette River between River mile 6.9 and River mile 7.6, immediately upstream of the Burlington Northern Santa Fe Railroad Bridge (Figure 2-1). The property is located adjacent to the Portland Harbor Superfund site.

2.1.2 Site History

Inorganic chemicals were manufactured at the site from 1941 until 2001, when the facility was closed and chemical manufacturing was discontinued. For most of the site's history, the chemical activities involved electrolytic decomposition of brine solutions to manufacture inorganic chemicals, including sodium chlorate, chlorine, sodium hydroxide, hydrogen, and hydrochloric acid. Other chemical manufacturing processes during the site's operational history included the production of dichloro diphenyl trichloroethane (DDT) from 1947 to 1954 and ammonium perchlorate from 1958 to 1962 (ERM 2005).

Decommissioning and removal of the manufacturing infrastructure were completed in early 2005. The only structure remaining is the office building at the site entrance on Front Street and some concrete floor slabs left in place as environmental caps. Arkema maintains leases from the Oregon Department of State Lands for the docks in the Willamette River, but the docks are not currently in use.

Arkema (formerly known as ATOFINA Chemicals, Inc., Elf Atochem North America, Inc., and the Pennwalt Corporation) has conducted investigations and performed a number of Interim Remedial Measures

(also referred to as Source Control Measures) in the upland portion of the site since 1994. In 1995, Arkema (then known as Elf Atochem) submitted an intent to participate in the Oregon Department of Environmental Quality (ODEQ) Voluntary Cleanup Program, an agreement that was later signed with ODEQ in 1996. In 1998, Arkema signed a voluntary agreement with ODEQ to complete a remedial investigation (RI) and FS of the former DDT manufacturing area. The RI/FS was later expanded to include other areas and chemicals at the site (e.g., hexavalent chromium and perchlorate). The *Uplands Remedial Investigation Report Lots 3 & 4 and Tract A – Revision 1* (ERM 2005) was submitted to ODEQ in December 2005.

Arkema and ODEQ entered into an Administrative Order on Consent (Consent Order) on 31 October 2008 for the uplands portion of the site. The upland Consent Order requires submittal of various documents in support of upland source control (groundwater, storm water, and erodible soil) and the upland FS. The Work Plan was one of the documents specified in the Consent Order. The Work Plan identified the need for additional soil data to refine the CSM for D/F and to complete the upland FS process.

The Work Plan also identified additional data gap investigations in support of the design of the upland groundwater source control measure, and to further define the extent of impacts to groundwater from off-site sources. The results of these additional investigations were reported in the *Sitewide Groundwater Monitoring report – August 2009 Monitoring Event* (ERM 2010a) and the *Aquifer Testing Report – Groundwater Source Control Measure Pre-Design Investigation* (ERM 2010b).

2.2 *HISTORICAL SOURCES OF DIOXINS AND FURANS AT THE ARKEMA SITE*

As presented in the Work Plan, chlorine production using graphite anodes is a potential source of a CDD/CDF signature that is furan-dominated. Furans, according to some literature sources, may specifically be associated with the solid waste products from the chlorine cells, such as the asbestos sludge generated during cell maintenance activities.

Chlorine was manufactured in two areas of the facility: the Old Chlorine Cell Room (more recently used as a maintenance shop), and the new chlorine cell room (also referred to as "Diamond Cell Room") (Figure 2-2). The Old Chlorine Cell Room and the associated cell repair room used

asbestos diaphragm chlorine cells with graphite anodes. Production in this area ceased in 1971.

Chlorine manufacturing was then consolidated in the Diamond Cell Room. Graphite anodes were only utilized in the new cell room for a short period during the phasing in of the Diamond Cells that used titanium metal anodes. Waste asbestos from the Diamond Cell Room was stored in the former asbestos pond located on Lot 2 of the site (Figure 2-2).

As described in the RI, historically asbestos waste was discharged to three on-site ponds (ERM 2005). The two oldest ponds were located adjacent to the Diamond Cell Room (Figure 2-2) and each pond measured approximately 100 feet long, 22 feet wide, and 10 feet deep (ODEQ 1975). Asbestos sludge generated during the repair of diaphragm chlorine cells was drained directly into these ponds. These ponds adjacent to the Diamond Cell Room were periodically cleaned out and the asbestos sludge buried in a series of trenches on Lot 1 (ERM 2005). In 1991, these two asbestos ponds were excavated to approximately 10 feet below the current site grade to remove asbestos sludge and overcut soils. The excavations were backfilled with imported clean fill (Chemwaste 1992).

In the mid 1970s, a third asbestos pond (referred to as the Former River Bank Asbestos Pond) was constructed near the river bank on Lot 2 (Figure 2-2), adjacent to the River Bank Brine Residue Pond. For a short period prior to their closure, water and asbestos from the two Diamond Cell Room Asbestos Ponds were periodically pumped to the third asbestos pond. The base of the Former River Bank Asbestos and Former Brine Residue Ponds was approximately 1 to 2 feet below the current site grade. These ponds were originally bermed, creating structures between 3 and 7 feet deep.

Between 1991 and 1992, the Former River Bank Brine Residue Pond and the Former River Bank Asbestos Pond were decommissioned in accordance with an ODEQ–approved work plan and under agency oversight. All visible asbestos material was excavated, followed by the overcut of at least an additional 0.5 feet of soil from the sidewalls and bottom of the pits. The excavated asbestos-containing material and overcut soil were disposed of off site (Chemwaste 1992). Two shallow pits remained that were approximately 1 to 2 feet deep. These pits were subsequently filled with crushed concrete during plant demolition in 2004.

3.0 FIELD PROCEDURES

Sampling was conducted in accordance with the Work Plan and Work Plan Addendum. This section describes the sampling strategy and methods, including sample collection, sample processing, and laboratory analytical methods.

3.1 SOIL SAMPLING STRATEGY

Soil samples were collected from eight boreholes (B-122 through B-129) on 21 January 2010. Soil samples were collected in accordance with the Work Plan and Work Plan Addendum. Borehole locations are identified in Figure 3-1. The historical chlorine cell room is now identified as the maintenance shop. The soil samples were collected from the following locations and depths, as summarized in the sample matrix (Table 3-1):

- Old Chlorine Cell Room and associated cell repair room (B-122, B-123, and B-124): samples collected continuously in 2-foot intervals from 0 to 10 feet below ground surface (bgs).
- Former River Bank Brine Residue Pond (B-125): samples collected from the base of the pond and from 5 feet below the base of the pond.
- Former River Bank Asbestos Pond (B-126): samples collected from the base of the pond and from 5 feet below the base of the pond.
- Former Diamond Cell Room Asbestos Ponds (B-127 and B-128): samples collected from the base of each pond and from 5 feet below the base of each pond.
- Former Diamond Cell repair room (B-129): samples collected continuously in 2 foot intervals from 0 to 10 feet bgs.

Samples collected from the 0 to 2 foot interval in boring locations B-122, B-123, B-124, and B-129 and from all depths in B-125 through B-128 were submitted for initial analysis, as per Table 3-1. The additional samples from B-122, B-123, B-124, and B-129 were held by the laboratory, pending receipt of the initial analysis data. Samples collected in B-122, B-123, and B-124 from the 4 to 6, and 8 to 10 foot intervals were later analyzed for CDD/CDF as agreed with ODEQ.

3.2 *SUBSURFACE CLEARANCE*

All eight locations were checked for subsurface utilities prior to beginning drilling activities. An underground service alert ticket was placed 2 working days prior to the start of field activities. A site walk was conducted with a knowledgeable facility manager and location of all subsurface utilities was confirmed using a private utility locator.

3.3 *SOIL SAMPLING PROCEDURE*

Soil borings were completed by Cascade Drilling, Inc. of Portland, Oregon using a track-mounted direct-push drilling rig. Soil was collected continuously in acetate liners for lithologic logging and laboratory sample collection. Drill rods were decontaminated between locations by a high-pressure water wash.

Soil borings were advanced at eight locations (B-122 through B-129). Additional sample volume was needed for analysis of samples collected at locations B-124 and B-125. Additional borings were advanced a distance less than 1 foot from the original boring for each of these locations. Follow-up borings were advanced at B-125, B-126, B-127, B-128, and B-129 on 16 March 2010, to allow ERM and ODEQ representatives to collect split soil samples. Each follow-up boring was advanced within 2 feet of the original boring location.

3.4 *SOIL SAMPLE COLLECTION AND PROCESSING*

Soil samples were collected from varying depths, as described in Table 3-1, following the sampling scheme provided in the Work Plan and Work Plan Addendum. Each soil sample consisted of a 2-foot depth interval. The soil from each sample interval was placed into clean, laboratory-provided glass jars. Soil samples were packed on ice and transported under chain-of-custody procedure to TestAmerica Laboratories in University Park, Illinois; West Sacramento, California; and Beaverton, Oregon for analysis, as described in Section 3.5.

Multiple cores were collected and composited, where necessary, to provide sufficient soil sample volume. Composited cores are identified in Table 3-1. Composited samples were collected by transferring soil from the designated sample interval from each duplicate core and placing it in a decontaminated, stainless steel bowl. The soil was mixed thoroughly

using a decontaminated, stainless steel mixing spoon and then transferred to clean, laboratory-provided sampling jars.

Field quality assurance samples included field duplicates, project-specific matrix spike/matrix spike duplicates, and rinsate blanks (Table 3-1). The rinsate blank was collected using distilled water rinsed over decontaminated drill rods, compositing equipment, and acetate liners.

3.5 LABORATORY ANALYSES

Soil samples were collected from each location for the following analytes in accordance with the Work Plan:

- pH by United States Environmental Protection Agency (USEPA) Method 150.1;
- Arsenic by USEPA Method 6010B;
- PCN and OCS by USEPA Method 8270 SIM;
- CDD/CDF by USEPA Method 8290B; and
- Organochlorine pesticides by USEPA Method 8081A (locations B-125 and B-126 only) (Table 3-1).

Samples for organochlorine pesticides, pH, and arsenic were analyzed by TestAmerica in Beaverton, Oregon; samples for PCN and OCS were analyzed by TestAmerica in Chicago, Illinois; and samples for CDD/CDF were analyzed by TestAmerica in West Sacramento, California.

4.0 RESULTS

The following sections describe the results of the Data Gaps investigation.

4.1 SOIL CORES AND SAMPLE DEPTH SELECTION

Soils were logged following methods described in the Work Plan. Borehole logs are provided in Appendix A. Sample depths were selected at boreholes B-125 through B-128 based on site identification of the base of each pond, as described in Section 3.1. The following characteristics were used to identify the base of the pond at each location:

- At B-125, the sandy base of the pond was noted at 3 feet bgs. Material above the sand consisted of fill material (asphalt, brick, and concrete) overlying a compacted silt layer. Therefore, a sample was collected from 3 to 5 feet bgs to represent the bottom of the pond and a second sample was collected from 8 to 10 feet bgs to represent 5-feet below the pond base.
- At B-126, the base of the pond was also encountered at 3 feet bgs. The base of the pond consisted of silty sand. Fill material shallower than 3 feet consisted of sand with river rock, brick, and concrete. A sample was collected from 3 to 5 feet bgs to represent the bottom of the pond and a second sample was collected from 8 to 10 feet bgs to represent 5-feet below the pond base.
- At B-127, gravel fill material, including brick and concrete fragments, were noted from 0 to 5.5 feet bgs. Fine sand and silt fill were noted from 5.5 to 10 feet bgs. A piece of plastic liner was located at approximately 10 feet bgs. The location, shape, and orientation of the plastic fragment indicated that it was a piece of a plastic liner at the base of the pond and that a circular fragment was cored by the drill sample rod. Therefore, a 2-foot sample was collected from just below the plastic liner fragment (10 to 12 feet bgs). A second sample was collected from 15 to 17 feet bgs to represent 5-feet below the pond base.
- At B-128, concrete fragments were noted from 0 to 6.5 feet bgs. A well-graded gravel fill was recorded to 10 feet bgs. At 10 feet bgs, the cuttings abruptly changed to silt. A sample was collected from 10 to 12 feet bgs to represent the bottom of the pond and a second sample was collected from 15 to 17 feet bgs to represent 5-feet below the pond base.

4.2 *ANALYTICAL RESULTS*

The following section presents a description of the analytical results of the Data Gaps Investigation. The analytical results are summarized in Tables 4-1 through 4-4. For the purposes of reporting and data analysis, analytical results from the field sample and duplicate sample were averaged. This is consistent with previous investigations at the site and data handling guidelines for Portland Harbor investigations conducted by the Lower Willamette Group. The analytical data package is presented in Appendix B. A Level III data validation of the analytical results was performed by Environmental Standards, Inc. of Valley Forge, Pennsylvania. The data validation report is presented in Appendix C (electronic only).

4.2.1 *pH*

The pH results are presented in Table 4-1. The soil pH ranged between 8.42 and 11.7, with the shallowest samples revealing the highest pH results. These pH levels are consistent with historical detections in soil and groundwater across the site (ERM 2005).

4.2.2 *Arsenic*

The results of the arsenic analysis are presented in Table 4-1. Arsenic concentrations in the 12 soil samples ranged between 1.59 and 20.8 milligrams per kilogram (mg/kg). These results are consistent with historical detections of arsenic (ERM 2005). Only four samples had arsenic concentrations greater than the ODEQ-published naturally occurring background concentration for arsenic in Oregon soils of 7 mg/kg (ODEQ 2007). Naturally occurring arsenic concentrations in the Pacific Northwest often exceed 7 mg/kg. The concentrations detected during this investigation do not indicate a source of arsenic is present at the Arkema site. Based on historical and current soil sample data, no further assessment of arsenic in soil is warranted.

4.2.3 *Polychlorinated Naphthalenes and Octachlorostyrene*

The results of the PCN and OCS analysis are presented in Table 4-2. No PCNs or OCS were detected in any of the samples. As PCNs and OCS are emerging contaminants, there are no USEPA Regional Screening Levels (RSLs), Portland Harbor Joint Source Control Strategy Screening Level Values, or ODEQ Risk-Based Decision Making criteria for PCNs or OCS.

Based on the lack of detections and credible basis for occurrence at the site, no further assessment of PCNs or OCS is warranted.

4.2.4 *Pesticides*

The results of pesticide analysis are presented in Table 4-3. Four samples from two boring locations were analyzed. These borings were located in the Former River Bank Brine Residue Pond area (B-125) and the Former River Bank Asbestos Pond area (B-126). The purpose of pesticide analysis was to address a data gap according to ODEQ. The Former River Bank Brine Residue Pond and Former River Bank Asbestos Pond were hypothesized by ODEQ as potential sources of the pesticide 4,4'-DDT, and the breakdown products 4,4'-DDD, and 4,4'-DDE (collectively referred to as DDX) from purported historical unreported disposal of DDT manufacturing wastes in these areas. Arkema has no such knowledge or record of DDX disposal in these areas.

Samples were collected in each boring from the base, and at approximately 5 feet below the base of the ponds. DDX was detected in all the soil samples. The concentrations of DDX ranged between 0.0271 and 5.458 milligrams per kilogram (mg/kg). This range of concentrations is consistent with detections in historical surface soils samples from Lots 1 and 2, riverbank soils, and Willamette River sediments adjacent to Lots 1 and 2 (ERM 2005 and ERM 2008).

Theoretically, a decrease in DDX concentration should be observed with depth at each boring and would be anticipated if the ponds were, as ODEQ hypothesized, a source of DDX. The concentration of DDX did not appear to consistently correlate with depth from the base of the pond. The upper approximately 20 feet of soil in these areas is dredge spoils from the Willamette River. The magnitude and variability of concentrations of DDX in these samples are consistent with results from other areas of the site containing Willamette River dredge spoils (ERM 2005).

Based on the soil sample results, LSS concludes that the Former River Bank Brine Residue Pond and the Former River Bank Asbestos Pond are not sources of DDX at the site. Concentrations of DDX observed at the Former River Bank Brine Residue Pond and the Former River Bank Asbestos Pond are indicative of the Willamette River dredge spoils that were placed there historically.

4.2.5 *Dioxins and Furans*

When used in an environmental context, the term "dioxins" refers to chlorinated dioxins (CDDs) and chlorinated furans (CDFs), of which there are 210 individual compounds, or congeners. Concentrations of dioxins are typically given as toxic equivalency quotients (TEQs), or equivalent amounts of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), the most toxic congener. Chromographic patterns associated with different congeners and their relative amounts, referred to as the "dioxin fingerprint," are reflective of the sources of the dioxins.

The 75 individual CDDs and 135 CDFs form a set of CDD and CDF congeners. When CDDs and CDFs are subdivided by the degree of chlorination, the term homolog is used, e.g., the TCDD homolog, in which there are 14 different CDD congeners each containing four chlorine atoms. CDDs and CDFs of a given homolog with different chlorine substitution positions are isomers. Individual CDDs and CDFs are referred to as congeners.

The CDD/CDF congener and homolog concentrations, total CDD and CDF concentrations, and calculated TCDD TEQ results are presented in Table 4-4. The calculated TEQ and dioxin-to-furan mass ratios are summarized on Figure 4-1. Several data observations are provided below:

- The TCDD TEQ results ranged between 0.21 and 1864 picograms per gram (pg/g). For comparison, the USEPA Region IX Industrial Soil RSL for TCDD TEQ is 18 pg/g.
- The highest TEQ results were associated with the shallow soil samples B-122, B-123, and B-124 that were collected near the Old Chlorine Cell Room (graphite anodes). These samples ranged between 0.48 and 1,864 pg/g TCDD TEQ and were dominated by CDFs. Deeper samples in this location were of lower concentrations and dominated by CDDs.
- The TEQ results from the Former Brine Residue Pond and Former River Bank Asbestos Pond ranged between 3.46 and 106 pg/g TCDD TEQ. These samples were dominated by CDFs.
- The TEQ results from the new Diamond Cell repair room and adjacent asbestos ponds were significantly lower and ranged between 0.29 and 13.2 pg/g TCDD TEQ. These samples were generally dominated by CDDs.

Further discussion of the congener profiles and update of the CDD/CDF CSM is provided in Section 5.0 below.

5.0 UPDATE OF CONCEPTUAL SITE MODEL AND RECOMMENDATIONS

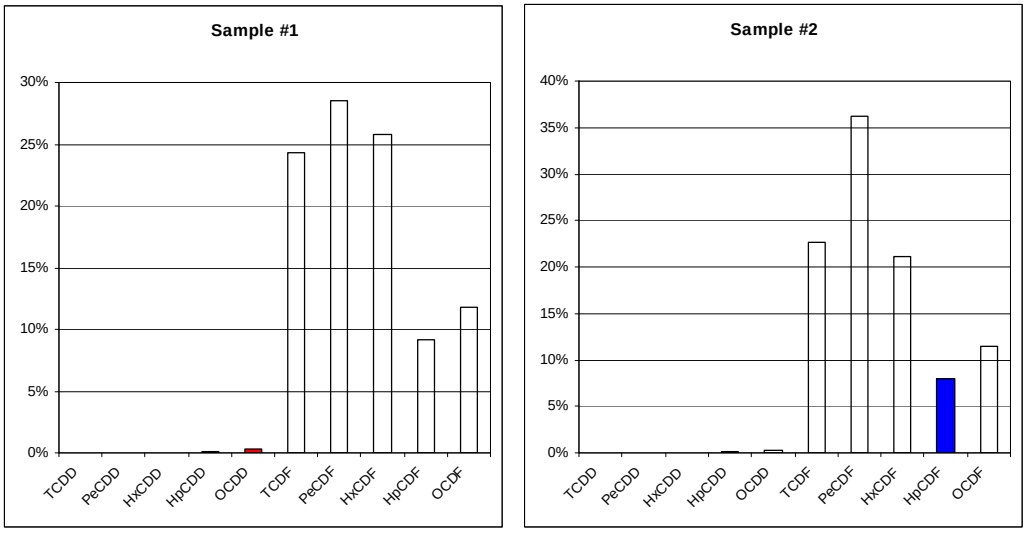
5.1 DIOXINS/FURANS

The CSM for CDD/CDF at the site was presented in the Work Plan, and further clarified and supported in the responses to ODEQ/USEPA comments on the Work Plan, dated 10 August 2009. The following section provides a brief summary of the CSM and a discussion of the data gaps investigation results in the context of the CSM for CDD/CDF.

5.1.1 Summary of Dioxin/Furan Conceptual Site Model

The CSM identified sludge produced historically on the graphite chlor-alkali cell anodes at the site as a possible source of CDFs. Historical management of these sludges may have resulted in concentrations of CDFs, in site soil and groundwater. The homolog profiles of groundwater and sediment samples collected at the site prior to the Data Gaps Investigation are primarily CDF-dominated. This profile is consistent with the "chlor-alkali" fingerprint identified in scientific literature (Figure 5-1; see responses to ODEQ/USEPA comments on the Work Plan for detailed literature review and references). As discussed in the responses to ODEQ/USEPA comments, the scientific literature refers to generic "graphite electrode" cell technology. There are numerous graphite electrode cell types (e.g., Gibbs, Mercury, Hooker-D, and Hodges cells) that use different materials within the cells. The specific materials used in the construction of the cells will influence the CDF congener profile.

Figure 5-1 Examples of Chlor-alkali CDF/CDD Homolog Patterns in Two Samples of Graphite Electrode Sludge from Chlorine Production



Source: An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the United States for the Years 1987, 1995, and 2000 (USEPA 2006).

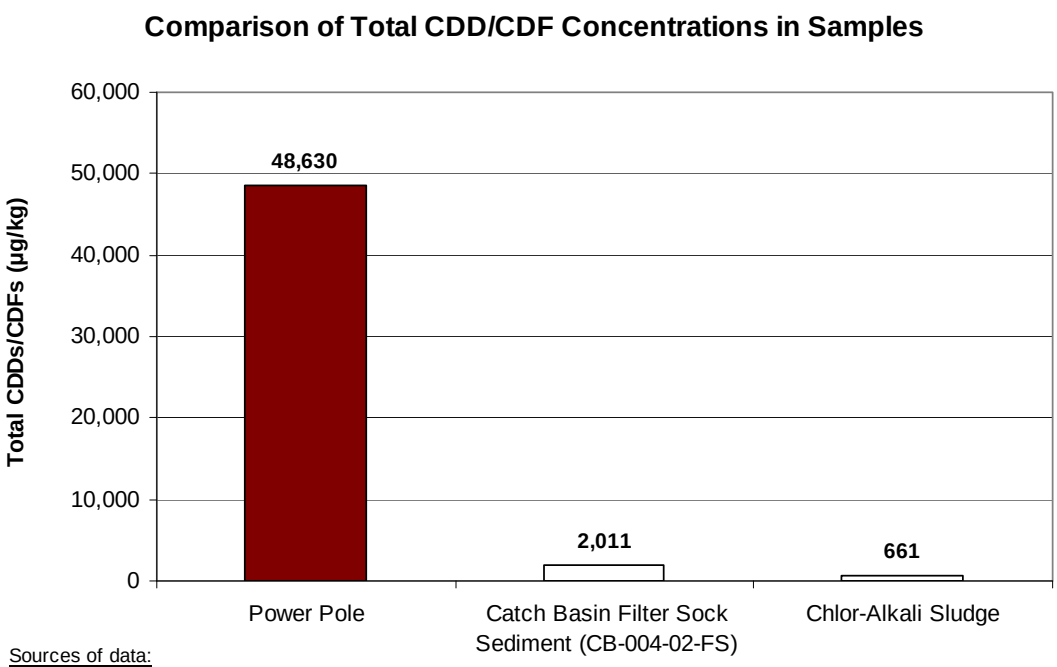
Other CDD/CDF homologs (i.e., CDDs) have been identified in various media at the site, including storm water catch basin sediment and filter socks. Congener profiles of storm water catch basin sediment and filter sock samples were dominated by octachlorodibenzo-p-dioxin (OCDD).

The highest level of total CDDs/CDFs reported in the literature for pure graphite electrode sludge[1] were only 33 percent of the concentration detected in the catch basin with the highest concentration of CDDs/CDFs (that is, the concentrations of CDDs/CDFs detected in the catch basin were 3 times higher than pure graphite electrode sludge). The power pole represented a CDD/CDF source that was nearly 75 times stronger than pure graphite electrode sludge. A comparison of the total CDD/CDF concentrations for the power pole, catch basin filter sock, and chlor-alkali sludge samples is provided in Figure 5-2.

[1] *An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the United States for the Years 1987, 1995, and 2000* (EPA 2006).

Based on several lines of evidence, including congener profiles and concentrations, it is believed that the source of CDD/CDF in these storm water catch basin sediment and filter sock samples were the recently cut and sectioned power poles that had been impregnated with pentachlorophenol (PCP).This clearly indicates that wood chips and sawdust from the recently cut power poles immediately adjacent to the catch basins are the source of CDDs/CDFs in the catch basins.

Figure 5-2 ***Comparison of the Total CDD/CDF Concentrations for the Power Pole, Catch Basin Filter Sock, and Chlor-alkali Sludge Samples***



Sources of data:
Pow er Pole Sample - *Memorandum: Stormwater IRM Field Sampling and Data Report, Revised Table 8 Former Arkema Portland Facility*, Integral Consulting, 26 March 2009.
Catch Basin Sample - *Stormwater Interim Remedial Measures Field Sampling and Data Report*, Integral Consulting, 2 November 2007.
Chlor-alkali Sludge Sample - *An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the United States for the Years 1987, 1995, and 2000*, EPA, 2006.

CDD-dominated congener profiles were also observed in previous samples from riverbank soil, shallow soil on Lots 1 and 2, and groundwater outside historical operational areas of the site (i.e., Lots 1 and 2 and upgradient). Most of these CDD-dominated samples share a similar CDD congener profile characterized by relatively high concentrations of OCDD; lesser concentrations of heptachlorodibenzondioxin, hexachlorodibenzondioxin, and pentachlorodibenzodioxin; and near non-detect concentrations of TCDD.

This pattern is common in the environment and has been attributed to numerous point and non-point sources of dioxins (see responses to ODEQ/USEPA comments on the Work Plan for further discussion). Based on the location and congener profiles of these samples, CDD/CDF in these previous samples are believed to be the result of one or more of the numerous off-site sources of CDD/CDF in the vicinity of the site. Table 1-1 of the Work Plan provides a compilation of some of these possible vicinity point sources. Common non-point sources of CDDs/CDFs include:

- PCP (present in treated wood such as utility poles and railroad ties);
- Diesel truck exhaust;
- Automobiles burning unleaded gasoline; and
- Forest fires (USEPA 2006 [Figure 1-10 and Table 8-10]).

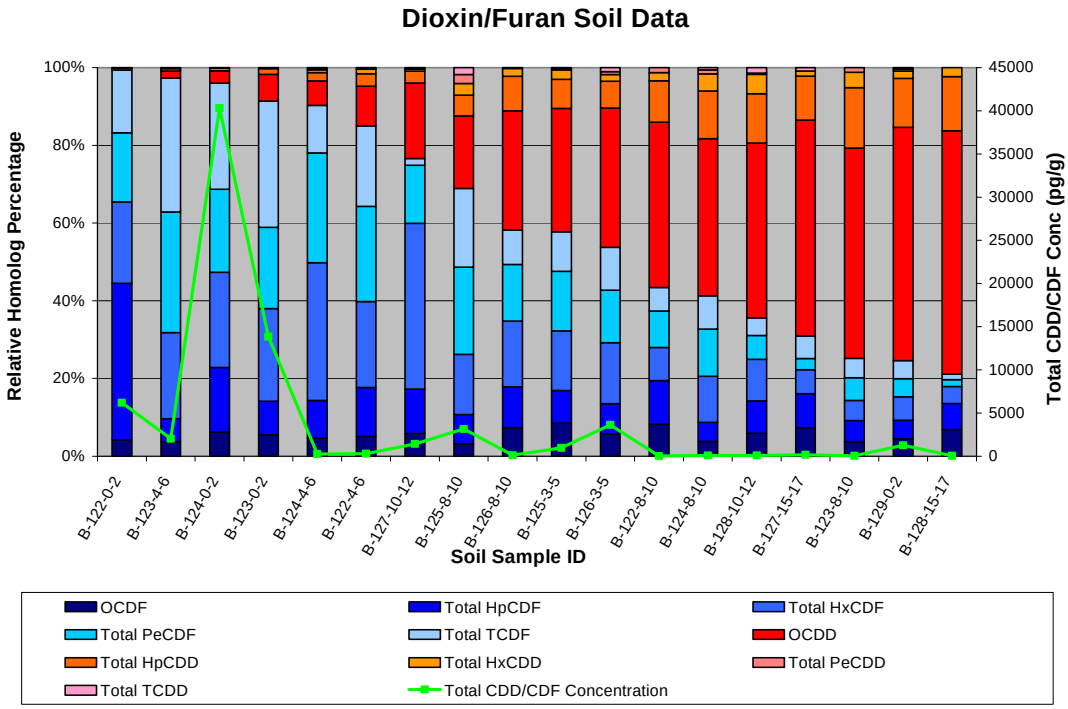
There have been numerous point sources of CDDs/CDFs identified within the vicinity of the Arkema site, such as the upgradient former Rhone-Poulenc facility and Schnitzer Investment-Doane Lake sites, and the McCormack and Baxter site across the river. A full listing of these sites is provided in table 5-1.

5.1.2 Discussion of Data Gaps Investigation Results

Figure 4-1 summarizes the CDD/CDF results of the Data Gaps Investigation, including TCDD TEQ concentration and relative percent CDF/CDD homologs. The results from the Data Gaps Investigation appear to confirm the existing Arkema CDD/CDF CSM. Soil samples were collected from suspected historical source areas (areas of chlorine manufacturing, sludge handling, and sludge storage). Overall, the samples revealed a predominance of CDFs. Approximately 90 percent of the total CDDs/CDFs detected in the Data Gaps Investigation samples were CDFs. The seven samples with the highest total CDD/CDF concentrations contained over 50 percent CDFs, with the majority (five) of these samples containing greater than 80 percent CDFs.

Figure 5-3 below presents the relative homolog concentrations and total CDD/CDF concentrations for each of the Data Gaps Investigation samples. The general relationship between total concentration and relative percent CDF can be observed in this figure.

Figure 5-3 Relative Homolog Percentages and Total CDD/CDF Concentrations for Data Gaps Investigation Samples



Samples from the former Old Chlorine Cell Room (Diaphram Cells/graphite anodes) area revealed the highest concentrations of CDD/CDFs. The shallow soil samples (0′-2′ and 4′-6′ intervals) from the three borings performed in the Old Chlorine Cell Room area all presented similar CDF-dominated profiles generally consistent with the literature cited "chlor-alkali" fingerprint described above (Figure 5-4 below). Observed CDD levels in these CDF dominated fingerprints are consistent with background deposition and/or other sources contributing to the site. The deep sample intervals from each of these borings (8′-10′) contained much lower concentrations and revealed CDD-dominated congener profiles (Figure 5-5). As site-related impacts in general would be expected to be observed in shallower soils (per the CSM), these data provide further indication that the only potential site-related sources observed in the data generated a CDF-dominated congener profile.

Figure 5-4 Congener Profiles for Shallow Soil Samples (0′-2′ and 3′-4′) from the Old Chlorine Cell Room Area

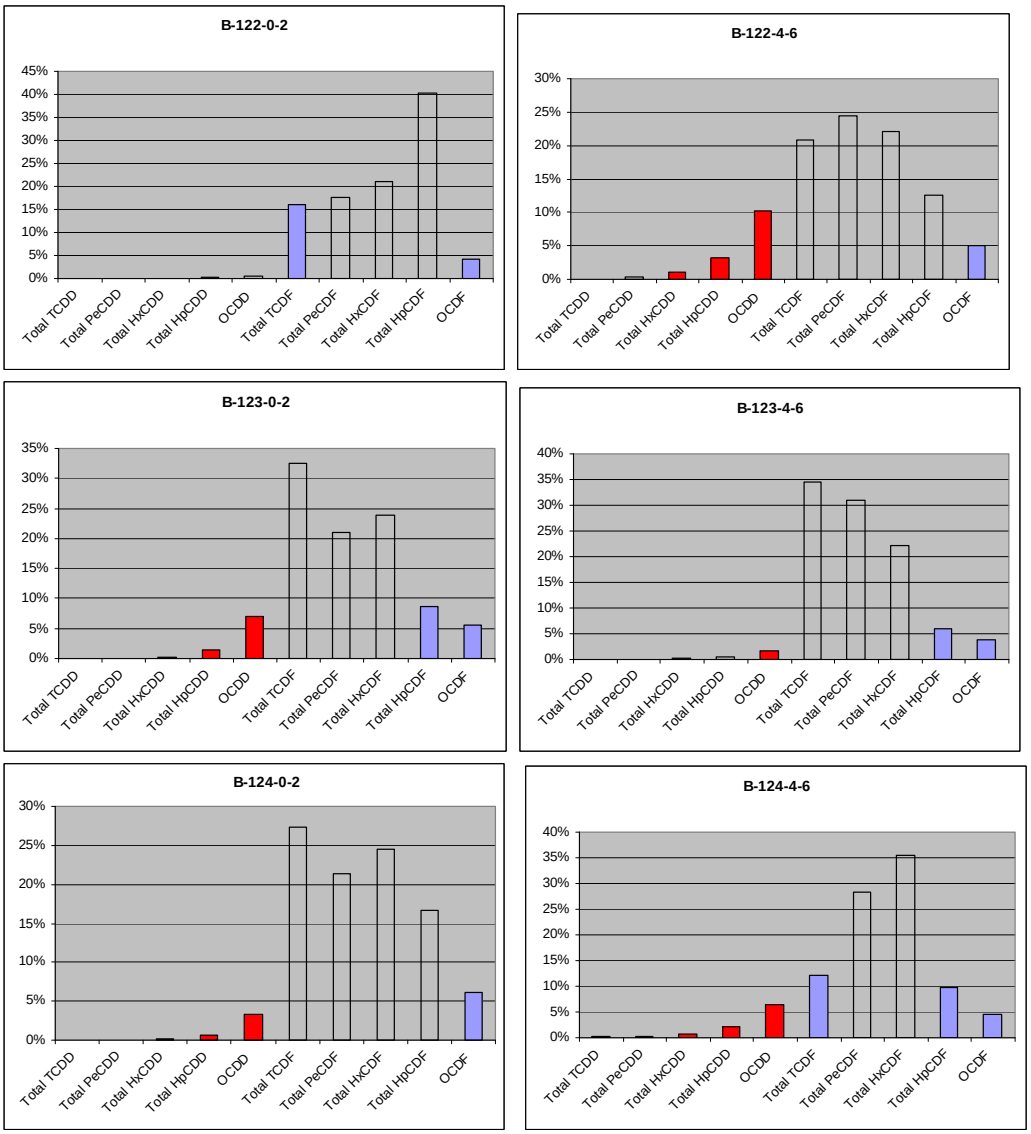
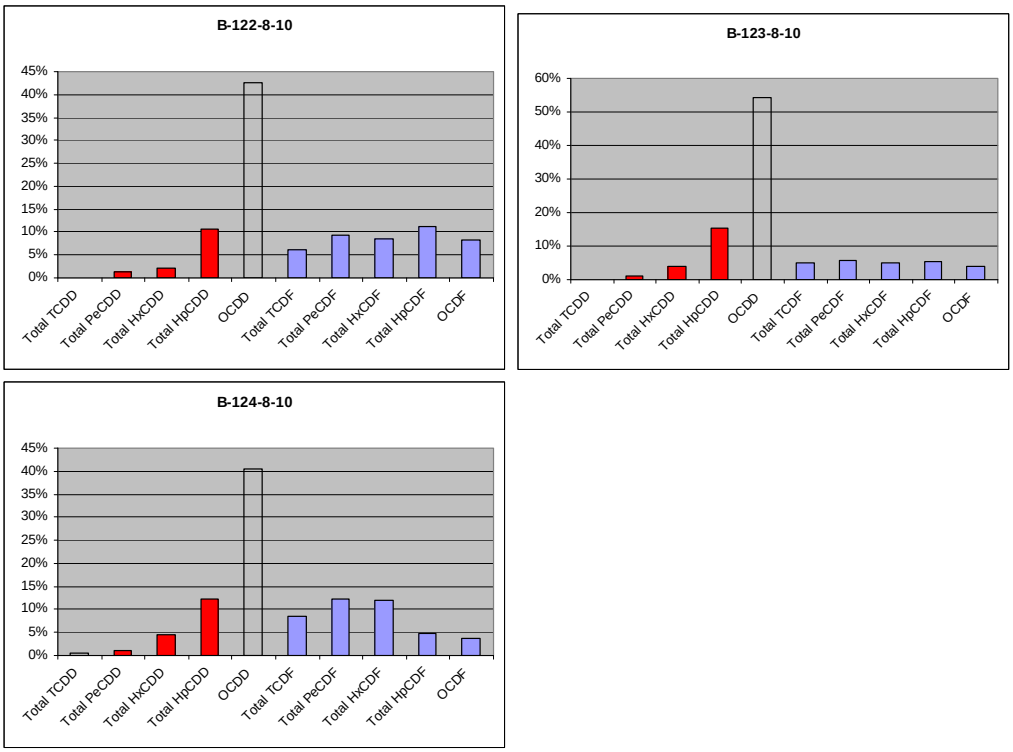
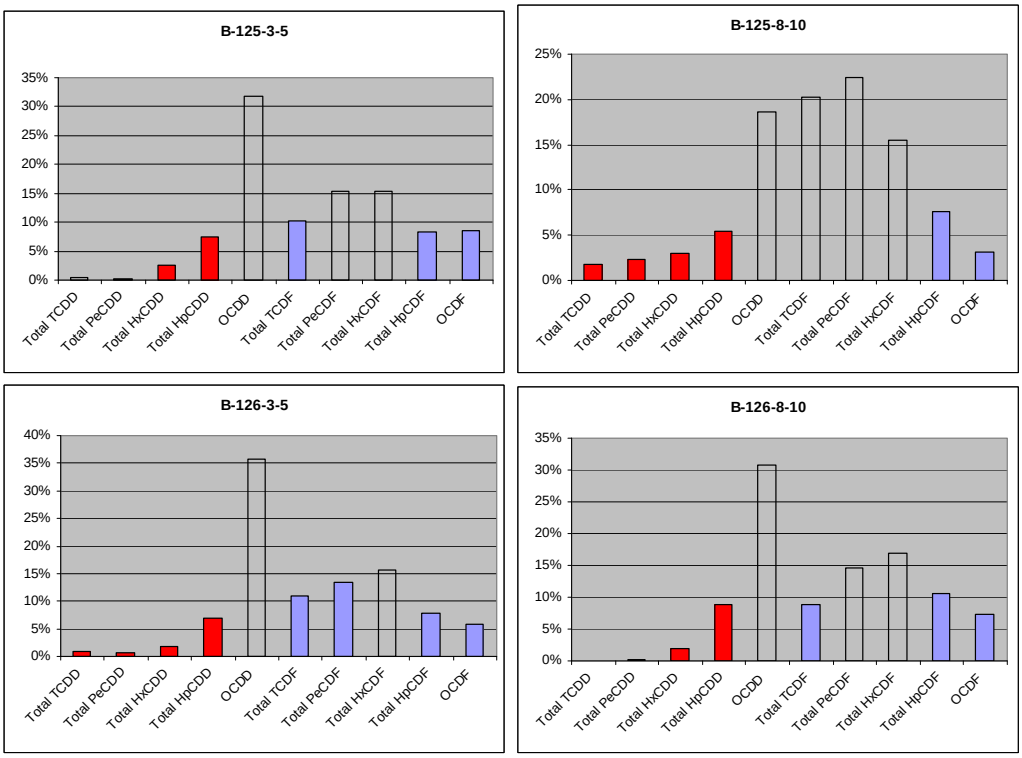


Figure 5-5 Congener Profiles for Deep Soil Samples (8′-10′) from the Old Chlorine Cell Room Area



Samples collected from the Former River Bank Brine Residue Pond and Former River Bank Asbestos Pond (borings B-125 and B-126) revealed lower concentrations of total CDDs/CDFs than those from the Old Chlorine Cell Room area. The congener profiles for these samples were relatively similar to each other and appear to represent a possible overlap of the "chlor-alkali" fingerprint (indicated by a significant CDF component to the sample), and a more common CDD-dominated profile (indicated by a peak in OCDD, and decreasing relative percentages moving towards TCDD) (Figure 5-6). As these samples were collected from an area of the site where historical dredge filling has occurred, one plausible explanation for these observed patterns is that CDFs from chlorine sludge have mixed with or are overlain with CDDs/CDFs associated with the dredge fill (contributing primarily CDDs). In support of this, levels observed in the Former River Bank Brine Residue Pond and Former River Bank Asbestos Pond area are similar to and consistent with levels observed in the Riverbank soil and sediments in the Lot 1 and 2 area. It should also be noted that these samples revealed much lower concentrations of total CDDs/CDFs (consistent with nearby Riverbank soil and Willamette River sediments) than were observed in the shallow soil samples in the Old Chlorine Cell Room.

Figure 5-6 ***Congener Profiles for Soil Samples from the Former River Bank Brine Residue Pond (B-125 samples) and Former River Bank Asbestos Pond (B-126 samples)***



Samples collected from the former Cell Repair Room and the Former Cell Repair Room Asbestos Ponds revealed relatively low concentrations of CDDs/CDFs. The profiles from these samples were almost all CDD-dominated and likely indicative of dredge fill or other off-site sources. The duplicate sample from B-127-10-12 (10′-12′ interval) was the sole exception. This sample revealed a higher concentration than the other samples in the vicinity and a CDF-dominated congener profile. The variation in the field sample and duplicate sample is attributed to the heterogeneity of the soil samples.

5.1.3 Other Constituents of Interest

Various communications from ODEQ, USEPA, and the city of Portland have suggested that the site is a possible source of OCS and PCNs. As indicated in the responses to ODEQ/USEPA comments on the Work Plan, LSS does not believe that historical site processes are a source of either OCS or PCNs. The results from the Data Gaps Investigation support LSS's position. Neither OCS, nor PCNs, were detected in any sample above the

laboratory detection limits. Based on these results, no further assessment of OCS or PCNs is warranted.

5.1.4 *Conclusions*

Based on the results of the data gaps investigation, LSS concludes that additional assessment of arsenic, OCS and PCN is not required.

The results of the Data Gaps Investigation support the updated CDD/CDF CSM presented in the Work Plan. Sufficient data has been collected to identify the CDF source areas (i.e. Old Chlorine Cell Room) at the site. Based on the Data Gaps Investigation results, the vertical extent of CDF impacts appears limited to shallow soils, from 0 to 2 feet bgs. This is consistent with the release of CDFs in wastes generated during historical graphite anode cell maintenance activities and impacts are localized and associated with the Old Chlorine Cell Room area.

The currently available CDD/CDF data can be used to perform the hot spot evaluation and prepare the FS to select a site-wide remedial action, as required under the Agreed Order.

In order to expedite preparation of the hot spot evaluation and FS, no further site characterization activities are proposed prior to the preparation of the FS. Depending on the final site cleanup levels (yet to be determined) and specific remedial alternative(s) selected in the FS, additional delineation of impacts may be required as part of a pre-design investigation. This approach is consistent with other COPCs and impacted areas at the site.

6.0 REFERENCES

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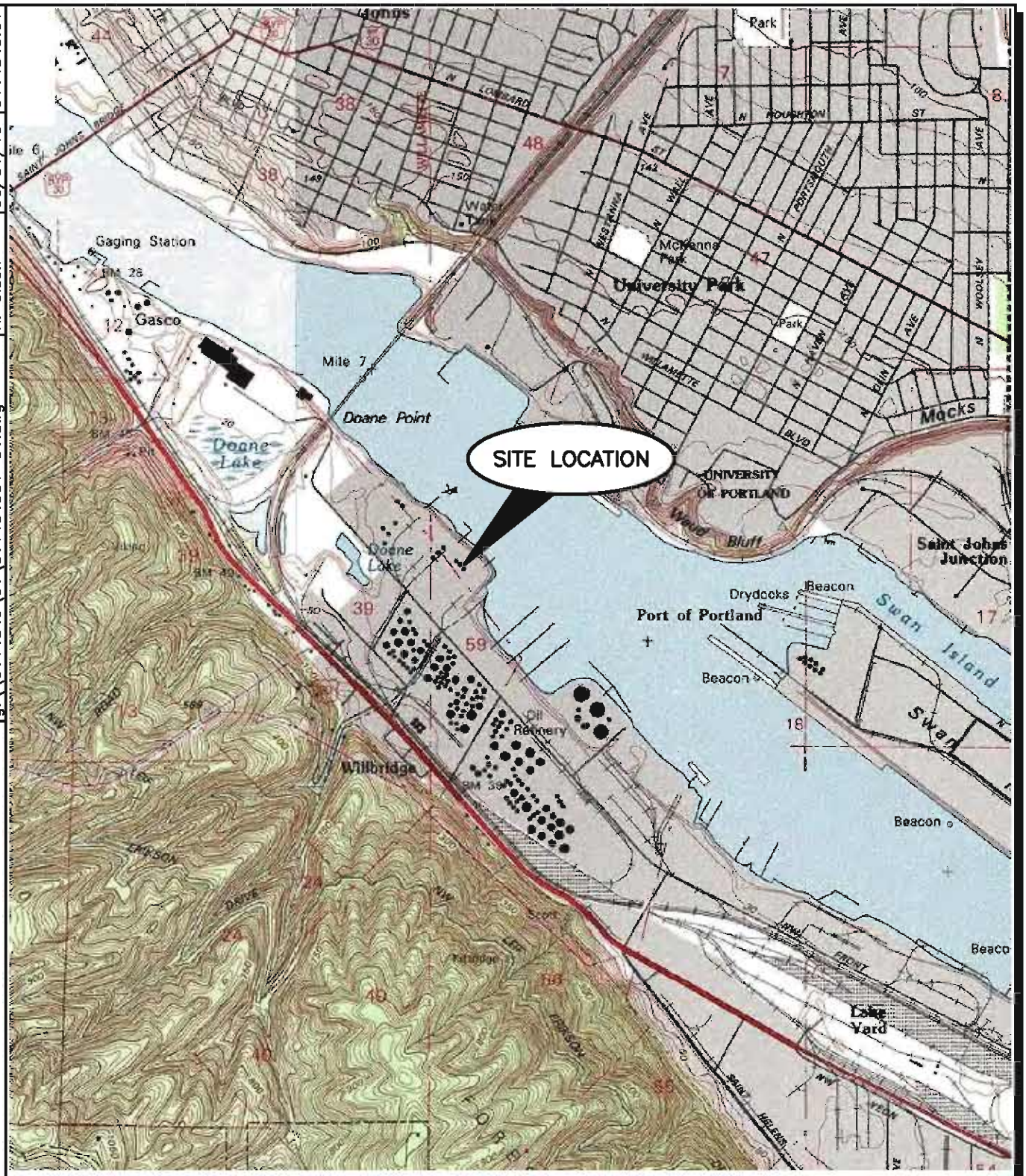
Figures

Project No. 0114849.01

Date: 06/01/10

Drawn By: R. Olson

CAD File: g:\\0114849\01\01148901-01.dwg



SCALE 1:24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

Figure 2-1
Site Location
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

ERM 06/10

References:
TOPO!® Software
U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,
Linnton, OR Version: 1990; Current: 1990
Portland, OR WA Version: 1990; Current: 1990

Project Number: 0111208.03

Date: 06/04/2010

Created By: mike.appel

File: F:\RM106\EERM West\Arkema\0111208 Data Gap Investigation\Fig2-2 Site Layout.mxd

Legend

- Lot Boundaries
- Site Boundary

200 100 0 200 Feet

Scale 1:2,400

N

Figure 2-2
Site Layout
Data Gaps Investigation Report
Arkema Inc. Facility
Portland, Oregon

Aerial Photography: City of Portland, June 2008

ERM 06/10

Legend

- Data Gap Investigation Boring Location
- Lot Boundaries
- Site Boundary

200 100 0 200 Feet

Scale 1:2,400

N

Aerial Photography: City of Portland, June 2008

FIGURE 3-1

Soil Boring Locations
Data Gaps Investigation Report
Arkema Inc. Facility
Portland, Oregon

ERM 06/10

Project Number: 0111208.03

Date: 06/04/2010

Created By: mike.appel

File: F:\RM106\EIERM West\Arkema\0111208 Data Gap Investigation\Fig3-1 Soil Boring Locs.mxd

Project Number: 0111208.03

Date: 06/04/2010

Created By: mike.appel

File: F:\RM106\E\ERM West\Arkema\0111208 Data Gap Investigation\Fig4-1 DFSoilResults.mxd

Legend

Dioxin-Furan TEQ Value (pg/g)

- < 18 (EPA Industrial Soil RSL)
- 18 - 100
- 100 - 1000
- > 1000

Dixion-Furan Mass Ratios

- % of Mass Composed of Furans
- % of Mass Composed of Dioxins
- Data Gap Investigation Boring Location

200 100 0 200 Feet

Scale 1:2,400

N

Aerial Photography: City of Portland, June 2008

FIGURE 4-1

Dioxin and Furan Analytical Results
Data Gaps Investigation Report
Arkema Inc. Facility
Portland, Oregon

ERM 06/10

Tables

Table 3-1
Soil Sample Collection Summary
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Area	Sample I.D.	Sample Depth (ft-bgs)	Sample Collection Date	Sample Collection Time	Sample Rationale	Organochlorine Pesticides	pH	Arsenic	Polychlorinated Naphthalenes	Octachloro-styrene	Dioxins and Furans	Comments
						8081A	150.1	6010B	8270B SIM	8270B SIM	8290B	
Old Chlorine Cell Room	B-122-0-2	0-2	1-21-2010	0945	Shallow Zone		X	X	X	X	X	
	B-122-2-4	2-4	1-21-2010	0945	Vertical Delineation		O	O	O	O	O	
	B-122-4-6	4-6	1-21-2010	0945	Vertical Delineation		O	O	O	O	X	
	B-122-6-8	6-8	1-21-2010	0945	Vertical Delineation		O	O	O	O	O	
	B-122-8-10	8-10	1-21-2010	0945	Vertical Delineation		O	O	O	O	X	
	B-123-0-2	0-2	1-21-2010	0953	Shallow Zone		X	X	X	X	X	
	B-123-2-4	2-4	1-21-2010	0953	Vertical Delineation		O	O	O	O	O	
	B-123-4-6	4-6	1-21-2010	0953	Vertical Delineation		O	O	O	O	X	
	B-123-6-8	6-8	1-21-2010	0953	Vertical Delineation		O	O	O	O	O	
	B-123-8-10	8-10	1-21-2010	0953	Vertical Delineation		O	O	O	O	X	
	B-124-0-2	0-2	1-21-2010	1120	Shallow Zone		X[1]	X[1]	X[1]	X[1]	X[1]	Low recovery from 0 to 5 ft-bgs. Composited two cores.
	B-124-2-4	2-4	1-21-2010	1120	Vertical Delineation		O[1]	O[1]	O[1]	O[1]	O[1]	Low recovery from 0 to 5 ft-bgs. Composited two cores.
	B-124-4-6	4-6	1-21-2010	1120	Vertical Delineation		O[1]	O[1]	O[1]	O[1]	X[1]	Low recovery from 0 to 5 ft-bgs. Composited two cores.
	B-124-6-8	6-8	1-21-2010	1120	Vertical Delineation		O	O	O	O	O	
	B-124-8-10	8-10	1-21-2010	1120	Vertical Delineation		O	O	O	O	X	
Former River Bank Brine Residue Pond	B-125-3-5	3-5	1-21-2010	1630	Base of pond	X[1]	X[1]	X[1]	X[1]	X[1]	X[1]	Low recovery from 0 to 5 ft-bgs. Composited two cores.
	B-125-8-10	8-10	1-21-2010	1630	5-ft below base of pond	X[1]	X[1]	X[1]	X[1]	X[1]	X[1]	Low recovery from 5 to 10 ft-bgs. Composited two cores. MS/MSD collected
Former River Bank Asbestos Pond	B-126-3-5	3-5	1-21-2010	1600	Base of pond	X	X	X	X	X	X	Low recovery from 0 to 5 ft-bgs.
	B-126-8-10	8-10	1-21-2010	1600	5-ft below base of pond	X	X	X	X	X	X	
Former Diamond Cell Room Asbestos Ponds	B-127-10-12	10-12	1-21-2010	1530	Base of pond		X	X	X	X	X	
	B-127-10-12-D	10-12	1-21-2010	1530	Field Duplicate		X	X	X	X	X	Duplicate sample.
	B-127-15-17	15-17	1-21-2010	1530	5-ft below base of pond		X	X	X	X	X	
	B-128-10-12	10-12	1-21-2010	1410	Base of pond		X	X	X	X	X	
	B-128-15-17	15-17	1-21-2010	1410	5-ft below base of pond		X	X	X	X	X	Core damaged during liner removal, sample depth interval approximate.
Diamond Cell Room	B-129-0-2	0-2	1-21-2010	1310	Shallow Zone		X	X	X	X	X	
	B-129-2-4	2-4	1-21-2010	1310	Vertical Delineation		O	O	O	O	O	
	B-129-2-4-D	2-4	1-21-2010	1310	Field Duplicate		O	O	O	O	O	Duplicate sample.
	B-129-4-6	4-6	1-21-2010	1310	Vertical Delineation		O	O	O	O	O	
	B-129-6-8	6-8	1-21-2010	1310	Vertical Delineation		O	O	O	O	O	MS/MSD collected
	B-129-8-10	8-10	1-21-2010	1310	Vertical Delineation		O	O	O	O	O	
	Rinsate	NA	1-21-2010	1650	Drill rods + composite equipment	X	X	X	X	X	X	

Notes and Key:
When sample recovery less than 4 feet in a 5-foot section of core, and core suggested that low recovery was due to packing, the porportional depth was used for sampling.
1 = Sample collected by compositing the same depth from two cores collected located less than 1 foot from each other.
ft-bgs = Feet below ground surface
MS/MSD = Matrix Spike/Matrix Spike Duplicate collected from this sample interval for all analyses
X = Sample collected and analyzed
O = Sample collected but not analyzed, as described in text

Table 4-1
Inorganic Results
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Sample ID	Sample Date	Arsenic mg/kg		pH
B-122-0-2	1/21/2010	**2.42**	J	**11.1**
B-123-0-2	1/21/2010	**13.2**		**11.4**
B-124-0-2	1/21/2010	**4.7**	J	**11.7**
B-125-3-5	1/21/2010	**20.8**		**8.92**
B-125-8-10	1/21/2010	**4.8**	J	**9.78**
B-126-3-5	1/21/2010	**13.3**		**10.4**
B-126-8-10	1/21/2010	**2.21**	J	**9.54**
B-127-10-12	1/21/2010	**4.41**	J	**9.18**
B-127-15-17	1/21/2010	**3.27**	J	**10.8**
B-128-10-12	1/21/2010	**1.59**	J	**8.66**
B-128-15-17	1/21/2010	**3.05**	J	**8.42**
B-129-0-2	1/21/2010	**17.3**		**11.4**

Notes

mg/kg = milligrams per kilogram

JSCS = Portland Harbor Joint Source Control Strategy

SLV = Portland Harbor Joint Source Control Strategy Screening Level Value, Table 3-1, Revision 7/17/07

NA = Not Available

Data Qualifiers:

U = compound was not detected above the associated numerical value

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL).

< = Compound not detected above the method detection limit

Table 4-2

Octachlorostyrene and Polychlorinated Naphthalene Results
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Sample ID	Sample Date	Octachloro-styrene µg/kg		Dichloro-naphthalene µg/kg		Trichloro-naphthalene µg/kg		Tetrachloro-naphthalene µg/kg		Pentachloro-naphthalene µg/kg		Hexachloro-naphthalene µg/kg		Heptachloro-naphthalene µg/kg		Octachloro-naphthalene µg/kg	
B-122-0-2	1/21/2010	< 49	UJ	< 33	U	< 33	U	< 30	U	< 46	U	< 72	U	< 42	U	< 27	U
B-123-0-2	1/21/2010	< 45	U	< 30	U	< 31	U	< 27	U	< 42	U	< 66	U	< 38	U	< 25	U
B-124-0-2	1/21/2010	< 44	U	< 29	U	< 30	U	< 26	U	< 41	U	< 64	U	< 37	U	< 24	U
B-125-3-5	1/21/2010	< 45	UJ	< 30	U	< 31	U	< 27	U	< 42	U	< 66	U	< 38	U	< 25	U
B-125-8-10	1/21/2010	< 45	U	< 30	U	< 31	U	< 27	U	< 42	U	< 66	U	< 38	U	< 25	U
B-126-3-5	1/21/2010	< 42	U	< 29	U	< 29	U	< 26	U	< 40	U	< 63	U	< 36	U	< 23	U
B-126-8-10	1/21/2010	< 47	UJ	< 31	U	< 32	U	< 28	U	< 44	U	< 69	U	< 40	U	< 26	U
B-127-10-12	1/21/2010	< 48	U	< 33	U	< 33	U	< 29	U	< 45	U	< 71	U	< 41	U	< 27	U
B-127-10-12-D	1/21/2010	< 45	UJ	< 31	U	< 31	U	< 28	U	< 42	U	< 67	U	< 39	U	< 25	U
B-127-15-17	1/21/2010	< 53	UJ	< 36	U	< 37	U	< 32	U	< 50	U	< 79	U	< 45	U	< 29	U
B-128-10-12	1/21/2010	< 57	U	< 38	U	< 39	U	< 34	U	< 53	U	< 84	U	< 48	U	< 31	U
B-128-15-17	1/21/2010	< 50	UJ	< 34	UJ	< 34	UJ	< 30	UJ	< 46	UJ	< 73	UJ	< 42	UJ	< 27	UJ
B-129-0-2	1/21/2010	< 43	U	< 29	U	< 29	U	< 26	U	< 40	U	< 64	U	< 37	U	< 24	U

Notes

µg/kg = Micrograms per kilogram

< = Compound not detected above the method detection limit

Data Qualifiers:

U = compound was not detected above the associated numerical value

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL).

Table 4-3

Organochlorine Pesticide Results
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Sample ID	B-125-3-5		B-125-8-10		B-126-3-5		B-126-8-10	
Sample Date	1/21/2010		1/21/2010		1/21/2010		1/21/2010	
4,4'-DDT	**0.190**		**0.349**		**4**		**0.0215**	**J**
4,4'-DDD	**0.219**		**0.537**		**0.358**		**0.0006**	**J**
4,4'-DDE	**0.0928**		**0.232**		**1.1**		**0.0051**	**J**
DDX	**0.502**		**1.118**		**5.458**		**0.0271**	
Heptachlor epoxide	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Endosulfan sulfate	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
gamma-Chlordane	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Aldrin	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
alpha-BHC	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
beta-BHC	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
delta-BHC	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Endosulfan II	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
alpha-Chlordane	< 0.00398	U	< 0.00408	U	< 0.0195	U	< 0.000412	UJ
Endrin ketone	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Chlordane	< 0.0905	U	< 0.0928	U	< 0.218	U	< 0.00937	UJ
gamma-BHC (Lindane)	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Dieldrin	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Endrin	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Methoxychlor	< 0.00398	U	< 0.00408	U	< 0.0195	U	< 0.000412	UJ
Endrin aldehyde	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Heptachlor	< 0.00398	U	< 0.00408	U	< 0.00959	U	< 0.000412	UJ
Toxaphene	< 0.121	UJ	< 0.124	UJ	< 0.291	UJ	< 0.0125	UJ
Endosulfan I	< 0.00398	U	< 0.00408	U	< 0.0195	U	**0.00172**	J

Notes

mg/kg = milligrams per kilogram

< = Compound not detected above the method detection limit

DDX = Sum of DDT, DDD, and DDE isomers

Data Qualifiers:

U = compound was not detected above the associated numerical value

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL).

Table 4-4
Dioxin and Furan Results
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Sample ID	Sample Date	1,2,3,4,6,7,8-HpCDF pg/g	1,2,3,4,6,7,8-HpCDD pg/g	1,2,3,4,7,8,9-HpCDF pg/g	1,2,3,4,7,8-HxCDD pg/g	1,2,3,4,7,8-HxCDF pg/g	1,2,3,6,7,8-HxCDD pg/g	1,2,3,6,7,8-HxCDF pg/g	1,2,3,7,8,9-HxCDD pg/g	1,2,3,7,8,9-HxCDF pg/g	1,2,3,7,8-PeCDF pg/g	1,2,3,7,8-PeCDD pg/g	2,3,4,6,7,8-HxCDF pg/g	2,3,4,7,8-PeCDF pg/g	2,3,7,8-TCDF pg/g	2,3,7,8-TCDD pg/g
B-122-0-2	1/21/2010	240	4 J	760	< 0.23 U	750	< 0.17 U	220	0.2 J	16	500	< 0.15 U	32	190	410 J	< 0.11 U
B-122-4-6	1/21/2010	15 J	3.9 J	12 J	< 0.22 UJ	36 J	0.32 J	10 J	0.38 J	0.86 J	31 J	< 0.37 UJ	1.5 J	9.1 J	26 J	< 0.17 UJ
B-122-8-10	1/21/2010	1.3 J	1.5 J	1.3 J	< 0.21 UJ	1.5 J	< 0.2 UJ	0.51 U	< 0.16 UJ	< 0.13 UJ	1 J	< 0.23 UJ	< 0.14 UJ	0.55 J	0.99 J	< 0.089 UJ
B-123-0-2	1/21/2010	650	110	240	2.3 J	2200	4.1 J	540	2.4 J	23	1400	< 1.1 U	91	490	2400	< 0.99 U
B-123-4-6	1/21/2010	68 J	4.9 J	29 J	0.19 J	260 J	0.3 J	64 J	0.57 J	6.1 J	290 J	< 0.52 UJ	11 J	75 J	260 J	< 0.17 UJ
B-123-8-10	1/21/2010	1.1 J	3 J	0.35 J	< 0.26 UJ	1.1 J	< 0.23 UJ	0.5 J	0.21 J	< 0.14 UJ	1.2 J	< 0.34 UJ	< 0.15 UJ	0.4 J	0.94 J	< 0.19 UJ
B-124-0-2	1/21/2010	2300	140	1400	< 5.1 U	5900	5.3 J	1700	< 4 U	48 J	3800	< 3.2 U	250	1400	5000	< 2.8 U
B-124-4-6	1/21/2010	12 J	2.2 J	5.8 J	< 0.28 UJ	51 J	< 0.26 UJ	10 J	0.32 J	1.1 J	30 J	< 0.5 UJ	1.7 J	9.7 J	12 J	< 0.12 UJ
B-124-8-10	1/21/2010	1.9 J	4.2 J	1 J	< 0.18 UJ	5.2 J	0.27 J	1.4 J	0.5 J	< 0.17 UJ	3.7 J	< 0.33 UJ	< 0.18 UJ	1.6 J	2.8 J	< 0.21 UJ
B-125-3-5	1/21/2010	34	37	12	1.2 J	90	2.8 J	21	1.1 J	1.4 J	50	0.58 J	3.8 J	27	40	0.28 J
B-125-8-10	1/21/2010	120 J	84 J	14	5.6 J	80	9.1	51	5.5 J	2.3 J	60	8.4	44 J	73 J	42 J	3
B-126-3-5	1/21/2010	130	130	56	4 J	350	7.8	82	7.1	5.8	200	3.9 J	15	87	180	0.85 J
B-126-8-10	1/21/2010	5.8 J	4.8 J	1.6 J	< 0.21 U	12	0.33 J	3 J	0.23 J	0.17 J	7.3	< 0.18 U	0.58 J	3 J	5.7	< 0.12 U
B-127-10-12	1/21/2010	81.85 JT	20.3 JT	36.6 JT	0.3 JT	401.3 JT	1.05 JT	90.7 JT	0.695 JT	3.3 T	110.43 JT	0.23 JT	8.62 JT	37 JT	7.89 JT	0.27 JT
B-127-15-17	1/21/2010	5.7 J	7.6	1 J	< 0.27 U	4.2 J	0.24 J	1.3 J	< 0.21 U	< 0.17 U	2 J	< 0.16 U	0.16 J	0.39 J	2.7	0.5 J
B-128-10-12	1/21/2010	3.7 J	5.1 J	1.4 J	0.26 J	5.1 J	0.3 J	1.6 J	0.38 J	< 0.13 U	1.9 J	< 0.18 U	0.24 J	0.64 J	1 J	< 0.14 U
B-128-15-17	1/21/2010	1.2 J	2.7 J	0.26 J	< 0.25 U	1.1 J	< 0.19 U	0.29 J	< 0.2 U	< 0.1 U	0.39 J	< 0.18 U	< 0.095 U	0.13 J	0.48 J	< 0.12 U
B-129-0-2	1/21/2010	27	82	8.6	1.7 J	37	3.1 J	10	2.3 J	0.49 J	20	0.68 J	2.8 J	8.3	20	0.22 J

Table 4-4
Dioxin and Furan Results
Data Gaps Investigation Report
Arkema, Inc. Facility
Portland, Oregon

Sample ID	Sample Date	OCDF pg/g	OCDD pg/g	HpCDF homologs pg/g	HpCDD homologs pg/g	HxCDF homologs pg/g	HxCDD homologs pg/g	PeCDF homologs pg/g	PeCDD homologs pg/g	TCDF homologs pg/g	TCDD homologs pg/g	Total CDD/CDF pg/g	TCDD TEQ pg/g
B-122-0-2	1/21/2010	260	30	2500	8.9	1300	1.7 J	1100	< 0.15 U	1000 J	< 0.11 U	6200.6 JT	225 JT
B-122-4-6	1/21/2010	15 J	30 J	37 J	9.4 J	65 J	3.4 J	72 J	0.88 J	61 J	0.24 J	293.92 JT	11.5 JT
B-122-8-10	1/21/2010	2.7 J	14 J	3.7 J	3.5 J	2.8 J	0.69 J	3.1 J	0.42 J	2 J	< 0.089 UJ	32.91 JT	0.54 JT
B-123-0-2	1/21/2010	760	960	1200	200	3300	29 J	2900	1.8	4500	2	13852.8 JT	726 JT
B-123-4-6	1/21/2010	76 J	36 J	120 J	12 J	450 J	4.5 J	630 J	0.75 J	700 J	0.26 J	2029.51 JT	92.5 JT
B-123-8-10	1/21/2010	1.6 J	23 J	2.3 J	6.6 J	2.2 J	1.7 J	2.5 J	0.5 J	2.1 J	< 0.19 UJ	42.5 JT	0.48 JT
B-124-0-2	1/21/2010	2500	1300	6700	280	9900 J	39 J	8600	3.9	11000	< 2.8 U	40322.9 JT	1864 JT
B-124-4-6	1/21/2010	11 J	15 J	23 J	5.1 J	84 J	1.6 J	67 J	0.74 J	29 J	0.57 J	237.01 JT	11.6 JT
B-124-8-10	1/21/2010	3.1 J	33 J	4 J	10 J	9.7 J	3.6 J	9.9 J	0.85 J	7 J	0.44 J	81.59 JT	1.69 JT
B-125-3-5	1/21/2010	83	310	82	73	150 J	24 J	150	1.5 J	99	4 J	976.5 JT	27.5 JT
B-125-8-10	1/21/2010	99	590 J	240 J	170 J	490 J	95 J	710 J	73	640 J	55	3162 JT	61.4 JT
B-126-3-5	1/21/2010	210	1300	280	250	570	63 J	490	28 J	400	36 J	3627 JT	106 JT
B-126-8-10	1/21/2010	9.1 J	38	13 J	11 J	21 J	2.5 J	18 J	0.24	11	< 0.12 U	123.84 JT	3.46 JT
B-127-10-12	1/21/2010	83.2 JT	275 JT	161 JT	43 JT	604.65 JT	7.5 JT	211.25 JT	4 JT	24.6 JT	1.42 JT	1415.62	62.10 JT
B-127-15-17	1/21/2010	11 J	83	13 J	17	9.3 J	1.9 J	4.2 J	< 0.16 U	8.7	1.3 J	149.4 JT	1.71 JT
B-128-10-12	1/21/2010	5.1 J	39	7.2 J	11 J	9.3 J	4.3 J	5.3 J	0.29	3.9 J	1.2	86.59 JT	1.25 JT
B-128-15-17	1/21/2010	3.3 J	30	3.2 J	6.7 J	2.1 J	1.1	0.84 J	< 0.18 U	0.69 J	< 0.12 U	47.93 JT	0.29 JT
B-129-0-2	1/21/2010	57	760	60	160	77 J	24 J	59	6.6 J	59	4 J	1266.6 JT	13.2 JT

Notes

pg/g = Picograms per gram

< = Compound not detected above the method detection limit

TEQ = Toxicity Equivalent Quotient

Total PCDD/F = Sum of dioxin and furan homologs

Data Qualifiers:

U = compound was not detected above the associated numerical value

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL).

T = Result derived or selected from >1 reported value.

ODEQ ID	Site	Address	Activities	Data Source	Products	Precursors/Products used on site	Additional COCs/Indicator Compounds
183	Wacker Siltronic Corp.	7200 NW Front Ave	Former Oil-gas manufacturer (NW Natural), on site disposal of coal-tar (30,000 cyds). Subsequent releases of solvents (TCE) by current occupant (microchip wafer manufacturer).	ECSI	LPG	TCE, PAHs, Vinyl Chloride, BTEX, phenols	Coal-Tar. PAHs, TCE, VC, BTEX, phenols and metals detected in subsurface soils and groundwater
49	Gould Inc./NL Industries	5909 NW 61st Ave	Secondary lead smelter, lead-acid battery recycling, lead oxide production. Battery acid drained to Doan Lake. Smelter wastes and battery casings used as fill.	ECSI, EPA Website	Lead, lead oxide	Plastic battery casings, battery acid	pH, As, Cd, Cr, Zn
395	Schnitzer Investment - Doane Lake	6529 NW Front Ave	Acetylene manufacturer, on-site disposal of calcium hydroxide, releases of oil, acetone and MEK. Subsurface soils have detections of PCB1254, PCE, TCA, and 1,2-DCA. Dioxin contamination in subsurface soils, part of Rhone-Poulenc cleanup.	ECSI	Acetylene, calcium hydroxide	Acetone, MEK, heavy oils	Lead, arsenic, PCBs, pH, tetrachloroethane, PCE, 1,1-DCA
155	Rhone-Poulenc	6200 NW St Helens Rd, Portland, OR	Insecticide and herbicide manufacturer	ECSI, Consent Order, SOW and RI	Bromoxnil Octanoate, 2,4-D (2-(2,4-dichlorophenoxy)acetic acid), MCPA (2-(4-chloro-2-methyl-phenoxy)acetic acid), 2,4,5-TP (Silvex), 2,4-DB (butyl 2-(2,4-dichlorophenoxy)acetate), 2-(2,4-dichlorophenoxy)propanoic acid, DDT, Aldrin, Endrin, Heptachlor, Malathion, Arsenic based herbicides	2,4,6-Trichlorophenol, 2-Chlorophenol, Pentachlorophenol, Phenol, 1,4-Dichlorobenzene, benzene, chlorobenzene, TCE, diesel	Pb, Hg, Vn, 1,2,4-Trimethylbenzene, TCE, Vinyl Chloride, 2-Methylnaphthalene, Benzo(a)pyrene, Chrysene, Naphthalene, dioxins
74	McCormick and Baxter	6900 N Edgewater St	Wood Treatment Facility, directly across river from Arkema site. Undergoing remedial action (almost complete). Sheet-pile / slurry wall installed to contain upland plume, sediment cap. Known source of dioxins to sediment.	ECSI, RI/FS	Treated Wood Products	Creosote, pentachlorophenol, diesel, heavy oils, arsenic, chromium, copper, zinc.	Dioxins, metals, PAHs,
117	GenStar Roofing Products/Certainteed Roofing	6350 NW Front Ave	Asphalt roofing manufacturer. Historic releases of fuel oil and gasoline to soil and groundwater. NFA issued for site.	ECSI	Asphalt roof tiles	Fuel oil, asphalt	Gasoline, benzene
1549	Kinder Morgan Willbridge Terminal	5924 NW Front Avenue	Bulk Fuel Terminal. Petroleum releases to soil, groundwater, surface water. DDT and chlorinated solvents detected in soil and groundwater	ECSI	Petroleum products (gasoline, diesel, fuel oil, heavy oils)	Fuel oils, oil sludge	DDT, chlorinated solvents, VOCs, lead

Notes:
ECSI = Oregon DEQ Environmental Cleanup Site Information database
RI/FS = Remedial Investigation / Feasibility Study

Appendix A
Borehole Logs

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-122

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes:

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
				WELL-GRADED SAND WITH GRAVEL (SW): fine sand to coarse gravel, well-graded, moist. Coarse sand to gravel-sized fragments are red brick fragments, dark gray river rocks (subrounded with some freshly fragmented angular rocks).
		SM		SILTY SAND (SM): fine to medium sand, 15% silt, moderately graded, moist. 3-inch lens of light gray, wet silt at 1.75 feet bgs.
		ML		SILT (ML): tan with lenses of gray-brown, 5% fine sand, medium plasticity, micaceous, wet.
				3-inch lens with 35% fine sand at 3.75 feet bgs. SILT WITH SAND (ML): tan with lenses of gray brown, 20% fine sand, medium plasticity, micaceous, wet.
5		SP		POORLY GRADED SAND (SP): brown with few white to pink grains, <5% silt, fine to medium sand, moderately graded, wet.
		ML		SILT (ML): gray-brown, 5% fine sand, low plasticity, wet. Few wood fragments at 6.5 feet bgs.
		SP-SM		POORLY GRADED SAND WITH SILT (SP-SM): brown, 10% silt, fine to medium sand, moderately graded, wet.
		SP		POORLY GRADED SAND (SP): brown, fine to medium sand, moderately graded, wet.
10				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 15:10 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-123

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes:

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
				WELL-GRADED SAND WITH GRAVEL (SW): fine sand to coarse gravel, well-graded, moist. Coarse sand to gravel-sized fragments are red brick fragments, concrete fragments, gray to black river rocks (subrounded).
		SM		SILTY SAND (SM): fine to coarse sand, 15% silt, well-graded, moist. As above except with 1-inch interbeds of silt approximately every 4-inches.
		ML		SILT (ML): tan with lenses of gray-brown, 5% fine sand, medium plasticity, sticky, wet.
5		SP-SM		POORLY GRADED SAND WITH SILT (SP-SM): light brown with few white to pink grains, 10% silt, fine to medium sand, moderately graded, wet.
		ML		SILT (ML): tan, 5% fine sand, with 2-cm diameter inclusions of fine sand, low plasticity, wet.
		MH		ELASTIC SILT (MH): brown, mediuim plasticity, very sticky, wet.
		SM SP		POORLY GRADED SAND (SP): brown, medium sand, poorly graded, wet. SILTY SAND (SM): brown, 10% silt, medium sand, poorly graded, wet.
10				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 14:51 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-124

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes: Composited second core for samples from 0 to 6 feet bgs.

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
		SW		WELL-GRADED SAND WITH GRAVEL (SW): brown, fine sand to coarse gravel, well-graded, moist. Medium sand to gravel-sized fragments are red brick fragments, concrete fragments, dark gray river rocks (subrounded with some freshly fragmented angular rocks).
		SW		WELL GRADED SAND WITH GRAVEL (SW): brown, fine to medium sand, 40% fine to coarse gravel, angular, moist.
		SW-SM		Fragments of large rock at 1.5 feet bgs, dry.
		SM		WELL-GRADED SAND WITH SILT (SW-SM): brown sandy silt, fine sand, approximately 60% red brick fragments and dark gray, subrounded river rocks, moist.
		SM		SILTY SAND (SM): brown, 10% silt, fine to medium sand, moderately graded, moist
5		ML		SANDY SILT (ML): light brown, 30% fine sand, low plasticity, sticky, wet.
		SP-SM		1-inch lens of silt at 6 feet bgs.
		SP-SM		POORLY GRADED SAND WITH SILT (SP-SM): brown, silt varies from 5% to 15% in lenses, fine to medium sand, moderately graded, wet.
		ML		SILT (ML): brown, 5% fine sand, wet.
		ML		As above except with few red lenses, micaceous.
		SM		SILTY SAND (SM): dark gray, 30% silt, fine, poorly graded, moist.
		ML		SILT (ML): dark gray, few pine needles, low plasticity, sticky, moist.
10				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 14:51 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-125

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes: Composited second core for samples.

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
				WELL-GRADED GRAVEL WITH SILT (GW-GM): some silt, fine to coarse, fragments of concrete, brick, asphalt, and rock, angular to subrounded, moist.
		ML		SILT (ML): dark gray, non-plastic, compacted, dry. As above except tan.
		SP	■	POORLY GRADED SAND (SP): brown, fine, poorly graded, moist.
5		ML		SILT (ML): brown, with inclusions of fine sand, low plasticity, moist. 2-inch layer with concrete and brick fragments. SILT (ML): dark gray, non-plastic, compacted, moist.
		SP	■	POORLY GRADED SAND (SP): brown, fine, few lenses of silt, poorly graded, moist.
10				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 14:51 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-126

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes:

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
				WELL-GRADED SAND WITH GRAVEL (SW): brown, fine to coarse sand, fine to coarse gravel, rounded to angular, moist. Coarse sand to gravel is river rock, fill rock, brick, and concrete.
				WELL-GRADED GRAVEL (GW): coarse gravel to cobbles. Bright yellow powder on one gravel fragment (lichen?).
		SM		SILTY SAND (SM): brown, moist. Rock fragments at 3.75 feet bgs.
5		SW		WELL-GRADED SAND (SW): brown, fine to medium sand, some coarse sand, subrounded. Large wood fragment at 6 feet bgs. As above, except 10% fine, rounded gravel and 5% silt. Silt content decreases to 0% at 7 feet bgs.
10				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 14:52 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-127

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 20 feet
Borehole Diameter: 2.25 inches

Notes:

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
		ML		SILT (ML): dark brown, 5% fine sand, 5% fine gravel, moist. Gravel is fragments of red brick, concrete, and angular rock fragments (quartz to basalt).
5				As above except gray-brown.
		SP		POORLY GRADED SAND (SP): dark brown, few root hairs, fine sand, poorly graded, wet.
				2-inch silt lens at 6.75 feet bgs.
		SP-SM		POORLY GRADED SAND WITH SILT (SP-SM): dark brown, 10% silt, fine sand, poorly graded, wet.
10				Piece of plastic at 10 feet bgs, matches diameter of shoe. Likely sampled a plastic liner at base of pond.
		SP		POORLY GRADED SAND (SP): dark brown, fine, poorly graded, wet.
				3-inch lens of sandy silt.
				As above except brown, medium sand.
		ML		SILT (ML): brown, medium plasticity, sticky, wet.
15		SP		POORLY GRADED SAND (SP): dark gray-brown, fine, poorly graded, wet.
		SM		SILTY SAND (SM): dark gray-brown, 15% silt, fine, poorly graded, wet.
		SP		POORLY GRADED SAND (SP): dark gray-brown, fine, poorly graded, slight cohesion, wet.
20				Total Depth - 20 feet bgs

BOREHOLE TO 25 FT PDX - - 1/28/10 14:52 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-128

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 20 feet
Borehole Diameter: 2.25 inches

Notes:

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
		ML		SILT (ML): dark brown, 10% fine sand, 5% fine to coarse gravel, moist. Gravel is concrete fragments and angular, dark gray rocks.
5				
		GW		WELL-GRADED GRAVEL (GW): red-brown, medium sand to coarse gravel, angular, very wet. Cobbles approximately every 0.5 feet.
10				3-inch lens of silty gravel.
		ML		SILT (ML): dark brown with red mottles, 5% fine to medium sand, medium plasticity, moist.
				Large wood fragments at 10.75 feet bgs.
		SM		SILTY SAND (SM): dark brown, root hairs, fine sand, poorly graded, wet. 3-inch lens of silt at 11.75 feet bgs, than coarsens to medium to coarse sand and coarse gravel.
		SW		WELL-GRADED SAND (SW): dark brown, fine to coarse sand, well-graded, wet.
		SM		SILTY SAND (SM): dark brown, root hairs, fine sand, poorly graded, wet.
15		SP		POORLY GRADED SAND (SP): brown, fine, poorly graded, moist. As above except dark brown and wet. Acetate liner was shredded, likely due to pressure.
20				Total Depth - 20 feet bgs

BOREHOLE TO 25 FT PDX - - 1/28/10 14:52 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

ERM
101 SW Main Street, Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

LOG OF BOREHOLE: B-129

Project Number: 111208.02
Project Name: Portland Arkema Data Gaps Investigation
Client Name: Legacy Site Services
Location: Portland, Oregon
Contractor: Cascade Drilling Inc. (Portland, Oregon)
Drilling Method: Direct Push
Logged By: S. DeGrood

Date Started: 1/21/2010
Date Completed: 1/21/2010
Total Depth: 10 feet
Borehole Diameter: 2.25 inches

Notes: Composited second core for samples.

Depth (ft)	GRAPHIC LOG	USCS Code	Sample Interval	Soil Descriptions and Observations
				WELL-GRADED SAND (SW): fine to medium sand, 10% coarse sand to fine gravel, 5% brick fragments, few concrete fragments, well-graded, angular to subangular, moist.
		SW		WELL-GRADED SAND (SW): fine sand to coarse gravel, 5% silt, angular to subangular, moist. Gravel are gray.
		ML		SANDY SILT (ML): brown, fine sand, low plasticity, moist.
5				1-inch lens of gray, coarse sand at 5.5 feet bgs.
		SP		POORLY GRADED SAND (SP): brown, fine to medium sand, moderately graded, wet.
				As above except medium to coarse sand, subangular.
				As above except medium sand.
				As above except coarse sand to fine gravel, rounded to angular.
		ML		SANDY SILT (ML): gray-brown, 30% fine sand, wet.
10		SP		POORLY GRADED SAND (SP): brown, fine to medium sand, moderately graded, moist.
				Total Depth - 10 feet bgs
15				
20				

BOREHOLE TO 25 FT PDX - - 1/28/10 14:53 - C:\PROGRAM FILES\GINT\PROJECTS\111208.02 PORTLAND ARKEMA DGI.GPJ

Appendix B
Analytical Laboratory Report

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

ORELAP#: OR100021

March 17, 2010

Brendan Robinson
Environmental Resources Management Inc.-Portland
101 SW Main St. Suite 804
Portland, OR 97204

RE: Arkema Soils 2010

Enclosed are the results of analyses for samples received by the laboratory on 01/22/10 07:50. The following list is a summary of the Work Orders contained in this report, generated on 03/17/10 16:25.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
PTA0583	Arkema Soils 2010	111208.02

TestAmerica Portland

Darrell Auvil, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-122-0-2	PTA0583-01	Soil	01/21/10 09:45	01/22/10 07:50
B-122-4-6	PTA0583-03	Soil	01/21/10 09:45	01/22/10 07:50
B-122-8-10	PTA0583-05	Soil	01/21/10 09:45	01/22/10 07:50
B-123-0-2	PTA0583-06	Soil	01/21/10 09:33	01/22/10 07:50
B-123-4-6	PTA0583-08	Soil	01/21/10 09:33	01/22/10 07:50
B-123-8-10	PTA0583-10	Soil	01/21/10 09:33	01/22/10 07:50
B-124-0-2	PTA0583-11	Soil	01/21/10 11:20	01/22/10 07:50
B-124-4-6	PTA0583-13	Soil	01/21/10 11:20	01/22/10 07:50
B-124-8-10	PTA0583-15	Soil	01/21/10 11:20	01/22/10 07:50
B-125-3-5	PTA0583-16	Soil	01/21/10 16:30	01/22/10 07:50
B-125-8-10	PTA0583-17	Soil	01/21/10 16:30	01/22/10 07:50
B-126-3-5	PTA0583-18	Soil	01/21/10 16:00	01/22/10 07:50
B-126-8-10	PTA0583-19	Soil	01/21/10 16:00	01/22/10 07:50
B-127-10-12	PTA0583-20	Soil	01/21/10 15:30	01/22/10 07:50
B-127-10-12-D	PTA0583-21	Soil	01/21/10 15:30	01/22/10 07:50
B-127-15-17	PTA0583-22	Soil	01/21/10 15:30	01/22/10 07:50
B-128-10-12	PTA0583-23	Soil	01/21/10 14:10	01/22/10 07:50
B-128-15-17	PTA0583-24	Soil	01/21/10 14:10	01/22/10 07:50
B-129-0-2	PTA0583-25	Soil	01/21/10 13:10	01/22/10 07:50
RINSATE	PTA0583-31	Water	01/21/10 16:50	01/22/10 07:50

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Analytical Case Narrative

TestAmerica - Portland, OR

PTA0583

Sample #19 was extracted and analyzed for low-level organochlorine pesticides by EPA 8081A. Sample had low recovery of the surrogate, TCMX. Sample was re-extracted outside of EPA recommended hold time, and re-analyzed, both sets of data are reported.

TestAmerica Portland

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Arsenic	EPA 6010B	**2.42**	*0.571*	6.65	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:16	**J**
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Arsenic	EPA 6010B	**13.2**	*0.540*	6.29	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:22	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Arsenic	EPA 6010B	**4.70**	*0.486*	5.66	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:28	**J**
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Arsenic	EPA 6010B	**20.8**	*0.510*	5.95	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:34	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Arsenic	EPA 6010B	**4.80**	*0.509*	5.94	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:40	**J**
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Arsenic	EPA 6010B	**13.3**	*0.492*	5.74	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:57	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Arsenic	EPA 6010B	**2.21**	*0.532*	6.20	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:03	**J**
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**4.26**	*0.538*	6.27	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:20	**J**
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**4.56**	*0.518*	6.04	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:26	**J**
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**3.27**	*0.628*	7.31	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:32	**J**
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Arsenic	EPA 6010B	**1.59**	*0.606*	7.07	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:38	**J**

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Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Arsenic	EPA 6010B	**3.05**	*0.622*	7.25	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:43	**J**
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Arsenic	EPA 6010B	**17.3**	*0.500*	5.82	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:49	
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
Arsenic	EPA 6010B	ND	*0.00940*	0.0500	mg/l	1x	10A0744	01/28/10 11:12	01/28/10 17:16	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Aldrin	EPA 8081A	ND	*3.98*	8.08	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 16:44	
alpha-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
beta-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
delta-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*3.98*	8.08	"	"	"	"	"	
gamma-Chlordane	"	ND	*3.98*	8.08	"	"	"	"	"	
alpha-Chlordane	"	ND	*3.98*	8.08	"	"	"	"	"	
Chlordane (tech)	"	ND	*90.5*	181	"	"	"	"	"	
Dieldrin	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan I	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan II	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan sulfate	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin aldehyde	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin ketone	"	ND	*3.98*	8.08	"	"	"	"	"	
Heptachlor	"	ND	*3.98*	8.08	"	"	"	"	"	
Heptachlor epoxide	"	ND	*3.98*	8.08	"	"	"	"	"	
Methoxychlor	"	ND	*3.98*	8.08	"	"	"	"	"	
Toxaphene	"	ND	*121*	241	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*59.7%*		*36 - 140 %*					*"*
PTA0583-16RE1 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
4,4´-DDD	EPA 8081A	**219**	*19.9*	40.4	ug/kg dry	50x	10A0630	01/26/10 11:00	02/05/10 20:10	
4,4´-DDE	"	**92.8**	*19.9*	40.4	"	"	"	"	"	
4,4´-DDT	"	**190**	*19.9*	40.4	"	"	"	"	"	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Aldrin	EPA 8081A	ND	*4.08*	8.29	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 17:11	
alpha-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
beta-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
delta-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*4.08*	8.29	"	"	"	"	"	
gamma-Chlordane	"	ND	*4.08*	8.29	"	"	"	"	"	
alpha-Chlordane	"	ND	*4.08*	8.29	"	"	"	"	"	
Chlordane (tech)	"	ND	*92.8*	186	"	"	"	"	"	
Dieldrin	"	ND	*4.08*	8.29	"	"	"	"	"	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Endosulfan I	EPA 8081A	ND	*4.08*	8.29	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 17:11	
Endosulfan II	"	ND	*4.08*	8.29	"	"	"	"	"	
Endosulfan sulfate	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin aldehyde	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin ketone	"	ND	*4.08*	8.29	"	"	"	"	"	
Heptachlor	"	ND	*4.08*	8.29	"	"	"	"	"	
Heptachlor epoxide	"	ND	*4.08*	8.29	"	"	"	"	"	
Methoxychlor	"	ND	*4.08*	8.29	"	"	"	"	"	
Toxaphene	"	ND	*124*	248	"	"	"	"	"	
Dieldrin (2)	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin (2)	"	ND	*4.08*	8.29	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*152%*		*36 - 140 %*				"	***ZX***
PTA0583-17RE1 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
4,4´-DDD	EPA 8081A	**537**	*40.8*	82.9	ug/kg dry	100x	10A0630	01/26/10 11:00	02/05/10 21:30	
4,4´-DDE	"	**232**	*40.8*	82.9	"	"	"	"	"	
4,4´-DDT	"	**349**	*40.8*	82.9	"	"	"	"	"	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				**RL7**
Aldrin	EPA 8081A	ND	*9.59*	19.5	ug/kg dry	25x	10A0630	01/26/10 11:00	02/08/10 18:06	
alpha-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
beta-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
delta-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*9.59*	19.5	"	"	"	"	"	
gamma-Chlordane	"	ND	*9.59*	19.5	"	"	"	"	"	
alpha-Chlordane	"	ND	*19.5*	19.5	"	"	"	"	"	
Chlordane (tech)	"	ND	*218*	436	"	"	"	"	"	
Dieldrin	"	ND	*9.59*	19.5	"	"	"	"	"	
Endosulfan I	"	ND	*19.5*	19.5	"	"	"	"	"	
Endosulfan II	"	ND	*9.59*	19.5	"	"	"	"	"	
Endosulfan sulfate	"	ND	*9.59*	19.5	"	"	"	"	"	
Endrin	"	ND	*9.59*	19.5	"	"	"	"	"	**C**
Endrin aldehyde	"	ND	*9.59*	19.5	"	"	"	"	"	
Endrin ketone	"	ND	*9.59*	19.5	"	"	"	"	"	
Heptachlor	"	ND	*9.59*	19.5	"	"	"	"	"	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				**RL7**
Heptachlor epoxide	EPA 8081A	ND	*9.59*	19.5	ug/kg dry	25x	10A0630	01/26/10 11:00	02/08/10 18:06	
Methoxychlor	"	ND	*19.5*	19.5	"	"	"	"	"	
Toxaphene	"	ND	*291*	581	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*63.5%*		*36 - 140 %*				"	***Z3***
PTA0583-18RE1 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
4,4´-DDE	EPA 8081A	**1100**	*383*	779	ug/kg dry	1000x	10A0630	01/26/10 11:00	02/05/10 20:37	
4,4´-DDT	"	**4000**	*383*	779	"	"	"	"	"	
PTA0583-18RE2 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
4,4´-DDD	EPA 8081A	**358**	*38.3*	77.9	ug/kg dry	100x	10A0630	01/26/10 11:00	02/09/10 19:30	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
Aldrin	EPA 8081A	ND	*0.412*	0.836	ug/kg dry	1x	10A0630	01/26/10 11:00	02/08/10 18:33	
alpha-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
beta-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
delta-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.412*	0.836	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.412*	0.836	"	"	"	"	"	
alpha-Chlordane	"	ND	*0.412*	0.836	"	"	"	"	"	
Chlordane (tech)	"	ND	*9.36*	18.7	"	"	"	"	"	
4,4´-DDD	"	**0.840**	*0.412*	0.836	"	"	"	"	"	
4,4´-DDE	"	**6.09**	*0.412*	0.836	"	"	"	"	"	
Dieldrin	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan I	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan II	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.412*	0.836	"	"	"	"	"	
Endrin	"	ND	*0.412*	0.836	"	"	"	"	"	**C**
Endrin aldehyde	"	ND	*0.412*	0.836	"	"	"	"	"	
Endrin ketone	"	ND	*0.412*	0.836	"	"	"	"	"	
Heptachlor	"	ND	*0.412*	0.836	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.412*	0.836	"	"	"	"	"	
Methoxychlor	"	ND	*0.412*	0.836	"	"	"	"	"	
Toxaphene	"	ND	*12.5*	25.0	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*28.0%*		*36 - 140 %*				"	***Z6***

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-19RE1 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
4,4´-DDT	EPA 8081A	**29.3**	*1.65*	3.34	ug/kg dry	4x	10A0630	01/26/10 11:00	02/05/10 21:03	
PTA0583-19RE2 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**H, N1**
Aldrin	EPA 8081A	ND	*0.412*	0.837	ug/kg dry	1x	10B0314	02/11/10 07:30	02/15/10 13:34	
alpha-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
beta-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
delta-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.412*	0.837	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.412*	0.837	"	"	"	"	"	
alpha-Chlordane	"	ND	*0.412*	0.837	"	"	"	"	"	
Chlordane (tech)	"	ND	*9.37*	18.7	"	"	"	"	"	
4,4´-DDD	"	**0.577**	*0.412*	0.837	"	"	"	"	"	**J**
4,4´-DDE	"	**5.05**	*0.412*	0.837	"	"	"	"	"	
Dieldrin	"	ND	*0.412*	0.837	"	"	"	"	"	
Endosulfan I	"	**1.72**	*0.412*	0.837	"	"	"	"	"	
Endosulfan II	"	ND	*0.412*	0.837	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.412*	0.837	"	"	"	"	"	
Endrin aldehyde	"	ND	*0.412*	0.837	"	"	"	"	"	
Endrin ketone	"	ND	*0.412*	0.837	"	"	"	"	"	
Heptachlor	"	ND	*0.412*	0.837	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.412*	0.837	"	"	"	"	"	
Methoxychlor	"	ND	*0.412*	0.837	"	"	"	"	"	
Toxaphene	"	ND	*12.5*	25.0	"	"	"	"	"	
Endrin (2)	"	ND	*0.412*	0.837	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*41.3%*		*36 - 140 %*					*"*
PTA0583-19RE3 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
4,4´-DDT	EPA 8081A	**21.5**	*4.12*	8.37	ug/kg dry	10x	10B0314	02/11/10 07:30	02/15/10 17:36	**H**
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
Aldrin	EPA 8081A	ND	*0.00485*	0.00971	ug/l	1x	10A0728	01/28/10 14:40	02/05/10 13:24	
alpha-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
beta-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
delta-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.00485*	0.00971	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.00485*	0.00971	"	"	"	"	"	

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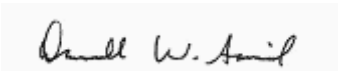

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-31 (RINSATE)				**Water**			**Sampled: 01/21/10 16:50**			
alpha-Chlordane	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Chlordane (tech)	"	ND	*0.0485*	0.0971	"	"	"	"	"	
4,4´-DDD	"	ND	*0.00485*	0.00971	"	"	"	"	"	
4,4´-DDE	"	ND	*0.00485*	0.00971	"	"	"	"	"	
4,4´-DDT	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Dieldrin	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan I	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan II	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin aldehyde	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin ketone	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Heptachlor	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Methoxychlor	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Toxaphene	"	ND	*0.243*	0.243	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				*69.3%*		*16 - 137 %*				"

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
pH	EPA 9045C	**11.1**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
pH	EPA 9045C	**11.4**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
pH	EPA 9045C	**11.7**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
pH	EPA 9045C	**8.92**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
pH	EPA 9045C	**9.78**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
pH	EPA 9045C	**10.4**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
pH	EPA 9045C	**9.54**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
pH	EPA 9045C	**9.27**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
pH	EPA 9045C	**9.09**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
pH	EPA 9045C	**10.8**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
pH	EPA 9045C	**8.66**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
pH	EPA 9045C	**8.42**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
pH	EPA 9045C	**11.4**	-----		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	**H**
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
pH	150.1/9040A	**5.77**	-----		pH Units	1x	10A0547	01/22/10 12:30	01/22/10 13:20	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Dry Weight (Solids) per ASTM D2216-80

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
% Solids	NCA SOP	**71.6**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
% Solids	NCA SOP	**75.7**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
% Solids	NCA SOP	**84.1**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
% Solids	NCA SOP	**82.4**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
% Solids	NCA SOP	**80.2**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
% Solids	NCA SOP	**85.4**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
% Solids	NCA SOP	**79.8**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids	NCA SOP	**76.0**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids	NCA SOP	**78.8**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids	NCA SOP	**65.1**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Dry Weight (Solids) per ASTM D2216-80

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
% Solids	NCA SOP	**67.4**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
% Solids	NCA SOP	**67.0**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
% Solids	NCA SOP	**85.0**	-----	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0055159

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-03 (B-122-4-6)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0055159	**28.2**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:25	
PTA0583-05 (B-122-8-10)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0055159	**22**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:25	
PTA0583-08 (B-123-4-6)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0055159	**27**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-10 (B-123-8-10)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0055159	**28.7**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-13 (B-124-4-6)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0055159	**31.4**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-15 (B-124-8-10)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0055159	**31.8**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	

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Darrell Auvil, Project Manager

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**4**	*0.18*	5.6	pg/g	0.99x	28433	01/28/10 20:45	02/09/10 04:27	**J**
1,2,3,4,6,7,8-HpCDF	"	**240**	*5.1*	5.6	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**760**	*6*	6	"	"	"	"	"	**G**
1,2,3,4,7,8-HxCDD	"	ND	*0.23*	5.6	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**750**	*1.1*	5.6	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	ND	*0.17*	5.6	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**220**	*0.95*	5.6	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**0.2**	*0.18*	5.6	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	**16**	*1.2*	5.6	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.15*	5.6	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**500**	*1.6*	5.6	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**32**	*1.1*	5.6	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**190**	*1.6*	5.6	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.11*	1.1	"	"	"	"	"	
OCDD	"	**30**	*0.13*	11	"	"	"	"	"	
OCDF	"	**260**	*0.44*	11	"	"	"	"	"	**B**
Total HpCDD	"	**8.9**	*0.18*	5.6	"	"	"	"	"	
Total HpCDF	"	**2500**	*5.5*	5.6	"	"	"	"	"	
Total HxCDD	"	**1.7**	*0.19*	5.6	"	"	"	"	"	
Total HxCDF	"	**1300**	*1.1*	5.6	"	"	"	"	"	
Total PeCDD	"	ND	*0.15*	5.6	"	"	"	"	"	
Total PeCDF	"	**1100**	*1.6*	5.6	"	"	"	"	"	
Total TCDD	"	ND	*0.11*	1.1	"	"	"	"	"	
Total TCDF	"	**1000**	*0.12*	1.1	"	"	"	"	"	

Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*	*92%*	*40 - 135 %*	"
	13C-1,2,3,4,6,7,8-HpCDF	*93%*	*40 - 135 %*	"
	13C-1,2,3,4,7,8-HxCDF	*95%*	*40 - 135 %*	"
	13C-1,2,3,6,7,8-HxCDD	*88%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDD	*111%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDF	*96%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDD	*85%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDF	*86%*	*40 - 135 %*	"
	13C-OCDD	*86%*	*40 - 135 %*	"

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Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01RE1 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
2,3,7,8-TCDF	SW846 8290	**410**	*0.43*	1.1	pg/g	0.99x	28433	01/28/10 20:45	02/11/10 17:16	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*95%*		*40 - 135 %*				"
PTA0583-03 (B-122-4-6)			**Soil**			**Sampled: 01/21/10 09:45**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**3.9**	*0.43*	7	pg/g	1x	55365	02/24/10 22:00	03/01/10 18:45	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**15**	*0.29*	7	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**12**	*0.33*	7	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	ND	*0.22*	7	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**36**	*0.19*	7	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**0.32**	*0.2*	7	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**10**	*0.16*	7	"	"	"	"	"	**B**
1,2,3,7,8,9-HxCDD	"	**0.38**	*0.17*	7	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	**0.86**	*0.17*	7	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	ND	*0.37*	7	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**31**	*0.18*	7	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**1.5**	*0.18*	7	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**9.1**	*0.2*	7	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.17*	1.4	"	"	"	"	"	
OCDD	"	**30**	*0.56*	14	"	"	"	"	"	**B**
OCDF	"	**15**	*0.46*	14	"	"	"	"	"	
Total HpCDD	"	**9.4**	*0.43*	7	"	"	"	"	"	
Total HpCDF	"	**37**	*0.31*	7	"	"	"	"	"	
Total HxCDD	"	**3.4**	*0.19*	7	"	"	"	"	"	
Total HxCDF	"	**65**	*0.17*	7	"	"	"	"	"	
Total PeCDD	"	**0.88**	*0.37*	7	"	"	"	"	"	
Total PeCDF	"	**72**	*0.19*	7	"	"	"	"	"	
Total TCDD	"	**0.24**	*0.17*	1.4	"	"	"	"	"	
Total TCDF	"	**61**	*0.11*	1.4	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*92%*		*40 - 135 %*				"
	13C-1,2,3,4,6,7,8-HpCDF			*89%*		*40 - 135 %*				"
	13C-1,2,3,4,7,8-HxCDF			*86%*		*40 - 135 %*				"
	13C-1,2,3,6,7,8-HxCDD			*79%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDD			*57%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDF			*73%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDD			*73%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDF			*73%*		*40 - 135 %*				"

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-03 (B-122-4-6)			**Soil**			**Sampled: 01/21/10 09:45**				
13C-OCDD				*83%*		*40 - 135 %*			*03/01/10 18:45*	
PTA0583-03RE1 (B-122-4-6)			**Soil**			**Sampled: 01/21/10 09:45**				
2,3,7,8-TCDF	SW846 8290	**26**	*0.39*	1.4	pg/g	1x	55365	02/24/10 22:00	03/02/10 20:15	
Surrogate(s): 13C-2,3,7,8-TCDF				*78%*		*40 - 135 %*				"
PTA0583-05 (B-122-8-10)			**Soil**			**Sampled: 01/21/10 09:45**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**1.5**	*0.28*	5.9	pg/g	0.91x	55365	02/24/10 22:00	03/01/10 19:27	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**1.3**	*0.25*	5.9	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**1.3**	*0.28*	5.9	"	"	"	"	"	**J, Q**
1,2,3,4,7,8-HxCDD	"	ND	*0.21*	5.9	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**1.5**	*0.15*	5.9	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	ND	*0.2*	5.9	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**0.51**	*0.13*	5.9	"	"	"	"	"	**J, Q, B**
1,2,3,7,8,9-HxCDD	"	ND	*0.16*	5.9	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	"	ND	*0.13*	5.9	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.23*	5.9	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**1**	*0.17*	5.9	"	"	"	"	"	**J, Q**
2,3,4,6,7,8-HxCDF	"	ND	*0.14*	5.9	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**0.55**	*0.18*	5.9	"	"	"	"	"	**J**
2,3,7,8-TCDD	"	ND	*0.089*	1.2	"	"	"	"	"	
2,3,7,8-TCDF	"	**0.99**	*0.077*	1.2	"	"	"	"	"	**Q, J**
OCDD	"	**14**	*0.32*	12	"	"	"	"	"	
OCDF	"	**2.7**	*0.34*	12	"	"	"	"	"	**J**
Total HpCDD	"	**3.5**	*0.28*	5.9	"	"	"	"	"	
Total HpCDF	"	**3.7**	*0.26*	5.9	"	"	"	"	"	
Total HxCDD	"	**0.69**	*0.19*	5.9	"	"	"	"	"	
Total HxCDF	"	**2.8**	*0.14*	5.9	"	"	"	"	"	
Total PeCDD	"	**0.42**	*0.23*	5.9	"	"	"	"	"	
Total PeCDF	"	**3.1**	*0.18*	5.9	"	"	"	"	"	
Total TCDD	"	ND	*0.089*	1.2	"	"	"	"	"	
Total TCDF	"	**2**	*0.077*	1.2	"	"	"	"	"	
Surrogate(s): 13C-1,2,3,4,6,7,8-HpCDD				*100%*		*40 - 135 %*				"
13C-1,2,3,4,6,7,8-HpCDF				*96%*		*40 - 135 %*				"
13C-1,2,3,4,7,8-HxCDF				*90%*		*40 - 135 %*				"
13C-1,2,3,6,7,8-HxCDD				*88%*		*40 - 135 %*				"

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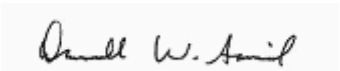

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-05 (B-122-8-10)			**Soil**			**Sampled: 01/21/10 09:45**				
13C-1,2,3,7,8-PeCDD			*63%*			*40 - 135 %*			*03/01/10 19:27*	
13C-1,2,3,7,8-PeCDF			*70%*			*40 - 135 %*			*"*	
13C-2,3,7,8-TCDD			*73%*			*40 - 135 %*			*"*	
13C-2,3,7,8-TCDF			*76%*			*40 - 135 %*			*"*	
13C-OCDD			*91%*			*40 - 135 %*			*"*	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**110**	*2*	58	pg/g	9.7x	28433	01/28/10 20:45	02/11/10 06:30	
1,2,3,4,6,7,8-HpCDF	"	**650**	*3.5*	58	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**240**	*4.1*	58	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**2.3**	*2.2*	58	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**2200**	*3.1*	58	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**4.1**	*1.7*	58	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**540**	*2.6*	58	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**2.4**	*1.7*	58	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**23**	*3.2*	58	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*1.1*	58	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**1400**	*8.5*	58	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**91**	*2.9*	58	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**490**	*8.8*	58	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.99*	12	"	"	"	"	"	
OCDD	"	**960**	*2.4*	120	"	"	"	"	"	
OCDF	"	**760**	*1.8*	120	"	"	"	"	"	**B**
Total HpCDD	"	**200**	*2*	58	"	"	"	"	"	
Total HpCDF	"	**1200**	*3.7*	58	"	"	"	"	"	
Total HxCDD	"	**29**	*1.9*	58	"	"	"	"	"	
Total HxCDF	"	**3300**	*2.9*	58	"	"	"	"	"	
Total PeCDD	"	**1.8**	*1.1*	58	"	"	"	"	"	
Total PeCDF	"	**2900**	*8.7*	58	"	"	"	"	"	
Total TCDD	"	**2**	*0.99*	12	"	"	"	"	"	
Total TCDF	"	**4500**	*0.98*	12	"	"	"	"	"	
Surrogate(s): *13C-1,2,3,4,6,7,8-HpCDD*			*79%*			*40 - 135 %*			*"*	
13C-1,2,3,4,6,7,8-HpCDF			*84%*			*40 - 135 %*			*"*	
13C-1,2,3,4,7,8-HxCDF			*88%*			*40 - 135 %*			*"*	
13C-1,2,3,6,7,8-HxCDD			*80%*			*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDD			*101%*			*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDF			*88%*			*40 - 135 %*			*"*	

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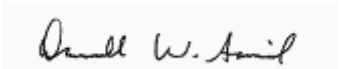

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-06 (B-123-0-2)				**Soil**		**Sampled: 01/21/10 09:33**				
13C-2,3,7,8-TCDD				*90%*		*40 - 135 %*			*02/11/10 06:30*	
13C-2,3,7,8-TCDF				*86%*		*40 - 135 %*			*"*	
13C-OCDD				*68%*		*40 - 135 %*			*"*	
PTA0583-06RE1 (B-123-0-2)				**Soil**		**Sampled: 01/21/10 09:33**				
2,3,7,8-TCDF	SW846 8290	**2400**	*3.2*	12	pg/g	9.7x	28433	01/28/10 20:45	02/11/10 17:53	
Surrogate(s): 13C-2,3,7,8-TCDF				*93%*		*40 - 135 %*			*"*	
PTA0583-08 (B-123-4-6)				**Soil**		**Sampled: 01/21/10 09:33**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**4.9**	*0.28*	6.8	pg/g	0.99x	55365	02/24/10 22:00	03/01/10 20:09	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**68**	*0.39*	6.8	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**29**	*0.45*	6.8	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**0.19**	*0.17*	6.8	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**260**	*0.35*	6.8	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**0.3**	*0.16*	6.8	"	"	"	"	"	**J, Q**
1,2,3,6,7,8-HxCDF	"	**64**	*0.3*	6.8	"	"	"	"	"	**B**
1,2,3,7,8,9-HxCDD	"	**0.57**	*0.13*	6.8	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**6.1**	*0.31*	6.8	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	ND	*0.52*	6.8	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**290**	*0.28*	6.8	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**11**	*0.33*	6.8	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**75**	*0.3*	6.8	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.17*	1.4	"	"	"	"	"	
OCDD	"	**36**	*0.44*	14	"	"	"	"	"	**B**
OCDF	"	**76**	*0.49*	14	"	"	"	"	"	
Total HpCDD	"	**12**	*0.28*	6.8	"	"	"	"	"	
Total HpCDF	"	**120**	*0.42*	6.8	"	"	"	"	"	
Total HxCDD	"	**4.5**	*0.15*	6.8	"	"	"	"	"	
Total HxCDF	"	**450**	*0.32*	6.8	"	"	"	"	"	
Total PeCDD	"	**0.75**	*0.52*	6.8	"	"	"	"	"	
Total PeCDF	"	**630**	*0.29*	6.8	"	"	"	"	"	
Total TCDD	"	**0.26**	*0.17*	1.4	"	"	"	"	"	
Total TCDF	"	**700**	*0.21*	1.4	"	"	"	"	"	
Surrogate(s): 13C-1,2,3,4,6,7,8-HpCDD				*86%*		*40 - 135 %*			*"*	
13C-1,2,3,4,6,7,8-HpCDF				*82%*		*40 - 135 %*			*"*	
13C-1,2,3,4,7,8-HxCDF				*81%*		*40 - 135 %*			*"*	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-08 (B-123-4-6)				**Soil**		**Sampled: 01/21/10 09:33**				
13C-1,2,3,6,7,8-HxCDD				*74%*		*40 - 135 %*			*03/01/10 20:09*	
13C-1,2,3,7,8-PeCDD				*54%*		*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDF				*77%*		*40 - 135 %*			*"*	
13C-2,3,7,8-TCDD				*64%*		*40 - 135 %*			*"*	
13C-2,3,7,8-TCDF				*70%*		*40 - 135 %*			*"*	
13C-OCDD				*80%*		*40 - 135 %*			*"*	
PTA0583-08RE1 (B-123-4-6)				**Soil**		**Sampled: 01/21/10 09:33**				
2,3,7,8-TCDF	SW846 8290	**260**	*1*	1.4	pg/g	1x	55365	02/24/10 22:00	03/02/10 22:06	
Surrogate(s): 13C-2,3,7,8-TCDF				*70%*		*40 - 135 %*				*"*
PTA0583-10 (B-123-8-10)				**Soil**		**Sampled: 01/21/10 09:33**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**3**	*0.32*	6.9	pg/g	0.99x	55365	02/24/10 22:00	03/01/10 20:51	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**1.1**	*0.27*	6.9	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**0.35**	*0.31*	6.9	"	"	"	"	"	**J, Q**
1,2,3,4,7,8-HxCDD	"	ND	*0.26*	6.9	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**1.1**	*0.16*	6.9	"	"	"	"	"	**J, Q**
1,2,3,6,7,8-HxCDD	"	ND	*0.23*	6.9	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**0.5**	*0.14*	6.9	"	"	"	"	"	**J, B**
1,2,3,7,8,9-HxCDD	"	**0.21**	*0.19*	6.9	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	ND	*0.14*	6.9	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.34*	6.9	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**1.2**	*0.25*	6.9	"	"	"	"	"	**J**
2,3,4,6,7,8-HxCDF	"	ND	*0.15*	6.9	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**0.4**	*0.27*	6.9	"	"	"	"	"	**J, Q**
2,3,7,8-TCDD	"	ND	*0.19*	1.4	"	"	"	"	"	
2,3,7,8-TCDF	"	**0.94**	*0.11*	1.4	"	"	"	"	"	**J**
OCDD	"	**23**	*0.67*	14	"	"	"	"	"	**B**
OCDF	"	**1.6**	*0.43*	14	"	"	"	"	"	**J, Q**
Total HpCDD	"	**6.6**	*0.32*	6.9	"	"	"	"	"	
Total HpCDF	"	**2.3**	*0.29*	6.9	"	"	"	"	"	
Total HxCDD	"	**1.7**	*0.23*	6.9	"	"	"	"	"	
Total HxCDF	"	**2.2**	*0.15*	6.9	"	"	"	"	"	
Total PeCDD	"	**0.5**	*0.34*	6.9	"	"	"	"	"	
Total PeCDF	"	**2.5**	*0.26*	6.9	"	"	"	"	"	
Total TCDD	"	ND	*0.19*	1.4	"	"	"	"	"	

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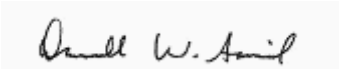

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-10 (B-123-8-10)				**Soil**		**Sampled: 01/21/10 09:33**				
Total TCDF	SW846 8290	**2.1**	*0.11*	1.4	pg/g	0.99x	55365	02/24/10 22:00	03/01/10 20:51	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*99%*		*40 - 135 %*				"
	13C-1,2,3,4,6,7,8-HpCDF			*93%*		*40 - 135 %*				"
	13C-1,2,3,4,7,8-HxCDF			*91%*		*40 - 135 %*				"
	13C-1,2,3,6,7,8-HxCDD			*97%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDD			*63%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDF			*77%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDD			*80%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDF			*80%*		*40 - 135 %*				"
	13C-OCDD			*89%*		*40 - 135 %*				"
PTA0583-11 (B-124-0-2)				**Soil**		**Sampled: 01/21/10 11:20**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**140**	*5.9*	58	pg/g	9.9x	28433	01/28/10 20:45	02/11/10 07:14	
1,2,3,4,6,7,8-HpCDF	"	**2300**	*15*	58	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**1400**	*18*	58	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	ND	*5.1*	58	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**5900**	*13*	58	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**5.3**	*3.9*	58	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**1700**	*11*	58	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	ND	*4*	58	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	"	**48**	*13*	58	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	ND	*3.2*	58	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**3800**	*23*	58	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**250**	*12*	58	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**1400**	*23*	58	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*2.8*	12	"	"	"	"	"	
OCDD	"	**1300**	*4.8*	120	"	"	"	"	"	
OCDF	"	**2500**	*4.4*	120	"	"	"	"	"	**B**
Total HpCDD	"	**280**	*5.9*	58	"	"	"	"	"	
Total HpCDF	"	**6700**	*17*	58	"	"	"	"	"	
Total HxCDD	"	**39**	*4.3*	58	"	"	"	"	"	
Total HxCDF	"	**9900**	*12*	58	"	"	"	"	"	
Total PeCDD	"	**3.9**	*3.2*	58	"	"	"	"	"	
Total PeCDF	"	**8600**	*23*	58	"	"	"	"	"	
Total TCDD	"	ND	*2.8*	12	"	"	"	"	"	
Total TCDF	"	**11000**	*3.2*	12	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*46%*		*40 - 135 %*				"

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-11 (B-124-0-2)				**Soil**			**Sampled: 01/21/10 11:20**			
13C-1,2,3,4,6,7,8-HpCDF				*47%*		*40 - 135 %*			*02/11/10 07:14*	
13C-1,2,3,4,7,8-HxCDF				*52%*		*40 - 135 %*			*"*	
13C-1,2,3,6,7,8-HxCDD				*48%*		*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDD				*54%*		*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDF				*48%*		*40 - 135 %*			*"*	
13C-2,3,7,8-TCDD				*45%*		*40 - 135 %*			*"*	
13C-2,3,7,8-TCDF				*46%*		*40 - 135 %*			*"*	
13C-OCDD				*35%*		*40 - 135 %*			*"*	*
PTA0583-11RE1 (B-124-0-2)				**Soil**			**Sampled: 01/21/10 11:20**			
2,3,7,8-TCDF	SW846 8290	**5000**	*6.6*	12	pg/g	9.9x	28433	01/28/10 20:45	02/11/10 18:30	
Surrogate(s): 13C-2,3,7,8-TCDF				*51%*		*40 - 135 %*			*"*	
PTA0583-13 (B-124-4-6)				**Soil**			**Sampled: 01/21/10 11:20**			
1,2,3,4,6,7,8-HpCDD	SW846 8290	**2.2**	*0.27*	6.9	pg/g	0.95x	55365	02/24/10 22:00	03/01/10 21:33	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**12**	*0.28*	6.9	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**5.8**	*0.32*	6.9	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	ND	*0.28*	6.9	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**51**	*0.21*	6.9	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	ND	*0.26*	6.9	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**10**	*0.18*	6.9	"	"	"	"	"	**B**
1,2,3,7,8,9-HxCDD	"	**0.32**	*0.21*	6.9	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	**1.1**	*0.19*	6.9	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	ND	*0.5*	6.9	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**30**	*0.21*	6.9	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**1.7**	*0.2*	6.9	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**9.7**	*0.22*	6.9	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.12*	1.4	"	"	"	"	"	
OCDD	"	**15**	*0.5*	14	"	"	"	"	"	**B**
OCDF	"	**11**	*0.36*	14	"	"	"	"	"	**J**
Total HpCDD	"	**5.1**	*0.27*	6.9	"	"	"	"	"	
Total HpCDF	"	**23**	*0.3*	6.9	"	"	"	"	"	
Total HxCDD	"	**1.6**	*0.25*	6.9	"	"	"	"	"	
Total HxCDF	"	**84**	*0.19*	6.9	"	"	"	"	"	
Total PeCDD	"	**0.74**	*0.5*	6.9	"	"	"	"	"	
Total PeCDF	"	**67**	*0.21*	6.9	"	"	"	"	"	
Total TCDD	"	**0.57**	*0.12*	1.4	"	"	"	"	"	

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-13 (B-124-4-6)			**Soil**			**Sampled: 01/21/10 11:20**				
Total TCDF	SW846 8290	**29**	*0.11*	1.4	pg/g	0.95x	55365	02/24/10 22:00	03/01/10 21:33	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*103%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*94%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*94%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*97%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*53%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*71%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*74%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*77%*		*40 - 135 %*				*"*
	13C-OCDD			*91%*		*40 - 135 %*				*"*
PTA0583-13RE1 (B-124-4-6)			**Soil**			**Sampled: 01/21/10 11:20**				
2,3,7,8-TCDF	SW846 8290	**12**	*0.39*	1.4	pg/g	0.95x	55365	02/24/10 22:00	03/02/10 19:38	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*80%*		*40 - 135 %*				*"*
PTA0583-15 (B-124-8-10)			**Soil**			**Sampled: 01/21/10 11:20**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**4.2**	*0.25*	7	pg/g	0.95x	55365	02/24/10 22:00	03/01/10 22:15	**J, B**
1,2,3,4,6,7,8-HpCDF	"	**1.9**	*0.27*	7	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**1**	*0.3*	7	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	ND	*0.18*	7	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**5.2**	*0.19*	7	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	**0.27**	*0.16*	7	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**1.4**	*0.16*	7	"	"	"	"	"	**J, B**
1,2,3,7,8,9-HxCDD	"	**0.5**	*0.14*	7	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	ND	*0.17*	7	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.33*	7	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**3.7**	*0.26*	7	"	"	"	"	"	**J**
2,3,4,6,7,8-HxCDF	"	ND	*0.18*	7	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**1.6**	*0.27*	7	"	"	"	"	"	**J**
2,3,7,8-TCDD	"	ND	*0.21*	1.4	"	"	"	"	"	
OCDD	"	**33**	*0.32*	14	"	"	"	"	"	**B**
OCDF	"	**3.1**	*0.36*	14	"	"	"	"	"	**J**
Total HpCDD	"	**10**	*0.25*	7	"	"	"	"	"	
Total HpCDF	"	**4**	*0.28*	7	"	"	"	"	"	
Total HxCDD	"	**3.6**	*0.16*	7	"	"	"	"	"	
Total HxCDF	"	**9.7**	*0.17*	7	"	"	"	"	"	
Total PeCDD	"	**0.85**	*0.33*	7	"	"	"	"	"	

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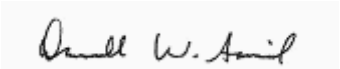

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-15 (B-124-8-10)			**Soil**			**Sampled: 01/21/10 11:20**				
Total PeCDF	SW846 8290	**9.9**	*0.26*	7	pg/g	0.95x	55365	02/24/10 22:00	03/01/10 22:15	
Total TCDD	"	**0.44**	*0.21*	1.4	"	"	"	"	"	
Total TCDF	"	**7**	*0.078*	1.4	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*93%*		*40 - 135 %*				"
	13C-1,2,3,4,6,7,8-HpCDF			*94%*		*40 - 135 %*				"
	13C-1,2,3,4,7,8-HxCDF			*95%*		*40 - 135 %*				"
	13C-1,2,3,6,7,8-HxCDD			*90%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDD			*56%*		*40 - 135 %*				"
	13C-1,2,3,7,8-PeCDF			*74%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDD			*77%*		*40 - 135 %*				"
	13C-2,3,7,8-TCDF			*81%*		*40 - 135 %*				"
	13C-OCDD			*84%*		*40 - 135 %*				"
PTA0583-15RE1 (B-124-8-10)			**Soil**			**Sampled: 01/21/10 11:20**				
2,3,7,8-TCDF	SW846 8290	**2.8**	*0.44*	1.4	pg/g	1x	55365	02/24/10 22:00	03/02/10 17:47	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*83%*		*40 - 135 %*				"
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**37**	*0.49*	5.9	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 06:39	
1,2,3,4,6,7,8-HpCDF	"	**34**	*0.49*	5.9	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**12**	*0.57*	5.9	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**1.2**	*0.29*	5.9	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**90**	*0.66*	5.9	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**2.8**	*0.22*	5.9	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**21**	*0.55*	5.9	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**1.1**	*0.23*	5.9	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	**1.4**	*0.67*	5.9	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	**0.58**	*0.31*	5.9	"	"	"	"	"	**J**
1,2,3,7,8-PeCDF	"	**50**	*0.51*	5.9	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**3.8**	*0.61*	5.9	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**27**	*0.53*	5.9	"	"	"	"	"	
2,3,7,8-TCDD	"	**0.28**	*0.16*	1.2	"	"	"	"	"	**J, Q**
OCDD	"	**310**	*0.76*	12	"	"	"	"	"	
OCDF	"	**83**	*0.83*	12	"	"	"	"	"	**B**
Total HpCDD	"	**73**	*0.49*	5.9	"	"	"	"	"	
Total HpCDF	"	**82**	*0.53*	5.9	"	"	"	"	"	

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Total HxCDD	SW846 8290	**24**	*0.24*	5.9	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 06:39	
Total HxCDF	"	**150**	*0.62*	5.9	"	"	"	"	"	
Total PeCDD	"	**1.5**	*0.31*	5.9	"	"	"	"	"	
Total PeCDF	"	**150**	*0.52*	5.9	"	"	"	"	"	
Total TCDD	"	**4**	*0.16*	1.2	"	"	"	"	"	
Total TCDF	"	**99**	*0.26*	1.2	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*79%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*74%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*83%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*73%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*100%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*84%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*84%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*81%*		*40 - 135 %*				*"*
	13C-OCDD			*73%*		*40 - 135 %*				*"*
PTA0583-16RE1 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
2,3,7,8-TCDF	SW846 8290	**40**	*0.31*	1.2	pg/g	0.98x	28433	01/28/10 20:45	02/11/10 14:11	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*91%*		*40 - 135 %*				*"*
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**84**	*0.78*	6.3	pg/g	0.94x	28433	01/28/10 20:45	02/09/10 07:23	
1,2,3,4,6,7,8-HpCDF	"	**120**	*0.33*	6.3	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**14**	*0.39*	6.3	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**5.6**	*0.26*	6.3	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**80**	*0.65*	6.3	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**9.1**	*0.19*	6.3	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**51**	*0.54*	6.3	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**5.5**	*0.2*	6.3	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**2.3**	*0.66*	6.3	"	"	"	"	"	**J**
1,2,3,7,8-PeCDD	"	**8.4**	*0.27*	6.3	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**60**	*1.4*	6.3	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**44**	*0.6*	6.3	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**73**	*1.4*	6.3	"	"	"	"	"	
2,3,7,8-TCDD	"	**3**	*0.12*	1.3	"	"	"	"	"	
OCDD	"	**590**	*0.56*	13	"	"	"	"	"	
OCDF	"	**99**	*0.27*	13	"	"	"	"	"	**B**

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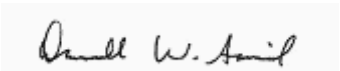

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Total HpCDD	"	**170**	*0.78*	6.3	"	"	"	"	"	
Total HpCDF	"	**240**	*0.36*	6.3	"	"	"	"	"	
Total HxCDD	"	**95**	*0.21*	6.3	"	"	"	"	"	
Total HxCDF	"	**490**	*0.61*	6.3	"	"	"	"	"	
Total PeCDD	"	**73**	*0.27*	6.3	"	"	"	"	"	
Total PeCDF	"	**710**	*1.4*	6.3	"	"	"	"	"	
Total TCDD	"	**55**	*0.12*	1.3	"	"	"	"	"	
Total TCDF	"	**640**	*0.12*	1.3	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*88%*		*40 - 135 %*			*"*	
	13C-1,2,3,4,6,7,8-HpCDF			*84%*		*40 - 135 %*			*"*	
	13C-1,2,3,4,7,8-HxCDF			*89%*		*40 - 135 %*			*"*	
	13C-1,2,3,6,7,8-HxCDD			*83%*		*40 - 135 %*			*"*	
	13C-1,2,3,7,8-PeCDD			*97%*		*40 - 135 %*			*"*	
	13C-1,2,3,7,8-PeCDF			*87%*		*40 - 135 %*			*"*	
	13C-2,3,7,8-TCDD			*84%*		*40 - 135 %*			*"*	
	13C-2,3,7,8-TCDF			*82%*		*40 - 135 %*			*"*	
	13C-OCDD			*78%*		*40 - 135 %*			*"*	
PTA0583-17RE1 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
2,3,7,8-TCDF	SW846 8290	**42**	*0.45*	1.3	pg/g	1x	28433	01/28/10 20:45	02/11/10 14:48	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*93%*		*40 - 135 %*			*"*	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**130**	*1.4*	5.7	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 17:40	
1,2,3,4,6,7,8-HpCDF	"	**130**	*1*	5.7	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**56**	*1.2*	5.7	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**4**	*0.3*	5.7	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**350**	*0.97*	5.7	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**7.8**	*0.23*	5.7	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**82**	*0.81*	5.7	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**7.1**	*0.24*	5.7	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	"	**5.8**	*0.98*	5.7	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	**3.9**	*0.41*	5.7	"	"	"	"	"	**J**
1,2,3,7,8-PeCDF	"	**200**	*2.8*	5.7	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**15**	*0.9*	5.7	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**87**	*2.9*	5.7	"	"	"	"	"	

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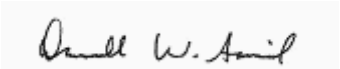

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BEAVERTON, OR 97008-7132
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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
2,3,7,8-TCDD	SW846 8290	**0.85**	*0.22*	1.1	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 17:40	**J**
OCDD	"	**1300**	*1.1*	11	"	"	"	"	"	
OCDF	"	**210**	*0.5*	11	"	"	"	"	"	**B**
Total HpCDD	"	**250**	*1.4*	5.7	"	"	"	"	"	
Total HpCDF	"	**280**	*1.1*	5.7	"	"	"	"	"	
Total HxCDD	"	**63**	*0.25*	5.7	"	"	"	"	"	
Total HxCDF	"	**570**	*0.91*	5.7	"	"	"	"	"	
Total PeCDD	"	**28**	*0.41*	5.7	"	"	"	"	"	
Total PeCDF	"	**490**	*2.8*	5.7	"	"	"	"	"	
Total TCDD	"	**36**	*0.22*	1.1	"	"	"	"	"	
Total TCDF	"	**400**	*0.32*	1.1	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*60%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*57%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*61%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*58%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*68%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*63%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*64%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*61%*		*40 - 135 %*				*"*
	13C-OCDD			*55%*		*40 - 135 %*				*"*
PTA0583-18RE1 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
2,3,7,8-TCDF	SW846 8290	**180**	*0.4*	1.1	pg/g	0.98x	28433	01/28/10 20:45	02/11/10 16:39	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*67%*		*40 - 135 %*				*"*
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**4.8**	*0.22*	6	pg/g	0.95x	28433	01/28/10 20:45	02/09/10 18:24	**J**
1,2,3,4,6,7,8-HpCDF	"	**5.8**	*0.18*	6	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**1.6**	*0.21*	6	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	ND	*0.21*	6	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**12**	*0.16*	6	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**0.33**	*0.16*	6	"	"	"	"	"	**J, Q**
1,2,3,6,7,8-HxCDF	"	**3**	*0.13*	6	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDD	"	**0.23**	*0.16*	6	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**0.17**	*0.16*	6	"	"	"	"	"	**J, Q**
1,2,3,7,8-PeCDD	"	ND	*0.18*	6	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**7.3**	*0.18*	6	"	"	"	"	"	

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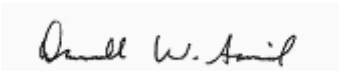

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
2,3,4,6,7,8-HxCDF	"	**0.58**	*0.15*	6	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**3**	*0.18*	6	"	"	"	"	"	**J**
2,3,7,8-TCDD	"	ND	*0.12*	1.2	"	"	"	"	"	
OCDD	"	**38**	*0.23*	12	"	"	"	"	"	
OCDF	"	**9.1**	*0.15*	12	"	"	"	"	"	**J, B**
Total HpCDD	"	**11**	*0.22*	6	"	"	"	"	"	
Total HpCDF	"	**13**	*0.19*	6	"	"	"	"	"	
Total HxCDD	"	**2.5**	*0.17*	6	"	"	"	"	"	
Total HxCDF	"	**21**	*0.15*	6	"	"	"	"	"	
Total PeCDD	"	**0.24**	*0.18*	6	"	"	"	"	"	
Total PeCDF	"	**18**	*0.18*	6	"	"	"	"	"	
Total TCDD	"	ND	*0.12*	1.2	"	"	"	"	"	
Total TCDF	"	**11**	*0.1*	1.2	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*85%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*86%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*87%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*83%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*90%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*83%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*82%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*79%*		*40 - 135 %*				*"*
	13C-OCDD			*77%*		*40 - 135 %*				*"*
PTA0583-19RE1 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
2,3,7,8-TCDF	SW846 8290	**5.7**	*0.29*	1.2	pg/g	0.95x	28433	01/28/10 20:45	02/11/10 12:19	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*90%*		*40 - 135 %*				*"*
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**9.6**	*0.32*	6.5	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 19:08	
1,2,3,4,6,7,8-HpCDF	"	**3.7**	*0.15*	6.5	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**2.2**	*0.18*	6.5	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	ND	*0.31*	6.5	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**2.6**	*0.12*	6.5	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	**0.5**	*0.23*	6.5	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**1.4**	*0.1*	6.5	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDD	"	**0.29**	*0.24*	6.5	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	ND	*0.12*	6.5	"	"	"	"	"	

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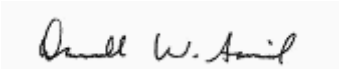

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,7,8-PeCDD	"	ND	*0.19*	6.5	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**0.86**	*0.2*	6.5	"	"	"	"	"	**J, Q**
2,3,4,6,7,8-HxCDF	"	**0.24**	*0.11*	6.5	"	"	"	"	"	**J, Q**
2,3,4,7,8-PeCDF	"	ND	*0.21*	6.5	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*0.15*	1.3	"	"	"	"	"	
2,3,7,8-TCDF	"	**0.78**	*0.061*	1.3	"	"	"	"	"	**J**
OCDD	"	**140**	*0.27*	13	"	"	"	"	"	
OCDF	"	**6.4**	*0.15*	13	"	"	"	"	"	**J, B**
Total HpCDD	"	**19**	*0.32*	6.5	"	"	"	"	"	
Total HpCDF	"	**12**	*0.16*	6.5	"	"	"	"	"	
Total HxCDD	"	**3**	*0.25*	6.5	"	"	"	"	"	
Total HxCDF	"	**9.3**	*0.11*	6.5	"	"	"	"	"	
Total PeCDD	"	ND	*0.19*	6.5	"	"	"	"	"	
Total PeCDF	"	**2.5**	*0.21*	6.5	"	"	"	"	"	
Total TCDD	"	**0.24**	*0.15*	1.3	"	"	"	"	"	
Total TCDF	"	**2.2**	*0.061*	1.3	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*		*81%*		*40 - 135 %*				*"*	
	13C-1,2,3,4,6,7,8-HpCDF		*83%*		*40 - 135 %*				*"*	
	13C-1,2,3,4,7,8-HxCDF		*88%*		*40 - 135 %*				*"*	
	13C-1,2,3,6,7,8-HxCDD		*84%*		*40 - 135 %*				*"*	
	13C-1,2,3,7,8-PeCDD		*86%*		*40 - 135 %*				*"*	
	13C-1,2,3,7,8-PeCDF		*79%*		*40 - 135 %*				*"*	
	13C-2,3,7,8-TCDD		*77%*		*40 - 135 %*				*"*	
	13C-2,3,7,8-TCDF		*75%*		*40 - 135 %*				*"*	
	13C-OCDD		*73%*		*40 - 135 %*				*"*	
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**31**	*0.49*	6.1	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 19:52	
1,2,3,4,6,7,8-HpCDF	"	**160**	*0.61*	6.1	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**71**	*0.71*	6.1	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**0.59**	*0.19*	6.1	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**800**	*1.1*	6.1	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**1.6**	*0.14*	6.1	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**180**	*0.93*	6.1	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**1.1**	*0.15*	6.1	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**6.6**	*1.1*	6.1	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	**0.45**	*0.2*	6.1	"	"	"	"	"	**J**

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,7,8-PeCDF	SW846 8290	**220**	*1.1*	6.1	pg/g	0.98x	28433	01/28/10 20:45	02/09/10 19:52	
2,3,4,6,7,8-HxCDF	"	**17**	*1*	6.1	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**37**	*1.2*	6.1	"	"	"	"	"	
2,3,7,8-TCDD	"	**0.27**	*0.1*	1.2	"	"	"	"	"	**J, Q**
OCDD	"	**410**	*0.3*	12	"	"	"	"	"	
OCDF	"	**160**	*0.24*	12	"	"	"	"	"	**B**
Total HpCDD	"	**67**	*0.49*	6.1	"	"	"	"	"	
Total HpCDF	"	**310**	*0.66*	6.1	"	"	"	"	"	
Total HxCDD	"	**12**	*0.16*	6.1	"	"	"	"	"	
Total HxCDF	"	**1200**	*1.1*	6.1	"	"	"	"	"	
Total PeCDD	"	**4**	*0.2*	6.1	"	"	"	"	"	
Total PeCDF	"	**420**	*1.2*	6.1	"	"	"	"	"	
Total TCDD	"	**2.6**	*0.1*	1.2	"	"	"	"	"	
Total TCDF	"	**47**	*0.11*	1.2	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*79%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*79%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*86%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*78%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*88%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*81%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*81%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*78%*		*40 - 135 %*				*"*
	13C-OCDD			*70%*		*40 - 135 %*				*"*
PTA0583-21RE1 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
2,3,7,8-TCDF	SW846 8290	**15**	*0.3*	1.2	pg/g	0.98x	28433	01/28/10 20:45	02/11/10 12:56	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*91%*		*40 - 135 %*				*"*
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**7.6**	*0.29*	7.3	pg/g	0.92x	28433	01/28/10 20:45	02/09/10 20:36	
1,2,3,4,6,7,8-HpCDF	"	**5.7**	*0.22*	7.3	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**1**	*0.26*	7.3	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	ND	*0.27*	7.3	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**4.2**	*0.16*	7.3	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	**0.24**	*0.2*	7.3	"	"	"	"	"	**J, Q**
1,2,3,6,7,8-HxCDF	"	**1.3**	*0.14*	7.3	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDD	"	ND	*0.21*	7.3	"	"	"	"	"	

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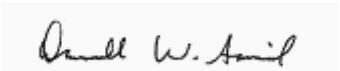

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
1,2,3,7,8,9-HxCDF	"	ND	*0.17*	7.3	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.16*	7.3	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**2**	*0.13*	7.3	"	"	"	"	"	**J**
2,3,4,6,7,8-HxCDF	"	**0.16**	*0.15*	7.3	"	"	"	"	"	**J, Q**
2,3,4,7,8-PeCDF	"	**0.39**	*0.14*	7.3	"	"	"	"	"	**J, Q**
2,3,7,8-TCDD	"	**0.5**	*0.13*	1.5	"	"	"	"	"	**J, Q**
OCDD	"	**83**	*0.34*	15	"	"	"	"	"	
OCDF	"	**11**	*0.13*	15	"	"	"	"	"	**J, B**
Total HpCDD	"	**17**	*0.29*	7.3	"	"	"	"	"	
Total HpCDF	"	**13**	*0.24*	7.3	"	"	"	"	"	
Total HxCDD	"	**1.9**	*0.22*	7.3	"	"	"	"	"	
Total HxCDF	"	**9.3**	*0.15*	7.3	"	"	"	"	"	
Total PeCDD	"	ND	*0.16*	7.3	"	"	"	"	"	
Total PeCDF	"	**4.2**	*0.13*	7.3	"	"	"	"	"	
Total TCDD	"	**1.3**	*0.13*	1.5	"	"	"	"	"	
Total TCDF	"	**8.7**	*0.062*	1.5	"	"	"	"	"	
Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*			*77%*		*40 - 135 %*				*"*
	13C-1,2,3,4,6,7,8-HpCDF			*77%*		*40 - 135 %*				*"*
	13C-1,2,3,4,7,8-HxCDF			*83%*		*40 - 135 %*				*"*
	13C-1,2,3,6,7,8-HxCDD			*79%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDD			*84%*		*40 - 135 %*				*"*
	13C-1,2,3,7,8-PeCDF			*78%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDD			*80%*		*40 - 135 %*				*"*
	13C-2,3,7,8-TCDF			*79%*		*40 - 135 %*				*"*
	13C-OCDD			*71%*		*40 - 135 %*				*"*
PTA0583-22RE1 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
2,3,7,8-TCDF	SW846 8290	**2.7**	*0.3*	1.5	pg/g	0.92x	28433	01/28/10 20:45	02/11/10 11:42	
Surrogate(s):	*13C-2,3,7,8-TCDF*			*90%*		*40 - 135 %*				*"*

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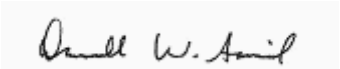

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**5.1**	*0.21*	7.2	pg/g	0.95x	28433	01/28/10 20:45	02/09/10 21:20	**J**
1,2,3,4,6,7,8-HpCDF	"	**3.7**	*0.13*	7.2	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**1.4**	*0.15*	7.2	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDD	"	**0.26**	*0.16*	7.2	"	"	"	"	"	**J, Q**
1,2,3,4,7,8-HxCDF	"	**5.1**	*0.13*	7.2	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	**0.3**	*0.12*	7.2	"	"	"	"	"	**J, Q**
1,2,3,6,7,8-HxCDF	"	**1.6**	*0.11*	7.2	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDD	"	**0.38**	*0.13*	7.2	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDF	"	ND	*0.13*	7.2	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.18*	7.2	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**1.9**	*0.14*	7.2	"	"	"	"	"	**J**
2,3,4,6,7,8-HxCDF	"	**0.24**	*0.12*	7.2	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**0.64**	*0.14*	7.2	"	"	"	"	"	**J, Q**
2,3,7,8-TCDD	"	ND	*0.14*	1.4	"	"	"	"	"	
OCDD	"	**39**	*0.24*	14	"	"	"	"	"	
OCDF	"	**5.1**	*0.096*	14	"	"	"	"	"	**J, B**
Total HpCDD	"	**11**	*0.21*	7.2	"	"	"	"	"	
Total HpCDF	"	**7.2**	*0.14*	7.2	"	"	"	"	"	
Total HxCDD	"	**4.3**	*0.14*	7.2	"	"	"	"	"	
Total HxCDF	"	**9.3**	*0.12*	7.2	"	"	"	"	"	
Total PeCDD	"	**0.29**	*0.18*	7.2	"	"	"	"	"	
Total PeCDF	"	**5.3**	*0.14*	7.2	"	"	"	"	"	
Total TCDD	"	**1.2**	*0.14*	1.4	"	"	"	"	"	
Total TCDF	"	**3.9**	*0.06*	1.4	"	"	"	"	"	

Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*	*79%*	*40 - 135 %*	"
	13C-1,2,3,4,6,7,8-HpCDF	*78%*	*40 - 135 %*	"
	13C-1,2,3,4,7,8-HxCDF	*84%*	*40 - 135 %*	"
	13C-1,2,3,6,7,8-HxCDD	*78%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDD	*84%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDF	*80%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDD	*78%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDF	*77%*	*40 - 135 %*	"
	13C-OCDD	*71%*	*40 - 135 %*	"

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-23RE1 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
2,3,7,8-TCDF	SW846 8290	**1**	*0.3*	1.4	pg/g	0.95x	28433	01/28/10 20:45	02/11/10 11:05	**J**
Surrogate(s): 13C-2,3,7,8-TCDF				*84%*		*40 - 135 %*				"
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**2.7**	*0.36*	6.6	pg/g	1x	28433	01/28/10 20:45	02/09/10 22:04	**J, Q**
1,2,3,4,6,7,8-HpCDF	"	**1.2**	*0.12*	6.6	"	"	"	"	"	**J**
1,2,3,4,7,8,9-HpCDF	"	**0.26**	*0.14*	6.6	"	"	"	"	"	**J, Q**
1,2,3,4,7,8-HxCDD	"	ND	*0.25*	6.6	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**1.1**	*0.1*	6.6	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDD	"	ND	*0.19*	6.6	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	**0.29**	*0.085*	6.6	"	"	"	"	"	**J, Q**
1,2,3,7,8,9-HxCDD	"	ND	*0.2*	6.6	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	"	ND	*0.1*	6.6	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*0.18*	6.6	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	**0.39**	*0.081*	6.6	"	"	"	"	"	**J, Q**
2,3,4,6,7,8-HxCDF	"	ND	*0.095*	6.6	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	**0.13**	*0.084*	6.6	"	"	"	"	"	**J, Q**
2,3,7,8-TCDD	"	ND	*0.12*	1.3	"	"	"	"	"	
2,3,7,8-TCDF	"	**0.48**	*0.056*	1.3	"	"	"	"	"	**J, Q**
OCDD	"	**30**	*0.21*	13	"	"	"	"	"	
OCDF	"	**3.3**	*0.086*	13	"	"	"	"	"	**J, B**
Total HpCDD	"	**6.7**	*0.36*	6.6	"	"	"	"	"	
Total HpCDF	"	**3.2**	*0.13*	6.6	"	"	"	"	"	
Total HxCDD	"	**1.1**	*0.21*	6.6	"	"	"	"	"	
Total HxCDF	"	**2.1**	*0.096*	6.6	"	"	"	"	"	
Total PeCDD	"	ND	*0.18*	6.6	"	"	"	"	"	
Total PeCDF	"	**0.84**	*0.083*	6.6	"	"	"	"	"	
Total TCDD	"	ND	*0.12*	1.3	"	"	"	"	"	
Total TCDF	"	**0.69**	*0.056*	1.3	"	"	"	"	"	
Surrogate(s): 13C-1,2,3,4,6,7,8-HpCDD				*71%*		*40 - 135 %*				"
13C-1,2,3,4,6,7,8-HpCDF				*69%*		*40 - 135 %*				"
13C-1,2,3,4,7,8-HxCDF				*83%*		*40 - 135 %*				"
13C-1,2,3,6,7,8-HxCDD				*78%*		*40 - 135 %*				"
13C-1,2,3,7,8-PeCDD				*85%*		*40 - 135 %*				"
13C-1,2,3,7,8-PeCDF				*79%*		*40 - 135 %*				"
13C-2,3,7,8-TCDD				*79%*		*40 - 135 %*				"

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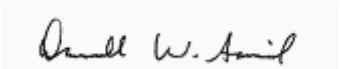

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
13C-2,3,7,8-TCDF			*77%*			*40 - 135 %*			*02/09/10 22:04*	
13C-OCDD			*60%*			*40 - 135 %*			*"*	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	**82**	*0.26*	5.6	pg/g	0.99x	28433	01/28/10 20:45	02/09/10 22:48	
1,2,3,4,6,7,8-HpCDF	"	**27**	*0.34*	5.6	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	**8.6**	*0.4*	5.6	"	"	"	"	"	
1,2,3,4,7,8-HxCDD	"	**1.7**	*0.28*	5.6	"	"	"	"	"	**J**
1,2,3,4,7,8-HxCDF	"	**37**	*0.19*	5.6	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	**3.1**	*0.21*	5.6	"	"	"	"	"	**J**
1,2,3,6,7,8-HxCDF	"	**10**	*0.16*	5.6	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	**2.3**	*0.22*	5.6	"	"	"	"	"	**J**
1,2,3,7,8,9-HxCDF	"	**0.49**	*0.2*	5.6	"	"	"	"	"	**Q , J**
1,2,3,7,8-PeCDD	"	**0.68**	*0.21*	5.6	"	"	"	"	"	**J**
1,2,3,7,8-PeCDF	"	**20**	*0.42*	5.6	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	**2.8**	*0.18*	5.6	"	"	"	"	"	**J**
2,3,4,7,8-PeCDF	"	**8.3**	*0.43*	5.6	"	"	"	"	"	
2,3,7,8-TCDD	"	**0.22**	*0.11*	1.1	"	"	"	"	"	**J, Q**
OCDD	"	**760**	*0.53*	11	"	"	"	"	"	
OCDF	"	**57**	*0.14*	11	"	"	"	"	"	**B**
Total HpCDD	"	**160**	*0.26*	5.6	"	"	"	"	"	
Total HpCDF	"	**60**	*0.37*	5.6	"	"	"	"	"	
Total HxCDD	"	**24**	*0.23*	5.6	"	"	"	"	"	
Total HxCDF	"	**77**	*0.18*	5.6	"	"	"	"	"	
Total PeCDD	"	**6.6**	*0.21*	5.6	"	"	"	"	"	
Total PeCDF	"	**59**	*0.42*	5.6	"	"	"	"	"	
Total TCDD	"	**4**	*0.11*	1.1	"	"	"	"	"	
Total TCDF	"	**59**	*0.041*	1.1	"	"	"	"	"	
Surrogate(s): *13C-1,2,3,4,6,7,8-HpCDD*			*84%*			*40 - 135 %*			*"*	
13C-1,2,3,4,6,7,8-HpCDF			*85%*			*40 - 135 %*			*"*	
13C-1,2,3,4,7,8-HxCDF			*92%*			*40 - 135 %*			*"*	
13C-1,2,3,6,7,8-HxCDD			*85%*			*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDD			*86%*			*40 - 135 %*			*"*	
13C-1,2,3,7,8-PeCDF			*82%*			*40 - 135 %*			*"*	
13C-2,3,7,8-TCDD			*80%*			*40 - 135 %*			*"*	
13C-2,3,7,8-TCDF			*76%*			*40 - 135 %*			*"*	
13C-OCDD			*76%*			*40 - 135 %*			*"*	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-25RE1 (B-129-0-2)				**Soil**		**Sampled: 01/21/10 13:10**				
2,3,7,8-TCDF	SW846 8290	**20**	*0.28*	1.1	pg/g	0.99x	28433	01/28/10 20:45	02/11/10 13:34	
Surrogate(s): 13C-2,3,7,8-TCDF				*92%*		*40 - 135 %*				"

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Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0036433

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0036433	**19.6**	*0.1*	0.1	%	1x	36433	02/05/10 00:00	02/06/10 08:10	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0036433	**36.4**	*0.1*	0.1	%	1x	36433	02/05/10 00:00	02/06/10 08:10	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0037055

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0037055	**11.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0037055	**15.5**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0037055	**14.3**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	D 2216-90_0037055	**16.9**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	D 2216-90_0037055	**25.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	D 2216-90_0037055	**12.8**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	D 2216-90_0037055	**20.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0037055	**24.5**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	D 2216-90_0037055	**33.9**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0037055

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	D 2216-90_0037055	**24.8**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Percent Moisture	D 2216-90_0037055	**10.7**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:28	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
1,2,3,4,6,7,8-HpCDD	SW846 8290	ND	*4.1*	48	pg/L	0.96x	28223	01/28/10 11:00	01/29/10 21:54	
1,2,3,4,6,7,8-HpCDF	"	ND	*2.5*	48	"	"	"	"	"	
1,2,3,7,8-PeCDF	"	ND	*2.8*	48	"	"	"	"	"	
1,2,3,4,7,8,9-HpCDF	"	ND	*2.8*	48	"	"	"	"	"	
1,2,3,4,7,8-HxCDF	"	**2.6**	*2*	48	"	"	"	"	"	**J, Q**
1,2,3,4,7,8-HxCDD	"	ND	*2.8*	48	"	"	"	"	"	
1,2,3,6,7,8-HxCDD	"	ND	*2.5*	48	"	"	"	"	"	
1,2,3,6,7,8-HxCDF	"	ND	*1.8*	48	"	"	"	"	"	
1,2,3,7,8,9-HxCDD	"	ND	*2.1*	48	"	"	"	"	"	
1,2,3,7,8,9-HxCDF	"	ND	*1.8*	48	"	"	"	"	"	
1,2,3,7,8-PeCDD	"	ND	*4*	48	"	"	"	"	"	
2,3,4,6,7,8-HxCDF	"	ND	*2*	48	"	"	"	"	"	
2,3,4,7,8-PeCDF	"	ND	*3*	48	"	"	"	"	"	
OCDF	"	ND	*5.6*	96	"	"	"	"	"	
Total HpCDD	"	ND	*4.1*	48	"	"	"	"	"	
Total HpCDF	"	ND	*2.8*	48	"	"	"	"	"	
2,3,7,8-TCDD	"	ND	*2.3*	9.6	"	"	"	"	"	
Total PeCDF	"	ND	*3*	48	"	"	"	"	"	
2,3,7,8-TCDF	"	**1.6**	*1.4*	9.6	"	"	"	"	"	**J, Q**
Total TCDD	"	ND	*2.3*	9.6	"	"	"	"	"	
OCDD	"	**17**	*5.5*	96	"	"	"	"	"	**J**
Total TCDF	"	**1.6**	*1.4*	9.6	"	"	"	"	"	
Total HxCDD	"	ND	*2.8*	48	"	"	"	"	"	
Total HxCDF	"	**2.6**	*1.9*	48	"	"	"	"	"	
Total PeCDD	"	ND	*4*	48	"	"	"	"	"	

Surrogate(s):	*13C-1,2,3,4,6,7,8-HpCDD*	*102%*	*40 - 135 %*	"
	13C-1,2,3,4,6,7,8-HpCDF	*111%*	*40 - 135 %*	"
	13C-1,2,3,4,7,8-HxCDF	*88%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDF	*84%*	*40 - 135 %*	"
	13C-OCDD	*91%*	*40 - 135 %*	"
	13C-1,2,3,6,7,8-HxCDD	*103%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDD	*80%*	*40 - 135 %*	"
	13C-1,2,3,7,8-PeCDF	*83%*	*40 - 135 %*	"
	13C-2,3,7,8-TCDD	*80%*	*40 - 135 %*	"

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Moisture

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	Moisture	**23**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**77**	*0.10*	0.10	"	"	"	"	"	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	Moisture	**19**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**81**	*0.10*	0.10	"	"	"	"	"	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	Moisture	**16**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**84**	*0.10*	0.10	"	"	"	"	"	
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	Moisture	**18**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**82**	*0.10*	0.10	"	"	"	"	"	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	Moisture	**20**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**80**	*0.10*	0.10	"	"	"	"	"	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	Moisture	**12**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**88**	*0.10*	0.10	"	"	"	"	"	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	Moisture	**20**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**80**	*0.10*	0.10	"	"	"	"	"	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**22**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**78**	*0.10*	0.10	"	"	"	"	"	

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Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Moisture

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**17**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**83**	*0.10*	0.10	"	"	"	"	"	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**30**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**70**	*0.10*	0.10	"	"	"	"	"	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	Moisture	**35**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**65**	*0.10*	0.10	"	"	"	"	"	
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	Moisture	**26**	*0.10*	0.10	%	1x	79522	01/26/10 16:15	01/26/10 16:15	
Percent Solids	"	**74**	*0.10*	0.10	"	"	"	"	"	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Percent Moisture	Moisture	**14**	*0.10*	0.10	%	1x	79522	01/26/10 16:15	01/26/10 16:15	
Percent Solids	"	**86**	*0.10*	0.10	"	"	"	"	"	

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ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Dichloronaphthalene, Total	8270C Dry	ND	*33*	110	ug/Kg dry	1x	79534	01/27/10 07:15	02/02/10 13:10	U
Heptachloronaphthalene, Total	"	ND	*42*	110	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*72*	110	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*38*	110	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*27*	110	"	"	"	"	"	U
Octachlorostyrene	"	ND	*49*	110	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*46*	110	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*30*	110	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*33*	110	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*42%*		*21 - 123 %*				"
Nitrobenzene-d5				*72%*		*28 - 110 %*				"
Terphenyl-d14				*92%*		*36 - 119 %*				"
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Dichloronaphthalene, Total	8270C Dry	ND	*30*	97	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 17:39	U
Heptachloronaphthalene, Total	"	ND	*38*	97	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*66*	97	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*35*	97	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*25*	97	"	"	"	"	"	U
Octachlorostyrene	"	ND	*45*	97	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*42*	97	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*27*	97	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*31*	97	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*53%*		*21 - 123 %*				"
Nitrobenzene-d5				*58%*		*28 - 110 %*				"
Terphenyl-d14				*56%*		*36 - 119 %*				"
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Dichloronaphthalene, Total	8270C Dry	ND	*29*	94	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 17:58	U
Heptachloronaphthalene, Total	"	ND	*37*	94	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*64*	94	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*34*	94	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*24*	94	"	"	"	"	"	U
Octachlorostyrene	"	ND	*44*	94	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*41*	94	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*26*	94	"	"	"	"	"	U

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Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Trichloronaphthalene, Total	8270C Dry	ND	*30*	94	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 17:58	**U**
Surrogate(s): 2-Fluorobiphenyl				*64%*		*21 - 123 %*				"
Nitrobenzene-d5				*63%*		*28 - 110 %*				"
Terphenyl-d14				*71%*		*36 - 119 %*				"
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Dichloronaphthalene, Total	8270C Dry	ND	*30*	97	ug/Kg dry	1x	79534	01/27/10 07:15	02/02/10 13:30	**U**
Heptachloronaphthalene, Total	"	ND	*38*	97	"	"	"	"	"	**U**
Hexachloronaphthalene, Total	"	ND	*66*	97	"	"	"	"	"	**U**
Monochloronaphthalene, Total	"	ND	*35*	97	"	"	"	"	"	**U**
Octachloronaphthalene, Total	"	ND	*25*	97	"	"	"	"	"	**U**
Octachlorostyrene	"	ND	*45*	97	"	"	"	"	"	**U**
Pentachloronaphthalene, Total	"	ND	*42*	97	"	"	"	"	"	**U**
Tetrachloronaphthalene, Total	"	ND	*27*	97	"	"	"	"	"	**U**
Trichloronaphthalene, Total	"	ND	*31*	97	"	"	"	"	"	**U**
Surrogate(s): 2-Fluorobiphenyl				*48%*		*21 - 123 %*				"
Nitrobenzene-d5				*53%*		*28 - 110 %*				"
Terphenyl-d14				*102%*		*36 - 119 %*				"
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Dichloronaphthalene, Total	8270C Dry	ND	*30*	98	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 18:37	**U**
Heptachloronaphthalene, Total	"	ND	*38*	98	"	"	"	"	"	**U**
Hexachloronaphthalene, Total	"	ND	*66*	98	"	"	"	"	"	**U**
Monochloronaphthalene, Total	"	ND	*35*	98	"	"	"	"	"	**U**
Octachloronaphthalene, Total	"	ND	*25*	98	"	"	"	"	"	**U**
Octachlorostyrene	"	ND	*45*	98	"	"	"	"	"	**U**
Pentachloronaphthalene, Total	"	ND	*42*	98	"	"	"	"	"	**U**
Tetrachloronaphthalene, Total	"	ND	*27*	98	"	"	"	"	"	**U**
Trichloronaphthalene, Total	"	ND	*31*	98	"	"	"	"	"	**U**
Surrogate(s): 2-Fluorobiphenyl				*51%*		*21 - 123 %*				"
Nitrobenzene-d5				*58%*		*28 - 110 %*				"
Terphenyl-d14				*117%*		*36 - 119 %*				"

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Dichloronaphthalene, Total	8270C Dry	ND	*29*	92	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 18:56	U
Heptachloronaphthalene, Total	"	ND	*36*	92	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*63*	92	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*33*	92	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*23*	92	"	"	"	"	"	U
Octachlorostyrene	"	ND	*42*	92	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*40*	92	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*26*	92	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*29*	92	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*57%*		*21 - 123 %*				"
Nitrobenzene-d5				*60%*		*28 - 110 %*				"
Terphenyl-d14				*98%*		*36 - 119 %*				"
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Dichloronaphthalene, Total	8270C Dry	ND	*31*	100	ug/Kg dry	1x	79534	01/27/10 07:15	02/02/10 13:49	U
Heptachloronaphthalene, Total	"	ND	*40*	100	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*69*	100	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*37*	100	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*26*	100	"	"	"	"	"	U
Octachlorostyrene	"	ND	*47*	100	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*44*	100	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*28*	100	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*32*	100	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*32%*		*21 - 123 %*				"
Nitrobenzene-d5				*55%*		*28 - 110 %*				"
Terphenyl-d14				*77%*		*36 - 119 %*				"
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Dichloronaphthalene, Total	8270C Dry	ND	*33*	100	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 19:35	U
Heptachloronaphthalene, Total	"	ND	*41*	100	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*71*	100	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*38*	100	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*27*	100	"	"	"	"	"	U
Octachlorostyrene	"	ND	*48*	100	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*45*	100	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*29*	100	"	"	"	"	"	U

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Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Trichloronaphthalene, Total	8270C Dry	ND	*33*	100	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 19:35	**U**
Surrogate(s): 2-Fluorobiphenyl				*49%*		*21 - 123 %*				*"*
Nitrobenzene-d5				*58%*		*28 - 110 %*				*"*
Terphenyl-d14				*79%*		*36 - 119 %*				*"*
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Dichloronaphthalene, Total	8270C Dry	ND	*31*	98	ug/Kg dry	1x	79534	01/27/10 07:15	02/02/10 14:09	**U**
Heptachloronaphthalene, Total	"	ND	*39*	98	"	"	"	"	"	**U**
Hexachloronaphthalene, Total	"	ND	*67*	98	"	"	"	"	"	**U**
Monochloronaphthalene, Total	"	ND	*36*	98	"	"	"	"	"	**U**
Octachloronaphthalene, Total	"	ND	*25*	98	"	"	"	"	"	**U**
Octachlorostyrene	"	ND	*45*	98	"	"	"	"	"	**U**
Pentachloronaphthalene, Total	"	ND	*42*	98	"	"	"	"	"	**U**
Tetrachloronaphthalene, Total	"	ND	*28*	98	"	"	"	"	"	**U**
Trichloronaphthalene, Total	"	ND	*31*	98	"	"	"	"	"	**U**
Surrogate(s): 2-Fluorobiphenyl				*33%*		*21 - 123 %*				*"*
Nitrobenzene-d5				*42%*		*28 - 110 %*				*"*
Terphenyl-d14				*75%*		*36 - 119 %*				*"*
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Dichloronaphthalene, Total	8270C Dry	ND	*36*	120	ug/Kg dry	1x	79534	01/27/10 07:15	02/02/10 14:28	**U**
Heptachloronaphthalene, Total	"	ND	*45*	120	"	"	"	"	"	**U**
Hexachloronaphthalene, Total	"	ND	*79*	120	"	"	"	"	"	**U**
Monochloronaphthalene, Total	"	ND	*42*	120	"	"	"	"	"	**U**
Octachloronaphthalene, Total	"	ND	*29*	120	"	"	"	"	"	**U**
Octachlorostyrene	"	ND	*53*	120	"	"	"	"	"	**U**
Pentachloronaphthalene, Total	"	ND	*50*	120	"	"	"	"	"	**U**
Tetrachloronaphthalene, Total	"	ND	*32*	120	"	"	"	"	"	**U**
Trichloronaphthalene, Total	"	ND	*37*	120	"	"	"	"	"	**U**
Surrogate(s): 2-Fluorobiphenyl				*21%*		*21 - 123 %*				*"*
Nitrobenzene-d5				*29%*		*28 - 110 %*				*"*
Terphenyl-d14				*67%*		*36 - 119 %*				*"*

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Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Dichloronaphthalene, Total	8270C Dry	ND	*38*	120	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 20:33	U
Heptachloronaphthalene, Total	"	ND	*48*	120	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*84*	120	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*45*	120	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*31*	120	"	"	"	"	"	U
Octachlorostyrene	"	ND	*57*	120	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*53*	120	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*34*	120	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*39*	120	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*33%*		*21 - 123 %*				"
Nitrobenzene-d5				*41%*		*28 - 110 %*				"
Terphenyl-d14				*54%*		*36 - 119 %*				"
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Dichloronaphthalene, Total	8270C Dry	ND	*34*	110	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 20:52	U
Heptachloronaphthalene, Total	"	ND	*42*	110	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*73*	110	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*39*	110	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*27*	110	"	"	"	"	"	U
Octachlorostyrene	"	ND	*50*	110	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*46*	110	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*30*	110	"	"	"	"	"	U
Trichloronaphthalene, Total	"	ND	*34*	110	"	"	"	"	"	U
Surrogate(s): *2-Fluorobiphenyl*				*16%*		*21 - 123 %*				" *X*
Nitrobenzene-d5				*34%*		*28 - 110 %*				"
Terphenyl-d14				*37%*		*36 - 119 %*				"
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Dichloronaphthalene, Total	8270C Dry	ND	*29*	93	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 21:12	U
Heptachloronaphthalene, Total	"	ND	*37*	93	"	"	"	"	"	U
Hexachloronaphthalene, Total	"	ND	*64*	93	"	"	"	"	"	U
Monochloronaphthalene, Total	"	ND	*34*	93	"	"	"	"	"	U
Octachloronaphthalene, Total	"	ND	*24*	93	"	"	"	"	"	U
Octachlorostyrene	"	ND	*43*	93	"	"	"	"	"	U
Pentachloronaphthalene, Total	"	ND	*40*	93	"	"	"	"	"	U
Tetrachloronaphthalene, Total	"	ND	*26*	93	"	"	"	"	"	U

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Semivolatile Organic Compounds (GC/MS SIM)

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-25 (B-129-0-2)				**Soil**		**Sampled: 01/21/10 13:10**				
Trichloronaphthalene, Total	8270C Dry	ND	*29*	93	ug/Kg dry	1x	79534	01/27/10 07:15	01/29/10 21:12	**U**
Surrogate(s): 2-Fluorobiphenyl				*59%*		*21 - 123 %*			"	
Nitrobenzene-d5				*75%*		*28 - 110 %*			"	
Terphenyl-d14				*120%*		*36 - 119 %*			"	***X***
PTA0583-31 (RINSATE)				**Water**		**Sampled: 01/21/10 16:50**				
Dichloronaphthalene, Total	8270C	ND	*0.40*	2.7	ug/L	1x	79607	01/28/10 07:36	01/29/10 17:00	**U**
Heptachloronaphthalene, Total	"	ND	*1.0*	2.7	"	"	"	"	"	**U**
Hexachloronaphthalene, Total	"	ND	*1.5*	2.7	"	"	"	"	"	**U**
Monochloronaphthalene, Total	"	ND	*0.24*	2.7	"	"	"	"	"	**U**
Octachloronaphthalene, Total	"	ND	*0.44*	2.7	"	"	"	"	"	**U**
Octachlorostyrene	"	ND	*0.62*	2.7	"	"	"	"	"	**U**
Pentachloronaphthalene, Total	"	ND	*1.2*	2.7	"	"	"	"	"	**U**
Tetrachloronaphthalene, Total	"	ND	*0.37*	2.7	"	"	"	"	"	**U**
Trichloronaphthalene, Total	"	ND	*0.22*	2.7	"	"	"	"	"	**U**
Surrogate(s): 2-Fluorobiphenyl				*70%*		*45 - 110 %*			"	
Nitrobenzene-d5				*72%*		*51 - 110 %*			"	
Terphenyl-d14				*88%*		*52 - 122 %*			"	

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Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

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QC Batch: 10A0648 **Soil Preparation Method: EPA 3050**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0648-BLK1)									Extracted: 01/26/10 12:07					
Arsenic	EPA 6010B	ND	0.425	4.95	mg/kg wet	1x	--	--	--	--	--	--	01/27/10 05:42	
LCS (10A0648-BS1)									Extracted: 01/26/10 12:07					
Arsenic	EPA 6010B	43.9	0.409	4.76	mg/kg wet	1x	--	47.6	92.2%	(80-120)	--	--	01/27/10 05:48	
Matrix Spike (10A0648-MS1)				QC Source: PTA0583-17					Extracted: 01/26/10 12:07					
Arsenic	EPA 6010B	61.7	0.509	5.94	mg/kg dry	1x	4.80	59.4	95.8%	(75-125)	--	--	01/27/10 06:45	
Matrix Spike Dup (10A0648-MSD1)				QC Source: PTA0583-17					Extracted: 01/26/10 12:07					
Arsenic	EPA 6010B	64.3	0.514	5.99	mg/kg dry	1x	4.80	59.9	99.2%	(75-125)	4.04%	(40)	01/27/10 06:51	

QC Batch: 10A0744 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0744-BLK1)									Extracted: 01/28/10 11:12					
Arsenic	EPA 6010B	ND	0.00940	0.0500	mg/l	1x	--	--	--	--	--	--	01/28/10 16:24	
LCS (10A0744-BS1)									Extracted: 01/28/10 11:12					
Arsenic	EPA 6010B	1.08	0.00940	0.0500	mg/l	1x	--	1.00	108%	(85-115)	--	--	01/28/10 16:30	
Duplicate (10A0744-DUP1)				QC Source: PTA0510-02					Extracted: 01/28/10 11:12					
Arsenic	EPA 6010B	ND	0.00940	0.0500	mg/l	1x	ND	--	--	--	NR	(20)	01/28/10 16:42	
Matrix Spike (10A0744-MS1)				QC Source: PTA0510-02					Extracted: 01/28/10 11:12					
Arsenic	EPA 6010B	1.05	0.00940	0.0500	mg/l	1x	ND	1.00	105%	(75-125)	--	--	01/28/10 16:47	
Matrix Spike (10A0744-MS2)				QC Source: PTA0692-05					Extracted: 01/28/10 11:12					
Arsenic	EPA 6010B	1.06	0.00940	0.0500	mg/l	1x	ND	1.00	106%	(75-125)	--	--	01/28/10 18:43	

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Darrell Auvil, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0630-BLK1)								**Extracted: 01/26/10 11:00**						
Aldrin	EPA 8081A	ND	0.328	0.667	ug/kg wet	1x	--	--	--	--	--	--	02/05/10 18:24	
alpha-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	7.46	14.9	"	"	--	--	--	--	--	--	"	
4,4´-DDD	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
4,4´-DDE	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
4,4´-DDT	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	9.95	19.9	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 71.0%*			*Limits: 36-140%*								*02/05/10 18:24*	
LCS (10A0630-BS1)								**Extracted: 01/26/10 11:00**						
Aldrin	EPA 8081A	2.75	0.328	0.666	ug/kg wet	1x	--	3.31	83.1%	(50-130)	--	--	02/05/10 18:51	
alpha-BHC	"	2.56	0.328	0.666	"	"	--	"	77.1%	"	--	--	"	
beta-BHC	"	2.95	0.328	0.666	"	"	--	"	89.0%	"	--	--	"	
delta-BHC	"	2.69	0.328	0.666	"	"	--	"	81.3%	"	--	--	"	
gamma-BHC (Lindane)	"	2.73	0.328	0.666	"	"	--	"	82.4%	"	--	--	"	
gamma-Chlordane	"	2.83	0.328	0.666	"	"	--	"	85.3%	"	--	--	"	
alpha-Chlordane	"	2.76	0.328	0.666	"	"	--	"	83.4%	"	--	--	"	
4,4´-DDD	"	2.81	0.328	0.666	"	"	--	"	84.8%	"	--	--	"	
4,4´-DDE	"	2.82	0.328	0.666	"	"	--	"	85.1%	"	--	--	"	
4,4´-DDT	"	2.87	0.328	0.666	"	"	--	"	86.6%	"	--	--	"	
Dieldrin	"	2.88	0.328	0.666	"	"	--	"	87.0%	"	--	--	"	
Endosulfan I	"	2.75	0.328	0.666	"	"	--	"	83.1%	"	--	--	"	
Endosulfan II	"	2.90	0.328	0.666	"	"	--	"	87.4%	"	--	--	"	
Endosulfan sulfate	"	2.87	0.328	0.666	"	"	--	"	86.7%	"	--	--	"	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10A0630-BS1)									Extracted: 01/26/10 11:00					
Endrin	EPA 8081A	3.05	0.328	0.666	ug/kg wet	1x	--	3.31	92.1%	(50-130)	--	--	02/05/10 18:51	
Endrin aldehyde	"	2.50	0.328	0.666	"	"	--	"	75.4%	"	--	--	"	
Endrin ketone	"	3.06	0.328	0.666	"	"	--	"	92.4%	"	--	--	"	
Heptachlor	"	2.86	0.328	0.666	"	"	--	"	86.4%	"	--	--	"	
Heptachlor epoxide	"	2.72	0.328	0.666	"	"	--	"	82.0%	"	--	--	"	
Methoxychlor	"	2.65	0.328	0.666	"	"	--	"	79.9%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 58.6%*		*Limits: 36-140%*									*02/05/10 18:51*	
Matrix Spike (10A0630-MS1)				QC Source: PTA0583-17					Extracted: 01/26/10 11:00					
Aldrin	EPA 8081A	21.9	2.49	8.32	ug/kg dry	10x	ND	4.14	528%	(40-140)	--	--	02/08/10 15:51	M1
alpha-BHC	"	3.96	2.49	8.32	"	"	ND	"	95.6%	"	--	--	"	J
beta-BHC	"	4.05	2.49	8.32	"	"	ND	"	97.9%	"	--	--	"	J
delta-BHC	"	3.96	2.49	8.32	"	"	ND	"	95.5%	"	--	--	"	J
gamma-BHC (Lindane)	"	5.42	2.49	8.32	"	"	ND	"	131%	"	--	--	"	J
gamma-Chlordane	"	7.16	2.49	8.32	"	"	ND	"	173%	"	--	--	"	M1, J
alpha-Chlordane	"	5.71	2.49	8.32	"	"	ND	"	138%	"	--	--	"	J
Endosulfan I	"	5.82	2.49	8.32	"	"	ND	"	140%	"	--	--	"	M1, J
Endosulfan II	"	8.98	2.49	8.32	"	"	ND	"	217%	"	--	--	"	M1
Endosulfan sulfate	"	3.91	2.49	8.32	"	"	ND	"	94.5%	"	--	--	"	J
Endrin aldehyde	"	4.68	2.49	8.32	"	"	ND	"	113%	"	--	--	"	J
Endrin ketone	"	4.13	2.49	8.32	"	"	ND	"	99.7%	"	--	--	"	J
Heptachlor	"	4.45	2.49	8.32	"	"	ND	"	107%	"	--	--	"	J
Heptachlor epoxide	"	7.39	2.49	8.32	"	"	ND	"	178%	"	--	--	"	M1, J
Methoxychlor	"	7.10	2.49	8.32	"	"	ND	"	171%	"	--	--	"	M1, J
Dieldrin (2)	"	2.94	1.24	8.32	"	"	ND	"	70.9%	"	--	--	"	J
Endrin (2)	"	3.09	1.24	8.32	"	"	ND	"	74.7%	"	--	--	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 285%*		*Limits: 36-140%*									*02/08/10 15:51*	*ZX*
Matrix Spike (10A0630-MS2)				QC Source: PTA0583-17					Extracted: 01/26/10 11:00					
4,4´-DDD	EPA 8081A	353	24.9	83.2	ug/kg dry	100x	544	4.14	-4620%	(40-140)	--	--	02/05/10 19:17	MHA
4,4´-DDE	"	216	24.9	83.2	"	"	235	"	-465%	"	--	--	"	MHA
4,4´-DDT	"	396	24.9	83.2	"	"	323	"	1780%	"	--	--	"	MHA

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10A0630-MSD1)					QC Source: PTA0583-17			Extracted: 01/26/10 11:00						
Aldrin	EPA 8081A	4.46	2.49	8.34	ug/kg dry	10x	ND	4.15	108%	(40-140)	132%	(40)	02/08/10 16:18	R, J
alpha-BHC	"	3.44	2.49	8.34	"	"	ND	"	82.9%	"	14.0%	"	"	J
beta-BHC	"	3.15	2.49	8.34	"	"	ND	"	75.9%	"	25.1%	"	"	J
delta-BHC	"	3.35	2.49	8.34	"	"	ND	"	80.7%	"	16.6%	"	"	J
gamma-BHC (Lindane)	"	4.18	2.49	8.34	"	"	ND	"	101%	"	25.8%	"	"	J
gamma-Chlordane	"	4.99	2.49	8.34	"	"	ND	"	120%	"	35.6%	"	"	J
alpha-Chlordane	"	4.62	2.49	8.34	"	"	ND	"	111%	"	21.1%	"	"	J
Endosulfan I	"	5.06	2.49	8.34	"	"	ND	"	122%	"	13.9%	"	"	J
Endosulfan II	"	6.37	2.49	8.34	"	"	ND	"	154%	"	34.1%	"	"	M1, J
Endosulfan sulfate	"	3.22	2.49	8.34	"	"	ND	"	77.7%	"	19.3%	"	"	J
Endrin aldehyde	"	3.74	2.49	8.34	"	"	ND	"	90.2%	"	22.3%	"	"	J
Endrin ketone	"	3.64	2.49	8.34	"	"	ND	"	87.7%	"	12.6%	"	"	J
Heptachlor	"	3.41	2.49	8.34	"	"	ND	"	82.3%	"	26.3%	"	"	J
Heptachlor epoxide	"	6.38	2.49	8.34	"	"	ND	"	154%	"	14.7%	"	"	M1, J
Methoxychlor	"	4.89	2.49	8.34	"	"	ND	"	118%	"	36.8%	"	"	J
Dieldrin (2)	"	2.25	1.24	8.34	"	"	ND	"	54.2%	"	26.5%	"	"	J
Endrin (2)	"	2.35	1.24	8.34	"	"	ND	"	56.7%	"	27.2%	"	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 229%*		*Limits: 36-140%*									*02/08/10 16:18*	*ZX*
Matrix Spike Dup (10A0630-MSD2)					QC Source: PTA0583-17			Extracted: 01/26/10 11:00						
4,4´-DDD	EPA 8081A	548	41.1	83.4	ug/kg dry	100x	544	4.15	101%	(40-140)	43.4%	(40)	02/05/10 19:44	MHA
4,4´-DDE	"	243	41.1	83.4	"	"	235	"	185%	"	11.7%	"	"	MHA
4,4´-DDT	"	180	41.1	83.4	"	"	323	"	-3430%	"	74.9%	"	"	MHA

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0728 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0728-BLK1)								**Extracted: 01/28/10 14:40**						
Aldrin	EPA 8081A	ND	0.00500	0.0100	ug/l	1x	--	--	--	--	--	--	02/05/10 12:05	
alpha-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
4,4´-DDD	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
4,4´-DDE	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
4,4´-DDT	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	0.250	0.250	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 41.3%*		*Limits: 16-137%*									*02/05/10 12:05*	
LCS (10A0728-BS1)								**Extracted: 01/28/10 14:40**						
Aldrin	EPA 8081A	0.0379	0.00500	0.0100	ug/l	1x	--	0.0500	75.8%	(43-115)	--	--	02/05/10 12:32	
alpha-BHC	"	0.0416	0.00500	0.0100	"	"	--	"	83.2%	(50-130)	--	--	"	
beta-BHC	"	0.0462	0.00500	0.0100	"	"	--	"	92.4%	"	--	--	"	
delta-BHC	"	0.0433	0.00500	0.0100	"	"	--	"	86.6%	"	--	--	"	
gamma-BHC (Lindane)	"	0.0445	0.00500	0.0100	"	"	--	"	88.9%	(61-120)	--	--	"	
gamma-Chlordane	"	0.0396	0.00500	0.0100	"	"	--	"	79.2%	(50-130)	--	--	"	
alpha-Chlordane	"	0.0437	0.00500	0.0100	"	"	--	"	87.4%	"	--	--	"	
4,4´-DDD	"	0.0454	0.00500	0.0100	"	"	--	"	90.9%	"	--	--	"	
4,4´-DDE	"	0.0432	0.00500	0.0100	"	"	--	"	86.4%	"	--	--	"	
4,4´-DDT	"	0.0449	0.00500	0.0100	"	"	--	"	89.7%	(58-128)	--	--	"	
Dieldrin	"	0.0459	0.00500	0.0100	"	"	--	"	91.8%	(60-128)	--	--	"	
Endosulfan I	"	0.0445	0.00500	0.0100	"	"	--	"	89.1%	(50-130)	--	--	"	
Endosulfan II	"	0.0467	0.00500	0.0100	"	"	--	"	93.4%	"	--	--	"	
Endosulfan sulfate	"	0.0460	0.00500	0.0100	"	"	--	"	92.0%	"	--	--	"	

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Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0728 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10A0728-BS1)								**Extracted: 01/28/10 14:40**						
Endrin	EPA 8081A	0.0484	0.00500	0.0100	ug/l	1x	--	0.0500	96.8%	(68-136)	--	--	02/05/10 12:32	
Endrin aldehyde	"	0.0462	0.00500	0.0100	"	"	--	"	92.3%	(50-130)	--	--	"	
Endrin ketone	"	0.0463	0.00500	0.0100	"	"	--	"	92.7%	"	--	--	"	
Heptachlor	"	0.0423	0.00500	0.0100	"	"	--	"	84.6%	(49-116)	--	--	"	
Heptachlor epoxide	"	0.0439	0.00500	0.0100	"	"	--	"	87.9%	(50-130)	--	--	"	
Methoxychlor	"	0.0425	0.00500	0.0100	"	"	--	"	85.0%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 41.8%*		*Limits: 16-137%*									*02/05/10 12:32*	
LCS Dup (10A0728-BSD1)								**Extracted: 01/28/10 14:40**						
Aldrin	EPA 8081A	0.0363	0.00500	0.0100	ug/l	1x	--	0.0500	72.6%	(43-115)	4.26%	(22)	02/05/10 12:58	
alpha-BHC	"	0.0432	0.00500	0.0100	"	"	--	"	86.5%	(50-130)	3.84%	"	"	
beta-BHC	"	0.0485	0.00500	0.0100	"	"	--	"	96.9%	"	4.81%	"	"	
delta-BHC	"	0.0449	0.00500	0.0100	"	"	--	"	89.8%	"	3.61%	"	"	
gamma-BHC (Lindane)	"	0.0464	0.00500	0.0100	"	"	--	"	92.8%	(61-120)	4.28%	"	"	
gamma-Chlordane	"	0.0404	0.00500	0.0100	"	"	--	"	80.9%	(50-130)	2.11%	"	"	
alpha-Chlordane	"	0.0442	0.00500	0.0100	"	"	--	"	88.4%	"	1.11%	"	"	
4,4´-DDD	"	0.0467	0.00500	0.0100	"	"	--	"	93.4%	"	2.76%	"	"	
4,4´-DDE	"	0.0438	0.00500	0.0100	"	"	--	"	87.7%	"	1.49%	"	"	
4,4´-DDT	"	0.0471	0.00500	0.0100	"	"	--	"	94.1%	(58-128)	4.81%	"	"	
Dieldrin	"	0.0478	0.00500	0.0100	"	"	--	"	95.6%	(60-128)	4.15%	"	"	
Endosulfan I	"	0.0469	0.00500	0.0100	"	"	--	"	93.7%	(50-130)	5.10%	"	"	
Endosulfan II	"	0.0485	0.00500	0.0100	"	"	--	"	97.1%	"	3.84%	"	"	
Endosulfan sulfate	"	0.0495	0.00500	0.0100	"	"	--	"	99.1%	"	7.44%	"	"	
Endrin	"	0.0503	0.00500	0.0100	"	"	--	"	101%	(68-136)	3.90%	"	"	
Endrin aldehyde	"	0.0474	0.00500	0.0100	"	"	--	"	94.8%	(50-130)	2.60%	"	"	
Endrin ketone	"	0.0487	0.00500	0.0100	"	"	--	"	97.4%	"	4.99%	"	"	
Heptachlor	"	0.0417	0.00500	0.0100	"	"	--	"	83.4%	(49-116)	1.38%	"	"	
Heptachlor epoxide	"	0.0454	0.00500	0.0100	"	"	--	"	90.9%	(50-130)	3.36%	"	"	
Methoxychlor	"	0.0452	0.00500	0.0100	"	"	--	"	90.4%	"	6.16%	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 39.6%*		*Limits: 16-137%*									*02/05/10 12:58*	

TestAmerica Portland

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10B0314-BLK1)								Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	ND	0.329	0.668	ug/kg wet	1x	--	--	--	--	--	--	02/15/10 13:05	
alpha-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	7.47	14.9	"	"	--	--	--	--	--	--	"	
4,4´-DDD	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
4,4´-DDE	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
4,4´-DDT	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	9.97	19.9	"	"	--	--	--	--	--	--	"	
Endrin (2)	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 69.5%*			*Limits: 36-140%*								*02/15/10 13:05*	
LCS (10B0314-BS1)								Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	2.70	0.330	0.670	ug/kg wet	1x	--	3.33	81.0%	(50-130)	--	--	02/15/10 14:05	
alpha-BHC	"	2.46	0.330	0.670	"	"	--	"	73.8%	"	--	--	"	
beta-BHC	"	2.75	0.330	0.670	"	"	--	"	82.4%	"	--	--	"	
delta-BHC	"	2.58	0.330	0.670	"	"	--	"	77.5%	"	--	--	"	
gamma-BHC (Lindane)	"	2.65	0.330	0.670	"	"	--	"	79.6%	"	--	--	"	
gamma-Chlordane	"	2.77	0.330	0.670	"	"	--	"	83.2%	"	--	--	"	
alpha-Chlordane	"	2.75	0.330	0.670	"	"	--	"	82.5%	"	--	--	"	
4,4´-DDD	"	2.83	0.330	0.670	"	"	--	"	84.9%	"	--	--	"	
4,4´-DDE	"	2.78	0.330	0.670	"	"	--	"	83.3%	"	--	--	"	
4,4´-DDT	"	2.97	0.330	0.670	"	"	--	"	89.1%	"	--	--	"	
Dieldrin	"	2.82	0.330	0.670	"	"	--	"	84.6%	"	--	--	"	
Endosulfan I	"	2.74	0.330	0.670	"	"	--	"	82.2%	"	--	--	"	
Endosulfan II	"	2.82	0.330	0.670	"	"	--	"	84.6%	"	--	--	"	
Endosulfan sulfate	"	2.82	0.330	0.670	"	"	--	"	84.7%	"	--	--	"	

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Darrell Auvil, Project Manager

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10B0314-BS1)								**Extracted: 02/11/10 07:30**						
Endrin aldehyde	EPA 8081A	2.40	0.330	0.670	ug/kg wet	1x	--	3.33	72.0%	(50-130)	--	--	02/15/10 14:05	
Endrin ketone	"	3.05	0.330	0.670	"	"	--	"	91.4%	"	--	--	"	
Heptachlor	"	2.82	0.330	0.670	"	"	--	"	84.7%	"	--	--	"	
Heptachlor epoxide	"	2.68	0.330	0.670	"	"	--	"	80.3%	"	--	--	"	
Methoxychlor	"	2.93	0.330	0.670	"	"	--	"	87.8%	"	--	--	"	
Endrin (2)	"	2.36	0.330	0.670	"	"	--	"	70.9%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 67.1%*		*Limits: 36-140%*									*02/15/10 14:05*	
Matrix Spike (10B0314-MS1)					**QC Source: PTA0583-19RE2**			**Extracted: 02/11/10 07:30**						
Aldrin	EPA 8081A	2.17	1.25	8.37	ug/kg dry	10x	ND	4.16	52.2%	(40-140)	--	--	02/15/10 15:42	J
alpha-BHC	"	2.79	1.25	8.37	"	"	ND	"	66.9%	"	--	--	"	J
beta-BHC	"	2.66	1.25	8.37	"	"	ND	"	64.0%	"	--	--	"	J
delta-BHC	"	2.92	1.25	8.37	"	"	ND	"	70.2%	"	--	--	"	J
gamma-BHC (Lindane)	"	2.87	1.25	8.37	"	"	ND	"	69.0%	"	--	--	"	J
gamma-Chlordane	"	2.48	1.25	8.37	"	"	ND	"	59.6%	"	--	--	"	J
alpha-Chlordane	"	2.65	1.25	8.37	"	"	ND	"	63.6%	"	--	--	"	J
4,4´-DDD	"	3.88	1.25	8.37	"	"	0.577	"	79.4%	"	--	--	"	J
4,4´-DDE	"	9.70	1.25	8.37	"	"	5.05	"	112%	"	--	--	"	
4,4´-DDT	"	36.0	1.25	8.37	"	"	22.2	"	332%	"	--	--	"	MHA
Dieldrin	"	2.75	1.25	8.37	"	"	ND	"	66.1%	"	--	--	"	J
Endosulfan I	"	3.54	1.25	8.37	"	"	1.72	"	43.7%	"	--	--	"	J
Endosulfan II	"	3.17	1.25	8.37	"	"	ND	"	76.2%	"	--	--	"	J
Endosulfan sulfate	"	2.75	1.25	8.37	"	"	ND	"	66.1%	"	--	--	"	J
Endrin aldehyde	"	2.07	1.25	8.37	"	"	ND	"	49.6%	"	--	--	"	J
Endrin ketone	"	2.85	1.25	8.37	"	"	ND	"	68.4%	"	--	--	"	J
Heptachlor	"	2.31	1.25	8.37	"	"	ND	"	55.5%	"	--	--	"	J
Heptachlor epoxide	"	2.48	1.25	8.37	"	"	ND	"	59.6%	"	--	--	"	J
Methoxychlor	"	2.98	1.25	8.37	"	"	ND	"	71.5%	"	--	--	"	J
Endrin (2)	"	2.34	1.25	8.37	"	"	ND	"	56.2%	"	--	--	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 104%*		*Limits: 36-140%*									*02/15/10 15:42*	

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Darrell Auvil, Project Manager

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10B0314-MSD1)					QC Source: PTA0583-19RE2			Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	1.86	1.25	8.39	ug/kg dry	10x	ND	4.17	44.6%	(40-140)	15.5%	(40)	02/15/10 16:08	J
alpha-BHC	"	2.52	1.25	8.39	"	"	ND	"	60.4%	"	9.98%	"	"	J
beta-BHC	"	2.33	1.25	8.39	"	"	ND	"	55.9%	"	13.3%	"	"	J
delta-BHC	"	2.67	1.25	8.39	"	"	ND	"	64.0%	"	9.01%	"	"	J
gamma-BHC (Lindane)	"	2.56	1.25	8.39	"	"	ND	"	61.3%	"	11.6%	"	"	J
gamma-Chlordane	"	2.15	1.25	8.39	"	"	ND	"	51.6%	"	14.2%	"	"	J
alpha-Chlordane	"	2.23	1.25	8.39	"	"	ND	"	53.4%	"	17.2%	"	"	J
4,4´-DDD	"	3.28	1.25	8.39	"	"	0.577	"	64.9%	"	16.7%	"	"	J
4,4´-DDE	"	6.54	1.25	8.39	"	"	5.05	"	35.9%	"	38.8%	"	"	M2, J
4,4´-DDT	"	22.6	1.25	8.39	"	"	22.2	"	9.66%	"	45.8%	"	"	MHA, R3
Dieldrin	"	2.26	1.25	8.39	"	"	ND	"	54.1%	"	19.7%	"	"	J
Endosulfan I	"	3.94	1.25	8.39	"	"	1.72	"	53.0%	"	10.5%	"	"	J
Endosulfan II	"	2.66	1.25	8.39	"	"	ND	"	63.8%	"	17.5%	"	"	J
Endosulfan sulfate	"	2.42	1.25	8.39	"	"	ND	"	57.9%	"	13.0%	"	"	J
Endrin aldehyde	"	1.82	1.25	8.39	"	"	ND	"	43.5%	"	12.9%	"	"	J
Endrin ketone	"	3.25	1.25	8.39	"	"	ND	"	77.8%	"	13.1%	"	"	J
Heptachlor	"	1.99	1.25	8.39	"	"	ND	"	47.8%	"	14.7%	"	"	J
Heptachlor epoxide	"	2.14	1.25	8.39	"	"	ND	"	51.2%	"	14.9%	"	"	J
Methoxychlor	"	2.54	1.25	8.39	"	"	ND	"	60.8%	"	15.9%	"	"	J
Endrin (2)	"	2.02	1.25	8.39	"	"	ND	"	48.3%	"	14.9%	"	"	J

Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 68.8% Limits: 36-140% 02/15/10 16:08

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0547 **Water Preparation Method: General Preparation**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10A0547-DUP1)					QC Source: PTA0570-01				Extracted: 01/22/10 08:30					
pH	150.1/9040A	7.80	---		pH Units	1x	7.82	--	--	--	0.256%	(25)	01/22/10 08:41	

QC Batch: 10A0723 **Soil Preparation Method: General Preparation**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10A0723-DUP1)					QC Source: PTA0583-17				Extracted: 01/28/10 08:43					
pH	EPA 9045C	9.84	---		pH Units	1x	9.78	--	--	--	0.612%	(25)	01/28/10 12:00	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Dry Weight (Solids) per ASTM D2216-80 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0585 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10A0585-DUP1)					**QC Source: PTA0583-19**				**Extracted: 01/23/10 08:34**					
% Solids	NCA SOP	79.3	---	0.0100	% by Weight	1x	79.8	--	--	--	0.629%	(20)	01/23/10 08:34	

TestAmerica Portland

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0055159 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 55159 **SOLID Preparation Method: D 2216-90_0055159**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (G0B130465001X)					**QC Source: G0B130465001**				**Extracted: 02/24/10 00:00**					
Percent Moisture	D 2216-90_005 5159	12.8	0.1	0.1	%	1x	13	--	--	--	--	()	02/25/10 08:24	

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BEAVERTON, OR 97008-7132
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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 28433 **SOLID Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (G0A220427017D)					**QC Source: PTA0583-17**			**Extracted: 01/28/10 20:45**						
1,2,3,7,8,9-HxCDD	SW846 8290	130			pg/g	1x	5.5	125	100%	(80-143)	2.6%	(31)	02/11/10 08:51	
OCDF	"	356			"	"	99	250	103%	(75-141)	11%	(45)	"	B
OCDD	"	632			"	"	590	"	15%	(80-137)	70%	(32)	"	a, p
1,2,3,7,8-PeCDF	"	178			"	"	60	125	94%	(81-134)	10%	(27)	"	
2,3,7,8-TCDF	"	48.2	0.33		"	"	42	25	26%	(79-137)	0%	(30)	02/11/10 16:02	a
1,2,3,7,8,9-HxCDF	"	138			"	"	2.3	125	109%	(72-152)	6.2%	(36)	02/11/10 08:51	
1,2,3,6,7,8-HxCDF	"	150			"	"	51	"	79%	(63-152)	9.9%	(38)	"	
1,2,3,6,7,8-HxCDD	"	130			"	"	9.1	"	97%	(73-147)	3.5%	(36)	"	
1,2,3,4,7,8-HxCDD	"	137			"	"	5.6	"	105%	(65-144)	2%	"	"	
1,2,3,4,7,8,9-HpCDF	"	157			"	"	14	"	115%	(79-139)	8.7%	(35)	"	
1,2,3,4,6,7,8-HpCDF	"	181			"	"	120	"	48%	(81-137)	0.04%	(33)	"	a
1,2,3,4,6,7,8-HpCDD	"	165			"	"	84	"	66%	(86-134)	22%	(28)	"	a
2,3,4,7,8-PeCDF	"	159			"	"	73	"	69%	(76-132)	6.8%	(31)	"	a
1,2,3,4,7,8-HxCDF	"	202			"	"	80	"	98%	(72-140)	14%	(32)	"	
1,2,3,7,8-PeCDD	"	129			"	"	8.4	"	97%	(79-134)	2.5%	(29)	"	
2,3,7,8-TCDD	"	27			"	"	3	25	96%	(77-130)	6.1%	(30)	"	
2,3,4,6,7,8-HxCDF	"	137			"	"	44	125	75%	(72-151)	4.4%	(35)	"	

Surrogate(s):		*Recovery:*	*NR*	*Limits:*	*40-135%*	*02/11/10 08:51*
	13C-OCDD		*NR*		*40-135%*	*"*
	13C-2,3,7,8-TCDF		*NR*		*40-135%*	*02/11/10 16:02*
	13C-2,3,7,8-TCDD		*NR*		*40-135%*	*02/11/10 08:51*
	13C-1,2,3,7,8-PeCDF		*NR*		*40-135%*	*"*
	13C-1,2,3,7,8-PeCDD		*NR*		*40-135%*	*"*
	13C-1,2,3,4,7,8-HxCDF		*NR*		*40-135%*	*"*
	13C-1,2,3,4,6,7,8-HpCDD		*NR*		*40-135%*	*"*
	13C-1,2,3,6,7,8-HxCDD		*NR*		*40-135%*	*"*

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (G0A220427017S)					**QC Source: PTA0583-17**			**Extracted: 01/28/10 20:45**						
1,2,3,6,7,8-HxCDF	SW846 8290	136			pg/g	1x	51	124	68%	(63-152)	--	--	02/09/10 08:07	
2,3,4,6,7,8-HxCDF	"	131			"	"	44	"	71%	(72-151)	--	--	"	a
1,2,3,4,6,7,8-HpCDD	"	207			"	"	84	"	100%	(86-134)	--	--	"	
1,2,3,4,7,8-HxCDF	"	176			"	"	80	"	78%	(72-140)	--	--	"	
OCDF	"	398			"	"	99	248	121%	(75-141)	--	--	"	B
OCDD	"	1320			"	"	590	"	293%	(80-137)	--	--	"	a
2,3,7,8-TCDF	"	41.6	0.31		"	"	42	24.8	0%	(79-137)	--	--	02/11/10 15:25	a
2,3,7,8-TCDD	"	25.4			"	"	3	"	90%	(77-130)	--	--	02/09/10 08:07	
2,3,4,7,8-PeCDF	"	148			"	"	73	124	61%	(76-132)	--	--	"	a
1,2,3,7,8,9-HxCDD	"	127			"	"	5.5	"	98%	(80-143)	--	--	"	
1,2,3,4,6,7,8-HpCDF	"	181			"	"	120	"	48%	(81-137)	--	--	"	a
1,2,3,4,7,8,9-HpCDF	"	144			"	"	14	"	105%	(79-139)	--	--	"	

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 28433 **SOLID Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (G0A220427017S)					QC Source: PTA0583-17			Extracted: 01/28/10 20:45						
1,2,3,6,7,8-HxCDD	SW846 8290	126			pg/g	1x	9.1	124	94%	(73-147)	--	--	02/09/10 08:07	
1,2,3,7,8-PeCDF	"	160			"	"	60	"	81%	(81-134)	--	--	"	
1,2,3,7,8,9-HxCDF	"	130			"	"	2.3	"	103%	(72-152)	--	--	"	
1,2,3,7,8-PeCDD	"	126			"	"	8.4	"	95%	(79-134)	--	--	"	
1,2,3,4,7,8-HxCDD	"	139			"	"	5.6	"	108%	(65-144)	--	--	"	
Surrogate(s): 13C-2,3,7,8-TCDF		*Recovery:*	*NR*		*Limits: 40-135%*								*02/11/10 15:25*	
13C-1,2,3,7,8-PeCDF			*NR*		*40-135%*								*02/09/10 08:07*	
13C-1,2,3,7,8-PeCDD			*NR*		*40-135%*								*"*	
13C-1,2,3,6,7,8-HxCDD			*NR*		*40-135%*								*"*	
13C-1,2,3,4,7,8-HxCDF			*NR*		*40-135%*								*"*	
13C-OCDD			*NR*		*40-135%*								*"*	
13C-2,3,7,8-TCDD			*NR*		*40-135%*								*"*	
13C-1,2,3,4,6,7,8-HpCDD			*NR*		*40-135%*								*"*	
13C-1,2,3,4,6,7,8-HpCDF			*NR*		*40-135%*								*"*	
Blank (G0A280000433B)					QC Source:			Extracted: 01/28/10 20:45						
2,3,7,8-TCDF	SW846 8290	ND	0.041	2	pg/g	1x	--	--	--	--	--	--	02/09/10 03:43	
Total PeCDD	"	ND	0.24	10	"	"	--	--	--	--	--	--	"	
Total HxCDF	"	ND	0.081	10	"	"	--	--	--	--	--	--	"	
Total HxCDD	"	ND	0.37	10	"	"	--	--	--	--	--	--	"	
Total HpCDF	"	ND	0.13	10	"	"	--	--	--	--	--	--	"	
Total HpCDD	"	ND	0.31	10	"	"	--	--	--	--	--	--	"	
2,3,4,6,7,8-HxCDF	"	ND	0.074	10	"	"	--	--	--	--	--	--	"	
2,3,7,8-TCDD	"	ND	0.15	2	"	"	--	--	--	--	--	--	"	
OCDD	"	ND	0.22	20	"	"	--	--	--	--	--	--	"	
Total PeCDF	"	ND	0.078	10	"	"	--	--	--	--	--	--	"	
Total TCDF	"	ND	0.041	2	"	"	--	--	--	--	--	--	"	
2,3,4,7,8-PeCDF	"	ND	0.078	10	"	"	--	--	--	--	--	--	"	
Total TCDD	"	ND	0.15	2	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDF	"	ND	0.076	10	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDD	"	ND	0.24	10	"	"	--	--	--	--	--	--	"	
1,2,3,7,8,9-HxCDF	"	ND	0.081	10	"	"	--	--	--	--	--	--	"	
1,2,3,7,8,9-HxCDD	"	ND	0.29	10	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDF	"	ND	0.066	10	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDD	"	ND	0.28	10	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDF	"	ND	0.08	10	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDD	"	ND	0.37	10	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	ND	0.13	10	"	"	--	--	--	--	--	--	"	
OCDF	"	0.22	0.092	20	"	"	--	--	--	--	--	--	"	J
1,2,3,4,6,7,8-HpCDD	"	ND	0.31	10	"	"	--	--	--	--	--	--	"	

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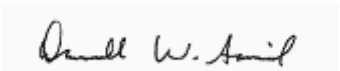

Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 28433 **SOLID Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (G0A280000433B)				QC Source:				Extracted: 01/28/10 20:45						
1,2,3,4,6,7,8-HpCDF	SW846 8290	ND	0.11	10	pg/g	1x	--	--	--	--	--	--	02/09/10 03:43	
Surrogate(s): *13C-2,3,7,8-TCDD*		*Recovery:*	*79%*		*Limits:*	*40-135%*							*02/09/10 03:43*	
13C-1,2,3,7,8-PeCDF			*80%*			*40-135%*							*"*	
13C-1,2,3,7,8-PeCDD			*90%*			*40-135%*							*"*	
13C-1,2,3,6,7,8-HxCDD			*91%*			*40-135%*							*"*	
13C-1,2,3,4,7,8-HxCDF			*88%*			*40-135%*							*"*	
13C-1,2,3,4,6,7,8-HpCDF			*85%*			*40-135%*							*"*	
13C-1,2,3,4,6,7,8-HpCDD			*83%*			*40-135%*							*"*	
13C-OCDD			*75%*			*40-135%*							*"*	
13C-2,3,7,8-TCDF			*75%*			*40-135%*							*"*	
LCS (G0A280000433C)				QC Source:				Extracted: 01/28/10 20:45						
OCDF	SW846 8290	202	0.3	20	pg/g	1x	--	200	101%	(75-141)	--	--	02/09/10 02:59	
1,2,3,7,8-PeCDD	"	100	0.35	10	"	"	--	100	100%	(79-134)	--	--	"	
2,3,4,6,7,8-HxCDF	"	112	0.047	10	"	"	--	"	112%	(72-151)	--	--	"	
2,3,4,7,8-PeCDF	"	117	0.28	10	"	"	--	"	117%	(76-132)	--	--	"	
2,3,7,8-TCDD	"	19.5	0.16	2	"	"	--	20	98%	(77-130)	--	--	"	
OCDD	"	202	0.49	20	"	"	--	200	101%	(80-137)	--	--	"	
1,2,3,7,8,9-HxCDF	"	102	0.052	10	"	"	--	100	102%	(72-152)	--	--	"	
2,3,7,8-TCDF	"	20.2	0.083	2	"	"	--	20	101%	(79-137)	--	--	"	
1,2,3,6,7,8-HxCDF	"	111	0.042	10	"	"	--	100	111%	(63-152)	--	--	"	
1,2,3,6,7,8-HxCDD	"	104	0.24	10	"	"	--	"	104%	(73-147)	--	--	"	
1,2,3,4,6,7,8-HpCDD	"	105	0.41	10	"	"	--	"	105%	(86-134)	--	--	"	
1,2,3,4,6,7,8-HpCDF	"	110	0.4	10	"	"	--	"	110%	(81-137)	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	101	0.48	10	"	"	--	"	101%	(79-139)	--	--	"	
1,2,3,4,7,8-HxCDD	"	99.9	0.32	10	"	"	--	"	100%	(65-144)	--	--	"	
1,2,3,4,7,8-HxCDF	"	114	0.051	10	"	"	--	"	114%	(72-140)	--	--	"	
1,2,3,7,8,9-HxCDD	"	98.9	0.25	10	"	"	--	"	99%	(80-143)	--	--	"	
1,2,3,7,8-PeCDF	"	110	0.28	10	"	"	--	"	110%	(81-134)	--	--	"	
Surrogate(s): *13C-1,2,3,7,8-PeCDF*		*Recovery:*	*87%*		*Limits:*	*40-135%*							*02/09/10 02:59*	
13C-OCDD			*82%*			*40-135%*							*"*	
13C-2,3,7,8-TCDD			*86%*			*40-135%*							*"*	
13C-1,2,3,7,8-PeCDD			*99%*			*40-135%*							*"*	
13C-1,2,3,6,7,8-HxCDD			*95%*			*40-135%*							*"*	
13C-1,2,3,4,7,8-HxCDF			*90%*			*40-135%*							*"*	
13C-1,2,3,4,6,7,8-HpCDF			*89%*			*40-135%*							*"*	
13C-1,2,3,4,6,7,8-HpCDD			*89%*			*40-135%*							*"*	
13C-2,3,7,8-TCDF			*81%*			*40-135%*							*"*	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 55365 **SOLID Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (G0B240000365B)				QC Source:				Extracted: 02/24/10 22:00						
OCDF	SW846 8290	ND	0.29	10	pg/g	1x	--	--	--	--	--	--	02/26/10 01:09	
1,2,3,4,6,7,8-HpCDD	"	0.61	0.18	5	"	"	--	--	--	--	--	--	"	J, Q
2,3,7,8-TCDF	"	ND	0.083	1	"	"	--	--	--	--	--	--	"	
Total TCDF	"	ND	0.083	1	"	"	--	--	--	--	--	--	"	
Total TCDD	"	0.11	0.097	1	"	"	--	--	--	--	--	--	"	
Total PeCDF	"	0.28	0.13	5	"	"	--	--	--	--	--	--	"	
Total PeCDD	"	0.58	0.16	5	"	"	--	--	--	--	--	--	"	
Total HxCDF	"	0.12	0.11	5	"	"	--	--	--	--	--	--	"	
Total HxCDD	"	0.27	0.12	5	"	"	--	--	--	--	--	--	"	
Total HpCDD	"	1.2	0.18	5	"	"	--	--	--	--	--	--	"	
OCDD	"	1.1	0.3	10	"	"	--	--	--	--	--	--	"	J
2,3,7,8-TCDD	"	ND	0.097	1	"	"	--	--	--	--	--	--	"	
2,3,4,7,8-PeCDF	"	ND	0.14	5	"	"	--	--	--	--	--	--	"	
2,3,4,6,7,8-HxCDF	"	ND	0.12	5	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDD	"	ND	0.14	5	"	"	--	--	--	--	--	--	"	
1,2,3,4,6,7,8-HpCDF	"	ND	0.19	5	"	"	--	--	--	--	--	--	"	
Total HpCDF	"	ND	0.21	5	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	ND	0.21	5	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDF	"	ND	0.12	5	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDD	"	ND	0.13	5	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDF	"	0.12	0.1	5	"	"	--	--	--	--	--	--	"	J, Q
1,2,3,7,8,9-HxCDD	"	ND	0.11	5	"	"	--	--	--	--	--	--	"	
1,2,3,7,8,9-HxCDF	"	ND	0.11	5	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDD	"	ND	0.16	5	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDF	"	ND	0.13	5	"	"	--	--	--	--	--	--	"	

Surrogate(s):	*13C-1,2,3,4,7,8-HxCDF*	*Recovery: 83%*	*Limits: 40-135%*	*02/26/10 01:09*
	13C-1,2,3,6,7,8-HxCDD	*91%*	*40-135%*	*"*
	13C-1,2,3,7,8-PeCDF	*79%*	*40-135%*	*"*
	13C-2,3,7,8-TCDD	*76%*	*40-135%*	*"*
	13C-2,3,7,8-TCDF	*75%*	*40-135%*	*"*
	13C-OCDD	*91%*	*40-135%*	*"*
	13C-1,2,3,4,6,7,8-HpCDF	*98%*	*40-135%*	*"*
	13C-1,2,3,4,6,7,8-HpCDD	*100%*	*40-135%*	*"*
	13C-1,2,3,7,8-PeCDD	*75%*	*40-135%*	*"*

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 55365 **SOLID Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (G0B240000365C)				**QC Source:**				**Extracted: 02/24/10 22:00**						
1,2,3,4,7,8-HxCDD	SW846 8290	112	0.12	5	pg/g	1x	--	100	112%	(65-144)	--	--	02/26/10 00:27	
2,3,4,7,8-PeCDF	"	112	0.23	5	"	"	--	"	112%	(76-132)	--	--	"	
1,2,3,7,8-PeCDD	"	101	0.26	5	"	"	--	"	101%	(79-134)	--	--	"	
2,3,7,8-TCDD	"	20	0.088	1	"	"	--	20	100%	(77-130)	--	--	"	
2,3,7,8-TCDF	"	18.9	0.078	1	"	"	--	"	95%	(79-137)	--	--	"	
OCDD	"	199	0.51	10	"	"	--	200	100%	(80-137)	--	--	"	
OCDF	"	196	0.31	10	"	"	--	"	98%	(75-141)	--	--	"	
2,3,4,6,7,8-HxCDF	"	109	0.12	5	"	"	--	100	109%	(72-151)	--	--	"	
1,2,3,7,8,9-HxCDF	"	102	0.11	5	"	"	--	"	102%	(72-152)	--	--	"	
1,2,3,7,8,9-HxCDD	"	96.2	0.091	5	"	"	--	"	96%	(80-143)	--	--	"	
1,2,3,6,7,8-HxCDF	"	108	0.11	5	"	"	--	"	108%	(63-152)	--	--	"	
1,2,3,4,6,7,8-HpCDD	"	103	0.45	5	"	"	--	"	103%	(86-134)	--	--	"	
1,2,3,4,7,8-HxCDF	"	108	0.12	5	"	"	--	"	108%	(72-140)	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	95.4	0.37	5	"	"	--	"	95%	(79-139)	--	--	"	
1,2,3,4,6,7,8-HpCDF	"	104	0.32	5	"	"	--	"	104%	(81-137)	--	--	"	
1,2,3,7,8-PeCDF	"	106	0.22	5	"	"	--	"	106%	(81-134)	--	--	"	
1,2,3,6,7,8-HxCDD	"	103	0.11	5	"	"	--	"	103%	(73-147)	--	--	"	

Surrogate(s):	*13C-OCDD*	*Recovery: 93%*	*Limits: 40-135%*	*02/26/10 00:27*
	13C-2,3,7,8-TCDD	*76%*	*40-135%*	*"*
	13C-1,2,3,7,8-PeCDF	*82%*	*40-135%*	*"*
	13C-1,2,3,7,8-PeCDD	*79%*	*40-135%*	*"*
	13C-1,2,3,6,7,8-HxCDD	*86%*	*40-135%*	*"*
	13C-1,2,3,4,7,8-HxCDF	*86%*	*40-135%*	*"*
	13C-2,3,7,8-TCDF	*76%*	*40-135%*	*"*
	13C-1,2,3,4,6,7,8-HpCDD	*96%*	*40-135%*	*"*
	13C-1,2,3,4,6,7,8-HpCDF	*97%*	*40-135%*	*"*

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0036433 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 36433 **SOLID Preparation Method: D 2216-90_0036433**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (G0A220427021X)					**QC Source: PTA0583-21**				**Extracted: 02/05/10 00:00**					
Percent Moisture	D 2216-90_0036433	20.4	0.1	0.1	%	1x	19.6	--	--	--	--	()	02/06/10 08:10	

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ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0037055 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 37055 **SOLID Preparation Method: D 2216-90_0037055**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (G0A220427017X)					**QC Source: PTA0583-17**				**Extracted: 02/08/10 00:00**					
Percent Moisture	D 2216-90_003 7055	25	0.1	0.1	%	1x	25.1	--	--	--	--	()	02/09/10 08:27	

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 28223 **WATER Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (G0A200539004D)					**QC Source: G0A200539004**				**Extracted: 01/28/10 11:00**					
2,3,7,8-TCDD	SW846 8290	211	6.7		pg/L	0.97x	ND	193	109%	(64-142)	1.8%	(45)	01/30/10 04:54	
Surrogate(s): 13C-2,3,7,8-TCDD		*Recovery: 81%*			*Limits: 40-135%*								*01/30/10 04:54*	
Matrix Spike (G0A200539004S)					**QC Source: G0A200539004**				**Extracted: 01/28/10 11:00**					
2,3,7,8-TCDD	SW846 8290	215	5.3		pg/L	0.99x	ND	197	109%	(64-142)	--	--	01/30/10 04:17	
Surrogate(s): 13C-2,3,7,8-TCDD		*Recovery: 91%*			*Limits: 40-135%*								*01/30/10 04:17*	
Blank (G0A280000223B)					**QC Source:**				**Extracted: 01/28/10 11:00**					
1,2,3,4,6,7,8-HpCDD	SW846 8290	ND	4.5	50	pg/L	1x	--	--	--	--	--	--	01/29/10 17:43	
1,2,3,4,6,7,8-HpCDF	"	ND	4.5	50	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDF	"	ND	3.3	50	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDF	"	ND	4.6	50	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	ND	5.1	50	"	"	--	--	--	--	--	--	"	
1,2,3,4,7,8-HxCDD	"	ND	6	50	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDD	"	ND	5.5	50	"	"	--	--	--	--	--	--	"	
1,2,3,6,7,8-HxCDF	"	ND	4	50	"	"	--	--	--	--	--	--	"	
1,2,3,7,8,9-HxCDD	"	ND	4.6	50	"	"	--	--	--	--	--	--	"	
1,2,3,7,8,9-HxCDF	"	ND	4.2	50	"	"	--	--	--	--	--	--	"	
1,2,3,7,8-PeCDD	"	ND	6.1	50	"	"	--	--	--	--	--	--	"	
2,3,4,6,7,8-HxCDF	"	ND	4.5	50	"	"	--	--	--	--	--	--	"	
2,3,4,7,8-PeCDF	"	ND	3.5	50	"	"	--	--	--	--	--	--	"	
OCDF	"	ND	6.2	100	"	"	--	--	--	--	--	--	"	
Total HpCDD	"	ND	4.5	50	"	"	--	--	--	--	--	--	"	
Total HpCDF	"	ND	5.1	50	"	"	--	--	--	--	--	--	"	
2,3,7,8-TCDD	"	ND	1.9	10	"	"	--	--	--	--	--	--	"	
Total PeCDF	"	ND	3.5	50	"	"	--	--	--	--	--	--	"	
Total TCDD	"	ND	1.9	10	"	"	--	--	--	--	--	--	"	
2,3,7,8-TCDF	"	ND	1.7	10	"	"	--	--	--	--	--	--	"	
OCDD	"	ND	5.9	100	"	"	--	--	--	--	--	--	"	
Total TCDF	"	ND	1.7	10	"	"	--	--	--	--	--	--	"	
Total HxCDD	"	ND	6	50	"	"	--	--	--	--	--	--	"	
Total HxCDF	"	ND	4.6	50	"	"	--	--	--	--	--	--	"	
Total PeCDD	"	ND	6.1	50	"	"	--	--	--	--	--	--	"	
Surrogate(s): 13C-1,2,3,4,6,7,8-HpCDD		*Recovery: 88%*			*Limits: 40-135%*								*01/29/10 17:43*	
13C-1,2,3,4,6,7,8-HpCDF		*69%*			*40-135%*								*"*	
13C-1,2,3,4,7,8-HxCDF		*45%*			*40-135%*								*"*	
13C-2,3,7,8-TCDF		*84%*			*40-135%*								*"*	
13C-OCDD		*81%*			*40-135%*								*"*	
13C-1,2,3,6,7,8-HxCDD		*64%*			*40-135%*								*"*	
13C-1,2,3,7,8-PeCDD		*77%*			*40-135%*								*"*	

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

SW846 8290 - Laboratory Quality Control Results

TestAmerica West Sacramento

QC Batch: 28223 **WATER Preparation Method: 8290**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (G0A280000223B)				QC Source:				Extracted: 01/28/10 11:00						
Surrogate(s): 13C-1,2,3,7,8-PeCDF		*Recovery: 75%*		*Limits: 40-135%*									*01/29/10 17:43*	
13C-2,3,7,8-TCDD		*80%*		*40-135%*									*"*	
LCS (G0A280000223C)				QC Source:				Extracted: 01/28/10 11:00						
1,2,3,4,6,7,8-HpCDD	SW846 8290	1040	6.6	50	pg/L	1x	--	1000	104%	(78-139)	--	--	01/29/10 18:25	
1,2,3,4,6,7,8-HpCDF	"	1080	4.7	50	"	"	--	"	108%	(79-133)	--	--	"	
1,2,3,7,8-PeCDF	"	1060	4	50	"	"	--	"	106%	(76-135)	--	--	"	
1,2,3,4,7,8,9-HpCDF	"	995	5.3	50	"	"	--	"	100%	(83-130)	--	--	"	
1,2,3,4,7,8-HxCDF	"	1150	2.7	50	"	"	--	"	115%	(75-131)	--	--	"	
1,2,3,6,7,8-HxCDD	"	1060	2.6	50	"	"	--	"	106%	(73-144)	--	--	"	
1,2,3,4,7,8-HxCDD	"	836	2.8	50	"	"	--	"	84%	(56-146)	--	--	"	
1,2,3,6,7,8-HxCDF	"	1140	2.4	50	"	"	--	"	114%	(76-133)	--	--	"	
1,2,3,7,8,9-HxCDD	"	872	2.1	50	"	"	--	"	87%	(71-151)	--	--	"	
1,2,3,7,8,9-HxCDF	"	1100	2.5	50	"	"	--	"	110%	(77-142)	--	--	"	
2,3,4,6,7,8-HxCDF	"	1290	2.6	50	"	"	--	"	129%	(80-137)	--	--	"	
1,2,3,7,8-PeCDD	"	998	5.8	50	"	"	--	"	100%	(71-140)	--	--	"	
2,3,4,7,8-PeCDF	"	997	4.2	50	"	"	--	"	100%	(74-137)	--	--	"	
OCDF	"	2190	8.4	100	"	"	--	2000	110%	(72-140)	--	--	"	
2,3,7,8-TCDD	"	170	2.4	10	"	"	--	200	85%	(64-142)	--	--	"	
2,3,7,8-TCDF	"	203	1.7	10	"	"	--	"	101%	(71-142)	--	--	"	
OCDD	"	2030	14	100	"	"	--	2000	101%	(80-132)	--	--	"	
Surrogate(s): 13C-1,2,3,4,6,7,8-HpCDD		*Recovery: 98%*		*Limits: 40-135%*									*01/29/10 18:25*	
13C-1,2,3,4,6,7,8-HpCDF		*107%*		*40-135%*									*"*	
13C-1,2,3,4,7,8-HxCDF		*87%*		*40-135%*									*"*	
13C-2,3,7,8-TCDF		*85%*		*40-135%*									*"*	
13C-OCDD		*91%*		*40-135%*									*"*	
13C-1,2,3,6,7,8-HxCDD		*102%*		*40-135%*									*"*	
13C-1,2,3,7,8-PeCDD		*83%*		*40-135%*									*"*	
13C-1,2,3,7,8-PeCDF		*85%*		*40-135%*									*"*	
13C-2,3,7,8-TCDD		*82%*		*40-135%*									*"*	

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Moisture - Laboratory Quality Control Results

TestAmerica Chicago

QC Batch: 79522 **Soil Preparation Method: NA**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (237835X)				**QC Source: PTA0583-17**					**Extracted: 01/26/10 16:12**					
Percent Moisture	Moisture	19	0.10	0.10	%	1x	20	--	--	--	6%	()	01/26/10 16:12	
Percent Solids	"	81	0.10	0.10	"	"	80	--	--	--	2%	(20)	"	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM) - Laboratory Quality Control Results

TestAmerica Chicago

QC Batch: 79534 **Soil Preparation Method: 3541**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (237835D)					QC Source: PTA0583-17				Extracted: 01/27/10 07:15					
Dichloronaphthalene, Total	8270C Dry	264	31	100	ug/Kg dry	1x	ND	405	65%	(33-114)	7%	(20)	02/02/10 15:07	
Monochloronaphthalene, Total	"	231	37	100	"	"	ND	"	57%	(39-113)	6%	"	"	
Octachloronaphthalene, Total	"	272	26	100	"	"	ND	"	67%	(42-122)	11%	"	"	
Tetrachloronaphthalene, Total	"	311	28	100	"	"	ND	"	77%	(46-116)	12%	"	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 58%*			*Limits: 21-123%*								*02/02/10 15:07*	
Nitrobenzene-d5		*57%*			*28-110%*								*"*	
Terphenyl-d14		*94%*			*36-119%*								*"*	
Matrix Spike (237835S)					QC Source: PTA0583-17				Extracted: 01/27/10 07:15					
Dichloronaphthalene, Total	8270C Dry	283	31	100	ug/Kg dry	1x	ND	407	70%	(33-114)	--	--	02/02/10 14:47	
Monochloronaphthalene, Total	"	246	37	100	"	"	ND	"	60%	(39-113)	--	--	"	
Octachloronaphthalene, Total	"	302	26	100	"	"	ND	"	74%	(42-122)	--	--	"	
Tetrachloronaphthalene, Total	"	350	28	100	"	"	ND	"	86%	(46-116)	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 63%*			*Limits: 21-123%*								*02/02/10 14:47*	
Nitrobenzene-d5		*65%*			*28-110%*								*"*	
Terphenyl-d14		*87%*			*36-119%*								*"*	
LCS (500-79811-29)					QC Source:				Extracted: 01/27/10 07:15					
Dichloronaphthalene, Total	8270C Dry	245	26	83	ug/Kg dry	1x	--	333	73%	(33-114)	--	--	01/29/10 16:41	
Monochloronaphthalene, Total	"	242	30	83	"	"	--	"	73%	(39-113)	--	--	"	
Octachloronaphthalene, Total	"	247	21	83	"	"	--	"	74%	(42-122)	--	--	"	
Tetrachloronaphthalene, Total	"	241	23	83	"	"	--	"	72%	(46-116)	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 76%*			*Limits: 21-123%*								*01/29/10 16:41*	
Nitrobenzene-d5		*84%*			*28-110%*								*"*	
Terphenyl-d14		*96%*			*36-119%*								*"*	
Blank (500-79811-30)					QC Source:				Extracted: 01/27/10 07:15					
Dichloronaphthalene, Total	8270C Dry	ND	26	83	ug/Kg dry	1x	--	--	--	--	--	--	01/29/10 15:23	U
Heptachloronaphthalene, Total	"	ND	33	83	"	"	--	--	--	--	--	--	"	U
Hexachloronaphthalene, Total	"	ND	57	83	"	"	--	--	--	--	--	--	"	U
Monochloronaphthalene, Total	"	ND	30	83	"	"	--	--	--	--	--	--	"	U
Octachloronaphthalene, Total	"	ND	21	83	"	"	--	--	--	--	--	--	"	U
Octachlorostyrene	"	ND	38	83	"	"	--	--	--	--	--	--	"	U
Pentachloronaphthalene, Total	"	ND	36	83	"	"	--	--	--	--	--	--	"	U
Tetrachloronaphthalene, Total	"	ND	23	83	"	"	--	--	--	--	--	--	"	U
Trichloronaphthalene, Total	"	ND	26	83	"	"	--	--	--	--	--	--	"	U
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 79%*			*Limits: 21-123%*								*01/29/10 15:23*	
Nitrobenzene-d5		*78%*			*28-110%*								*"*	
Terphenyl-d14		*93%*			*36-119%*								*"*	

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Semivolatile Organic Compounds (GC/MS SIM) - Laboratory Quality Control Results

TestAmerica Chicago

QC Batch: 79607 **Water Preparation Method: 3510C**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (500-79811-31)					**QC Source:**				**Extracted: 01/28/10 07:36**					
Dichloronaphthalene, Total	8270C	6.07	0.36	2.5	ug/L	1x	--	10.0	61%	(40-130)	8%	(20)	01/29/10 16:21	
Monochloronaphthalene, Total	"	6.06	0.22	2.5	"	"	--	"	61%	"	11%	"	"	
Octachloronaphthalene, Total	"	7.63	0.40	2.5	"	"	--	"	76%	"	12%	"	"	
Tetrachloronaphthalene, Total	"	6.47	0.34	2.5	"	"	--	"	65%	"	12%	"	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 61%*			*Limits: 45-110%*								*01/29/10 16:21*	
Nitrobenzene-d5		*65%*			*51-110%*								*"*	
Terphenyl-d14		*87%*			*52-122%*								*"*	
LCS (500-79811-32)					**QC Source:**				**Extracted: 01/28/10 07:36**					
Dichloronaphthalene, Total	8270C	6.55	0.36	2.5	ug/L	1x	--	10.0	66%	(40-130)	--	--	01/29/10 16:02	
Monochloronaphthalene, Total	"	6.76	0.22	2.5	"	"	--	"	68%	"	--	--	"	
Octachloronaphthalene, Total	"	8.58	0.40	2.5	"	"	--	"	86%	"	--	--	"	
Tetrachloronaphthalene, Total	"	7.32	0.34	2.5	"	"	--	"	73%	"	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 72%*			*Limits: 45-110%*								*01/29/10 16:02*	
Nitrobenzene-d5		*73%*			*51-110%*								*"*	
Terphenyl-d14		*98%*			*52-122%*								*"*	
Blank (500-79811-33)					**QC Source:**				**Extracted: 01/28/10 07:36**					
Dichloronaphthalene, Total	8270C	ND	0.36	2.5	ug/L	1x	--	--	--	--	--	--	01/29/10 15:42	U
Heptachloronaphthalene, Total	"	ND	0.94	2.5	"	"	--	--	--	--	--	--	"	U
Hexachloronaphthalene, Total	"	ND	1.4	2.5	"	"	--	--	--	--	--	--	"	U
Monochloronaphthalene, Total	"	ND	0.22	2.5	"	"	--	--	--	--	--	--	"	U
Octachloronaphthalene, Total	"	ND	0.40	2.5	"	"	--	--	--	--	--	--	"	U
Octachlorostyrene	"	ND	0.56	2.5	"	"	--	--	--	--	--	--	"	U
Pentachloronaphthalene, Total	"	ND	1.1	2.5	"	"	--	--	--	--	--	--	"	U
Tetrachloronaphthalene, Total	"	ND	0.34	2.5	"	"	--	--	--	--	--	--	"	U
Trichloronaphthalene, Total	"	ND	0.20	2.5	"	"	--	--	--	--	--	--	"	U
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 66%*			*Limits: 45-110%*								*01/29/10 15:42*	
Nitrobenzene-d5		*68%*			*51-110%*								*"*	
Terphenyl-d14		*85%*			*52-122%*								*"*	

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Notes and Definitions

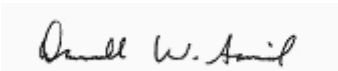
Report Specific Notes:

*	-	Surrogate recovery is outside stated control limits.
a	-	Spiked analyte recovery is outside stated control limits.
B	-	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	-	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
G	-	Elevated reporting limit. The reporting limit is elevated due to matrix interference.
H	-	Sample analysis performed past method-specified holding time.
J	-	Estimated result. Result is less than the reporting limit.
J	-	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M1	-	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	-	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
MHA	-	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
N1	-	See case narrative.
p	-	Relative percent difference (RPD) is outside stated control limits.
Q	-	Estimated maximum possible concentration (EMPC).
R	-	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
R3	-	The RPD exceeded the acceptance limit due to sample matrix effects.
RL7	-	Sample required dilution due to high concentrations of target analyte.
U	-	Indicates the analyte was analyzed for but not detected.
X	-	Surrogate exceeds the control limits
Z3	-	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
Z6	-	Surrogate recovery was below acceptance limits.
ZX	-	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

TestAmerica Portland



Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

Darrell Auvil, Project Manager

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ERM

CHAIN OF CUSTODY RECORD

NO: 1588

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
11208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGroot	[signature]

RECEIVING LABORATORY

TA-Chicago 708 534-5200

2417 Bond St, University Park, IL 60466

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: PCN 8270B SIM	OCS 8270B SIM	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	8 oz	1	X			X	X	
B-122-2-4				X					1	X					X
B-122-4-6				X					1	X					X
B-122-6-8				X					1	X					X
B-122-8-10				X					1	X					X
B-123-0-2		0933		X					1	X			X	X	
B-123-2-4				X					1	X					X
B-123-4-6				X					1	X					X
B-123-6-8				X					1	X					X
B-123-8-10				X					1	X					X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1589

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGT

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delbrood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PCN 8270B SIM	OCS 8270B SIM	Hold	Project-specific MS/MSD							
B-124-0-2	1-21-10	1120		X	DP	X	Y	4 oz					X	X									
B-124-2-4															X								
B-124-4-6															X								
B-124-6-8															X								
B-124-8-10															X								
B-125-3-5		1630											X	X									
B-125-8-10		1630						12 oz	3	X			X	X		X							
B-126-3-5		1600						4 oz					X	X									
B-126-8-10		1600											X	X									
B-127-10-12		1530											X	X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1590

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delbrood	

RECEIVING LABORATORY: TA - Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PCN 8270B SIM	OCS 8270B SIM	Hold	Project-specific MS/MSD							
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4 oz	1	X			X	X									
B-127-15-17		1530							1	X			X	X									
B-128-10-12		1410							1	X			X	X									
B-128-15-17		1410							1	X			X	X									
B-129-0-2		1310							1	X			X	X									
B-129-2-4									1	X					X								
B-129-2-4D									1	X					X								
B-129-4-6									1	X					X								
B-129-6-8								1202	3	X					X	X							
B-129-8-10								4 oz	1	X					X								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-22-10	1145	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brenda Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1591

Page 4 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Artemis PGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8270B PCN SIM OCS
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

PTA0583

ERM

CHAIN OF CUSTODY RECORD

NO: 1575

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema Portland DGE

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delgood	[signature]

RECEIVING LABORATORY: TA-West Sacramento 916-373-5600, 800 Riverside Parkway

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	Dioxin/Furan 8290B	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	4oz	1	X			X	
B-122-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-122-4-6									1	X			X	X
B-122-6-8									1	X			X	X
B-122-8-10		↓							1	X			X	X
B-123-0-2		0933							1	X			X	
B-123-2-4		↓							1	X			X	X
B-123-4-6									1	X			X	X
B-123-6-8									1	X			X	X
B-123-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Cheng Chu	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Only analyze sample NOT marked "Hold"

Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1576

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	ARRemc DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Oelrood	

RECEIVING LABORATORY: TA-Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins	REQUESTED PARAMETERS: Hold	REQUESTED PARAMETERS: Project specific PAH/SVOC								
B-124-0-2	1-21-10	1120		X	DP	X	Y	4 oz	1	X			X										
B-124-2-4	↓	↓		↓	↓	↓	↓	↓	1	X				X									
B-124-4-6	↓	↓		↓	↓	↓	↓	↓	1	X				X									
B-124-6-8	↓	↓		↓	↓	↓	↓	↓	1	X				X									
B-124-8-10	↓	↓		↓	↓	↓	↓	↓	1	X				X									
B-125-3-5	↓	1630		↓	↓	↓	↓	↓	1	X			X										
B-125-8-10	↓	1630		↓	↓	↓	↓	12 oz	3	X			X		X							5	
B-126-3-5	↓	1600		↓	↓	↓	↓	4 oz	1	X			X										
B-126-8-10	↓	1600		↓	↓	↓	↓	↓	1	X			X										
B-127-10-12	↓	1530		↓	↓	↓	↓	↓	1	X			X										

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-21-10	1800	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			Chang Vue	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1577

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA - Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX SOIL	MATRIX WATER	MATRIX GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	REQUESTED PARAMETERS: Project-Specific ms/msd
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4-oz	1	X			X	
B-127-15-17		1530							1	X			X	
B-128-10-12		1410							1	X			X	
B-128-15-17		1410							1	X			X	
B-129-0-2		1310							1	X			X	
B-129-2-4									1	X				X
B-129-2-4D									1	X				X
B-129-4-6									1	X				X
* B-129-6-8								12-oz	3	X				X
B-129-8-10								4-oz	1	X				X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

* 4 bottles rec'd - CW 1/22/10

ERM

CHAIN OF CUSTODY RECORD

NO: 1581

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGood	

RECEIVING LABORATORY: TA Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	REQUESTED PARAMETERS: ~~Pcp~~	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:	REQUESTED PARAMETERS:
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY**	**DATE**	**TIME**
			C Hong Zh	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY**	**DATE**	**TIME**

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT:
- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: BAR

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

PTA0583

ERM

CHAIN OF CUSTODY RECORD

NO: 1584

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delwood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PH 150.1	Arsenic 6010B	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	8oz	2				X	X	
B-122-2-4									2						X
B-122-4-6									2						X
B-122-6-8									2						X
B-122-8-10									2						X
B-123-0-2		0933							2				X	X	
B-123-2-4									2						X
B-123-4-6									2						X
B-123-6-8									2						X
B-123-8-10									2						X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583

NO: 1585

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Portland DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
S DeCrowd	[signature]

RECEIVING LABORATORY: TA - Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PH 150.1	Arsenic 6010B	Hold	Project-specific MS/MSD	OCP 8081A						
B-124-0-2	1-21-10	1120		X	DP	X	Y	8-oz	2	X			X	X									
B-124-2-4									2	X					X								
B-124-4-6									2	X					X								
B-124-6-8									2	X					X								
B-124-8-10									2	X					X								
B-125-3-5		1630							2	X			X	X			X						
B-125-8-10		1630						20oz	5	X			X	X		X	X					15	
B-126-3-5		1600						8oz	2	X			X	X			X						
B-126-8-10		1600						8oz	2	X			X	X			X						
B-127-10-12		1530						4oz	1	X			X	X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0880~~ 0750	[signature]	1/22/10	~~0880~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO:

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583

NO: 1586

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208-02	ARkema DGF

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shiva DeGrood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	pH 150.1	Arsenic 6010	Hold	Project-specific MS/MSD							
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4oz	1	X			X	X									
B-127-15-17		1530		X					1	X			X	X									
B-128-10-12		1410		X					1	X			X	X									
B-128-15-17		1410		X					1	X			X	X									
B-129-0-2		1310		X					1	X			X	X									
B-129-2-4				X					1	X					X								
B-129-2-4-D				X					1	X					X								
B-129-6-8				X				6 24oz	6	X					X	X							
B-129-4-6				X				4oz	1	X					X								
B-129-8-10				X				4oz	1	X					X								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~ 0750	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO:

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583 **NO:** 1587

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208-11	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	OCP 8081A	pH 150.1	As 6010
Rinsate	1-21-10	1650		X	RB	HNO3	Y	2.5L	3		X		X	X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	0850	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO: Brenda Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTA0583 Date/Time Received: 1-22-10 07:50

Client Name and Project: ERM Arkema Soils

Time Zone:

☐ EDT/EST ☐ CDT/CST ☐ MDT/MST ☒ PDT/PST ☐ AK ☐ OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures: 4.2

Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐ Plastic ☒ Glass)

Temperature out of Range:

__Not enough or No Ice

__Ice Melted

__W/in 4 Hrs of collection

__Other:_____

Initials: K

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD.
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Proper Container and preservatives used? If no, document on NOD.
☐	☒	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	9. HF Dilution required?
	☒	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☒	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☒	☐	12. Is the "Sampled by" section of the COC completed?
☒	☐	☐	13. Were VOA/Oil Syringe samples without headspace?
☒	☐	☐	14. Were VOA vials preserved? ☐ HCl ☐ Sodium Thiosulfate ☐ Ascorbic Acid
	☐	☒	15. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☒	☐	☐	19. Are analyses with short holding times received in hold?
	☒	☐	20. Was Standard Turn Around (TAT) requested?
	☒	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

only rec. 3 jars for B-129-6-8 (not 4, as COC says)

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTA0583

Login Checks:

Initials: PS

N/A	Yes	No	
	☑	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☑	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☑	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☑	☐	☐	25. Were special log in instructions read and followed?
	☑	☐	26. Were tests logged checked against the COC?
☑	☐	☐	27. Were rush notices printed and delivered?
☑	☐	☐	28. Were short hold notices printed and delivered?
☑	☐	☐	29. Were subcontract COCs printed?
☑	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: [illegible]

N/A	Yes	No	
☒	☐	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☒	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

ENVIRONMENTAL STANDARDS

Setting the Standards for Innovative Environmental Solutions

April 19, 2010

Mr. Todd Slater
Legacy Site Services, LLC
468 Thomas Jones Way
Suite 150
Exton, PA 19341-2528

Dear Mr. Slater:

Enclosed is the limited quality assurance review (summary forms review only) for the analyses of the soil samples (including quality control [QC] samples) and aqueous blank collected on January 21, 2010, as part of the soil sampling event at the Arkema, Inc. facility in Portland, Oregon.

Based on this QA review, a portion of the organic data was qualified due to blank contamination, exceeded holding time, estimated maximum possible concentrations, out-of-criteria matrix spike and/or matrix spike duplicate recoveries, matrix spike/matrix spike duplicate imprecision, a low surrogate recovery, field duplicate imprecision, calibration issues, and reported positive results between the laboratory method detection limits and sample-specific reporting limits. A portion of the inorganic data was qualified due to reported positive results between the laboratory method detection limits and sample-specific reporting limits. The wet chemistry data did not warrant qualification.

If you have any questions or comments, or if we can be of any further assistance, please feel free to call.

Sincerely,

Eric T. Lahr
Senior Quality Assurance Chemist/
Project Manager

Sincerely,

Rock J. Vitale, CEAC, CPC
Technical Director of Chemistry/
Principal

ETL/RJV:hm
Enc.

cc: Mr. Brendan Robinson – ERM

1140 Valley Forge Road P.O. Box 810 Valley Forge, PA 19482 Tel: 610.935.5577 Fax: 610.935.5583 Web: www.envstd.com

ENVIRONMENTAL STANDARDS

Setting the Standards for Innovative Environmental Solutions

LIMITED QUALITY ASSURANCE REVIEW OF THE SOIL AND AQUEOUS BLANK SAMPLES COLLECTED ON JANUARY 21, 2010, AS PART OF THE SOIL SAMPLING EVENT AT THE ARKEMA, INC. FACILITY IN PORTLAND, OREGON

April 19, 2010

Prepared for:

LEGACY SITE SERVICES, INC.
468 Thomas Jones Way
Exton, PA 19341-2528

Prepared by:

ENVIRONMENTAL STANDARDS, INC.
1140 Valley Forge Road
P.O. Box 810
Valley Forge, PA 19482-0810

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B. Inorganic and Wet Chemistry Data

C. Conclusions

Section 2 Analytical Results

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Section 4 Inorganic and Wet Chemistry Data Support Documentation

Section 5 Project Case Narratives and Chain-of-Custody Records

Section 6 Project Correspondence

Executive Summary

This quality assurance (QA) review was performed on organic, inorganic, and wet chemistry data from Work Order PTA0583. These 24 soil samples (including quality control [QC] samples) and one aqueous blank were collected on January 21, 2010, as part of the soil sampling event at the Arkema, Inc. facility in Portland, Oregon, and were analyzed by TestAmerica in Portland, Oregon; TestAmerica in Chicago, Illinois; and TestAmerica in Sacramento, California.

These samples were collectively analyzed for organochlorine pesticide compounds by "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition" (SW-846) Method 8081A; for polychlorinated naphthalenes (PCNs) and octachlorostyrene (OCS) by SW-846 Method 8270C (with selective ion monitoring); for polychlorinated dibenzo-*p*-dioxins and polychlorinated dibenzofurans (PCDDs/PCDFs) by SW-846 Method 8290; for total arsenic by SW-846 Method 6010B; and for pH by SW-846 Methods 9045C/9040A. Comprehensive raw data packages were prepared by the laboratories and were reviewed by Environmental Standards, Inc. Level 3 review (limited data validation) was performed for all data in Work Order PTA0583.

Based on this review, the following qualifications were made:

- The result for one PCDF in one sample was qualified as "not-detected" due to blank contamination.
- The results for several PCDDs/PCDFs were qualified as estimated because the results were estimated maximum possible concentrations.
- Several pesticide and OCS results in several samples were qualified as estimated due to calibration issues.
- The results for all pesticide compounds in one sample and for all PCDDs/PCDFs in several samples were qualified as estimated due to exceeded holding time.
- The results for several PCDDs/PCDFs in two samples were qualified as estimated due to field duplicate imprecision.
- The results for PCNs and OCS in one sample were qualified as estimated due to a low surrogate recovery.
- The results for several PCDDs/PCDFs in one sample were qualified as estimated due to out-of-criteria matrix spike and/or matrix spike duplicate recoveries.
- The result for one PCDD in one sample was qualified as estimated due to matrix spike/matrix spike duplicate imprecision.

- Any reported positive results for organic or inorganic parameters reported between the method detection limit (MDL) and the sample-specific reporting limit (RL) were qualified as estimated.

The data reviewer has edited the laboratory-reported data and QC summary forms based on findings cited in this QA review. Furthermore, the data reviewer has included copies of all relevant raw data, QC forms, and other documentation needed to support these edits in the support documentation of this review.

Introduction

This limited quality assurance (QA) review is based upon an examination of the data generated from the analyses of the soil samples and aqueous blank collected on January 21, 2010, as part of the soil sampling event at the Arkema, Inc. facility in Portland, Oregon. The samples that have undergone a QA review are listed on Table 1.

This review has been performed in accordance with "Appendix B: Quality Assurance Project Plan" (QAPP; September 1998). In addition, this review has been performed with guidance from the "National Functional Guidelines for Organic Data Review" (US EPA, October 1999) and the "National Functional Guidelines for Inorganic Data Review" (US EPA, July 2002). It should be noted that the National Functional Guidelines specifically address analyses performed in accordance with the Contract Laboratory Program (CLP) analytical methods and are not completely applicable to the type of analyses and analytical protocol performed for the methods utilized by the laboratories for these samples. Environmental Standards used professional judgment to determine the usability of the analytical results and compliance relative to the methods utilized by the laboratories.

All samples included in Work Order PTA0583 underwent limited data validation (review of summary forms only) and are identified on Table 1. Table 1 also indicates the laboratory sample number, work order, matrix, collection date, and the parameter(s) examined for each sample. Environmental Standards, Inc. based the validation on an evaluation of the data deliverables provided by the laboratories for Work Order PTA0583.

The reported analytical results are presented on the data tables in Section 2. Data were examined to determine the usability of the analytical results and compliance relative to the method requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition" (SW-846) Methods 8270C, 8081A, 8290, 9045C, 9040A and 6010B. Qualifier codes have been placed next to results on the data tables to enable the data user to quickly assess the qualitative and/or quantitative reliability of any result based on the criteria evaluated. The data qualifications allow the data end-user to best understand the usability of the analytical results. Data not qualified in this report should be considered valid based on the quality control (QC) criteria that have been reviewed. Details of this QA review are presented in Section 1 of this report. This report was prepared to provide a critical review of the laboratory analyses and reported analytical results. QA reviews of laboratory-generated data routinely identify problems associated with analytical measurements, even from the most experienced and capable laboratories.

TABLE 1

SAMPLES INCLUDED IN THIS QUALITY ASSURANCE REVIEW

Field Sample Identification	Laboratory Sample Number(s)	Work Order	Matrix	Date of Sample Collection	Parameter(s) Analyzed and Reviewed
B-122-0-2	PTA0583-01	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-122-4-6	PTA0583-03	PTA0583	Soil	1/21/10	PCDD/PCDF
B-122-8-10	PTA0583-05	PTA0583	Soil	1/21/10	PCDD/PCDF
B-123-0-2	PTA0583-06	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-123-4-6	PTA0583-08	PTA0583	Soil	1/21/10	PCDD/PCDF
B-123-8-10	PTA0583-10	PTA0583	Soil	1/21/10	PCDD/PCDF
B-124-0-2	PTA0583-11	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-124-4-6	PTA0583-13	PTA0583	Soil	1/21/10	PCDD/PCDF
B-124-8-10	PTA0583-15	PTA0583	Soil	1/21/10	PCDD/PCDF
B-125-3-5	PTA0583-16	PTA0583	Soil	1/21/10	Pest, PCDD/PCDF, PCN/OCS, As, pH
B-125-8-10	PTA0583-17	PTA0583	Soil	1/21/10	Pest, PCDD/PCDF, PCN/OCS, As, pH
B-125-8-10MS (Matrix Spike)	10A0630-MS1 10A0630-MS2 G0A220427-017MS PTA0583-17MS 10A0648-MS1	PTA0583	Soil	1/21/10	Pest Pest PCDD/PCDF PCN/OCS As
B-125-8-10MSD (Matrix Spike Duplicate)	10A0630-MSD1 10A0630-MSD2 G0A220427-017MSD PTA0583-17MSD 10A0648-MSD1	PTA0583	Soil	1/21/10	Pest Pest PCDD/PCDF PCN/OCS As
B-125-8-10DUP (Laboratory Duplicate)	10A0723-DUP1	PTA0583	Soil	1/21/10	pH
B-126-3-5	PTA0583-18	PTA0583	Soil	1/21/10	Pest, PCDD/PCDF, PCN/OCS, As, pH

TABLE 1 (Cont.)

Field Sample Identification	Laboratory Sample Number(s)	Work Order	Matrix	Date of Sample Collection	Parameter(s) Analyzed and Reviewed
B-126-8-10	PTA0583-19	PTA0583	Soil	1/21/10	Pest, PCDD/PCDF, PCN/OCS, As, pH
B-126-8-10MS (Matrix Spike)	10B0314-MS1	PTA0583	Soil	1/21/10	Pest
B-126-8-10MSD (Matrix Spike Duplicate)	10B0314-MSD1	PTA0583	Soil	1/21/10	Pest
B-127-10-12	PTA0583-20	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-127-10-12-D (Field Duplicate of B-127-10-12)	PTA0583-21	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-127-15-17	PTA0583-22	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-128-10-12	PTA0583-23	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-128-15-17	PTA0583-24	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
B-129-0-2	PTA0583-25	PTA0583	Soil	1/21/10	PCDD/PCDF, PCN/OCS, As, pH
Rinsate (Rinsate Blank)	PTA0583-31	PTA0583	Aq	1/21/10	Pest, PCDD/PCDF, PCN/OCS, As, pH

NOTES:

Pest - Organochlorine Pesticide Compounds by SW-846 Method 8081A. (11 analyses)
PCDD/PCDF - Polychlorinated Dibenzo-*p*-dioxins and Polychlorinated Dibenzofurans by SW-846 Method 8290. (22 analyses)
PCN/OCS - Polychlorinated naphthalenes and octachlorostyrene by SW-846 Method 8270C (With Selective Ion Monitoring). (16 analyses)
As - Total Arsenic by SW-846 Method 6010B. (16 analyses)
pH - pH by SW-846 Methods 9045C/9040A. (15 analyses)
Aq - Aqueous.

Section 1 Quality Assurance Review

A. Organic Data

The organic analyses of 23 soil samples (including QC samples) and one aqueous blank collected as part of the soil sampling event at the Arkema, Inc. facility in Portland, Oregon, on January 21, 2010, were performed by TestAmerica of Portland, Oregon; TestAmerica of Chicago, Illinois; and TestAmerica of Sacramento, California. Eleven samples were analyzed for organochlorine pesticide compounds by SW-846 Method 8081A; 16 samples were analyzed for polychlorinated naphthalenes (PCNs) and octachlorostyrene (OCS) by SW-846 Method 8270C (with selective ion monitoring); and 22 samples were analyzed for polychlorinated dibenzo-*p*-dioxins and polychlorinated dibenzofurans (PCDDs/PCDFs) by SW-846 Method 8290. The parameter(s) analyzed for each sample are specified on Table 1. Level 3 review (limited data validation) was performed for all data included in Work Order PTA0583.

The findings offered in this report are based on a review of the holding times; condition of samples upon laboratory receipt; blank analysis results; decafluorotriphenylphosphine (DFTPP) and perfluorokerosene (PFK) instrument tuning; DDT/endrin breakdown checks; calibrations; laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries and precision; matrix spike/matrix spike duplicate (MS/MSD) recoveries and precision; field duplicate precision; surrogate recoveries; internal standard area counts; retention times (RTs); analytical sequence; and the quantitation of positive results.

Several issues were identified as detailed below. The data reviewer has included copies of relevant raw data, QC forms, and other documentation needed to support any changes made to the data package in the Organic Data Support Documentation (Section 3) of this report. The following issues and comments do not necessarily affect data usability (*viz*., items necessitating data qualification).

Deliverable Issues

1. In the PCDD/PCDF fraction, the laboratory did not summarize the results from the instrument blanks. Instrument blank contamination could not be assessed due to the limited QA review performed.

2. In the pesticide fraction, the laboratory did not summarize the results from the instrument blanks. Instrument blank contamination could not be assessed due to the limited QA review performed.

3. In the pesticide fraction, the laboratory did not summarize the surrogate recoveries from the dilution analyses of several samples. The laboratory reported only one set of surrogate recoveries per sample even though target compound results were reported from several different dilution analyses. The data reviewer was unable to evaluate the surrogate recoveries from these dilution analyses.

Procedural Issues

1. Sample B-126-8-10 was reextracted for pesticide compounds 7 days beyond the 14-day holding time from sample collection to extraction stipulated in SW-846 Chapter 4 (Table 4-1). Qualification of data due to this issue is addressed in the subsequent Organic Data Qualifiers section.

2. Samples B-122-4-6, B-122-8-10, B-123-4-6, B-123-8-10, B-124-8-10, and B-124-4-6 were extracted for PCDDs/PCDFs 3 days beyond the 30-day holding time from sample collection to extraction stipulated in SW-846 Method 8290 (Section 6.4). Qualification of data due to this issue is addressed in the subsequent Organic Data Qualifiers section.

Comments

1. According to the Case Narrative, the MDL and RL for 1,2,3,4,7,8,9-HpCDF in sample B-122-0-2 was raised due to sample matrix interferences.

2. According to the Case Narrative, the laboratory received six sample containers for sample B-125-8-10; however, the Chain-of-Custody (COC) Record indicated that only five sample containers were submitted for analysis.

3. According to the Case Narrative, the laboratory received four sample containers for sample Rinsate; however, the COC Record indicated that only three sample containers were submitted for analysis.

4. In the PCDD/PCDF fraction, the data reviewer did not qualify several positive results for total PCDD/PCDFs in the project samples based on blank contamination due to the limited review performed. The total PCDD/PCDF results include results for all congeners; however, the results for all congeners were not summarized on the Analytical Reports and SW-846 8290 – Laboratory Quality Control Results forms. The results for all PCDD/PCDF congeners can only be obtained from the sample raw data, which was not evaluated as part of this limited QA review. When an individual congener result that partially contributed to a total congener result was qualified due to blank contamination (“U”), the associated total congener positive result was qualified as estimated (“J”). When an individual congener result that solely contributed to a total congener result was qualified due to blank contamination (“U”), the associated total congener positive result was also blank qualified (“U”).

5. In the PCDD/PCDF fraction, when individual congener results that contributed to total congener results were qualified, the associated total congener results were also qualified because the total results included biased results (see related Comment #4).

6. In the PCDD/PCDF fraction, when congener peaks failed to meet all criteria to be identified as a PCDD or PCDF, the laboratory reported these results as estimated maximum possible concentrations (“EMPCs”) and flagged the results with a “Q” on the Analytical Reports.

Qualification of data due to results that are EMPCs is addressed in the subsequent Organic Data Qualifiers section.

7. In the PCDD/PCDF fraction, the laboratory routinely analyzed instrument blanks prior to continuing calibration verification (CCV) standards. The analysis of instrument blanks prior to CCV standards makes it appear as if the instrument is being "conditioned" to eliminate carryover issues in order to pass CCV standard acceptance criteria. The data reviewer questions whether carryover between project sample to project sample is also monitored in this manner. The laboratory should carefully evaluate the analysis of these instrument blanks prior to CCV standards.

8. In the PCDD/PCDF fraction, the laboratory did not include the CCV standard summary form associated with the CCV performed on 2/9/10 (standard identification STD0208D) in the data package provided. Upon Environmental Standards' request, the laboratory provided the summary form (see Project Correspondence [Section 6]).

9. In the pesticide fraction, the laboratory did not calculate and summarize the percent differences (%Ds) for the surrogate compounds on the Continuing Calibration Check forms. Upon Environmental Standards' request, the laboratory provided amended Continuing Calibration Check forms reflecting the surrogate %Ds (see Section 6).

10. In the pesticide fraction, the laboratory did not include the dual-column results and relative percent differences (RPDs) for all samples and QC samples in the data package provided. Upon request, the laboratory provided summary forms summarizing the precision between the dual-column results (see Section 6).

With regard to data usability, the principal areas of concern are blank contamination, exceeded holding time, EMPCs, out-of-criteria MS and/or MSD recoveries, MS/MSD imprecision, a low surrogate recovery, field duplicate imprecision, calibration issues, and reported positive results between the laboratory MDLs and sample-specific RLs. Based upon a review of the data packages provided, the following qualifiers are offered. The following data usability issues represent an interpretation of the QC results obtained for the project samples. Quite often, data qualifications address issues relating to sample matrix problems. Similarly, the data validation guidelines routinely specify areas of the data that require qualification, yet the methods used for analysis may not require corrective action by the laboratory. Accordingly, the following data usability issues should <u>not</u> be construed as an indication of laboratory performance.

<u>Organic Data Qualifiers</u>

- Due to its presence in the associated laboratory blank at a similar level, the reported positive result for 1,2,3,6,7,8-HxCDF sample B-122-8-10 should be considered "not-detected" and has been flagged "U" on the data tables. It should be noted that sample weight, dilution factors, and percent solids were taken into consideration when evaluating blank contamination.

- The MDLs and RLs for toxaphene in all samples may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables. High percent differences (%Ds > 15%), coupled with decreasing instrument sensitivity, were observed for toxaphene on both analytical columns in the associated initial calibration verification (ICV) standard.

- The MDLs and RLs for OCS in samples B-122-0-2, B-125-3-5, B-126-8-10, B-127-10-12-D, and B-127-15-17 may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables. High %Ds (> 20%), coupled with decreasing instrument sensitivity, were observed for OCS in the associated CCV standard.

- The reported positive results for the following PCDD/PCDFs in the samples listed below should be considered estimated and have been flagged "J" (unless previously flagged "U" due to blank contamination) on the data tables. These results were reported as EMPCs by the laboratory because the congener peaks observed failed to meet all criteria for identification as a PCDD or PCDF.

Compound(s)	Sample(s) With Estimated Positive Results ("J")
2,3,7,8-TCDF; total TCDF; 1,2,3,4,7,8-HxCDF; and total HxCDF	Rinsate
1,2,3,7,8,9-HxCDD	B-122-0-2
2,3,7,8-TCDD and 1,2,3,7,8,9-HxCDD	B-125-3-5
1,2,3,6,7,8-HxCDD and 1,2,3,7,8,9-HxCDF	B-126-8-10
1,2,3,7,8,9-HxCDD; 1,2,3,7,8-PeCDF; and 2,3,4,6,7,8-HxCDF	B-127-10-12
2,3,7,8-TCDD	B-127-10-12-D
2,3,7,8-TCDD; 1,2,3,6,7,8-HxCDD; 2,3,4,7,8-PeCDF; and 2,3,4,6,7,8-HxCDF	B-127-15-17
1,2,3,4,7,8-HxCDD; 1,2,3,6,7,8-HxCDD; 1,2,3,7,8,9-HxCDD; and 2,3,4,7,8-PeCDF	B-128-10-12
1,2,3,4,6,7,8,-HpCDD; 2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 2,3,4,7,8-PeCDF; 1,2,3,6,7,8-HxCDF; and 1,2,3,4,7,8,9-HpCDF	B-128-15-17
2,3,7,8-TCDD and 1,2,3,7,8,9-HxCDF	B-129-0-2
1,2,3,7,8,9-HxCDD	B-122-4-6 and B-124-4-6
2,3,7,8-TCDF; 1,2,3,7,8-PeCDF; 1,2,3,6,7,8-HxCDF; and 1,2,3,4,7,8,9-HpCDF	B-122-8-10
1,2,3,6,7,8-HxCDD	B-123-4-6

Compound(s)	Sample(s) With Estimated Positive Results ("J")
1,2,3,7,8,9-HxCDD; 2,3,4,7,8-PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,4,7,8,9-HpCDF; and OCDF	B-123-8-10

- The MDLs and RLs for all pesticide compounds in sample B-126-8-10 may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables. In addition, any reported positive results for pesticide compounds in sample B-126-8-10 should be considered estimated and have been flagged "J" on the data tables. This sample was reextracted for pesticide compounds 7 days beyond the 14-day holding time from sample collection to extraction.

- The estimated detection limits (EDLs) and RLs for all PCDDs/PCDFs in samples B-122-4-6, B-122-8-10, B-123-4-6, B-123-8-10, B-124-8-10 and B-124-4-6 may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables. In addition, any reported positive results for PCDDs/PCDFs in samples B-122-4-6, B-122-8-10, B-123-4-6, B-123-8-10, B-124-8-10 and B-124-4-6 should be considered estimated and have been flagged "J" (unless previously flagged "U" due to blank contamination) on the data tables. These samples were extracted for PCDDs/PCDFs 3 days beyond the 30-day holding time from sample collection to extraction.

- The MDLs and RLs for all PCNs and OCS in sample B-128-15-17 may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables. A low recovery (< 21%) was observed for the surrogate compound 2-fluorobiphenyl in the analysis of this sample.

- The reported positive results for 1,2,3,4,6,7,8-HpCDD; OCDD; 2,3,4,7,8-PeCDF; 2,3,4,6,7,8-HxCDF; 1,2,3,4,6,7,8-HpCDF; and 2,3,7,8-TCDF in sample B-125-8-10 should be considered estimated and have been flagged "J" on the data tables. Very low recoveries (< 10%), low recoveries (10% < %R < lower laboratory QC acceptance limits), or high recoveries (> upper laboratory QC acceptance limits) were observed for these compounds in the associated MS and/or MSD analyses.

- The reported positive result for OCDD in sample B-125-8-10 should be considered estimated and has been flagged "J" on the data tables. A high RPD (> 32%) was observed for OCDD in the associated MS/MSD analyses.

- One field duplicate pair (sample B-127-10-12 and its field duplicate, sample B-127-10-12-D) was collected and analyzed for PCNs/OCS and PCDDs/PCDFs with this data set. Acceptable precision and sample representativeness (*i.e.*, difference was < 2× the RL when at least one result was < 5× the RL or RPD was < 40% when both results were > 5× the RL) were observed between the results for PCNs/OCS and PCDDs/PCDFs observed in the field duplicate pair, with the following exceptions. The EDLs and RLs for the following compounds in the samples listed below may be higher than reported, and the "not-detected" results have been flagged "UJ" on the data tables.

In addition, the reported positive results for the following compounds in the sample listed below should be considered estimated and has been flagged "J" on the data tables. A complete comparison of the field duplicate results is provided in Section 3.

Compound(s)	Sample With Biased Reporting/Detection Limits ("UJ")	Sample(s) With Estimated Positive Results ("J")
1,2,3,4,6,7,8-HpCDD; total HpCDD; OCDD; 2,3,7,8-TCDF; total TCDF; 1,2,3,7,8-PeCDF; total PeCDF; 1,2,3,4,7,8-HxCDF; 1,2,3,6,7,8-HxCDF; 2,3,4,6,7,8-HxCDF; total HxCDF; 1,2,3,4,6,7,8-HpCDF; 1,2,3,4,7,8,9-HpCDF; total HpCDF; and OCDF	-	B-127-10-12 and B-127-10-12-D
2,3,4,7,8-PeCDF	B-127-10-12	127-10-12-D

- Any results reported between the MDL and the sample-specific RL (adjusted for sample weights, dilution factors, and percent solids) should be considered estimated and have been flagged "J" (unless previously flagged "U" due to blank contamination) on the data tables.

- Any total PCDD/PCDF results containing individual congeners that have been qualified above should be considered estimated. EDLs and RLs for "not-detected" total PCDD/PCDF results have been flagged "UJ" on the data tables. Reported positive total PCDD/PCDF results have been flagged "J" on the data tables.

A complete support documentation for this organic QA review is presented in Section 3 of this report. The cover sheet for this section is a checklist of all QA procedures required by the protocol and examined in this data review.

B. Inorganic and Wet Chemistry Data

The inorganic and wet chemistry analyses of 15 soil samples (including QC samples) and one aqueous blank collected as part of the soil sampling event at the Arkema, Inc. facility in Portland, Oregon, on January 21, 2010, were performed by TestAmerica of Portland, Oregon. All samples were analyzed for total arsenic by SW-846 Method 6010B and 15 samples were analyzed for pH by SW-846 Methods 9045C/9040A. The parameters analyzed for each sample are specified on Table 1. Level 3 review (limited data validation) was performed for all data included in Work Order PTA0583.

The findings offered in this report are based on a review of the holding times, condition of samples upon laboratory receipt, blank analysis results, calibrations, LCS/LCSD recoveries and precision, MS/MSD recoveries and precision, laboratory duplicate precision, field duplicate precision, analytical sequence, and the quantitation of positive results.

No issues were identified in this QA review. The data reviewer has included copies of relevant raw data, QC forms, and other documentation needed to support any changes made to the data package in the Inorganic and Wet Chemistry Data Support Documentation (Section 4) of this report. The following comments do not affect data usability (*viz*., items necessitating data qualification).

Comments

1. According to the Case Narrative, the laboratory received six sample containers for sample B-125-8-10; however, the COC Record indicated that only five sample containers were submitted for analysis.

2. According to the Case Narrative, the laboratory received four sample containers for sample Rinsate; however, the COC Record indicated that only three sample containers were submitted for analysis.

3. One field duplicate pair (sample B-127-10-12 and its field duplicate, sample B-127-10-12-D) was collected and analyzed for total arsenic and pH with this data set. Acceptable precision and sample representativeness (*i.e*., difference was < 2× the RL when at least one result was < 5× the RL or RPD was < 40% when both results were > 5× the RL) were observed between the results for total arsenic and pH observed in the field duplicate pair. A complete comparison of the field duplicate results is provided in Section 4.

With regard to data usability, the principal area of concern is reported positive results between the laboratory MDLs and sample-specific RLs. Based upon a review of the data packages provided, the following qualifier is offered. The following data usability issue represents an interpretation of the QC results obtained for the project samples. Quite often, data qualifications address issues relating to sample matrix problems. Similarly, the data validation guidelines routinely specify areas of the data that require qualification, yet the methods used for analysis may not require corrective action by the laboratory. Accordingly, the following data usability issue should not be construed as an indication of laboratory performance.

Inorganic and Wet Chemistry Data Qualifier

- Any results reported between the MDL and the sample-specific RL (adjusted for sample weights, dilution factors, and percent solids) should be considered estimated and have been flagged “J” on the data tables.

A complete support documentation for this inorganic and wet chemistry QA review is presented in Section 4 of this report. The cover sheet for this section is a checklist of all QA procedures required by the protocol and examined in this data review.

C. Conclusions

Based on this QA review, a portion of the organic data was qualified due to blank contamination, exceeded holding time, EMPCs, out-of-criteria MS and/or MSD recoveries, MS/MSD imprecision, a low surrogate recovery, field duplicate imprecision, calibration issues, and reported positive results between the laboratory MDLs and sample-specific RLs. A portion of the inorganic data was qualified due to reported positive results between the laboratory MDLs and sample-specific RLs. The wet chemistry data did not warrant qualification. In order to use any of the data, the data user should understand the qualifications and limitations as specified in this QA review. The Project Case Narratives and Chain-of-Custody Records are presented in Section 5 of this report. The Project Correspondence is presented in Section 6 of this report.

Report prepared by:

Eric T. Lahr
Senior Quality Assurance Chemist/
Project Manager

Report reviewed by:

Jason P. Pisarcik
Senior Quality Assurance Chemist

Report reviewed and approved by:

Rock J. Vitale, CEAC, CPC
Technical Directory of Chemistry/
Principal

ENVIRONMENTAL STANDARDS, INC.
1140 Valley Forge Road
P.O. Box 810
Valley Forge, PA 19482-0810

(610) 935-5577

Date: 4/19/10

SECTION 2

ANALYTICAL RESULTS

ORGANIC DATA QUALIFIERS

U The compound was not detected at or above the associated numerical value or should be considered “not-detected” because it was detected in an associated blank at a similar level.

J Quantitation is approximate due to limitations identified during the quality assurance review (data validation).

R Unusable result; compound may or may not be present in this sample.

UJ This compound was not detected, but the detection limit is probably higher due to a low bias identified during the quality assurance review.

INORGANIC AND WET CHEMISTRY DATA QUALIFIERS

U The analyte was not detected at or above the associated numerical value or should be considered “not-detected” because it was detected in an associated blank at a similar level.

J Quantitation is approximate due to limitations identified during the quality assurance review (data validation).

R Unusable result; analyte may or may not be present in this sample.

UJ This analyte was not detected, but the detection limit is probably higher due to a low bias identified during the quality assurance review.

Final Data Validation Tables
Legacy Site Services
SDG: PTA0583

			Sys Sample Code	B-122-0-2					B-123-0-2				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	71.6		0.0100	0.0100	% by Weight	75.7		0.0100	0.0100	% by Weight

			Sys Sample Code	B-124-0-2					B-125-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	84.1		0.0100	0.0100	% by Weight	82.4		0.0100	0.0100	% by Weight

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	80.2		0.0100	0.0100	% by Weight	85.4		0.0100	0.0100	% by Weight

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	79.8		0.0100	0.0100	% by Weight	76.0		0.0100	0.0100	% by Weight

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	78.8		0.0100	0.0100	% by Weight	65.1		0.0100	0.0100	% by Weight

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216	SOLIDS, PERCENT	SOLID	NA	67.4		0.0100	0.0100	% by Weight	67.0		0.0100	0.0100	% by Weight

			Sys Sample Code	B-129-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
D2216	SOLIDS, PERCENT	SOLID	NA	85.0		0.0100	0.0100	% by Weight

Final Data Validation Tables
Legacy Site Services
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			Sys Sample Code	B-122-0-2					B-122-4-6				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	11.1		0.1	0.1	%	28.2		0.1	0.1	%

			Sys Sample Code	B-122-8-10					B-123-0-2				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	22		0.1	0.1	%	15.5		0.1	0.1	%

			Sys Sample Code	B-123-4-6					B-123-8-10				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	27		0.1	0.1	%	28.7		0.1	0.1	%

			Sys Sample Code	B-124-0-2					B-124-4-6				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	14.3		0.1	0.1	%	31.4		0.1	0.1	%

			Sys Sample Code	B-124-8-10					B-125-3-5				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
D2216-90	MOISTURE, PERCENT	MOIST	NA	31.8		0.1	0.1	%	16.9		0.1	0.1	%

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	25.1		0.1	0.1	%	12.8		0.1	0.1	%

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	20.1		0.1	0.1	%	24.5		0.1	0.1	%

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	19.6		0.1	0.1	%	36.4		0.1	0.1	%

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
D2216-90	MOISTURE, PERCENT	MOIST	NA	33.9		0.1	0.1	%	24.8		0.1	0.1	%

			Sys Sample Code	B-129-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
D2216-90	MOISTURE, PERCENT	MOIST	NA	10.7		0.1	0.1	%

Final Data Validation Tables
Legacy Site Services
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			Sys Sample Code	B-122-0-2					B-123-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
MOISTURE	MOISTURE, PERCENT	MOIST	NA	23		0.10	0.10	%	19		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	77		0.10	0.10	%	81		0.10	0.10	%

			Sys Sample Code	B-124-0-2					B-125-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
MOISTURE	MOISTURE, PERCENT	MOIST	NA	16		0.10	0.10	%	18		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	84		0.10	0.10	%	82		0.10	0.10	%

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
MOISTURE	MOISTURE, PERCENT	MOIST	NA	20		0.10	0.10	%	12		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	80		0.10	0.10	%	88		0.10	0.10	%

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
MOISTURE	MOISTURE, PERCENT	MOIST	NA	20		0.10	0.10	%	22		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	80		0.10	0.10	%	78		0.10	0.10	%

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
MOISTURE	MOISTURE, PERCENT	MOIST	NA	17		0.10	0.10	%	30		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	83		0.10	0.10	%	70		0.10	0.10	%

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
MOISTURE	MOISTURE, PERCENT	MOIST	NA	35		0.10	0.10	%	26		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	65		0.10	0.10	%	74		0.10	0.10	%

			Sys Sample Code	B-129-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
MOISTURE	MOISTURE, PERCENT	MOIST	NA	14		0.10	0.10	%
	SOLIDS, PERCENT	SOLID	NA	86		0.10	0.10	%

Final Data Validation Tables
Legacy Site Services
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			Sys Sample Code	B-122-0-2					B-123-0-2				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	2.42	J	0.571	6.65	mg/kg	13.2		0.540	6.29	mg/kg

			Sys Sample Code	B-124-0-2					B-125-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	4.70	J	0.486	5.66	mg/kg	20.8		0.510	5.95	mg/kg

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	4.80	J	0.509	5.94	mg/kg	13.3		0.492	5.74	mg/kg

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	2.21	J	0.532	6.20	mg/kg	4.26	J	0.538	6.27	mg/kg

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	4.56	J	0.518	6.04	mg/kg	3.27	J	0.628	7.31	mg/kg

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW6010B	Arsenic	7440-38-2	T	1.59	J	0.606	7.07	mg/kg	3.05	J	0.622	7.25	mg/kg

			Sys Sample Code	B-129-0-2					RINSATE				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW6010B	Arsenic	7440-38-2	T	17.3		0.500	5.82	mg/kg		U	0.00940	0.0500	mg/l

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			Sys Sample Code	RINSATE				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
E150.1	pH	pH	NA	5.77				pH Units

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			Sys Sample Code	B-122-0-2					B-123-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW9045B	pH	pH	NA	11.1				pH Units	11.4				pH Units

			Sys Sample Code	B-124-0-2					B-125-3-5				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW9045B	pH	pH	NA	11.7				pH Units	8.92				pH Units

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW9045B	pH	pH	NA	9.78				pH Units	10.4				pH Units

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW9045B	pH	pH	NA	9.54				pH Units	9.27				pH Units

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW9045B	pH	pH	NA	9.09				pH Units	10.8				pH Units

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW9045B	pH	pH	NA	8.66				pH Units	8.42				pH Units

			Sys Sample Code	B-129-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW9045B	pH	pH	NA	11.4				pH Units

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			Sys Sample Code	B-125-3-5					B-125-8-10				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8081A	4,4'-DDD	72-54-8	NA	219		19.9	40.4	ug/kg	537		40.8	82.9	ug/kg
	4,4'-DDE	72-55-9	NA	92.8		19.9	40.4	ug/kg	232		40.8	82.9	ug/kg
	4,4'-DDT	50-29-3	NA	190		19.9	40.4	ug/kg	349		40.8	82.9	ug/kg
	Aldrin	309-00-2	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	alpha-BHC	319-84-6	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	alpha-Chlordane	5103-71-9	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	beta-BHC	319-85-7	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Chlordane	57-74-9	NA		U	90.5	181	ug/kg		U	92.8	186	ug/kg
	delta-BHC	319-86-8	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Dieldrin	60-57-1	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endosulfan I	959-98-8	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endosulfan II	33213-65-9	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endosulfan sulfate	1031-07-8	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endrin	72-20-8	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endrin aldehyde	7421-93-4	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Endrin ketone	53494-70-5	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	gamma-BHC (Lindane)	58-89-9	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	gamma-Chlordane	12789-03-6	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Heptachlor	76-44-8	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Heptachlor epoxide	1024-57-3	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Methoxychlor	72-43-5	NA		U	3.98	8.08	ug/kg		U	4.08	8.29	ug/kg
	Toxaphene	8001-35-2	NA		UJ	121	241	ug/kg		UJ	124	248	ug/kg

			Sys Sample Code	B-126-3-5					B-126-8-10				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8081A	4,4'-DDD	72-54-8	NA	358		38.3	77.9	ug/kg	0.577	J	0.412	0.837	ug/kg
	4,4'-DDE	72-55-9	NA	1100		383	779	ug/kg	5.05	J	0.412	0.837	ug/kg
	4,4'-DDT	50-29-3	NA	4000		383	779	ug/kg	21.5	J	4.12	8.37	ug/kg
	Aldrin	309-00-2	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	alpha-BHC	319-84-6	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	alpha-Chlordane	5103-71-9	NA		U	19.5	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	beta-BHC	319-85-7	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Chlordane	57-74-9	NA		U	218	436	ug/kg		UJ	9.37	18.7	ug/kg
	delta-BHC	319-86-8	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Dieldrin	60-57-1	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Endosulfan I	959-98-8	NA		U	19.5	19.5	ug/kg	1.72	J	0.412	0.837	ug/kg
	Endosulfan II	33213-65-9	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Endosulfan sulfate	1031-07-8	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Endrin	72-20-8	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Endrin aldehyde	7421-93-4	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Endrin ketone	53494-70-5	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	gamma-BHC (Lindane)	58-89-9	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	gamma-Chlordane	12789-03-6	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Heptachlor	76-44-8	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Heptachlor epoxide	1024-57-3	NA		U	9.59	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Methoxychlor	72-43-5	NA		U	19.5	19.5	ug/kg		UJ	0.412	0.837	ug/kg
	Toxaphene	8001-35-2	NA		UJ	291	581	ug/kg		UJ	12.5	25.0	ug/kg

			Sys Sample Code	RINSATE				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8081A	4,4'-DDD	72-54-8	NA		U	0.00485	0.00971	ug/l
	4,4'-DDE	72-55-9	NA		U	0.00485	0.00971	ug/l
	4,4'-DDT	50-29-3	NA		U	0.00485	0.00971	ug/l
	Aldrin	309-00-2	NA		U	0.00485	0.00971	ug/l
	alpha-BHC	319-84-6	NA		U	0.00485	0.00971	ug/l
	alpha-Chlordane	5103-71-9	NA		U	0.00485	0.00971	ug/l
	beta-BHC	319-85-7	NA		U	0.00485	0.00971	ug/l
	Chlordane	57-74-9	NA		U	0.0485	0.0971	ug/l
	delta-BHC	319-86-8	NA		U	0.00485	0.00971	ug/l
	Dieldrin	60-57-1	NA		U	0.00485	0.00971	ug/l
	Endosulfan I	959-98-8	NA		U	0.00485	0.00971	ug/l
	Endosulfan II	33213-65-9	NA		U	0.00485	0.00971	ug/l
	Endosulfan sulfate	1031-07-8	NA		U	0.00485	0.00971	ug/l
	Endrin	72-20-8	NA		U	0.00485	0.00971	ug/l
	Endrin aldehyde	7421-93-4	NA		U	0.00485	0.00971	ug/l
	Endrin ketone	53494-70-5	NA		U	0.00485	0.00971	ug/l
	gamma-BHC (Lindane)	58-89-9	NA		U	0.00485	0.00971	ug/l
	gamma-Chlordane	12789-03-6	NA		U	0.00485	0.00971	ug/l
	Heptachlor	76-44-8	NA		U	0.00485	0.00971	ug/l
	Heptachlor epoxide	1024-57-3	NA		U	0.00485	0.00971	ug/l
	Methoxychlor	72-43-5	NA		U	0.00485	0.00971	ug/l
	Toxaphene	8001-35-2	NA		UJ	0.243	0.243	ug/l

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			Sys Sample Code	B-122-0-2					B-123-0-2				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	38	110	ug/Kg dry		U	35	97	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	33	110	ug/Kg dry		U	30	97	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	42	110	ug/Kg dry		U	38	97	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	72	110	ug/Kg dry		U	66	97	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	27	110	ug/Kg dry		U	25	97	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		UJ	49	110	ug/Kg dry		U	45	97	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	46	110	ug/Kg dry		U	42	97	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	30	110	ug/Kg dry		U	27	97	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	33	110	ug/Kg dry		U	31	97	ug/Kg dry

			Sys Sample Code	B-124-0-2					B-125-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	34	94	ug/Kg dry		U	35	97	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	29	94	ug/Kg dry		U	30	97	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	37	94	ug/Kg dry		U	38	97	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	64	94	ug/Kg dry		U	66	97	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	24	94	ug/Kg dry		U	25	97	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		U	44	94	ug/Kg dry		UJ	45	97	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	41	94	ug/Kg dry		U	42	97	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	26	94	ug/Kg dry		U	27	97	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	30	94	ug/Kg dry		U	31	97	ug/Kg dry

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	35	98	ug/Kg dry		U	33	92	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	30	98	ug/Kg dry		U	29	92	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	38	98	ug/Kg dry		U	36	92	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	66	98	ug/Kg dry		U	63	92	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	25	98	ug/Kg dry		U	23	92	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		U	45	98	ug/Kg dry		U	42	92	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	42	98	ug/Kg dry		U	40	92	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	27	98	ug/Kg dry		U	26	92	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	31	98	ug/Kg dry		U	29	92	ug/Kg dry

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	37	100	ug/Kg dry		U	38	100	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	31	100	ug/Kg dry		U	33	100	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	40	100	ug/Kg dry		U	41	100	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	69	100	ug/Kg dry		U	71	100	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	26	100	ug/Kg dry		U	27	100	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		UJ	47	100	ug/Kg dry		U	48	100	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	44	100	ug/Kg dry		U	45	100	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	28	100	ug/Kg dry		U	29	100	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	32	100	ug/Kg dry		U	33	100	ug/Kg dry

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	36	98	ug/Kg dry		U	42	120	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	31	98	ug/Kg dry		U	36	120	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	39	98	ug/Kg dry		U	45	120	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	67	98	ug/Kg dry		U	79	120	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	25	98	ug/Kg dry		U	29	120	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		UJ	45	98	ug/Kg dry		UJ	53	120	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	42	98	ug/Kg dry		U	50	120	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	28	98	ug/Kg dry		U	32	120	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	31	98	ug/Kg dry		U	37	120	ug/Kg dry

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	45	120	ug/Kg dry		UJ	39	110	ug/Kg dry
	Dichloronaphthalene, Total	28699-88-9	NA		U	38	120	ug/Kg dry		UJ	34	110	ug/Kg dry
	Heptachloronaphthalene, Total	32241-08-0	NA		U	48	120	ug/Kg dry		UJ	42	110	ug/Kg dry
	Hexachloronaphthalene, Total	1335-87-1	NA		U	84	120	ug/Kg dry		UJ	73	110	ug/Kg dry
	Octachloronaphthalene, Total	2234-13-1	NA		U	31	120	ug/Kg dry		UJ	27	110	ug/Kg dry
	Octachlorostyrene	29082-74-4	NA		U	57	120	ug/Kg dry		UJ	50	110	ug/Kg dry
	Pentachloronaphthalene, Total	1321-64-8	NA		U	53	120	ug/Kg dry		UJ	46	110	ug/Kg dry
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	34	120	ug/Kg dry		UJ	30	110	ug/Kg dry
	Trichloronaphthalene, Total	1321-65-9	NA		U	39	120	ug/Kg dry		UJ	34	110	ug/Kg dry

			Sys Sample Code	B-129-0-2					RINSATE				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8270C	1-CHLORONAPHTHALENE	90-13-1	NA		U	34	93	ug/Kg dry		U	0.24	2.7	ug/L
	Dichloronaphthalene, Total	28699-88-9	NA		U	29	93	ug/Kg dry		U	0.40	2.7	ug/L
	Heptachloronaphthalene, Total	32241-08-0	NA		U	37	93	ug/Kg dry		U	1.0	2.7	ug/L
	Hexachloronaphthalene, Total	1335-87-1	NA		U	64	93	ug/Kg dry		U	1.5	2.7	ug/L
	Octachloronaphthalene, Total	2234-13-1	NA		U	24	93	ug/Kg dry		U	0.44	2.7	ug/L
	Octachlorostyrene	29082-74-4	NA		U	43	93	ug/Kg dry		U	0.62	2.7	ug/L
	Pentachloronaphthalene, Total	1321-64-8	NA		U	40	93	ug/Kg dry		U	1.2	2.7	ug/L
	Tetrachloronaphthalene, Total	1335-88-2	NA		U	26	93	ug/Kg dry		U	0.37	2.7	ug/L
	Trichloronaphthalene, Total	1321-65-9	NA		U	29	93	ug/Kg dry		U	0.22	2.7	ug/L

Final Data Validation Tables
Legacy Site Services
SDG: PTA0583

			Sys Sample Code	B-122-0-2					B-122-4-6				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	30		0.13	11	pg/g	30	J	0.56	14	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	260		0.44	11	pg/g	15	J	0.46	14	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	4	J	0.18	5.6	pg/g	3.9	J	0.43	7	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	240		5.1	5.6	pg/g	15	J	0.29	7	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	760		6	6	pg/g	12	J	0.33	7	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA		U	0.23	5.6	pg/g		UJ	0.22	7	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	750		1.1	5.6	pg/g	36	J	0.19	7	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA		U	0.17	5.6	pg/g	0.32	J	0.2	7	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	220		0.95	5.6	pg/g	10	J	0.16	7	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	0.2	J	0.18	5.6	pg/g	0.38	J	0.17	7	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	16		1.2	5.6	pg/g	0.86	J	0.17	7	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		U	0.15	5.6	pg/g		UJ	0.37	7	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	500		1.6	5.6	pg/g	31	J	0.18	7	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	32		1.1	5.6	pg/g	1.5	J	0.18	7	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	190		1.6	5.6	pg/g	9.1	J	0.2	7	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		U	0.11	1.1	pg/g		UJ	0.17	1.4	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	410	J	0.43	1.1	pg/g	26	J	0.39	1.4	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	8.9		0.18	5.6	pg/g	9.4	J	0.43	7	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	2500		5.5	5.6	pg/g	37	J	0.31	7	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	1.7	J	0.19	5.6	pg/g	3.4	J	0.19	7	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	1300		1.1	5.6	pg/g	65	J	0.17	7	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA		U	0.15	5.6	pg/g	0.88	J	0.37	7	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	1100		1.6	5.6	pg/g	72	J	0.19	7	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA		U	0.11	1.1	pg/g	0.24	J	0.17	1.4	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	1000	J	0.12	1.1	pg/g	61	J	0.11	1.4	pg/g

			Sys Sample Code	B-122-8-10					B-123-0-2				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	14	J	0.32	12	pg/g	960		2.4	120	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	2.7	J	0.34	12	pg/g	760		1.8	120	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	1.5	J	0.28	5.9	pg/g	110		2	58	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	1.3	J	0.25	5.9	pg/g	650		3.5	58	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	1.3	J	0.28	5.9	pg/g	240		4.1	58	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA		UJ	0.21	5.9	pg/g	2.3	J	2.2	58	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	1.5	J	0.15	5.9	pg/g	2200		3.1	58	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA		UJ	0.2	5.9	pg/g	4.1	J	1.7	58	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	0.51	U	0.13	5.9	pg/g	540		2.6	58	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA		UJ	0.16	5.9	pg/g	2.4	J	1.7	58	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA		UJ	0.13	5.9	pg/g	23		3.2	58	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		UJ	0.23	5.9	pg/g		U	1.1	58	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	1	J	0.17	5.9	pg/g	1400		8.5	58	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA		UJ	0.14	5.9	pg/g	91		2.9	58	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	0.55	J	0.18	5.9	pg/g	490		8.8	58	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		UJ	0.089	1.2	pg/g		U	0.99	12	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	0.99	J	0.077	1.2	pg/g	2400		3.2	12	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	3.5	J	0.28	5.9	pg/g	200		2	58	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	3.7	J	0.26	5.9	pg/g	1200		3.7	58	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	0.69	J	0.19	5.9	pg/g	29	J	1.9	58	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	2.8	J	0.14	5.9	pg/g	3300		2.9	58	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	0.42	J	0.23	5.9	pg/g	1.8		1.1	58	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	3.1	J	0.18	5.9	pg/g	2900		8.7	58	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA		UJ	0.089	1.2	pg/g	2		0.99	12	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	2	J	0.077	1.2	pg/g	4500		0.98	12	pg/g

			Sys Sample Code	B-123-4-6					B-123-8-10				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	36	J	0.44	14	pg/g	23	J	0.67	14	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	76	J	0.49	14	pg/g	1.6	J	0.43	14	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	4.9	J	0.28	6.8	pg/g	3	J	0.32	6.9	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	68	J	0.39	6.8	pg/g	1.1	J	0.27	6.9	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	29	J	0.45	6.8	pg/g	0.35	J	0.31	6.9	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	0.19	J	0.17	6.8	pg/g		UJ	0.26	6.9	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	260	J	0.35	6.8	pg/g	1.1	J	0.16	6.9	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	0.3	J	0.16	6.8	pg/g		UJ	0.23	6.9	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	64	J	0.3	6.8	pg/g	0.5	J	0.14	6.9	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	0.57	J	0.13	6.8	pg/g	0.21	J	0.19	6.9	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	6.1	J	0.31	6.8	pg/g		UJ	0.14	6.9	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		UJ	0.52	6.8	pg/g		UJ	0.34	6.9	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	290	J	0.28	6.8	pg/g	1.2	J	0.25	6.9	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	11	J	0.33	6.8	pg/g		UJ	0.15	6.9	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	75	J	0.3	6.8	pg/g	0.4	J	0.27	6.9	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		UJ	0.17	1.4	pg/g		UJ	0.19	1.4	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	260	J	1	1.4	pg/g	0.94	J	0.11	1.4	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	12	J	0.28	6.8	pg/g	6.6	J	0.32	6.9	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	120	J	0.42	6.8	pg/g	2.3	J	0.29	6.9	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	4.5	J	0.15	6.8	pg/g	1.7	J	0.23	6.9	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	450	J	0.32	6.8	pg/g	2.2	J	0.15	6.9	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	0.75	J	0.52	6.8	pg/g	0.5	J	0.34	6.9	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	630	J	0.29	6.8	pg/g	2.5	J	0.26	6.9	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	0.26	J	0.17	1.4	pg/g		UJ	0.19	1.4	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	700	J	0.21	1.4	pg/g	2.1	J	0.11	1.4	pg/g

			Sys Sample Code	B-124-0-2					B-124-4-6				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	1300		4.8	120	pg/g	15	J	0.5	14	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	2500		4.4	120	pg/g	11	J	0.36	14	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	140		5.9	58	pg/g	2.2	J	0.27	6.9	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	2300		15	58	pg/g	12	J	0.28	6.9	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	1400		18	58	pg/g	5.8	J	0.32	6.9	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA		U	5.1	58	pg/g		UJ	0.28	6.9	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	5900		13	58	pg/g	51	J	0.21	6.9	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	5.3	J	3.9	58	pg/g		UJ	0.26	6.9	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	1700		11	58	pg/g	10	J	0.18	6.9	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA		U	4	58	pg/g	0.32	J	0.21	6.9	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	48	J	13	58	pg/g	1.1	J	0.19	6.9	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		U	3.2	58	pg/g		UJ	0.5	6.9	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	3800		23	58	pg/g	30	J	0.21	6.9	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	250		12	58	pg/g	1.7	J	0.2	6.9	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	1400		23	58	pg/g	9.7	J	0.22	6.9	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		U	2.8	12	pg/g		UJ	0.12	1.4	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	5000		6.6	12	pg/g	12	J	0.39	1.4	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	280		5.9	58	pg/g	5.1	J	0.27	6.9	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	6700		17	58	pg/g	23	J	0.3	6.9	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	39	J	4.3	58	pg/g	1.6	J	0.25	6.9	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	9900	J	12	58	pg/g	84	J	0.19	6.9	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	3.9		3.2	58	pg/g	0.74	J	0.5	6.9	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	8600		23	58	pg/g	67	J	0.21	6.9	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA		U	2.8	12	pg/g	0.57	J	0.12	1.4	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	11000		3.2	12	pg/g	29	J	0.11	1.4	pg/g

			Sys Sample Code	B-124-8-10					B-125-3-5				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	33	J	0.32	14	pg/g	310		0.76	12	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	3.1	J	0.36	14	pg/g	83		0.83	12	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	4.2	J	0.25	7	pg/g	37		0.49	5.9	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	1.9	J	0.27	7	pg/g	34		0.49	5.9	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	1	J	0.3	7	pg/g	12		0.57	5.9	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA		UJ	0.18	7	pg/g	1.2	J	0.29	5.9	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	5.2	J	0.19	7	pg/g	90		0.66	5.9	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	0.27	J	0.16	7	pg/g	2.8	J	0.22	5.9	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	1.4	J	0.16	7	pg/g	21		0.55	5.9	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	0.5	J	0.14	7	pg/g	1.1	J	0.23	5.9	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA		UJ	0.17	7	pg/g	1.4	J	0.67	5.9	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		UJ	0.33	7	pg/g	0.58	J	0.31	5.9	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	3.7	J	0.26	7	pg/g	50		0.51	5.9	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA		UJ	0.18	7	pg/g	3.8	J	0.61	5.9	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	1.6	J	0.27	7	pg/g	27		0.53	5.9	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		UJ	0.21	1.4	pg/g	0.28	J	0.16	1.2	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	2.8	J	0.44	1.4	pg/g	40		0.31	1.2	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	10	J	0.25	7	pg/g	73		0.49	5.9	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	4	J	0.28	7	pg/g	82		0.53	5.9	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	3.6	J	0.16	7	pg/g	24	J	0.24	5.9	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	9.7	J	0.17	7	pg/g	150	J	0.62	5.9	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	0.85	J	0.33	7	pg/g	1.5	J	0.31	5.9	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	9.9	J	0.26	7	pg/g	150		0.52	5.9	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	0.44	J	0.21	1.4	pg/g	4	J	0.16	1.2	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	7	J	0.078	1.4	pg/g	99		0.26	1.2	pg/g

			Sys Sample Code	B-125-8-10					B-126-3-5				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	590	J	0.56	13	pg/g	1300		1.1	11	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	99		0.27	13	pg/g	210		0.5	11	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	84	J	0.78	6.3	pg/g	130		1.4	5.7	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	120	J	0.33	6.3	pg/g	130		1	5.7	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	14		0.39	6.3	pg/g	56		1.2	5.7	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	5.6	J	0.26	6.3	pg/g	4	J	0.3	5.7	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	80		0.65	6.3	pg/g	350		0.97	5.7	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	9.1		0.19	6.3	pg/g	7.8		0.23	5.7	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	51		0.54	6.3	pg/g	82		0.81	5.7	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	5.5	J	0.2	6.3	pg/g	7.1		0.24	5.7	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	2.3	J	0.66	6.3	pg/g	5.8		0.98	5.7	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA	8.4		0.27	6.3	pg/g	3.9	J	0.41	5.7	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	60		1.4	6.3	pg/g	200		2.8	5.7	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	44	J	0.6	6.3	pg/g	15		0.9	5.7	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	73	J	1.4	6.3	pg/g	87		2.9	5.7	pg/g
	2,3,7,8-TCDD	1746-01-6	NA	3		0.12	1.3	pg/g	0.85	J	0.22	1.1	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	42	J	0.45	1.3	pg/g	180		0.4	1.1	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	170	J	0.78	6.3	pg/g	250		1.4	5.7	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	240	J	0.36	6.3	pg/g	280		1.1	5.7	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	95	J	0.21	6.3	pg/g	63	J	0.25	5.7	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	490	J	0.61	6.3	pg/g	570		0.91	5.7	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	73		0.27	6.3	pg/g	28	J	0.41	5.7	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	710	J	1.4	6.3	pg/g	490		2.8	5.7	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	55		0.12	1.3	pg/g	36	J	0.22	1.1	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	640	J	0.12	1.3	pg/g	400		0.32	1.1	pg/g

			Sys Sample Code	B-126-8-10					B-127-10-12				
Lab Anl Method Name	**Chemical Name**	**Cas Rn**	**Total Or Dissolved**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**	**Result Value**	**Validator Qual**	**MDL**	**RL**	**Result Unit**
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	38		0.23	12	pg/g	140	J	0.27	13	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	9.1	J	0.15	12	pg/g	6.4	J	0.15	13	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	4.8	J	0.22	6	pg/g	9.6	J	0.32	6.5	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	5.8	J	0.18	6	pg/g	3.7	J	0.15	6.5	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	1.6	J	0.21	6	pg/g	2.2	J	0.18	6.5	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA		U	0.21	6	pg/g		U	0.31	6.5	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	12		0.16	6	pg/g	2.6	J	0.12	6.5	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	0.33	J	0.16	6	pg/g	0.5	J	0.23	6.5	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	3	J	0.13	6	pg/g	1.4	J	0.1	6.5	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	0.23	J	0.16	6	pg/g	0.29	J	0.24	6.5	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	0.17	J	0.16	6	pg/g		U	0.12	6.5	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		U	0.18	6	pg/g		U	0.19	6.5	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	7.3		0.18	6	pg/g	0.86	J	0.2	6.5	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	0.58	J	0.15	6	pg/g	0.24	J	0.11	6.5	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	3	J	0.18	6	pg/g		UJ	0.21	6.5	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		U	0.12	1.2	pg/g		U	0.15	1.3	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	5.7		0.29	1.2	pg/g	0.78	J	0.061	1.3	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	11	J	0.22	6	pg/g	19	J	0.32	6.5	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	13	J	0.19	6	pg/g	12	J	0.16	6.5	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	2.5	J	0.17	6	pg/g	3	J	0.25	6.5	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	21	J	0.15	6	pg/g	9.3	J	0.11	6.5	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	0.24		0.18	6	pg/g		U	0.19	6.5	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	18	J	0.18	6	pg/g	2.5	J	0.21	6.5	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA		U	0.12	1.2	pg/g	0.24		0.15	1.3	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	11		0.1	1.2	pg/g	2.2	J	0.061	1.3	pg/g

			Sys Sample Code	B-127-10-12-D					B-127-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	410	J	0.3	12	pg/g	83		0.34	15	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	160	J	0.24	12	pg/g	11	J	0.13	15	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	31	J	0.49	6.1	pg/g	7.6		0.29	7.3	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	160	J	0.61	6.1	pg/g	5.7	J	0.22	7.3	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	71	J	0.71	6.1	pg/g	1	J	0.26	7.3	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	0.59	J	0.19	6.1	pg/g		U	0.27	7.3	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	800	J	1.1	6.1	pg/g	4.2	J	0.16	7.3	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	1.6	J	0.14	6.1	pg/g	0.24	J	0.2	7.3	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	180	J	0.93	6.1	pg/g	1.3	J	0.14	7.3	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	1.1	J	0.15	6.1	pg/g		U	0.21	7.3	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	6.6		1.1	6.1	pg/g		U	0.17	7.3	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA	0.45	J	0.2	6.1	pg/g		U	0.16	7.3	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	220	J	1.1	6.1	pg/g	2	J	0.13	7.3	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	17	J	1	6.1	pg/g	0.16	J	0.15	7.3	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	37	J	1.2	6.1	pg/g	0.39	J	0.14	7.3	pg/g
	2,3,7,8-TCDD	1746-01-6	NA	0.27	J	0.1	1.2	pg/g	0.5	J	0.13	1.5	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	15	J	0.3	1.2	pg/g	2.7		0.3	1.5	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	67	J	0.49	6.1	pg/g	17		0.29	7.3	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	310	J	0.66	6.1	pg/g	13	J	0.24	7.3	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	12	J	0.16	6.1	pg/g	1.9	J	0.22	7.3	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	1200	J	1.1	6.1	pg/g	9.3	J	0.15	7.3	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	4	J	0.2	6.1	pg/g		U	0.16	7.3	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	420	J	1.2	6.1	pg/g	4.2	J	0.13	7.3	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	2.6		0.1	1.2	pg/g	1.3	J	0.13	1.5	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	47	J	0.11	1.2	pg/g	8.7		0.062	1.5	pg/g

			Sys Sample Code	B-128-10-12					B-128-15-17				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	39		0.24	14	pg/g	30		0.21	13	pg/g
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	5.1	J	0.096	14	pg/g	3.3	J	0.086	13	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	5.1	J	0.21	7.2	pg/g	2.7	J	0.36	6.6	pg/g
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	3.7	J	0.13	7.2	pg/g	1.2	J	0.12	6.6	pg/g
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	1.4	J	0.15	7.2	pg/g	0.26	J	0.14	6.6	pg/g
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	0.26	J	0.16	7.2	pg/g		U	0.25	6.6	pg/g
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	5.1	J	0.13	7.2	pg/g	1.1	J	0.1	6.6	pg/g
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	0.3	J	0.12	7.2	pg/g		U	0.19	6.6	pg/g
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	1.6	J	0.11	7.2	pg/g	0.29	J	0.085	6.6	pg/g
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	0.38	J	0.13	7.2	pg/g		U	0.2	6.6	pg/g
	1,2,3,7,8,9-HxCDF	72918-21-9	NA		U	0.13	7.2	pg/g		U	0.1	6.6	pg/g
	1,2,3,7,8-PeCDD	40321-76-4	NA		U	0.18	7.2	pg/g		U	0.18	6.6	pg/g
	1,2,3,7,8-PeCDF	57117-41-6	NA	1.9	J	0.14	7.2	pg/g	0.39	J	0.081	6.6	pg/g
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	0.24	J	0.12	7.2	pg/g		U	0.095	6.6	pg/g
	2,3,4,7,8-PeCDF	57117-31-4	NA	0.64	J	0.14	7.2	pg/g	0.13	J	0.084	6.6	pg/g
	2,3,7,8-TCDD	1746-01-6	NA		U	0.14	1.4	pg/g		U	0.12	1.3	pg/g
	2,3,7,8-TCDF	51207-31-9	NA	1	J	0.3	1.4	pg/g	0.48	J	0.056	1.3	pg/g
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	11	J	0.21	7.2	pg/g	6.7	J	0.36	6.6	pg/g
	Total Heptachlorodibenzofuran	38998-75-3	NA	7.2	J	0.14	7.2	pg/g	3.2	J	0.13	6.6	pg/g
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	4.3	J	0.14	7.2	pg/g	1.1		0.21	6.6	pg/g
	Total Hexachlorodibenzofuran	55684-94-1	NA	9.3	J	0.12	7.2	pg/g	2.1	J	0.096	6.6	pg/g
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	0.29		0.18	7.2	pg/g		U	0.18	6.6	pg/g
	Total Pentachlorodibenzofuran	30402-15-4	NA	5.3	J	0.14	7.2	pg/g	0.84	J	0.083	6.6	pg/g
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	1.2		0.14	1.4	pg/g		U	0.12	1.3	pg/g
	Total Tetrachlorodibenzofuran	55722-27-5	NA	3.9	J	0.06	1.4	pg/g	0.69	J	0.056	1.3	pg/g

			Sys Sample Code	B-129-0-2					RINSATE				
Lab Anl Method Name	Chemical Name	Cas Rn	Total Or Dissolved	Result Value	Validator Qual	MDL	RL	Result Unit	Result Value	Validator Qual	MDL	RL	Result Unit
SW8290	1,2,3,4,5,6,7,8-Octachlorodibenzo-p-dioxin	3268-87-9	NA	760		0.53	11	pg/g	17	J	5.5	96	pg/L
	1,2,3,4,5,6,7,8-Octachlorodibenzofuran	39001-02-0	NA	57		0.14	11	pg/g		U	5.6	96	pg/L
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	NA	82		0.26	5.6	pg/g		U	4.1	48	pg/L
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	NA	27		0.34	5.6	pg/g		U	2.5	48	pg/L
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	NA	8.6		0.4	5.6	pg/g		U	2.8	48	pg/L
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	NA	1.7	J	0.28	5.6	pg/g		U	2.8	48	pg/L
	1,2,3,4,7,8-HxCDF	70648-26-9	NA	37		0.19	5.6	pg/g	2.6	J	2	48	pg/L
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	NA	3.1	J	0.21	5.6	pg/g		U	2.5	48	pg/L
	1,2,3,6,7,8-HxCDF	57117-44-9	NA	10		0.16	5.6	pg/g		U	1.8	48	pg/L
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	NA	2.3	J	0.22	5.6	pg/g		U	2.1	48	pg/L
	1,2,3,7,8,9-HxCDF	72918-21-9	NA	0.49	J	0.2	5.6	pg/g		U	1.8	48	pg/L
	1,2,3,7,8-PeCDD	40321-76-4	NA	0.68	J	0.21	5.6	pg/g		U	4	48	pg/L
	1,2,3,7,8-PeCDF	57117-41-6	NA	20		0.42	5.6	pg/g		U	2.8	48	pg/L
	2,3,4,6,7,8-HxCDF	60851-34-5	NA	2.8	J	0.18	5.6	pg/g		U	2	48	pg/L
	2,3,4,7,8-PeCDF	57117-31-4	NA	8.3		0.43	5.6	pg/g		U	3	48	pg/L
	2,3,7,8-TCDD	1746-01-6	NA	0.22	J	0.11	1.1	pg/g		U	2.3	9.6	pg/L
	2,3,7,8-TCDF	51207-31-9	NA	20		0.28	1.1	pg/g	1.6	J	1.4	9.6	pg/L
	Total Heptachlorodibenzo-p-dioxin	37871-00-4	NA	160		0.26	5.6	pg/g		U	4.1	48	pg/L
	Total Heptachlorodibenzofuran	38998-75-3	NA	60		0.37	5.6	pg/g		U	2.8	48	pg/L
	Total Hexachlorodibenzo-p-dioxin	34465-46-8	NA	24	J	0.23	5.6	pg/g		U	2.8	48	pg/L
	Total Hexachlorodibenzofuran	55684-94-1	NA	77	J	0.18	5.6	pg/g	2.6	J	1.9	48	pg/L
	Total Pentachlorodibenzo-p-dioxin	36088-22-9	NA	6.6	J	0.21	5.6	pg/g		U	4	48	pg/L
	Total Pentachlorodibenzofuran	30402-15-4	NA	59		0.42	5.6	pg/g		U	3	48	pg/L
	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	NA	4	J	0.11	1.1	pg/g		U	2.3	9.6	pg/L
	Total Tetrachlorodibenzofuran	55722-27-5	NA	59		0.041	1.1	pg/g	1.6	J	1.4	9.6	pg/L

SECTION 3

ORGANIC DATA SUPPORT DOCUMENTATION

Organic Analyses Support Documentation

Environmental Standards Project Name: Arkema
Sample Collection Dates: 1/21/10
Job Number: 20105556.A000
Project Manager: KL
Laboratory: TA

Reviewed By: KL
Approved By: JPP
Completion Date: 3/26/10

Applicable Sample No's.: ☑ Refer to Table 1 in the Quality Assurance Review

Deliverables: CLP (Like) ☑
Tier I ☐
Tier II ☐
Limited ☐
Other

Sample No.	Lab. Control No.
Work order # PTA0562	

The following table indicates criteria which were examined, the identified problems, and support documentation attachments.

	Criteria Examined in Detail (Check (✓) If Yes or Footnote Letter for Comments Below)				Problems Identified (Check (✓) If Yes or Footnote Number for Comments Below)				Support Documentation Attachments (Check (✓) If Yes -- or Identify Attachment No.)			
	VOA Method	BNA Method 8270C	PEST / PCB Method 8081A	Other Method(s) 8290A	VOA Method	BNA Method 8270C	PEST / PCB Method 8081A	Other Method(s) 8290A	VOA Method	BNA Method 8270C	PEST / PCB Method 8081A	Other Method(s) 8290A
Holding Times		✓	✓	✓		(1) ✓	✓	✓		✓	✓	✓
Blank Analysis Results: Target Compounds		✓	✓	✓			(2)	✓		✓	✓	✓
Blank Analysis Results: TICs												
System Mntr. Cmpds. &/or Surrogate Spike Rslts.		✓	✓	✓	(3)	✓				✓	✓	✓
Matrix Spike / Matrix Spike Duplicate Results		✓	✓	✓			(4)	✓		✓	✓	✓
Blank Spike Results		✓	✓	✓			(6)	✓		✓	✓	✓
Duplicate Analysis Results ☑ Field ☐ Lab		✓	✓	✓			(7)	✓		✓	✓	✓
Qualitative Identification: Target Compounds		✓	✓	✓			(5)	✓		✓	✓	✓
Qualitative Identification: TICs												
DFTPP & BFB Mass Tuning PFK		✓		✓						✓		✓
GC Instrument Performance		✓	✓	✓						✓	✓	✓
Initial Calibrations		✓	✓	✓						✓	✓	✓
Continuing Calibrations		✓	✓	✓	(8)	✓	✓			✓	✓	✓
Quantitation of Results		✓	✓	✓						✓	✓	✓
DDT / Endrin Breakdown			✓								✓	
Surrogate Retention Time Shifts		✓	✓	✓						✓	✓	✓
Internal Standards Performance		✓	✓	✓						✓	✓	✓
Resolution Check Standards				✓								✓
Analytical Sequence		✓	✓	✓						✓	✓	✓
Florisil Cartridge Check & GPC Calibration												
GC Column Agreement			✓								✓	
Others: Condition Upon Receipt		✓	✓	✓						✓	✓	✓ (COC)

Comments: (1) Exceeded holding time. (2) Blank contamination. (3) A low surrogate %R. (4) Out-of-criteria MS/MSD recoveries. (5) Samples. (6) High ICV/CCV Std. %Ds. (7) Field dup imprecision.

Data acceptable unless otherwise qualified.

BLANK ANALYSIS RESULTS FOR TARGET ORGANIC COMPOUNDS

Fraction (1)	Matrix (Aq., S)	Blank Type (2)	Blank Sample Number	Contaminant	Concentration (units)	Qualification Limit 5x	Qualification Limit 10x
DF	Aq	EB	RINSEate	OCDD	17 pg/L	0.00017 pg/L	—
				2,3,7,8-TCDF EMPC	1.6	0.00016	—
				~~Total~~ TCDF EMPC	1.6	0.00016	—
				1,2,3,4,7,8-HxCDF EMPC	~2.6	0.00026	—
				Total HxCDF EMPC	2.6	0.00026	—
	S	MB	GOB2[illegible]-4238	OCDF	0.22 pg/g	1.10 pg/g	—
	S	MB	GOB2[illegible]-3658	Total TCDD	0.11 pg/g	0.55 pg/g	—
				Total PeCDD	0.58 pg/g	2.9	—
				Total HxCDD	0.27	1.35	—
				1,2,3,4,6,7,8-HpCDD EMPC	0.61	3.05	—
				Total HpCDD	1.2	6.0	—
				OCDD	1.1	5.5	—
				Total PeCDF	0.28	1.4	—
				1,2,3,6,7,8-HxCDF EMPC .05	0.12	0.60	—
				Total HxCDF EMPC	0.12	0.60	—
				* Totals not used to blank quality. Due to limited review performed data reviewer could not determine what compounds in blanks & samples contributed to totals.			

1 – V = Volatile; S = Semivolatile; P = Pesticide/PCB; O = Other: _____

Aq. = Aqueous; S = Solid DF = Dioxin/Furan

2 – MB = Method Blank; TB = Trip Blank; EB = Equipment Rinse Blank; FB = Field Blank
IB = Instrument Blank; SB = Storage Blank

* = Inferred from instrument printouts and/or supporting data; mass spectra not provided.

+ = Contaminant observed on one column only.

Notes: See cover pg. for impact on data quality

EVALUATION OF DUPLICATE ANALYSIS PRECISION

Units pg/g	PRECISION OBJECTIVES[1]		
	Analyte > or = 5 X RL	RPD < or =	40
	Analyte < 5 X RL	Difference < or = RL Times	2

ANALYTE	B-127-10-12 Analyte Concentration[2]	Qual	RL	B-127-10-12-D Analyte Concentration[2]	Qual	RL	Difference	RPD	Notes
2,3,7,8-TCDD	0.15	U	1.3	0.27	J	1.2	0.12	NA	IN
Total TCDD	0.24	J	1.3	2.6		1.2	2.36	NA	IN
1,2,3,7,8-PeCDD	0.19	U	6.5	0.45	J	6.1	0.26	NA	IN
Total PeCDD	0.19	U	6.5	4		6.1	3.81	NA	IN
1,2,3,4,7,8-HxCDD	0.31	U	6.5	0.59	J	6.1	0.28	NA	IN
1,2,3,6,7,8-HxCDD	0.5	J	6.5	1.6	J	6.1	1.1	NA	IN
1,2,3,7,8,9-HxCDD	0.29	J	6.5	1.1	J	6.1	0.81	NA	IN
Total HxCDD	3		6.5	12		6.1	9	NA	IN
1,2,3,4,6,7,8-HpCDD	9.6		6.5	31		6.1	21.4	NA	2
Total HpCDD	19		6.5	67		6.1	48	NA	2
OCDD	140		13	410		12	NA	98.18%	1
2,3,7,8-TCDF	0.78	J	1.3	15		1.2	14.22	NA	2
Total TCDF	2.2		1.3	47		1.2	44.8	NA	2
1,2,3,7,8-PeCDF	0.86	J	6.5	220		6.1	219.14	NA	2
2,3,4,7,8-PeCDF	0.21	U	6.5	37		6.1	36.79	NA	2
Total PeCDF	2.5		6.5	420		6.1	417.5	NA	2
1,2,3,4,7,8-HxCDF	2.6	J	6.5	800		6.1	797.4	NA	2
1,2,3,6,7,8-HxCDF	1.4	J	6.5	180		6.1	178.6	NA	2
2,3,4,6,7,8-HxCDF	0.24	J	6.5	17		6.1	16.76	NA	2
1,2,3,7,8,9-HxCDF	0.12	U	6.5	6.6		6.1	6.48	NA	IN
Total HxCDF	9.3		6.5	1200		6.1	1190.7	NA	2
1,2,3,4,6,7,8-HpCDF	3.7	J	6.5	160		6.1	156.3	NA	2
1,2,3,4,7,8,9-HpCDF	2.2	J	6.5	71		6.1	68.8	NA	2
Total HpCDF	12		6.5	310		6.1	298	NA	2
OCDF	6.4	J	13	160		12	153.6	NA	2

NOTES:

1) Enter the project-specific or default acceptance criteria

2) For not-detected results, enter the method detection limit in the Concentrations column and a "U" in the Qual column.

Qual) Column to enter J, U, U*, or B

RPD) Relative Percent Difference

RL) Reporting Limit

J) The analyte concentration should be considered estimated.

U) The analyte was not-detected in the sample. The numerical value will be used for comparison purposes.

U* or B) The result was blank qualified. The numerical value will be used for comparison purposes.

NA) The RPD or Difference is not applicable.

1) Both results are > or = 5 X RL and RPD over acceptance limit, flag positive results "J".

EVALUATION OF DUPLICATE ANALYSIS PRECISION

2) At least one of the results is < 5 X RL and difference is over acceptance limit, flag positive results "J" and "not-detected" results "UJ".

Comments:

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Aldrin	EPA 8081A	ND	*3.98*	8.08	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 16:44	
alpha-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
beta-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
delta-BHC	"	ND	*3.98*	8.08	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*3.98*	8.08	"	"	"	"	"	
gamma-Chlordane	"	ND	*3.98*	8.08	"	"	"	"	"	
alpha-Chlordane	"	ND	*3.98*	8.08	"	"	"	"	"	
Chlordane (tech)	"	ND	*90.5*	181	"	"	"	"	"	
Dieldrin	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan I	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan II	"	ND	*3.98*	8.08	"	"	"	"	"	
Endosulfan sulfate	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin aldehyde	"	ND	*3.98*	8.08	"	"	"	"	"	
Endrin ketone	"	ND	*3.98*	8.08	"	"	"	"	"	
Heptachlor	"	ND	*3.98*	8.08	"	"	"	"	"	
Heptachlor epoxide	"	ND	*3.98*	8.08	"	"	"	"	"	
Methoxychlor	"	ND	*3.98*	8.08	"	"	"	"	"	
Toxaphene	"	ND	*121*	241	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				*59.7%*		*36 - 140 %*				"
PTA0583-16RE1 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
4,4'-DDD	EPA 8081A	**219**	*19.9*	40.4	ug/kg dry	50x	10A0630	01/26/10 11:00	02/05/10 20:10	
4,4'-DDE	"	**92.8**	*19.9*	40.4	"	"	"	"	"	
4,4'-DDT	"	**190**	*19.9*	40.4	"	"	"	"	"	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Aldrin	EPA 8081A	ND	*4.08*	8.29	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 17:11	
alpha-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
beta-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
delta-BHC	"	ND	*4.08*	8.29	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*4.08*	8.29	"	"	"	"	"	
gamma-Chlordane	"	ND	*4.08*	8.29	"	"	"	"	"	
alpha-Chlordane	"	ND	*4.08*	8.29	"	"	"	"	"	
Chlordane (tech)	"	ND	*92.8*	186	"	"	"	"	"	
Dieldrin	"	ND	*4.08*	8.29	"	"	"	"	"	

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
Endosulfan I	EPA 8081A	ND	*4.08*	8.29	ug/kg dry	10x	10A0630	01/26/10 11:00	02/08/10 17:11	
Endosulfan II	"	ND	*4.08*	8.29	"	"	"	"	"	
Endosulfan sulfate	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin aldehyde	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin ketone	"	ND	*4.08*	8.29	"	"	"	"	"	
Heptachlor	"	ND	*4.08*	8.29	"	"	"	"	"	
Heptachlor epoxide	"	ND	*4.08*	8.29	"	"	"	"	"	
Methoxychlor	"	ND	*4.08*	8.29	"	"	"	"	"	
Toxaphene	"	ND	*124*	248	"	"	"	"	"	
Dieldrin (2)	"	ND	*4.08*	8.29	"	"	"	"	"	
Endrin (2)	"	ND	*4.08*	8.29	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*152%*			*36 - 140 %*			"	*ZX*
PTA0583-17RE1 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				**RL7**
4,4'-DDD	EPA 8081A	**537**	*40.8*	82.9	ug/kg dry	100x	10A0630	01/26/10 11:00	02/05/10 21:30	
4,4'-DDE	"	**232**	*40.8*	82.9	"	"	"	"	"	
4,4'-DDT	"	**349**	*40.8*	82.9	"	"	"	"	"	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				**RL7**
Aldrin	EPA 8081A	ND	*9.59*	19.5	ug/kg dry	25x	10A0630	01/26/10 11:00	02/08/10 18:06	
alpha-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
beta-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
delta-BHC	"	ND	*9.59*	19.5	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*9.59*	19.5	"	"	"	"	"	
gamma-Chlordane	"	ND	*9.59*	19.5	"	"	"	"	"	
alpha-Chlordane	"	ND	*19.5*	19.5	"	"	"	"	"	
Chlordane (tech)	"	ND	*218*	436	"	"	"	"	"	
Dieldrin	"	ND	*9.59*	19.5	"	"	"	"	"	
Endosulfan I	"	ND	*19.5*	19.5	"	"	"	"	"	
Endosulfan II	"	ND	*9.59*	19.5	"	"	"	"	"	
Endosulfan sulfate	"	ND	*9.59*	19.5	"	"	"	"	"	
Endrin	"	ND	*9.59*	19.5	"	"	"	"	"	C
Endrin aldehyde	"	ND	*9.59*	19.5	"	"	"	"	"	
Endrin ketone	"	ND	*9.59*	19.5	"	"	"	"	"	
Heptachlor	"	ND	*9.59*	19.5	"	"	"	"	"	

10X DF; no impact.

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				**RL7**
Heptachlor epoxide	EPA 8081A	ND	*9.59*	19.5	ug/kg dry	25x	10A0630	01/26/10 11:00	02/08/10 18:06	
Methoxychlor	"	ND	*19.5*	19.5	"	"	"	"	"	
Toxaphene	"	ND	*291*	581	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				*63.5%*		*36 - 140 %*			"	*Z3*
PTA0583-18RE1 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
4,4'-DDE	EPA 8081A	**1100**	*383*	779	ug/kg dry	1000x	10A0630	01/26/10 11:00	02/05/10 20:37	
4,4'-DDT	"	**4000**	*383*	779	"	"	"	"	"	
PTA0583-18RE2 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
4,4'-DDD	EPA 8081A	**358**	*38.3*	77.9	ug/kg dry	100x	10A0630	01/26/10 11:00	02/09/10 19:30	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
Aldrin	EPA 8081A	ND	*0.412*	0.836	ug/kg dry	1x	10A0630	01/26/10 11:00	02/08/10 18:33	
alpha-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
beta-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
delta-BHC	"	ND	*0.412*	0.836	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.412*	0.836	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.412*	0.836	"	"	"	"	"	
alpha-Chlordane	"	ND	*0.412*	0.836	"	"	"	"	"	
Chlordane (tech)	"	ND	*9.36*	18.7	"	"	"	"	"	
4,4'-DDD	"	**0.840**	*0.412*	0.836	"	"	"	"	"	
4,4'-DDE	"	**6.09**	*0.412*	0.836	"	"	"	"	"	
Dieldrin	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan I	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan II	"	ND	*0.412*	0.836	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.412*	0.836	"	"	"	"	"	
Endrin	"	ND	*0.412*	0.836	"	"	"	"	"	C
Endrin aldehyde	"	ND	*0.412*	0.836	"	"	"	"	"	
Endrin ketone	"	ND	*0.412*	0.836	"	"	"	"	"	
Heptachlor	"	ND	*0.412*	0.836	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.412*	0.836	"	"	"	"	"	
Methoxychlor	"	ND	*0.412*	0.836	"	"	"	"	"	
Toxaphene	"	ND	*12.5*	25.0	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				*28.0%*		*36 - 140 %*			"	*Z6*

Analysis ~~Reg 66 Laws!~~ not reported; no impact.
3/19/10

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

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101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-19RE1 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
4,4'-DDT	EPA 8081A	**29.3**	*1.65*	3.34	ug/kg dry	4x	10A0630	01/26/10 11:00	02/05/10 21:03	
PTA0583-19RE2 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**H, N1**
Aldrin	EPA 8081A	ND	*0.412*	0.837	ug/kg dry	1x	10B0314	02/11/10 07:30	02/15/10 13:34	
alpha-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
beta-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
delta-BHC	"	ND	*0.412*	0.837	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.412*	0.837	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.412*	0.837	"	"	"	"	"	
alpha-Chlordane	"	ND	*0.412*	0.837	"	"	"	"	"	
Chlordane (tech)	"	ND	*9.37*	18.7	"	"	"	"	"	
4,4'-DDD	"	**0.577**	*0.412*	0.837	"	"	"	"	"	J
4,4'-DDE	"	**5.05**	*0.412*	0.837	"	"	"	"	"	
Dieldrin	"	ND	*0.412*	0.837	"	"	"	"	"	
Endosulfan I	"	**1.72**	*0.412*	0.837	"	"	"	"	"	
Endosulfan II	"	ND	*0.412*	0.837	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.412*	0.837	"	"	"	"	"	
Endrin aldehyde	"	ND	*0.412*	0.837	"	"	"	"	"	
Endrin ketone	"	ND	*0.412*	0.837	"	"	"	"	"	
Heptachlor	"	ND	*0.412*	0.837	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.412*	0.837	"	"	"	"	"	
Methoxychlor	"	ND	*0.412*	0.837	"	"	"	"	"	
Toxaphene	"	ND	*12.5*	25.0	"	"	"	"	"	
Endrin (2)	"	ND	*0.412*	0.837	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			*41.3%*		*36 - 140 %*				"	
PTA0583-19RE3 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				**N1**
4,4'-DDT	EPA 8081A	**21.5**	*4.12*	8.37	ug/kg dry	10x	10B0314	02/11/10 07:30	02/15/10 17:36	H
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
Aldrin	EPA 8081A	ND	*0.00485*	0.00971	ug/l	1x	10A0728	01/28/10 14:40	02/05/10 13:24	
alpha-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
beta-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
delta-BHC	"	ND	*0.00485*	0.00971	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	*0.00485*	0.00971	"	"	"	"	"	
gamma-Chlordane	"	ND	*0.00485*	0.00971	"	"	"	"	"	

Extracted 7 days > 14 day hold time; Flag "J" & "N6"

TestAmerica Portland

Darrell W. Auvil

Darrell Auvil, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-31 (RINSATE)				**Water**		**Sampled: 01/21/10 16:50**				
alpha-Chlordane	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Chlordane (tech)	"	ND	*0.0485*	0.0971	"	"	"	"	"	
4,4'-DDD	"	ND	*0.00485*	0.00971	"	"	"	"	"	
4,4'-DDE	"	ND	*0.00485*	0.00971	"	"	"	"	"	
4,4'-DDT	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Dieldrin	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan I	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan II	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endosulfan sulfate	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin aldehyde	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Endrin ketone	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Heptachlor	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Heptachlor epoxide	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Methoxychlor	"	ND	*0.00485*	0.00971	"	"	"	"	"	
Toxaphene	"	ND	*0.243*	0.243	"	"	"	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				*69.3%*		*16 - 137 %*				"

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0630-BLK1)								Extracted: 01/26/10 11:00						
Aldrin	EPA 8081A	ND	0.328	0.667	ug/kg wet	1x	--	--	--	--	--	--	02/05/10 18:24	
alpha-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	7.46	14.9	"	"	--	--	--	--	--	--	"	
4,4'-DDD	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
4,4'-DDE	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
4,4'-DDT	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.328	0.667	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	9.95	19.9	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery:*	*71.0%*		*Limits: 36-140%*								*02/05/10 18:24*	
LCS (10A0630-BS1)								Extracted: 01/26/10 11:00						
Aldrin	EPA 8081A	2.75	0.328	0.666	ug/kg wet	1x	--	3.31	83.1%	(50-130)	--	--	02/05/10 18:51	
alpha-BHC	"	2.56	0.328	0.666	"	"	--	"	77.1%	"	--	--	"	
beta-BHC	"	2.95	0.328	0.666	"	"	--	"	89.0%	"	--	--	"	
delta-BHC	"	2.69	0.328	0.666	"	"	--	"	81.3%	"	--	--	"	
gamma-BHC (Lindane)	"	2.73	0.328	0.666	"	"	--	"	82.4%	"	--	--	"	
gamma-Chlordane	"	2.83	0.328	0.666	"	"	--	"	85.3%	"	--	--	"	
alpha-Chlordane	"	2.76	0.328	0.666	"	"	--	"	83.4%	"	--	--	"	
4,4'-DDD	"	2.81	0.328	0.666	"	"	--	"	84.8%	"	--	--	"	
4,4'-DDE	"	2.82	0.328	0.666	"	"	--	"	85.1%	"	--	--	"	
4,4'-DDT	"	2.87	0.328	0.666	"	"	--	"	86.6%	"	--	--	"	
Dieldrin	"	2.88	0.328	0.666	"	"	--	"	87.0%	"	--	--	"	
Endosulfan I	"	2.75	0.328	0.666	"	"	--	"	83.1%	"	--	--	"	
Endosulfan II	"	2.90	0.328	0.666	"	"	--	"	87.4%	"	--	--	"	
Endosulfan sulfate	"	2.87	0.328	0.666	"	"	--	"	86.7%	"	--	--	"	

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10A0630-BS1)								Extracted: 01/26/10 11:00						
Endrin	EPA 8081A	3.05	0.328	0.666	ug/kg wet	1x	--	3.31	92.1%	(50-130)	--	--	02/05/10 18:51	
Endrin aldehyde	"	2.50	0.328	0.666	"	"	--	"	75.4%	"	--	--	"	
Endrin ketone	"	3.06	0.328	0.666	"	"	--	"	92.4%	"	--	--	"	
Heptachlor	"	2.86	0.328	0.666	"	"	--	"	86.4%	"	--	--	"	
Heptachlor epoxide	"	2.72	0.328	0.666	"	"	--	"	82.0%	"	--	--	"	
Methoxychlor	"	2.65	0.328	0.666	"	"	--	"	79.9%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 58.6%*		*Limits: 36-140%*									*02/05/10 18:51*	
Matrix Spike (10A0630-MS1)				QC Source: PTA0583-17				Extracted: 01/26/10 11:00						
Aldrin	EPA 8081A	21.9	2.49	8.32	ug/kg dry	10x	ND	4.14	528%	(40-140)	--	--	02/08/10 15:51	M1
alpha-BHC	"	3.96	2.49	8.32	"	"	ND	"	95.6%	"	--	--	"	J
beta-BHC	"	4.05	2.49	8.32	"	"	ND	"	97.9%	"	--	--	"	J
delta-BHC	"	3.96	2.49	8.32	"	"	ND	"	95.5%	"	--	--	"	J
gamma-BHC (Lindane)	"	5.42	2.49	8.32	"	"	ND	"	131%	"	--	--	"	J
gamma-Chlordane	"	7.16	2.49	8.32	"	"	ND	"	173%	"	--	--	"	M1, J
alpha-Chlordane	"	5.71	2.49	8.32	"	"	ND	"	138%	"	--	--	"	J
Endosulfan I	"	5.82	2.49	8.32	"	"	ND	"	140%	"	--	--	"	M1, J
Endosulfan II	"	8.98	2.49	8.32	"	"	ND	"	217%	"	--	--	"	M1
Endosulfan sulfate	"	3.91	2.49	8.32	"	"	ND	"	94.5%	"	--	--	"	J
Endrin aldehyde	"	4.68	2.49	8.32	"	"	ND	"	113%	"	--	--	"	J
Endrin ketone	"	4.13	2.49	8.32	"	"	ND	"	99.7%	"	--	--	"	J
Heptachlor	"	4.45	2.49	8.32	"	"	ND	"	107%	"	--	--	"	J
Heptachlor epoxide	"	7.39	2.49	8.32	"	"	ND	"	178%	"	--	--	"	M1, J
Methoxychlor	"	7.10	2.49	8.32	"	"	ND	"	171%	"	--	--	"	M1, J
Dieldrin (2)	"	2.94	1.24	8.32	"	"	ND	"	70.9%	"	--	--	"	J
Endrin (2)	"	3.09	1.24	8.32	"	"	ND	"	74.7%	"	--	--	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 285%*		*Limits: 36-140%*									*02/08/10 15:51*	*ZX*
Matrix Spike (10A0630-MS2)				QC Source: PTA0583-17				Extracted: 01/26/10 11:00						
4,4'-DDD	EPA 8081A	353	24.9	83.2	ug/kg dry	100x	544	4.14	-4620%	(40-140)	--	--	02/05/10 19:17	MHA
4,4'-DDE	"	216	24.9	83.2	"		235	"	-465%	"	--	--	"	MHA
4,4'-DDT	"	396	24.9	83.2	"	"	323	"	1780%	"	--	--	"	MHA

10x+100x DP; no impact for anything out.

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0630 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10A0630-MSD1)					QC Source: PTA0583-17			Extracted: 01/26/10 11:00						
Aldrin	EPA 8081A	4.46	2.49	8.34	ug/kg dry	10x	ND	4.15	108%	(40-140)	132%	(40)	02/08/10 16:18	R, J
alpha-BHC	"	3.44	2.49	8.34	"	"	ND	"	82.9%	"	14.0%	"	"	J
beta-BHC	"	3.15	2.49	8.34	"	"	ND	"	75.9%	"	25.1%	"	"	J
delta-BHC	"	3.35	2.49	8.34	"	"	ND	"	80.7%	"	16.6%	"	"	J
gamma-BHC (Lindane)	"	4.18	2.49	8.34	"	"	ND	"	101%	"	25.8%	"	"	J
gamma-Chlordane	"	4.99	2.49	8.34	"	"	ND	"	120%	"	35.6%	"	"	J
alpha-Chlordane	"	4.62	2.49	8.34	"	"	ND	"	111%	"	21.1%	"	"	J
Endosulfan I	"	5.06	2.49	8.34	"	"	ND	"	122%	"	13.9%	"	"	J
Endosulfan II	"	6.37	2.49	8.34	"	"	ND	"	154%	"	34.1%	"	"	M1, J
Endosulfan sulfate	"	3.22	2.49	8.34	"	"	ND	"	77.7%	"	19.3%	"	"	J
Endrin aldehyde	"	3.74	2.49	8.34	"	"	ND	"	90.2%	"	22.3%	"	"	J
Endrin ketone	"	3.64	2.49	8.34	"	"	ND	"	87.7%	"	12.6%	"	"	J
Heptachlor	"	3.41	2.49	8.34	"	"	ND	"	82.3%	"	26.3%	"	"	J
Heptachlor epoxide	"	6.38	2.49	8.34	"	"	ND	"	154%	"	14.7%	"	"	M1, J
Methoxychlor	"	4.89	2.49	8.34	"	"	ND	"	118%	"	36.8%	"	"	J
Dieldrin (2)	"	2.25	1.24	8.34	"	"	ND	"	54.2%	"	26.5%	"	"	J
Endrin (2)	"	2.35	1.24	8.34	"	"	ND	"	56.7%	"	27.2%	"	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 229%*			*Limits: 36-140%*								*02/08/10 16:18*	*ZX*
Matrix Spike Dup (10A0630-MSD2)					QC Source: PTA0583-17			Extracted: 01/26/10 11:00						
4,4'-DDD	EPA 8081A	548	41.1	83.4	ug/kg dry	100x	544	4.15	101%	(40-140)	43.4%	(40)	02/05/10 19:44	MHA
4,4'-DDE	"	243	41.1	83.4	"	"	235	"	185%	"	11.7%	"	"	MHA
4,4'-DDT	"	180	41.1	83.4	"	"	323	"	-3430%	"	74.9%	"	"	MHA

10X & 100X DF, no impact for anything out.

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0728 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0728-BLK1)								Extracted: 01/28/10 14:40						
Aldrin	EPA 8081A	ND	0.00500	0.0100	ug/l	1x	--	--	--	--	--	--	02/05/10 12:05	
alpha-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
4,4'-DDD	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
4,4'-DDE	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
4,4'-DDT	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.00500	0.0100	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	0.250	0.250	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 41.3%*		*Limits: 16-137%*									*02/05/10 12:05*	
LCS (10A0728-BS1)								Extracted: 01/28/10 14:40						
Aldrin	EPA 8081A	0.0379	0.00500	0.0100	ug/l	1x	--	0.0500	75.8%	(43-115)	--	--	02/05/10 12:32	
alpha-BHC	"	0.0416	0.00500	0.0100	"	"	--	"	83.2%	(50-130)	--	--	"	
beta-BHC	"	0.0462	0.00500	0.0100	"	"	--	"	92.4%	"	--	--	"	
delta-BHC	"	0.0433	0.00500	0.0100	"	"	--	"	86.6%	"	--	--	"	
gamma-BHC (Lindane)	"	0.0445	0.00500	0.0100	"	"	--	"	88.9%	(51-120)	--	--	"	
gamma-Chlordane	"	0.0396	0.00500	0.0100	"	"	--	"	79.2%	(50-130)	--	--	"	
alpha-Chlordane	"	0.0437	0.00500	0.0100	"	"	--	"	87.4%	"	--	--	"	
4,4'-DDD	"	0.0454	0.00500	0.0100	"	"	--	"	90.9%	"	--	--	"	
4,4'-DDE	"	0.0432	0.00500	0.0100	"	"	--	"	86.4%	"	--	--	"	
4,4'-DDT	"	0.0449	0.00500	0.0100	"	"	--	"	89.7%	(58-128)	--	--	"	
Dieldrin	"	0.0459	0.00500	0.0100	"	"	--	"	91.8%	(60-128)	--	--	"	
Endosulfan I	"	0.0445	0.00500	0.0100	"	"	--	"	89.1%	(50-130)	--	--	"	
Endosulfan II	"	0.0467	0.00500	0.0100	"	"	--	"	93.4%	"	--	--	"	
Endosulfan sulfate	"	0.0460	0.00500	0.0100	"	"	--	"	92.0%	"	--	--	"	

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Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0728 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10A0728-BS1)									**Extracted: 01/28/10 14:40**					
Endrin	EPA 8081A	0.0484	0.00500	0.0100	ug/l	1x	--	0.0500	96.8%	(68-136)	--	--	02/05/10 12:32	
Endrin aldehyde	"	0.0462	0.00500	0.0100	"	"	--	"	92.3%	(50-130)	--	--	"	
Endrin ketone	"	0.0463	0.00500	0.0100	"	"	--	"	92.7%	"	--	--	"	
Heptachlor	"	0.0423	0.00500	0.0100	"	"	--	"	84.6%	(49-116)	--	--	"	
Heptachlor epoxide	"	0.0439	0.00500	0.0100	"	"	--	"	87.9%	(50-130)	--	--	"	
Methoxychlor	"	0.0425	0.00500	0.0100	"	"	--	"	85.0%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 41.8%*		*Limits: 16-137%*									*02/05/10 12:32*	
LCS Dup (10A0728-BSD1)									**Extracted: 01/28/10 14:40**					
Aldrin	EPA 8081A	0.0363	0.00500	0.0100	ug/l	1x	--	0.0500	72.6%	(43-115)	4.26%	(22)	02/05/10 12:58	
alpha-BHC	"	0.0432	0.00500	0.0100	"	"	--	"	86.5%	(50-130)	3.84%	"	"	
beta-BHC	"	0.0485	0.00500	0.0100	"	"	--	"	96.9%	"	4.81%	"	"	
delta-BHC	"	0.0449	0.00500	0.0100	"	"	--	"	89.8%	"	3.61%	"	"	
gamma-BHC (Lindane)	"	0.0464	0.00500	0.0100	"	"	--	"	92.8%	(61-120)	4.28%	"	"	
gamma-Chlordane	"	0.0404	0.00500	0.0100	"	"	--	"	80.9%	(50-130)	2.11%	"	"	
alpha-Chlordane	"	0.0442	0.00500	0.0100	"	"	--	"	88.4%	"	1.11%	"	"	
4,4'-DDD	"	0.0467	0.00500	0.0100	"	"	--	"	93.4%	"	2.76%	"	"	
4,4'-DDE	"	0.0438	0.00500	0.0100	"	"	--	"	87.7%	"	1.49%	"	"	
4,4'-DDT	"	0.0471	0.00500	0.0100	"	"	--	"	94.1%	(58-128)	4.81%	"	"	
Dieldrin	"	0.0478	0.00500	0.0100	"	"	--	"	95.6%	(60-128)	4.15%	"	"	
Endosulfan I	"	0.0469	0.00500	0.0100	"	"	--	"	93.7%	(50-130)	5.10%	"	"	
Endosulfan II	"	0.0485	0.00500	0.0100	"	"	--	"	97.1%	"	3.84%	"	"	
Endosulfan sulfate	"	0.0495	0.00500	0.0100	"	"	--	"	99.1%	"	7.44%	"	"	
Endrin	"	0.0503	0.00500	0.0100	"	"	--	"	101%	(68-136)	3.90%	"	"	
Endrin aldehyde	"	0.0474	0.00500	0.0100	"	"	--	"	94.8%	(50-130)	2.60%	"	"	
Endrin ketone	"	0.0487	0.00500	0.0100	"	"	--	"	97.4%	"	4.99%	"	"	
Heptachlor	"	0.0417	0.00500	0.0100	"	"	--	"	83.4%	(49-116)	1.38%	"	"	
Heptachlor epoxide	"	0.0454	0.00500	0.0100	"	"	--	"	90.9%	(50-130)	3.36%	"	"	
Methoxychlor	"	0.0452	0.00500	0.0100	"	"	--	"	90.4%	"	6.16%	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 39.6%*		*Limits: 16-137%*									*02/05/10 12:58*	

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10B0314-BLK1)								Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	ND	0.329	0.668	ug/kg wet	1x	--	--	--	--	--	--	02/15/10 13:05	
alpha-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	7.47	14.9	"	"	--	--	--	--	--	--	"	
4,4'-DDD	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
4,4'-DDE	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
4,4'-DDT	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	9.97	19.9	"	"	--	--	--	--	--	--	"	
Endrin (2)	"	ND	0.329	0.668	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 69.5%*			*Limits: 36-140%*								*02/15/10 13:05*	
LCS (10B0314-BS1)								Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	2.70	0.330	0.670	ug/kg wet	1x	--	3.33	81.0%	(50-130)	--	--	02/15/10 14:05	
alpha-BHC	"	2.46	0.330	0.670	"	"	--	"	73.8%	"	--	--	"	
beta-BHC	"	2.75	0.330	0.670	"	"	--	"	82.4%	"	--	--	"	
delta-BHC	"	2.58	0.330	0.670	"	"	--	"	77.5%	"	--	--	"	
gamma-BHC (Lindane)	"	2.65	0.330	0.670	"	"	--	"	79.6%	"	--	--	"	
gamma-Chlordane	"	2.77	0.330	0.670	"	"	--	"	83.2%	"	--	--	"	
alpha-Chlordane	"	2.75	0.330	0.670	"	"	--	"	82.5%	"	--	--	"	
4,4'-DDD	"	2.83	0.330	0.670	"	"	--	"	84.9%	"	--	--	"	
4,4'-DDE	"	2.78	0.330	0.670	"	"	--	"	83.3%	"	--	--	"	
4,4'-DDT	"	2.97	0.330	0.670	"	"	--	"	89.1%	"	--	--	"	
Dieldrin	"	2.82	0.330	0.670	"	"	--	"	84.6%	"	--	--	"	
Endosulfan I	"	2.74	0.330	0.670	"	"	--	"	82.2%	"	--	--	"	
Endosulfan II	"	2.82	0.330	0.670	"	"	--	"	84.6%	"	--	--	"	
Endosulfan sulfate	"	2.82	0.330	0.670	"	"	--	"	84.7%	"	--	--	"	

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10B0314-BS1)								Extracted: 02/11/10 07:30						
Endrin aldehyde	EPA 8081A	2.40	0.330	0.670	ug/kg wet	1x	--	3.33	72.0%	(50-130)	--	--	02/15/10 14:05	
Endrin ketone	"	3.05	0.330	0.670	"	"	--	"	91.4%	"	--	--	"	
Heptachlor	"	2.82	0.330	0.670	"	"	--	"	84.7%	"	--	--	"	
Heptachlor epoxide	"	2.68	0.330	0.670	"	"	--	"	80.3%	"	--	--	"	
Methoxychlor	"	2.93	0.330	0.670	"	"	--	"	87.8%	"	--	--	"	
Endrin (2)	"	2.36	0.330	0.670	"	"	--	"	70.9%	"	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 67.1%*			*Limits: 36-140%*								*02/15/10 14:05*	
Matrix Spike (10B0314-MS1)					QC Source: PTA0583-19RE2			Extracted: 02/11/10 07:30						
Aldrin	EPA 8081A	2.17	1.25	8.37	ug/kg dry	10x	ND	4.16	52.2%	(40-140)	--	--	02/15/10 15:42	J
alpha-BHC	"	2.79	1.25	8.37	"	"	ND	"	66.9%	"	--	--	"	J
beta-BHC	"	2.66	1.25	8.37	"	"	ND	"	64.0%	"	--	--	"	J
delta-BHC	"	2.92	1.25	8.37	"	"	ND	"	70.2%	"	--	--	"	J
gamma-BHC (Lindane)	"	2.87	1.25	8.37	"	"	ND	"	69.0%	"	--	--	"	J
gamma-Chlordane	"	2.48	1.25	8.37	"	"	ND	"	59.6%	"	--	--	"	J
alpha-Chlordane	"	2.65	1.25	8.37	"	"	ND	"	63.6%	"	--	--	"	J
4,4'-DDD	"	3.88	1.25	8.37	"	"	0.577	"	79.4%	"	--	--	"	J
4,4'-DDE	"	9.70	1.25	8.37	"	"	5.05	"	112%	"	--	--	"	
4,4'-DDT	"	36.0	1.25	8.37	"	"	22.2	"	332%	"	--	--	"	MHA
Dieldrin	"	2.75	1.25	8.37	"	"	ND	"	66.1%	"	--	--	"	J
Endosulfan I	"	3.54	1.25	8.37	"	"	1.72	"	43.7%	"	--	--	"	J
Endosulfan II	"	3.17	1.25	8.37	"	"	ND	"	76.2%	"	--	--	"	J
Endosulfan sulfate	"	2.75	1.25	8.37	"	"	ND	"	66.1%	"	--	--	"	J
Endrin aldehyde	"	2.07	1.25	8.37	"	"	ND	"	49.6%	"	--	--	"	J
Endrin ketone	"	2.85	1.25	8.37	"	"	ND	"	68.4%	"	--	--	"	J
Heptachlor	"	2.31	1.25	8.37	"	"	ND	"	55.5%	"	--	--	"	J
Heptachlor epoxide	"	2.48	1.25	8.37	"	"	ND	"	59.6%	"	--	--	"	J
Methoxychlor	"	2.98	1.25	8.37	"	"	ND	"	71.5%	"	--	--	"	J
Endrin (2)	"	2.34	1.25	8.37	"	"	ND	"	56.2%	"	--	--	"	J
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		*Recovery: 104%*			*Limits: 36-140%*								*02/15/10 15:42*	

>4x spike level; no impact

TestAmerica Portland

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10B0314 **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10B0314-MSD1)					QC Source: PTA0583-10REZ				Extracted: 02/11/10 07:30					
Aldrin	EPA 8081A	1.86	1.25	8.39	ug/kg dry	10x	ND	4.17	44.6%	(40-140)	15.5%	(40)	02/15/10 16:08	J
alpha-BHC	"	2.52	1.25	8.39	"	"	ND	"	60.4%	"	9.98%	"	"	J
beta-BHC	"	2.33	1.25	8.39	"	"	ND	"	55.9%	"	13.3%	"	"	J
delta-BHC	"	2.67	1.25	8.39	"	"	ND	"	64.0%	"	9.01%	"	"	J
gamma-BHC (Lindane)	"	2.56	1.25	8.39	"	"	ND	"	61.3%	"	11.6%	"	"	J
gamma-Chlordane	"	2.15	1.25	8.39	"	"	ND	"	51.6%	"	14.2%	"	"	J
alpha-Chlordane	"	2.23	1.25	8.39	"	"	ND	"	53.4%	"	17.2%	"	"	J
4,4'-DDD	"	3.28	1.25	8.39	"	"	0.577	"	64.9%	"	16.7%	"	"	J
4,4'-DDE	"	6.54	1.25	8.39	"	"	5.05	"	35.9%	"	38.8%	"	"	M2, J
4,4'-DDT	"	22.6	1.25	8.39	"	"	22.2	"	9.66%	"	45.8%	"	"	MHA, R3
Dieldrin	"	2.26	1.25	8.39	"	"	ND	"	54.1%	"	19.7%	"	"	J
Endosulfan I	"	3.94	1.25	8.39	"	"	1.72	"	53.9%	"	10.5%	"	"	J
Endosulfan II	"	2.66	1.25	8.39	"	"	ND	"	63.1%	"	17.5%	"	"	J
Endosulfan sulfate	"	2.42	1.25	8.39	"	"	ND	"	57.9%	"	13.0%	"	"	J
Endrin aldehyde	"	1.82	1.25	8.39	"	"	ND	"	43.5%	"	12.9%	"	"	J
Endrin ketone	"	3.25	1.25	8.39	"	"	ND	"	77.8%	"	13.1%	"	"	J
Heptachlor	"	1.99	1.25	8.39	"	"	ND	"	47.8%	"	14.7%	"	"	J
Heptachlor epoxide	"	2.14	1.25	8.39	"	"	ND	"	51.2%	"	14.9%	"	"	J
Methoxychlor	"	2.54	1.25	8.39	"	"	ND	"	60.8%	"	15.9%	"	"	J
Endrin (2)	"	2.02	1.25	8.39	"	"	ND	"	48.3%	"	14.9%	"	"	J

Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene *Recovery: 68.8%* *Limits: 36-140%* *02/15/10 16:08*

10x DF; ~~Flag J~~ no impact.

>40x spike level; no impact.

BV 3/29/10

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	Arkema Soils 2010	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Date:
Portland, OR 97204	Project Manager:	Brendan Robinson	02/19/10 16:03

Laboratory Blank Report

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results

TestAmerica Portland

Batch 10A0630

Matrix		Lab Number	Sample Name	Dilution	File ID	Analyzed	Instrument
Soil	EPA 8081A	10A0630-BLK1	Blank	1x	02051018.D	02/05/10 18:24	SV-ECD12
Soil	EPA 8081A	10A0630-BS1	LCS	1x	02051019.D	02/05/10 18:51	SV-ECD12
Soil	EPA 8081A	10A0630-MS1	Matrix Spike	10x	02081004.D	02/08/10 15:51	SV-ECD12
Soil	EPA 8081A	10A0630-MS2	Matrix Spike	100x	02051020.D	02/05/10 19:17	SV-ECD12
Soil	EPA 8081A	10A0630-MSD1	Matrix Spike Dup	10x	02081005.D	02/08/10 16:18	SV-ECD12
Soil	EPA 8081A	10A0630-MSD2	Matrix Spike Dup	100x	02051021.D	02/05/10 19:44	SV-ECD12
Soil	EPA 8081A	PTA0583-16	B-125-3-5	10x	02081006.D	02/08/10 16:44	SV-ECD12
Soil	EPA 8081A	PTA0583-16RE1	B-125-3-5	50x	02051022.D	02/05/10 20:10	SV-ECD12
Soil	EPA 8081A	PTA0583-17	B-125-8-10	10x	02081007.D	02/08/10 17:11	SV-ECD12
Soil	EPA 8081A	PTA0583-17RE1	B-125-8-10	100x	02051025.D	02/05/10 21:30	SV-ECD12
Soil	EPA 8081A	PTA0583-18	B-126-3-5	25x	02081009.D	02/08/10 18:06	SV-ECD12
Soil	EPA 8081A	PTA0583-18RE1	B-126-3-5	1000x	02051023.D	02/05/10 20:37	SV-ECD12
Soil	EPA 8081A	PTA0583-18RE2	B-126-3-5	100x	02091014.D	02/09/10 19:30	SV-ECD12
Soil	EPA 8081A	PTA0583-19	B-126-8-10	1x	02081010.D	02/08/10 18:33	SV-ECD12
Soil	EPA 8081A	PTA0583-19RE1	B-126-8-10	4x	02051024.D	02/05/10 21:03	SV-ECD12
Water	EPA 8081A	10A0728-BLK1	Blank	1x	02051004.D	02/05/10 12:05	SV-ECD12
Water	EPA 8081A	10A0728-BS1	LCS	1x	02051005.D	02/05/10 12:32	SV-ECD12
Water	EPA 8081A	10A0728-BSD1	LCS Dup	1x	02051006.D	02/05/10 12:58	SV-ECD12
Water	EPA 8081A	PTA0583-31	RINSATE	1x	02051007.D	02/05/10 13:24	SV-ECD12
Soil	EPA 8081A	10B0314-BLK1	Blank	1x	02151005.D	02/15/10 13:05	SV-ECD12
Soil	EPA 8081A	10B0314-BS1	LCS	1x	02151007.D	02/15/10 14:05	SV-ECD12
Soil	EPA 8081A	10B0314-MS1	Matrix Spike	10x	02151010.D	02/15/10 15:42	SV-ECD12
Soil	EPA 8081A	10B0314-MSD1	Matrix Spike Dup	10x	02151011.D	02/15/10 16:08	SV-ECD12
Soil	EPA 8081A	PTA0583-19RE2	B-126-8-10	1x	02151006.D	02/15/10 13:34	SV-ECD12
Soil	EPA 8081A	PTA0583-19RE3	B-126-8-10	10x	02151013.D	02/15/10 17:36	SV-ECD12

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000393	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ng/ml	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (T000393-CCV1)			Lab File ID: 02051003.D		Analyzed: 02/05/10 11:38			
2,4,5,6-Tetrachloro-m-xylene	100	105	85 - 115	9.06	9.051429	0.0086	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	96.0	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV2)			Lab File ID: 02051008.D		Analyzed: 02/05/10 13:52			
2,4,5,6-Tetrachloro-m-xylene	100	105	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	97.7	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV4)			Lab File ID: 02051016.D		Analyzed: 02/05/10 17:30			
2,4,5,6-Tetrachloro-m-xylene	100	108	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	96.4	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV5)			Lab File ID: 02051026.D		Analyzed: 02/05/10 21:56			
2,4,5,6-Tetrachloro-m-xylene	100	109	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	98.5	85 - 115	8.08	8.08	0.0000	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000393	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ug/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (10A0630-BLK1)			Lab File ID: 02051018.D		Analyzed: 02/05/10 18:24			
2,4,5,6-Tetrachloro-m-xylene	3.32	71.0	36 - 140	9.05	9.051429	-0.0014	+/-1.0	
LCS (10A0630-BS1)			Lab File ID: 02051019.D		Analyzed: 02/05/10 18:51			
2,4,5,6-Tetrachloro-m-xylene	3.31	58.6	36 - 140	9.05	9.051429	-0.0014	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000393	Instrument:	SV-ECD12
Matrix:	Water	Calibration:	P10B013

Surrogate Compound	Spike Level ng/ml	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (T000393-CCV1)			Lab File ID: 02051003.D		Analyzed: 02/05/10 11:38			
2,4,5,6-Tetrachloro-m-xylene	100	105	85 - 115	9.06	9.051429	0.0086	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	96.0	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV2)			Lab File ID: 02051008.D		Analyzed: 02/05/10 13:52			
2,4,5,6-Tetrachloro-m-xylene	100	105	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	97.7	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV4)			Lab File ID: 02051016.D		Analyzed: 02/05/10 17:30			
2,4,5,6-Tetrachloro-m-xylene	100	108	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	96.4	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000393-CCV5)			Lab File ID: 02051026.D		Analyzed: 02/05/10 21:56			
2,4,5,6-Tetrachloro-m-xylene	100	109	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	98.5	85 - 115	8.08	8.08	0.0000	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000393	Instrument:	SV-ECD12
Matrix:	Water	Calibration:	P10B013

Surrogate Compound	Spike Level ug/l	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (10A0728-BLK1)			Lab File ID: 02051004.D		Analyzed: 02/05/10 12:05			
2,4,5,6-Tetrachloro-m-xylene	0.0500	41.3	16 - 137	9.05	9.051429	-0.0014	+/-1.0	
LCS (10A0728-BS1)			Lab File ID: 02051005.D		Analyzed: 02/05/10 12:32			
2,4,5,6-Tetrachloro-m-xylene	0.0500	41.8	16 - 137	9.05	9.051429	-0.0014	+/-1.0	
LCS Dup (10A0728-BSD1)			Lab File ID: 02051006.D		Analyzed: 02/05/10 12:58			
2,4,5,6-Tetrachloro-m-xylene	0.0500	39.6	16 - 137	9.05	9.051429	-0.0014	+/-1.0	
RINSATE (PTA0583-31)			Lab File ID: 02051007.D		Analyzed: 02/05/10 13:24			
2,4,5,6-Tetrachloro-m-xylene	0.0485	69.3	16 - 137	9.05	9.051429	-0.0014	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000411	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ng/ml	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (T000411-CCV1)			Lab File ID: 02081003.D		Analyzed: 02/08/10 15:21			
2,4,5,6-Tetrachloro-m-xylene	50.0	107	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	50.0	94.9	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000411-CCV2)			Lab File ID: 02081008.D		Analyzed: 02/08/10 17:37			
2,4,5,6-Tetrachloro-m-xylene	100	108	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	93.6	85 - 115	8.08	8.08	0.0000	+/-1.0	
Calibration Check (T000411-CCV3)			Lab File ID: 02081011.D		Analyzed: 02/08/10 19:07			
2,4,5,6-Tetrachloro-m-xylene	100	109	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	97.0	85 - 115	8.08	8.08	0.0000	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000411	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Matrix Spike (10A0630-MS1)			Lab File ID: 02081004.D		Analyzed: 02/08/10 15:51			
2,4,5,6-Tetrachloro-m-xylene	4.14	285	36 - 140	9.02	9.051429	-0.0314	+/-1.0	*
Matrix Spike Dup (10A0630-MSD1)			Lab File ID: 02081005.D		Analyzed: 02/08/10 16:18			
2,4,5,6-Tetrachloro-m-xylene	4.15	229	36 - 140	9.02	9.051429	-0.0314	+/-1.0	*
B-125-3-5 (PTA0583-16)			Lab File ID: 02081006.D		Analyzed: 02/08/10 16:44			
2,4,5,6-Tetrachloro-m-xylene	4.02	59.7	36 - 140	9.05	9.051429	-0.0014	+/-1.0	
B-125-8-10 (PTA0583-17)			Lab File ID: 02081007.D		Analyzed: 02/08/10 17:11			
2,4,5,6-Tetrachloro-m-xylene	4.13	152	36 - 140	9.02	9.051429	-0.0314	+/-1.0	*
B-126-3-5 (PTA0583-18)			Lab File ID: 02081009.D		Analyzed: 02/08/10 18:06			
2,4,5,6-Tetrachloro-m-xylene	3.87	63.5	36 - 140	9.05	9.051429	-0.0014	+/-1.0	
B-126-8-10 (PTA0583-19)			Lab File ID: 02081010.D		Analyzed: 02/08/10 18:33			
2,4,5,6-Tetrachloro-m-xylene	4.16	28.0	36 - 140	9.05	9.051429	-0.0014	+/-1.0	*

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000424	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ng/ml	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (T000424-CCV2)			Lab File ID: 02091013.D		Analyzed: 02/09/10 19:02			
2,4,5,6-Tetrachloro-m-xylene	100	107	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	77.3	85 - 115	8.07	8.08	-0.0100	+/-1.0	*
Calibration Check (T000424-CCV3)			Lab File ID: 02091015.D		Analyzed: 02/09/10 19:56			
2,4,5,6-Tetrachloro-m-xylene	100	105	85 - 115	9.04	9.051429	-0.0114	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	77.8	85 - 115	8.08	8.08	0.0000	+/-1.0	*

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000443	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ng/ml	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (T000443-CCV2)			Lab File ID: 02151004.D		Analyzed: 02/15/10 12:37			
2,4,5,6-Tetrachloro-m-xylene	100	106	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	87.1	85 - 115	8.07	8.08	-0.0100	+/-1.0	
Calibration Check (T000443-CCV3)			Lab File ID: 02151014.D		Analyzed: 02/15/10 18:08			
2,4,5,6-Tetrachloro-m-xylene	100	107	85 - 115	9.05	9.051429	-0.0014	+/-1.0	
2,4,5,6-Tetrachloro-m-xylene (2)	100	89.2	85 - 115	8.07	8.08	-0.0100	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000443	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ug/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (10B0314-BLK1)			Lab File ID: 02151005.D		Analyzed: 02/15/10 13:05			
2,4,5,6-Tetrachloro-m-xylene	3.32	69.5	36 - 140	9.04	9.051429	-0.0114	+/-1.0	
LCS (10B0314-BS1)			Lab File ID: 02151007.D		Analyzed: 02/15/10 14:05			
2,4,5,6-Tetrachloro-m-xylene	3.33	67.1	36 - 140	9.04	9.051429	-0.0114	+/-1.0	

Form 2
SURROGATE STANDARD RECOVERY AND RT SUMMARY
EPA 8081A

Laboratory:	TestAmerica Portland	SDG:	PTA0583
Client:	Environmental Resources Management Inc.-Portla	Project:	Arkema Soils 2010
Sequence:	T000443	Instrument:	SV-ECD12
Matrix:	Soil	Calibration:	P10B013

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Matrix Spike (10B0314-MS1)			Lab File ID: 02151010.D		Analyzed: 02/15/10 15:42			
2,4,5,6-Tetrachloro-m-xylene	4.16	104	36 - 140	9.04	9.051429	-0.0114	+/-1.0	
Matrix Spike Dup (10B0314-MSD1)			Lab File ID: 02151011.D		Analyzed: 02/15/10 16:08			
2,4,5,6-Tetrachloro-m-xylene	4.17	68.8	36 - 140	9.04	9.051429	-0.0114	+/-1.0	
B-126-8-10 (PTA0583-19RE2)			Lab File ID: 02151006.D		Analyzed: 02/15/10 13:34			
2,4,5,6-Tetrachloro-m-xylene	4.17	41.3	36 - 140	9.04	9.051429	-0.0114	+/-1.0	

9L30009-PEM1 File:12300904

column 1

DDT:

DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
0.2	0.95	154.5	1.15	155.65	0.74

Endrin:

E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
0.26	0.71	71.6	0.97	72.57	1.34

column 2

DDT:

DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
1.04	3.84	608.1	4.88	612.98	0.80

Endrin:

E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
1.13	3.54	298.9	4.67	303.57	1.54

0

Breakdown < 15%

T000187-PEM1 File:01191003

column 1

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	0.57	0.75	153.5	1.32	154.82	0.85

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	1.02	1.55	73.7	2.57	76.27	3.37

column 2

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	2.3	2.8	600.5	5.1	605.6	0.84

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	3.66	7.02	316.8	10.68	327.48	3.26

0

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 123009.M
Title : 608/8081a pest
Last Update : Mon Jan 04 11:03:41 2010
Response Via : Initial Calibration

Calibration Files
5 =12300905.D 10 =12300906.D 20 =12300907.D
50 =12300908.D 100 =12300909.D 150 =12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
1)	S	TCMX (Surrogage	1.307	1.283	1.312	1.306	1.305	1.338	1.304	E6	1.60
2)		alpha-BHC	1.762	1.979	2.166	2.321	2.397	2.553	2.233	E6	12.63
3)		gamma-BHC (TCLP	1.689	1.812	1.955	2.072	2.145	2.235	2.014	E6	10.12
4)		beta-BHC	8.023	7.786	7.894	7.807	8.028	8.303	7.971	E5	2.19
5)		delta-BHC	1.663	1.798	1.950	2.102	2.200	2.303	2.037	E6	11.82
6)		heptachlor (TCL	1.819	1.836	1.922	1.957	2.017	2.058	1.950	E6	4.94
7)		Aldrin	1.664	1.719	1.862	1.912	1.972	2.038	1.879	E6	7.46
8)		Heptachlor Epoxi	1.628	1.655	1.681	1.709	1.735	1.776	1.702	E6	3.00
9)		gamma-Chlordane	1.624	1.650	1.741	1.811	1.848	1.929	1.780	E6	6.36
10)		alpha-Chlordane	1.637	1.648	1.702	1.747	1.771	1.867	1.735	E6	4.60
11)		Endosulfan I	1.502	1.501	1.562	1.559	1.603	1.637	1.561	E6	3.18
12)		4,4'-DDE	1.363	1.412	1.557	1.655	1.721	1.810	1.609	E6	10.64
13)		Dieldrin	1.474	1.549	1.652	1.704	1.768	1.831	1.675	E6	7.55
14)		Endrin (TCLP)	1.216	1.165	1.308	1.361	1.407	1.467	1.332	E6	8.15
15)		4,4'-DDD	1.080	1.079	1.180	1.271	1.354	1.434	1.256	E6	11.66
16)		Endosulfan II	1.362	1.318	1.371	1.374	1.404	1.496	1.394	E6	4.11
17)		4,4'-DDT	1.131	1.139	1.217	1.321	1.413	1.533	1.320	E6	12.43
18)		Endrin Aldehyde	1.089	1.038	1.056	1.054	1.076	1.151	1.082	E6	3.58
19)		Endosulfan Sulfa	1.277	1.207	1.217	1.228	1.277	1.362	1.264	E6	4.20
20)		Methoxychlor (T	6.482	6.102	5.833	5.860	6.108	6.418	6.152	E5	4.11
21)		Endrin Ketone	1.198	1.151	1.205	1.221	1.271	1.333	1.238	E6	5.02
22)	S	DCBP (Surrogat	8.187	7.834	7.630	6.849	7.121	7.067	7.390	E5	6.73
23)	H	Toxaphene							0.000		-1.00
24)	L1	Chlordane (1)							0.000		-1.00
25)	L1	Chlordane (2)							0.000		-1.00
26)	L1	Chlordane (3)							0.000		-1.00
27)	L1	Chlordane (4)							0.000		-1.00
28)	L1	Chlordane (5)							0.000		-1.00
29)	L1	Chlordane - Tota							0.000		-1.00

Signal #2 Calibration Files
5 =12300905.D 10 =12300906.D 20 =12300907.D
50 =12300908.D 100 =12300909.D 150 =12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
1)	S	TCMX (Surrogage	4.661	4.556	4.633	4.671	4.615	4.663	4.615	E6	1.33
2)		alpha-BHC	0.728	0.779	0.859	0.906	0.945	0.987	0.888	E7	11.92
3)		gamma-BHC (TCLP	6.820	7.232	7.760	8.087	8.378	9.002	8.012	E6	9.98
4)		beta-BHC	3.031	2.950	3.012	3.021	3.083	3.134	3.041	E6	1.90
5)		delta-BHC	6.664	7.127	7.738	8.162	8.476	9.112	8.055	E6	11.67
6)		heptachlor (TCL	7.452	7.512	7.940	7.822	7.614	7.457	7.564	E6	3.45
7)		Aldrin	6.700	6.834	7.250	7.488	7.217	7.344	7.137	E6	3.91
8)		Heptachlor Epoxi	6.537	6.519	6.695	6.469	6.224	6.220	6.344	E6	4.98
9)		gamma-Chlordane	6.733	6.775	7.256	7.447	7.452	7.537	7.228	E6	4.63
10)		alpha-Chlordane	6.731	6.717	6.998	7.055	7.066	7.266	6.991	E6	2.87
11)		Endosulfan I	6.113	6.150	6.289	6.141	5.854	5.789	5.977	E6	4.58
12)		4,4'-DDE	5.444	5.696	6.129	6.523	6.729	6.948	6.310	E6	9.01
13)		Dieldrin	6.168	5.914	6.381	6.453	6.436	6.523	6.313	E6	3.32
14)		Endrin (TCLP)	5.425	5.578	5.714	5.694	5.554	5.488	5.526	E6	3.03
15)		4,4'-DDD	4.321	4.183	4.632	5.010	5.228	5.437	4.865	E6	10.07
16)		Endosulfan II	5.614	5.471	5.602	5.485	5.451	5.426	5.455	E6	2.90
17)		4,4'-DDT	4.913	4.905	5.256	5.684	5.767	6.046	5.493	E6	8.50
18)		Endrin Aldehyde	4.331	4.184	4.235	4.143	3.992	4.185	4.138	E6	3.58
19)		Endosulfan Sulfa	5.006	4.807	5.055	4.941	4.837	4.972	4.908	E6	2.36

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 123009.M
Title : 608/8081a pest
Last Update : Mon Jan 04 11:03:41 2010
Response Via : Initial Calibration

Calibration Files

5	=12300905.D	10	=12300906.D	20	=12300907.D
50	=12300908.D	100	=12300909.D	150	=12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
20)		Methoxychlor (T	2.665	2.471	2.394	2.395	2.356	2.377	2.420	E6	5.02
21)		Endrin Ketone	5.390	5.245	5.387	5.307	5.225	5.345	5.284	E6	2.04
22)	S	DCBP (Surrogat	4.272	4.044	4.085	3.877	3.820	3.954	4.002	E6	3.73
23)	H	Toxaphene							0.000		-1.00
24)	L1	Chlordane (1)							0.000		-1.00
25)	L1	Chlordane (2)							0.000		-1.00
26)	L1	Chlordane (3)							0.000		-1.00
27)	L1	Chlordane (4)							0.000		-1.00
28)	L1	Chlordane (5)							0.000		-1.00
29)	L1	Chlordane - Tota							0.000		-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 123009.M
Title : 608/8081a pest
Last Update : Mon Jan 04 10:58:52 2010
Response Via : Initial Calibration

Calibration Files
100 =12300909.D 150 =12300910.D 200 =12300911.D
= =

Response only

KWP 1/14/10

		Compound	100	150	200	Avg	%RSD
1)	S	TCMX (Surrogage)	1.305	1.338	1.274	1.306 E6	2.48
2)		alpha-BHC	2.397	2.553	2.456	2.469 E6	3.18
3)		gamma-BHC (TCLP)	2.145	2.235	2.187	2.189 E6	2.05
4)		beta-BHC	8.028	8.303	7.957	8.096 E5	2.26
5)		delta-BHC	2.200	2.303	2.241	2.248 E6	2.29
6)		heptachlor (TCLP)	2.017	2.058	2.041	2.039 E6	1.00
7)		Aldrin	1.972	2.038	1.982	1.998 E6	1.79
8)		Heptachlor Epoxide (	1.735	1.776	1.731	1.747 E6	1.45
9)		gamma-Chlordane	1.848	1.929	1.859	1.879 E6	2.32
10)		alpha-Chlordane	1.771	1.867	1.770	1.802 E6	3.09
11)		Endosulfan I	1.603	1.637	1.561	1.600 E6	2.39
12)		4,4'-DDE	1.721	1.810	1.747	1.759 E6	2.59
13)		Dieldrin	1.768	1.831	1.749	1.782 E6	2.41
14)		Endrin (TCLP)	1.407	1.467	1.398	1.424 E6	2.63
15)		4,4'-DDD	1.354	1.434	1.392	1.394 E6	2.86
16)		Endosulfan II	1.404	1.496	1.434	1.444 E6	3.25
17)		4,4'-DDT	1.413	1.533	1.489	1.478 E6	4.11
18)		Endrin Aldehyde	1.076	1.151	1.111	1.113 E6	3.36
19)		Endosulfan Sulfate	1.277	1.362	1.280	1.306 E6	3.69
20)		Methoxychlor (TCLP)	6.108	6.418	6.264	6.263 E5	2.47
21)		Endrin Ketone	1.271	1.333	1.288	1.298 E6	2.48
22)	S	DCBP (Surrogate)	7.121	7.067	7.040	7.076 E5	0.58
23)	H	Toxaphene				0.000	-1.00
24)	L1	Chlordane (1)				0.000	-1.00
25)	L1	Chlordane (2)				0.000	-1.00
26)	L1	Chlordane (3)				0.000	-1.00
27)	L1	Chlordane (4)				0.000	-1.00
28)	L1	Chlordane (5)				0.000	-1.00
29)	L1	Chlordane - Total				0.000	-1.00

Signal #2 Calibration Files
100 =12300909.D 150 =12300910.D 200 =12300911.D
= =

		Compound	100	150	200	Avg	%RSD
1)	S	TCMX (Surrogage)	4.615	4.663	4.508	4.595 E6	1.72
2)		alpha-BHC	0.945	0.987	1.012	0.981 E7	3.47
3)		gamma-BHC (TCLP)	8.378	9.002	8.801	8.727 E6	3.65
4)		beta-BHC	3.083	3.134	3.057	3.091 E6	1.26
5)		delta-BHC	8.476	9.112	9.104	8.897 E6	4.10
6)		heptachlor (TCLP)	7.614	7.457	7.149	7.407 E6	3.19
7)		Aldrin	7.217	7.344	7.127	7.229 E6	1.50
8)		Heptachlor Epoxide (	6.224	6.220	5.743	6.062 E6	4.57
9)		gamma-Chlordane	7.452	7.537	7.393	7.461 E6	0.97
10)		alpha-Chlordane	7.066	7.266	7.103	7.145 E6	1.49
11)		Endosulfan I	5.854	5.789	5.501	5.715 E6	3.28
12)		4,4'-DDE	6.729	6.948	6.698	6.792 E6	2.01
13)		Dieldrin	6.436	6.523	6.313	6.424 E6	1.64
14)		Endrin (TCLP)	5.554	5.488	5.227	5.423 E6	3.19
15)		4,4'-DDD	5.228	5.437	5.243	5.303 E6	2.21
16)		Endosulfan II	5.451	5.426	5.136	5.338 E6	3.28
17)		4,4'-DDT	5.767	6.046	5.882	5.898 E6	2.38
18)		Endrin Aldehyde	3.992	4.185	3.895	4.024 E6	3.66

19)		Endosulfan Sulfate	4.837	4.972	4.739	4.849	E6	2.41
20)		Methoxychlor (TCLP)	2.356	2.377	2.282	2.338	E6	2.13
21)		Endrin Ketone	5.225	5.345	5.087	5.219	E6	2.48
22)	S	DCBP (Surrogate)	3.820	3.954	3.963	3.912	E6	2.04
23)	H	Toxaphene				0.000		-1.00
24)	L1	Chlordane (1)				0.000		-1.00
25)	L1	Chlordane (2)				0.000		-1.00
26)	L1	Chlordane (3)				0.000		-1.00
27)	L1	Chlordane (4)				0.000		-1.00
28)	L1	Chlordane (5)				0.000		-1.00
29)	L1	Chlordane - Total				0.000		-1.00

(#) = Out of Range

123009.M Mon Jan 04 10:58:58 2010

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 20:40:18 2010
Response Via : Initial Calibration

Calibration Files
5 =12300905.D 10 =12300906.D 20 =12300907.D
50 =12300908.D 100 =12300909.D 150 =12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
1)	S	TCMX (Surrogage	1.307	1.283	1.312	1.306	1.305	1.338	1.304	E6	1.60
2)		alpha-BHC	1.762	1.979	2.166	2.321	2.397	2.553	2.233	E6	12.63
3)		gamma-BHC (TCLP	1.689	1.812	1.955	2.072	2.145	2.235	2.014	E6	10.12
4)		beta-BHC	8.023	7.786	7.894	7.807	8.028	8.303	7.971	E5	2.19
5)		delta-BHC	1.663	1.798	1.950	2.102	2.200	2.303	2.037	E6	11.82
6)		heptachlor (TCL	1.819	1.836	1.922	1.957	2.017	2.058	1.950	E6	4.94
7)		Aldrin	1.664	1.719	1.862	1.912	1.972	2.038	1.879	E6	7.46
8)		Heptachlor Epoxi	1.628	1.655	1.681	1.709	1.735	1.776	1.702	E6	3.00
9)		gamma-Chlordane	1.624	1.650	1.741	1.811	1.848	1.929	1.780	E6	6.36
10)		alpha-Chlordane	1.637	1.648	1.702	1.747	1.771	1.867	1.735	E6	4.60
11)		Endosulfan I	1.502	1.501	1.562	1.559	1.603	1.637	1.561	E6	3.18
12)		4,4'-DDE	1.363	1.412	1.557	1.655	1.721	1.810	1.609	E6	10.64
13)		Dieldrin	1.474	1.549	1.652	1.704	1.768	1.831	1.675	E6	7.55
14)		Endrin (TCLP)	1.216	1.165	1.308	1.361	1.407	1.467	1.332	E6	8.15
15)		4,4'-DDD	1.080	1.079	1.180	1.271	1.354	1.434	1.256	E6	11.66
16)		Endosulfan II	1.362	1.318	1.371	1.374	1.404	1.496	1.394	E6	4.11
17)		4,4'-DDT	1.131	1.139	1.217	1.321	1.413	1.533	1.320	E6	12.43
18)		Endrin Aldehyde	1.089	1.038	1.056	1.054	1.076	1.151	1.082	E6	3.58
19)		Endosulfan Sulfa	1.277	1.207	1.217	1.228	1.277	1.362	1.264	E6	4.20
20)		Methoxychlor (T	6.482	6.102	5.833	5.860	6.108	6.418	6.152	E5	4.11
21)		Endrin Ketone	1.198	1.151	1.205	1.221	1.271	1.333	1.238	E6	5.02
22)	S	DCBP (Surrogat	8.187	7.834	7.630	6.849	7.121	7.067	7.390	E5	6.73
23)	H	Toxaphene							2.361	E7	6.31
24)	L1	Chlordane (1)							7.268	E4	8.63
25)	L1	Chlordane (2)							2.325	E5	6.89
26)	L1	Chlordane (3)							1.719	E5	6.42
27)	L1	Chlordane (4)							1.911	E5	5.66
28)	L1	Chlordane (5)							5.474	E4	8.63
29)	L1	Chlordane - Tota							7.230	E5	6.73

Signal #2 Calibration Files
5 =12300905.D 10 =12300906.D 20 =12300907.D
50 =12300908.D 100 =12300909.D 150 =12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
1)	S	TCMX (Surrogage	4.661	4.556	4.633	4.671	4.615	4.663	4.615	E6	1.33
2)		alpha-BHC	0.728	0.779	0.859	0.906	0.945	0.987	0.888	E7	11.92
3)		gamma-BHC (TCLP	6.820	7.232	7.760	8.087	8.378	9.002	8.012	E6	9.98
4)		beta-BHC	3.031	2.950	3.012	3.021	3.083	3.134	3.041	E6	1.90
5)		delta-BHC	6.664	7.127	7.738	8.162	8.476	9.112	8.055	E6	11.67
6)		heptachlor (TCL	7.452	7.512	7.940	7.822	7.614	7.457	7.564	E6	3.45
7)		Aldrin	6.700	6.834	7.250	7.488	7.217	7.344	7.137	E6	3.91
8)		Heptachlor Epoxi	6.537	6.519	6.695	6.469	6.224	6.220	6.344	E6	4.98
9)		gamma-Chlordane	6.733	6.775	7.256	7.447	7.452	7.537	7.228	E6	4.63
10)		alpha-Chlordane	6.731	6.717	6.998	7.055	7.066	7.266	6.991	E6	2.87
11)		Endosulfan I	6.113	6.150	6.289	6.141	5.854	5.789	5.977	E6	4.58
12)		4,4'-DDE	5.444	5.696	6.129	6.523	6.729	6.948	6.310	E6	9.01
13)		Dieldrin	6.168	5.914	6.381	6.453	6.436	6.523	6.313	E6	3.32
14)		Endrin (TCLP)	5.425	5.578	5.714	5.694	5.554	5.488	5.526	E6	3.03
15)		4,4'-DDD	4.321	4.183	4.632	5.010	5.228	5.437	4.865	E6	10.07
16)		Endosulfan II	5.614	5.471	5.602	5.485	5.451	5.426	5.455	E6	2.90
17)		4,4'-DDT	4.913	4.905	5.256	5.684	5.767	6.046	5.493	E6	8.50
18)		Endrin Aldehyde	4.331	4.184	4.235	4.143	3.992	4.185	4.138	E6	3.58
19)		Endosulfan Sulfa	5.006	4.807	5.055	4.941	4.837	4.972	4.908	E6	2.36

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 20:40:18 2010
Response Via : Initial Calibration

Calibration Files
5 =12300905.D 10 =12300906.D 20 =12300907.D
50 =12300908.D 100 =12300909.D 150 =12300910.D

		Compound	5	10	20	50	100	150	Avg		%RSD
20)		Methoxychlor (T	2.665	2.471	2.394	2.395	2.356	2.377	2.420	E6	5.02
21)		Endrin Ketone	5.390	5.245	5.387	5.307	5.225	5.345	5.284	E6	2.04
22)	S	DCBP (Surrogat	4.272	4.044	4.085	3.877	3.820	3.954	4.002	E6	3.73
23)	H	Toxaphene							1.037	E8	6.29
24)	L1	Chlordane (1)							2.788	E5	6.23
25)	L1	Chlordane (2)							2.430	E5	2.23
26)	L1	Chlordane (3)							7.877	E5	16.57
27)	L1	Chlordane (4)							1.482	E5	7.94
28)	L1	Chlordane (5)							2.367	E5	8.09
29)	L1	Chlordane - Tota							1.694	E6	7.63

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 15:15:41 2010
Response Via : Initial Calibration

Toxaphene only

Calibration Files
T0.5 =01191004.D T1 =01191005.D T1.5 =01191006.D
T2 =01191007.D T2.5 =01191008.D T5 =01191009.D

		Compound	T0.5	T1	T1.5	T2	T2.5	T5	Avg	%RSD
1)	S	TCMX (Surrogage							0.000	-1.00
2)		alpha-BHC							0.000	-1.00
3)		gamma-BHC (TCLP							0.000	-1.00
4)		beta-BHC							0.000	-1.00
5)		delta-BHC							0.000	-1.00
6)		heptachlor (TCL							0.000	-1.00
7)		Aldrin							0.000	-1.00
8)		Heptachlor Epoxi							0.000	-1.00
9)		gamma-Chlordane							0.000	-1.00
10)		alpha-Chlordane							0.000	-1.00
11)		Endosulfan I							0.000	-1.00
12)		4,4'-DDE							0.000	-1.00
13)		Dieldrin							0.000	-1.00
14)		Endrin (TCLP)							0.000	-1.00
15)		4,4'-DDD							0.000	-1.00
16)		Endosulfan II							0.000	-1.00
17)		4,4'-DDT							0.000	-1.00
18)		Endrin Aldehyde							0.000	-1.00
19)		Endosulfan Sulfa							0.000	-1.00
20)		Methoxychlor (T							0.000	-1.00
21)		Endrin Ketone							0.000	-1.00
22)	S	DCBP (Surrogat							0.000	-1.00
23)	H	Toxaphene	2.331	2.544	2.151	2.364	2.262	2.512	2.361 E7	6.31
24)	L1	Chlordane (1)							0.000	-1.00
25)	L1	Chlordane (2)							0.000	-1.00
26)	L1	Chlordane (3)							0.000	-1.00
27)	L1	Chlordane (4)							0.000	-1.00
28)	L1	Chlordane (5)							0.000	-1.00
29)	L1	Chlordane - Tota							0.000	-1.00

\ MO 1/19/10

Signal #2 Calibration Files
T0.5 =01191004.D T1 =01191005.D T1.5 =01191006.D
T2 =01191007.D T2.5 =01191008.D T5 =01191009.D

		Compound	T0.5	T1	T1.5	T2	T2.5	T5	Avg	%RSD
1)	S	TCMX (Surrogage							0.000	-1.00
2)		alpha-BHC							0.000	-1.00
3)		gamma-BHC (TCLP							0.000	-1.00
4)		beta-BHC							0.000	-1.00
5)		delta-BHC							0.000	-1.00
6)		heptachlor (TCL							0.000	-1.00
7)		Aldrin							0.000	-1.00
8)		Heptachlor Epoxi							0.000	-1.00
9)		gamma-Chlordane							0.000	-1.00
10)		alpha-Chlordane							0.000	-1.00
11)		Endosulfan I							0.000	-1.00
12)		4,4'-DDE							0.000	-1.00
13)		Dieldrin							0.000	-1.00
14)		Endrin (TCLP)							0.000	-1.00
15)		4,4'-DDD							0.000	-1.00
16)		Endosulfan II							0.000	-1.00
17)		4,4'-DDT							0.000	-1.00
18)		Endrin Aldehyde							0.000	-1.00

19)		Endosulfan Sulfa							0.000		-1.00
20)		Methoxychlor (T							0.000		-1.00
21)		Endrin Ketone							0.000		-1.00
22)	S	DCBP (Surrogat							0.000		-1.00
23)	H	Toxaphene	1.008	1.129	0.949	1.045	0.999	1.089	1.037	E8	6.29
24)	L1	Chlordane (1)							0.000		-1.00
25)	L1	Chlordane (2)							0.000		-1.00
26)	L1	Chlordane (3)							0.000		-1.00
27)	L1	Chlordane (4)							0.000		-1.00
28)	L1	Chlordane (5)							0.000		-1.00
29)	L1	Chlordane - Tota							0.000		-1.00

(#) = Out of Range

011910CT.M Tue Jan 19 17:25:51 2010

Response Factor Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 18:46:03 2010
Response Via : Initial Calibration

Calibration Files
C0.1 =01191011.D C0.2 =01191012.D C0.5 =01191013.D
C1 =01191014.D C2 =01191015.D C4 =01191016.D

T. CH only

		Compound	C0.1	C0.2	C0.5	C1	C2	C4	Avg		%RSD
1)	S	TCMX (Surrogage							0.000		-1.00
2)		alpha-BHC							0.000		-1.00
3)		gamma-BHC (TCLP							0.000		-1.00
4)		beta-BHC							0.000		-1.00
5)		delta-BHC							0.000		-1.00
6)		heptachlor (TCL							0.000		-1.00
7)		Aldrin							0.000		-1.00
8)		Heptachlor Epoxi							0.000		-1.00
9)		gamma-Chlordane							0.000		-1.00
10)		alpha-Chlordane							0.000		-1.00
11)		Endosulfan I							0.000		-1.00
12)		4,4'-DDE							0.000		-1.00
13)		Dieldrin							0.000		-1.00
14)		Endrin (TCLP)							0.000		-1.00
15)		4,4'-DDD							0.000		-1.00
16)		Endosulfan II							0.000		-1.00
17)		4,4'-DDT							0.000		-1.00
18)		Endrin Aldehyde							0.000		-1.00
19)		Endosulfan Sulfa							0.000		-1.00
20)		Methoxychlor (T							0.000		-1.00
21)		Endrin Ketone							0.000		-1.00
22)	S	DCBP (Surrogat							0.000		-1.00
23)	H	Toxaphene							0.000		-1.00
24)	L1	Chlordane (1)	6.486	6.560	7.217	7.591	7.869	7.888	7.268	E4	8.63
25)	L1	Chlordane (2)	2.102	2.170	2.311	2.443	2.432	2.494	2.325	E5	6.89
26)	L1	Chlordane (3)	1.563	1.616	1.705	1.806	1.787	1.836	1.719	E5	6.42
27)	L1	Chlordane (4)	1.773	1.797	1.891	1.997	1.983	2.028	1.911	E5	5.66
28)	L1	Chlordane (5)	4.891	4.956	5.419	5.704	5.840	6.038	5.474	E4	8.63
29)	L1	Chlordane - Tota	6.576	6.734	7.170	7.576	7.572	7.751	7.230	E5	6.73

TWO 1/19/10

Signal #2 Calibration Files
C0.1 =01191011.D C0.2 =01191012.D C0.5 =01191013.D
C1 =01191014.D C2 =01191015.D C4 =01191016.D

		Compound	C0.1	C0.2	C0.5	C1	C2	C4	Avg	%RSD
1)	S	TCMX (Surrogage							0.000	-1.00
2)		alpha-BHC							0.000	-1.00
3)		gamma-BHC (TCLP							0.000	-1.00
4)		beta-BHC							0.000	-1.00
5)		delta-BHC							0.000	-1.00
6)		heptachlor (TCL							0.000	-1.00
7)		Aldrin							0.000	-1.00
8)		Heptachlor Epoxi							0.000	-1.00
9)		gamma-Chlordane							0.000	-1.00
10)		alpha-Chlordane							0.000	-1.00
11)		Endosulfan I							0.000	-1.00
12)		4,4'-DDE							0.000	-1.00
13)		Dieldrin							0.000	-1.00
14)		Endrin (TCLP)							0.000	-1.00
15)		4,4'-DDD							0.000	-1.00
16)		Endosulfan II							0.000	-1.00
17)		4,4'-DDT							0.000	-1.00
18)		Endrin Aldehyde							0.000	-1.00
19)		Endosulfan Sulfa							0.000	-1.00

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 18:46:03 2010
Response Via : Initial Calibration

Calibration Files
C0.1 =01191011.D C0.2 =01191012.D C0.5 =01191013.D
C1 =01191014.D C2 =01191015.D C4 =01191016.D

		Compound	C0.1	C0.2	C0.5	C1	C2	C4	Avg		%RSD
20)		Methoxychlor (T							0.000		-1.00
21)		Endrin Ketone							0.000		-1.00
22)	S	DCBP (Surrogat							0.000		-1.00
23)	H	Toxaphene							0.000		-1.00
24)	L1	Chlordane (1)	2.571	2.580	2.793	2.896	2.929	2.959	2.788	E5	6.23
25)	L1	Chlordane (2)	2.499	2.421	2.449	2.465	2.400	2.344	2.430	E5	2.23
26)	L1	Chlordane (3)	7.809	8.037	8.485	8.772	8.816	5.341	7.877	E5	16.57
27)	L1	Chlordane (4)	1.355	1.346	1.447	1.540	1.577	1.626	1.482	E5	7.94
28)	L1	Chlordane (5)	2.115	2.163	2.356	2.488	2.502	2.579	2.367	E5	8.09
29)	L1	Chlordane - Tota	1.635	1.655	1.753	1.816	1.822	1.485	1.694	E6	7.63

(#) = Out of Range

Compound List Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 123009.M
Title : 608/8081a pest
Last Update : Mon Jan 04 11:03:41 2010
Response Via : Initial Calibration

Total Cpnds : 59

\ KW 1/4/10

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (Surrogage)	9.05	1.000	A	H	R
2		alpha-BHC	10.27	1.000	Q	H	R
3		gamma-BHC (TCLP)	10.93	1.000	Q	H	R
4		beta-BHC	11.06	1.000	A	H	R
5		delta-BHC	11.59	1.000	Q	H	R
6		heptachlor (TCLP)	11.71	1.000	A	H	R
7		Aldrin	12.27	1.000	A	H	R
8		Heptachlor Epoxide (TCLP)	13.18	1.000	A	H	R
9		gamma-Chlordane	13.48	1.000	A	H	R
10		alpha-Chlordane	13.71	1.000	A	H	R
11		Endosulfan I	13.81	1.000	A	H	R
12		4,4'-DDE	13.92	1.000	Q	H	R
13		Dieldrin	14.23	1.000	A	H	R
14		Endrin (TCLP)	14.70	1.000	A	H	R
15		4,4'-DDD	14.79	1.000	Q	H	R
16		Endosulfan II	15.01	1.000	A	H	R
17		4,4'-DDT	15.27	1.000	Q	H	R
18		Endrin Aldehyde	15.51	1.000	A	H	R
19		Endosulfan Sulfate	15.92	1.000	A	H	R
20		Methoxychlor (TCLP)	16.26	1.000	A	H	R
21		Endrin Ketone	16.80	1.000	A	H	R
22	S	DCBP (Surrogate)	19.25	1.000	A	H	R
23	H	Toxaphene	16.00	1.000	A	A	R
24	L1	Chlordane (1)	11.72	1.000	A	H	R
25	L1	Chlordane (2)	12.76	1.000	A	H	R
26	L1	Chlordane (3)	13.74	1.000	A	H	R
27	L1	Chlordane (4)	13.97	1.000	A	H	R
28	L1	Chlordane (5)	15.36	1.000	A	H	R
29	L1	Chlordane - Total	1.90	1.000	A	H	R
30		Signal #2	1.90	1.000	A	H	R
31	S	TCMX (Surrogage) #2	8.08	1.000	A	H	R
32		alpha-BHC #2	9.16	1.000	Q	H	R
33		gamma-BHC (TCLP) #2	9.74	1.000	Q	H	R
34		beta-BHC #2	9.90	1.000	A	H	R
35		delta-BHC #2	10.21	1.000	Q	H	R
36		heptachlor (TCLP) #2	10.57	1.000	A	H	R
37		Aldrin #2	11.06	1.000	A	H	R
38		Heptachlor Epoxide (TCLP) #2	12.03	1.000	A	H	R
39		gamma-Chlordane #2	12.22	1.000	A	H	R
40		alpha-Chlordane #2	12.43	1.000	A	H	R
41		Endosulfan I #2	12.64	1.000	A	H	R
42		4,4'-DDE #2	12.54	1.000	A	H	R
43		Dieldrin #2	13.00	1.000	A	H	R
44		Endrin (TCLP) #2	13.35	1.000	A	H	R
45		4,4'-DDD #2	13.43	1.000	Q	H	R
46		Endosulfan II #2	13.68	1.000	A	H	R
47		4,4'-DDT #2	13.84	1.000	A	H	R
48		Endrin Aldehyde #2	14.30	1.000	A	H	R
49		Endosulfan Sulfate #2	14.93	1.000	A	H	R
50		Methoxychlor (TCLP) #2	14.54	1.000	A	H	R
51		Endrin Ketone #2	15.35	1.000	A	H	R
52	S	DCBP (Surrogate) #2	16.81	1.000	A	H	R
53	H	Toxaphene #2	14.00	1.000	A	A	R
54	L1	Chlordane (1) #2	10.07	1.000	A	H	R
55	L1	Chlordane (2) #2	10.93	1.000	A	H	R
56	L1	Chlordane (3) #2	11.86	1.000	A	H	R

57	L1	Chlordane (4) #2	13.02	1.000	A	H	R
58	L1	Chlordane (5) #2	13.20	1.000	A	H	R
59	L1	Chlordane - Total #2	1.90	1.000	A	H	R

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

123009.M Mon Jan 04 11:05:40 2010

Compound List Report SV-ECD12

Method Path : D:\MSDCHEM\1\METHODS\
Method File : 011910CT.M
Title : 608/8081a pest
Last Update : Tue Jan 19 20:40:18 2010
Response Via : Initial Calibration

Total Cpnds : 59

VKX 1/19/10

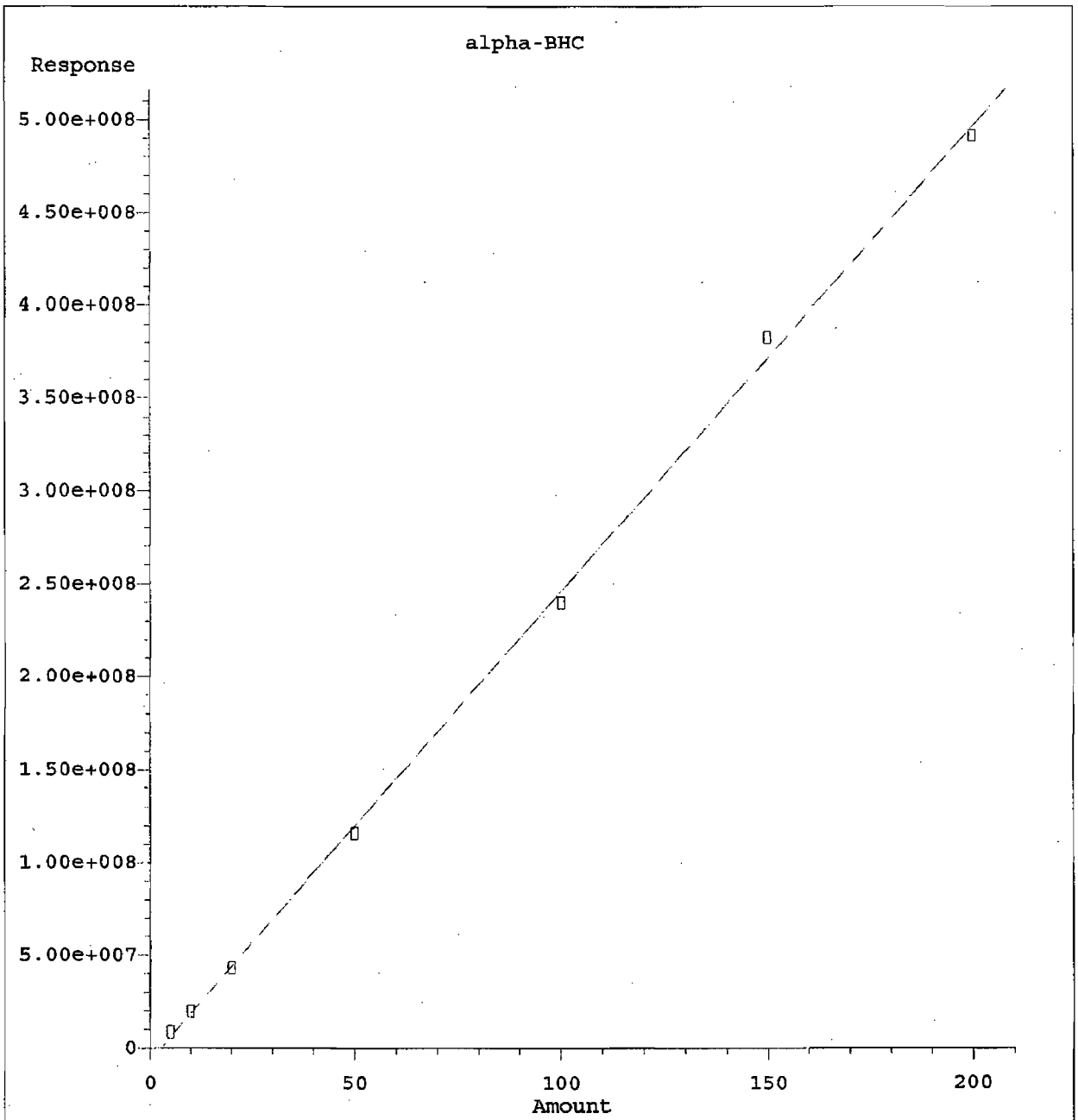
PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	S	TCMX (Surrogage)	9.06	1.000	A	H	R
2		alpha-BHC	10.27	1.000	Q	H	R
3		gamma-BHC (TCLP)	10.93	1.000	Q	H	R
4		beta-BHC	11.07	1.000	A	H	R
5		delta-BHC	11.59	1.000	Q	H	R
6		heptachlor (TCLP)	11.72	1.000	A	H	R
7		Aldrin	12.27	1.000	A	H	R
8		Heptachlor Epoxide (TCLP)	13.19	1.000	A	H	R
9		gamma-Chlordane	13.48	1.000	A	H	R
10		alpha-Chlordane	13.71	1.000	A	H	R
11		Endosulfan I	13.81	1.000	A	H	R
12		4,4'-DDE	13.92	1.000	Q	H	R
13		Dieldrin	14.23	1.000	A	H	R
14		Endrin (TCLP)	14.71	1.000	A	H	R
15		4,4'-DDD	14.80	1.000	Q	H	R
16		Endosulfan II	15.02	1.000	A	H	R
17		4,4'-DDT	15.27	1.000	Q	H	R
18		Endrin Aldehyde	15.51	1.000	A	H	R
19		Endosulfan Sulfate	15.92	1.000	A	H	R
20		Methoxychlor (TCLP)	16.26	1.000	A	H	R
21		Endrin Ketone	16.80	1.000	A	H	R
22	S	DCBP (Surrogate)	19.26	1.000	A	H	R
23	H	Toxaphene	16.00	1.000	A	A	R
24	L1	Chlordane (1)	11.46	1.000	A	H	R
25	L1	Chlordane (2)	13.48	1.000	A	H	R
26	L1	Chlordane (3)	13.61	1.000	A	H	R
27	L1	Chlordane (4)	13.71	1.000	A	H	R
28	L1	Chlordane (5)	15.10	1.000	A	H	R
29	L1	Chlordane - Total	1.90	1.000	A	H	R
30		Signal #2	1.90	1.000	A	H	R
31	S	TCMX (Surrogage) #2	8.07	1.000	A	H	R
32		alpha-BHC #2	9.16	1.000	Q	H	R
33		gamma-BHC (TCLP) #2	9.73	1.000	Q	H	R
34		beta-BHC #2	9.89	1.000	A	H	R
35		delta-BHC #2	10.20	1.000	Q	H	R
36		heptachlor (TCLP) #2	10.56	1.000	A	H	R
37		Aldrin #2	11.06	1.000	A	H	R
38		Heptachlor Epoxide (TCLP) #2	12.02	1.000	A	H	R
39		gamma-Chlordane #2	12.22	1.000	A	H	R
40		alpha-Chlordane #2	12.42	1.000	A	H	R
41		Endosulfan I #2	12.63	1.000	A	H	R
42		4,4'-DDE #2	12.53	1.000	~~Q~~ A	H	R
43		Dieldrin #2	12.99	1.000	A	H	R
44		Endrin (TCLP) #2	13.34	1.000	A	H	R
45		4,4'-DDD #2	13.42	1.000	Q	H	R
46		Endosulfan II #2	13.68	1.000	A	H	R
47		4,4'-DDT #2	13.84	1.000	~~Q~~ A	H	R
48		Endrin Aldehyde #2	14.29	1.000	A	H	R
49		Endosulfan Sulfate #2	14.93	1.000	A	H	R
50		Methoxychlor (TCLP) #2	14.53	1.000	A	H	R
51		Endrin Ketone #2	15.34	1.000	A	H	R
52	S	DCBP (Surrogate) #2	16.80	1.000	A	H	R
53	H	Toxaphene #2	14.00	1.000	A	A	R
54	L1	Chlordane (1) #2	10.42	1.000	A	H	R
55	L1	Chlordane (2) #2	11.28	1.000	A	H	R
56	L1	Chlordane (3) #2	12.22	1.000	A	H	R

C2:
DDE&DDT
Accidently set to Q when added TOX & T. crit to the curve. Affected compds were all reported from C1 since the update. Data was not affected. All the QC & CCVs were re-processed. — VKO 2/16/10

57	L1	Chlordane (4) #2	13.39	1.000	A	H	R
58	L1	Chlordane (5) #2	13.57	1.000	A	H	R
59	L1	Chlordane - Total #2	1.90	1.000	A	H	R

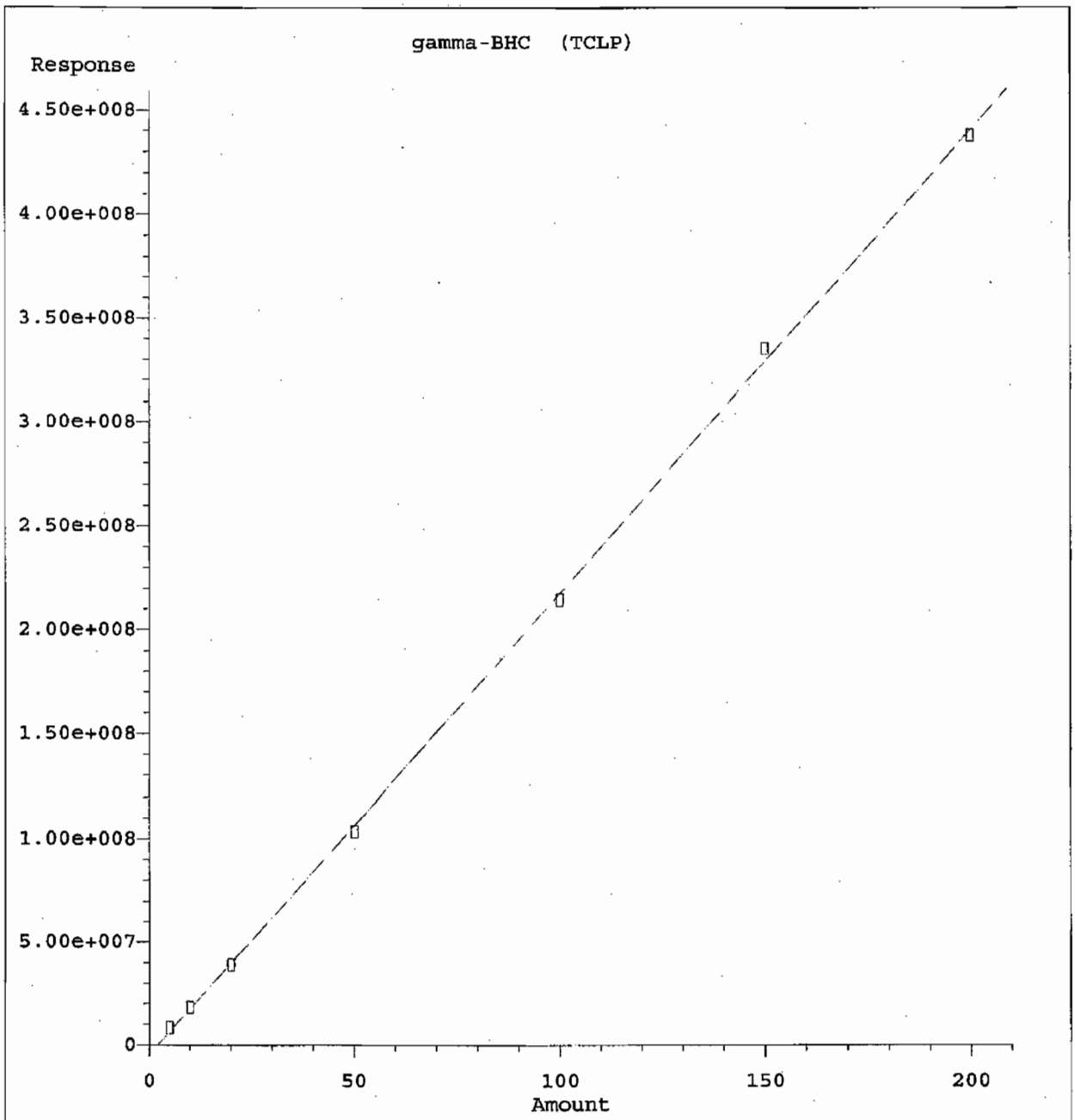
Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

011910CT.M Tue Jan 19 20:42:48 2010



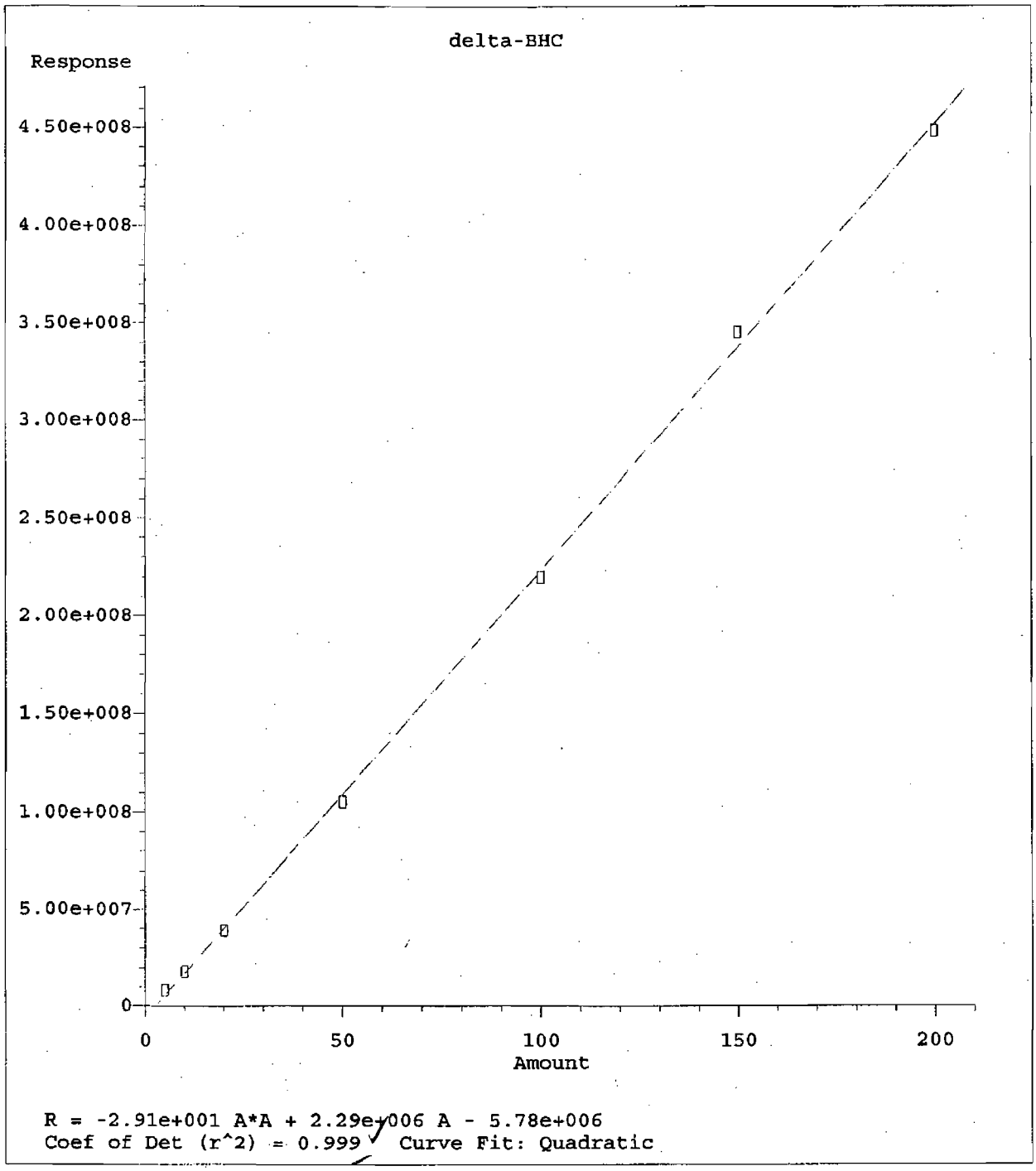
R = -1.06e+002 A*A + 2.53e+006 A - 6.59e+006
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010

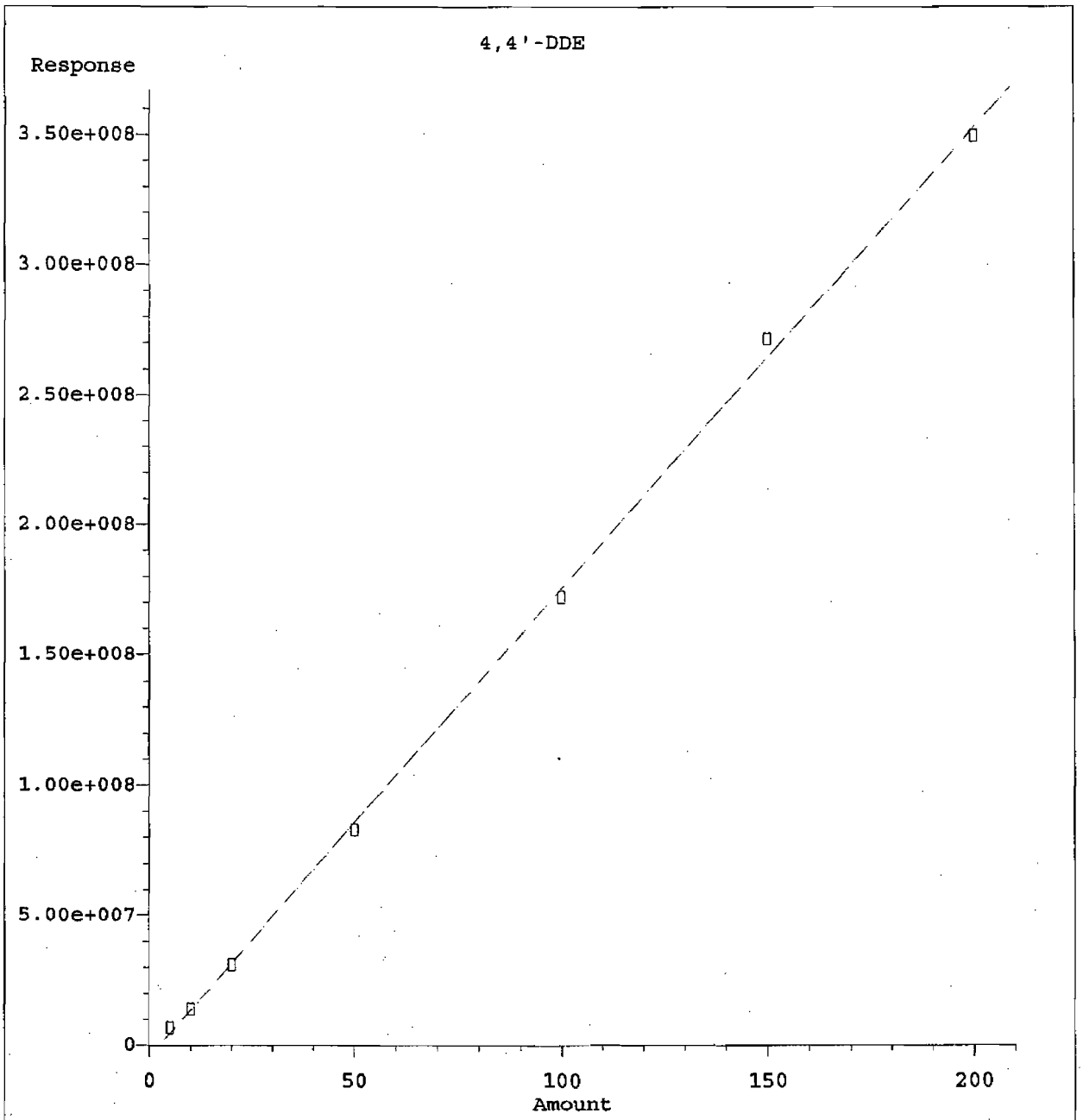


R = 4.43e+001 A*A + 2.22e+006 A - 4.58e+006
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



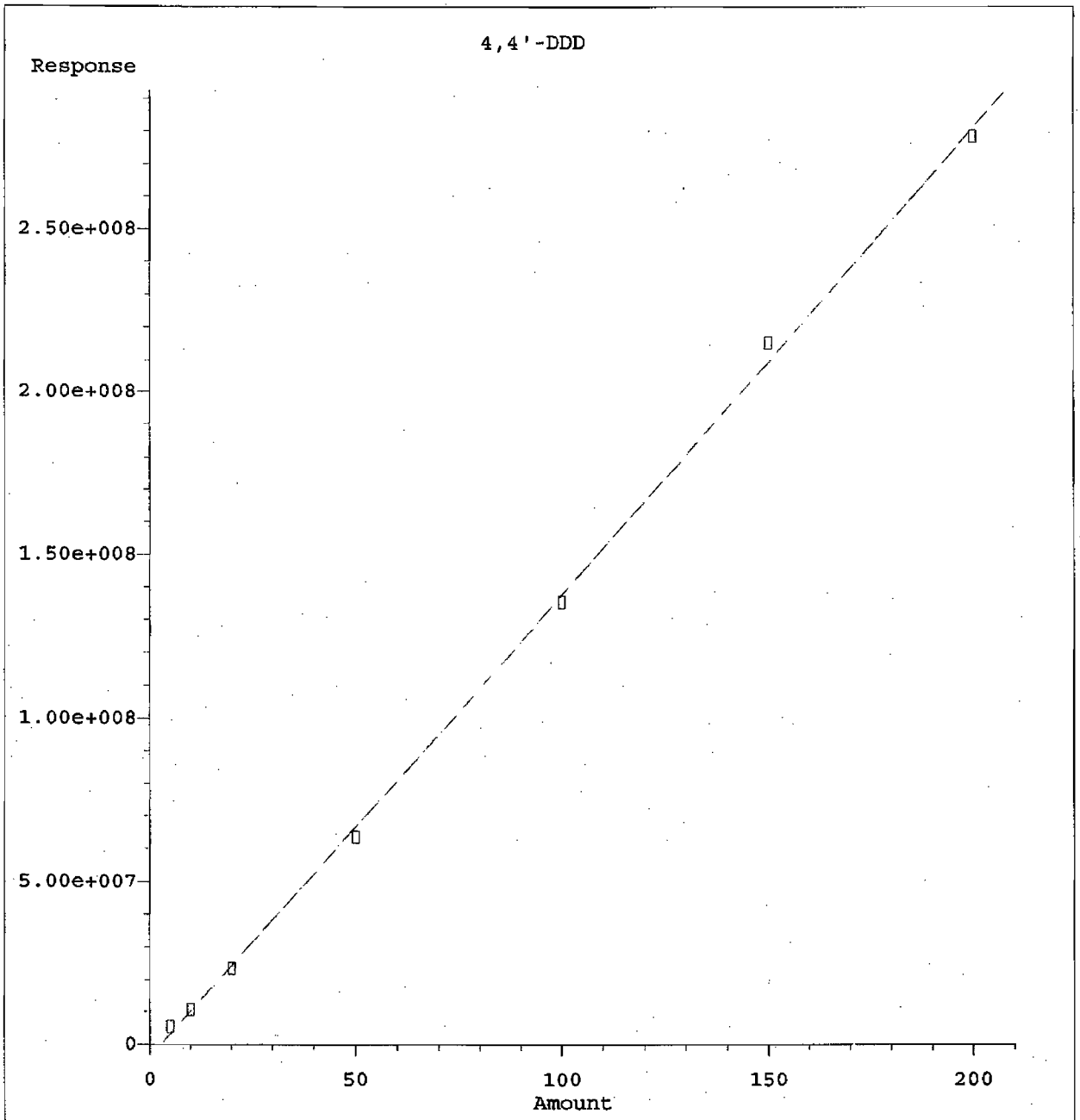
Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



R = -1.32e+002 A*A + 1.81e+006 A - 4.45e+006
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic

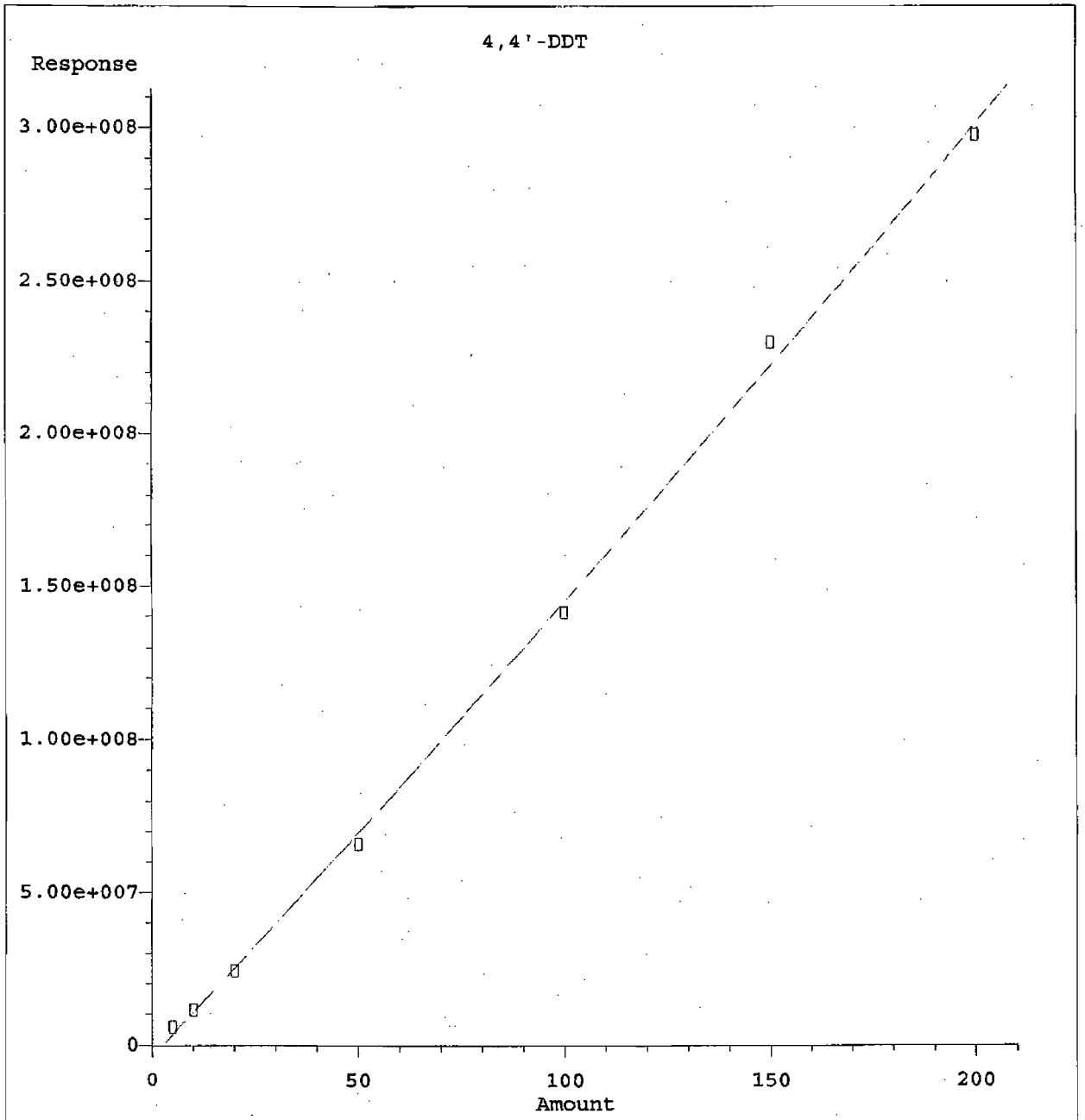
-MC

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



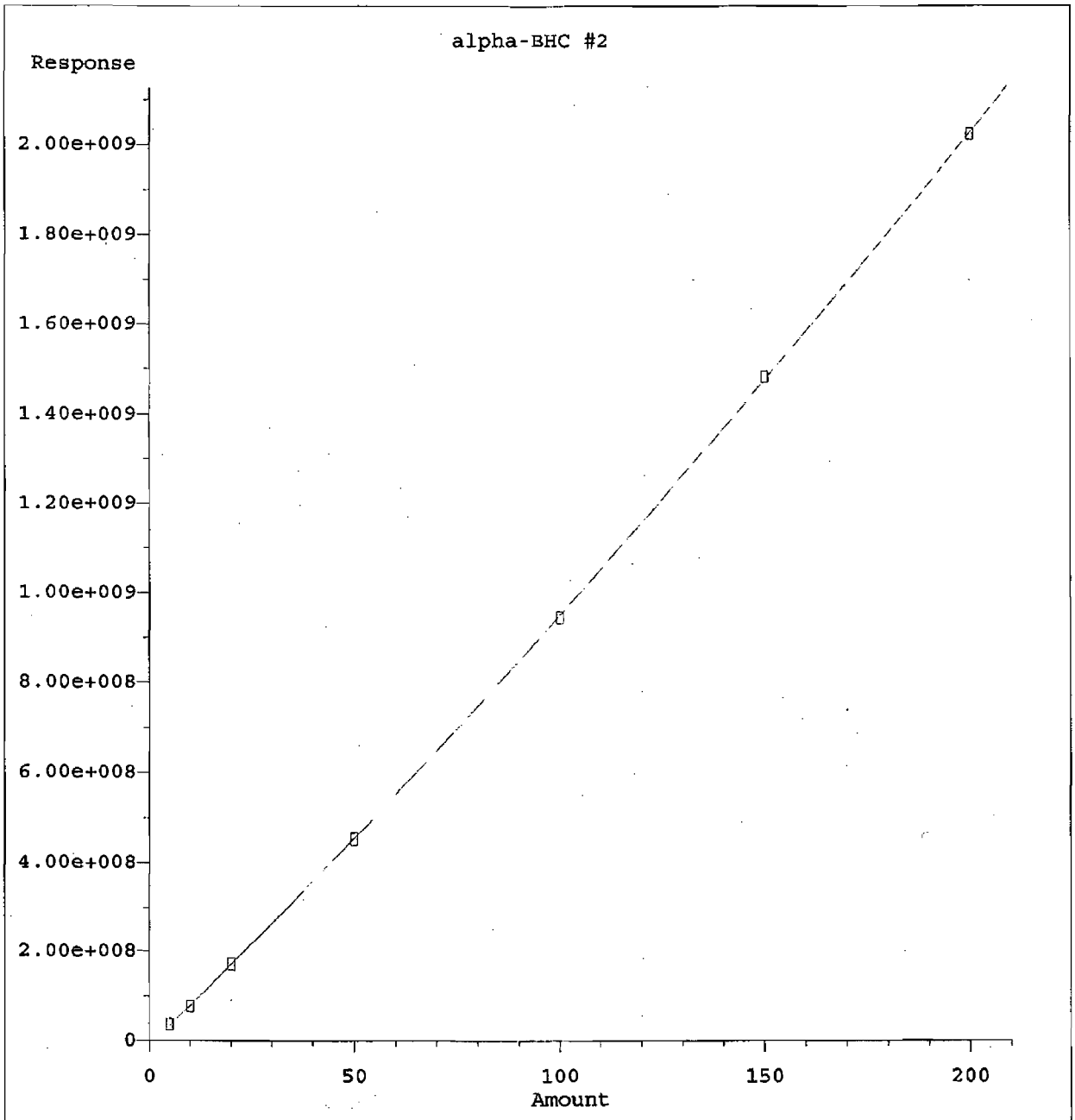
R = 1.04e+002 A*A + 1.40e+006 A - 3.79e+006
Coef of Det (r^2) = 0.999 ✓ Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



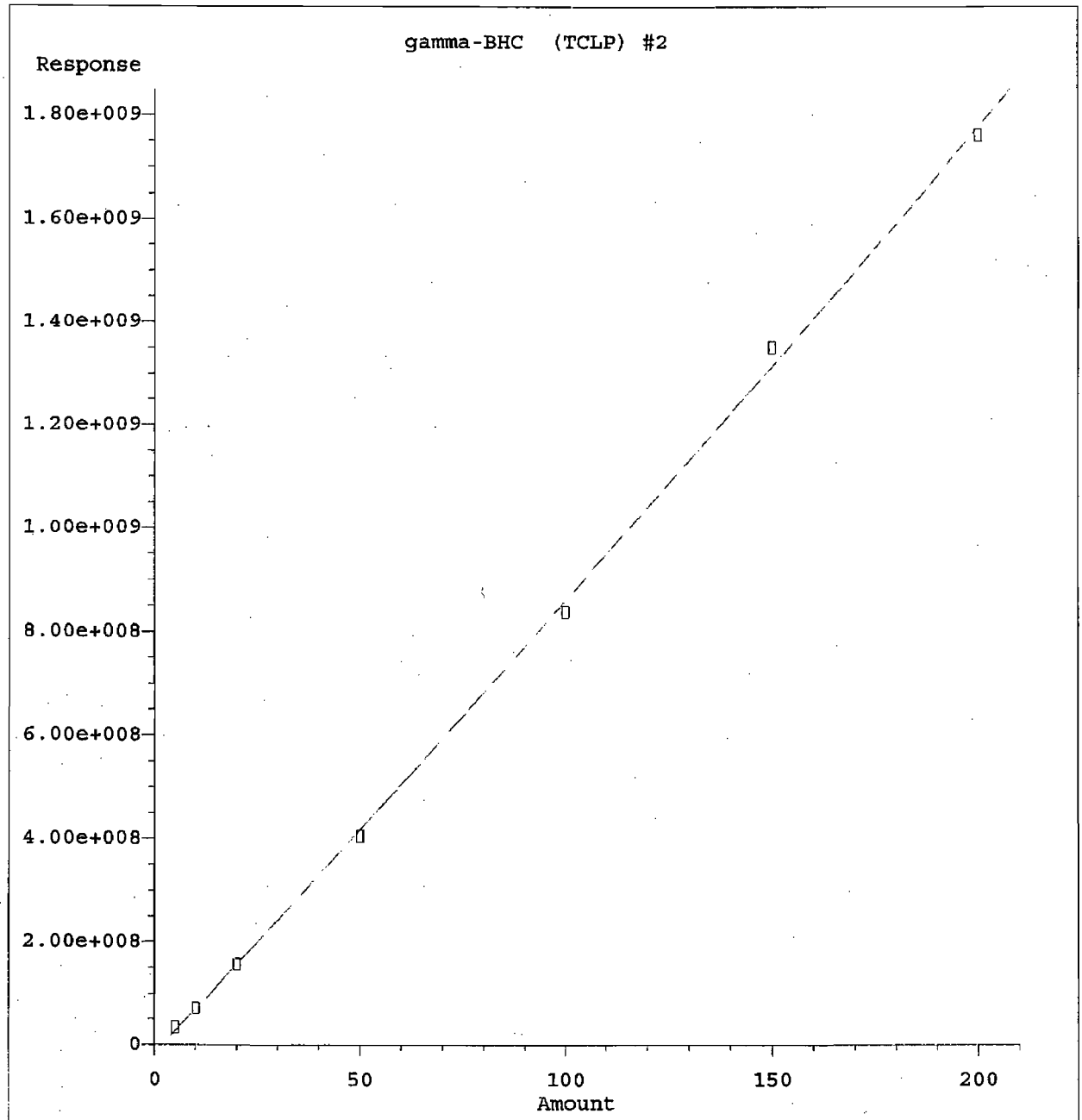
R = 3.80e+002 A*A + 1.45e+006 A - 3.96e+006
Coef of Det (r^2) = 0.999 ✓ Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



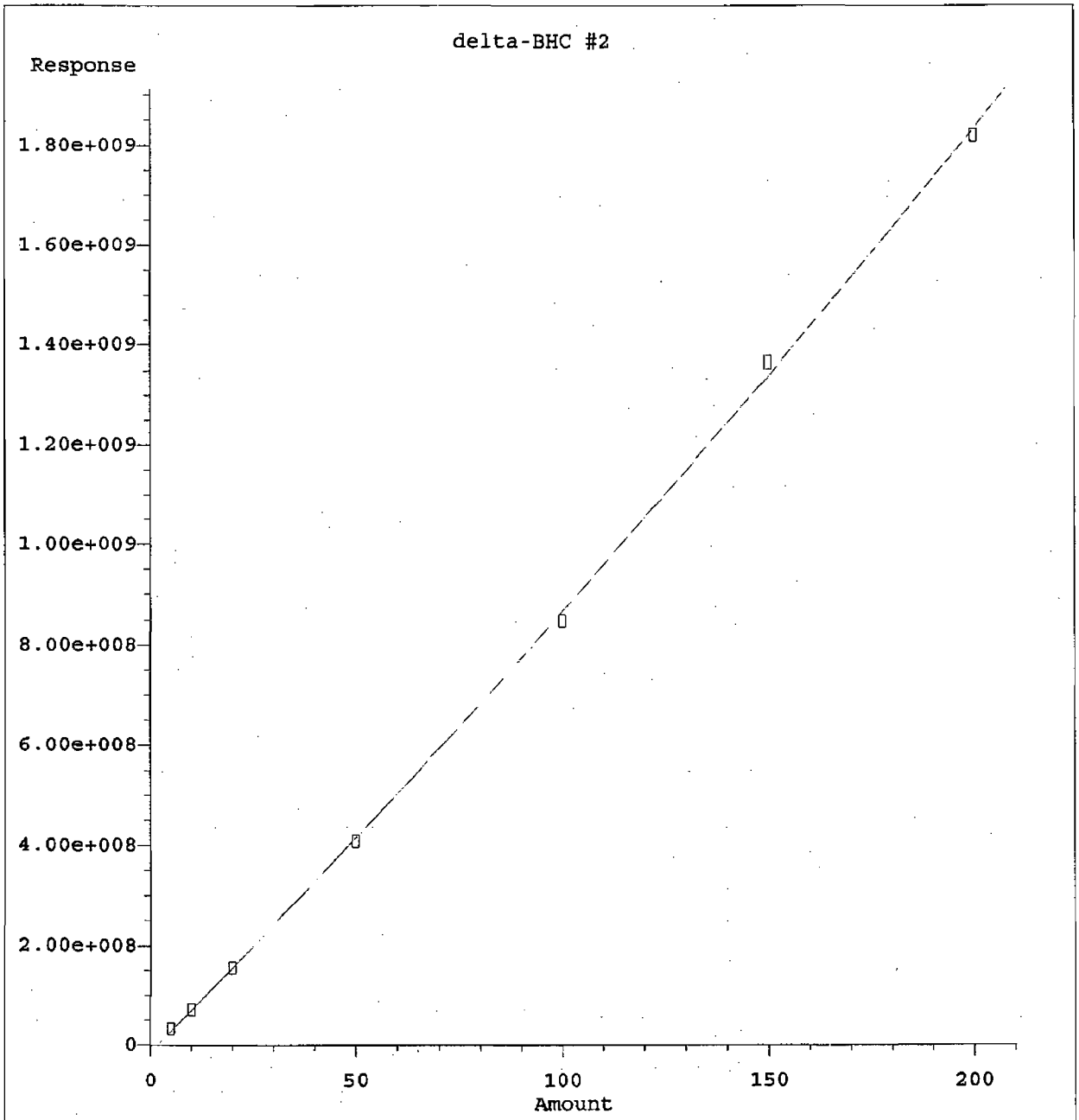
R = 5.88e+003 A*A + 9.02e+006 A - 1.13e+007
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



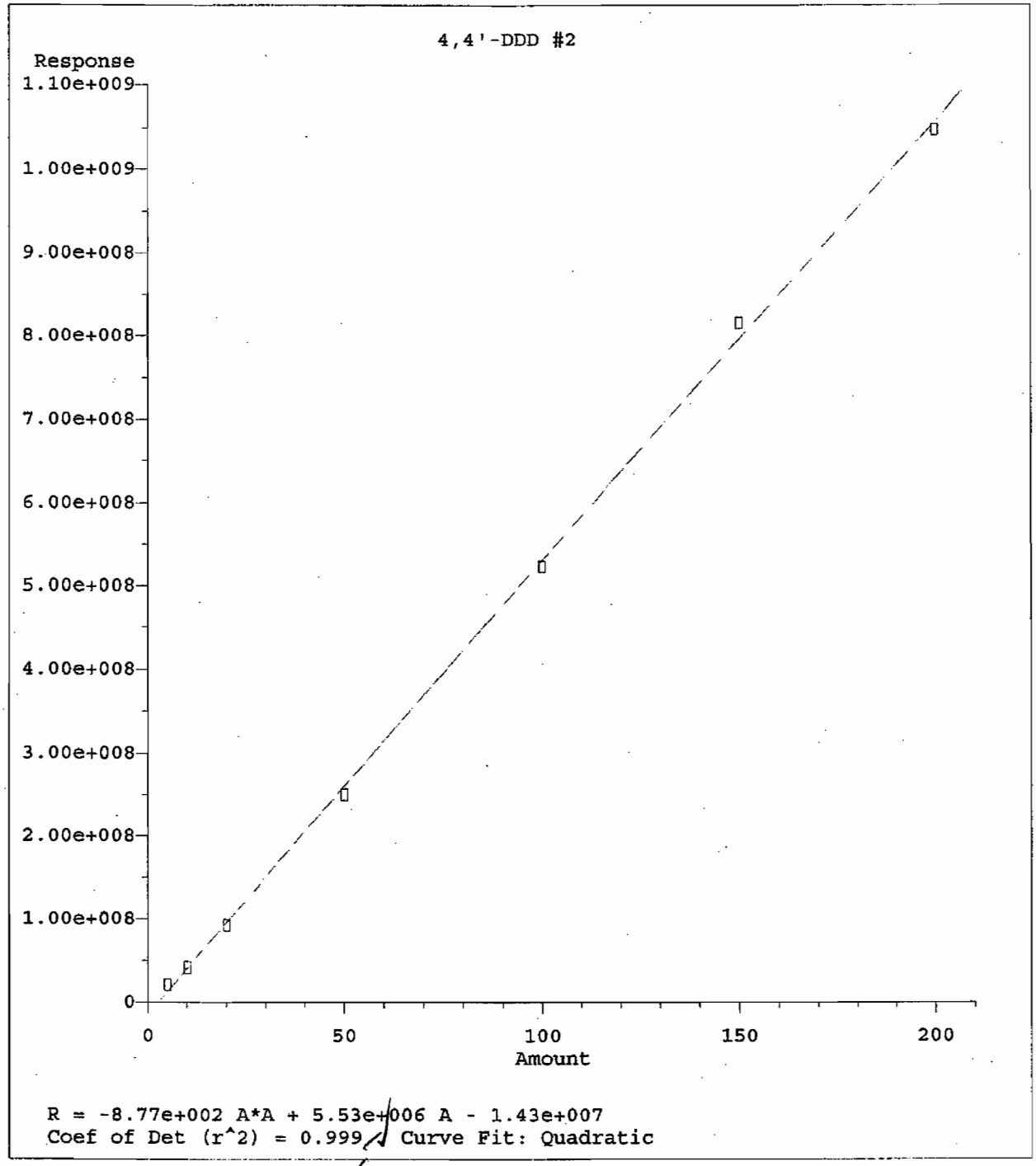
R = 2.09e+003 A*A + 8.54e+006 A - 1.62e+007
Coef of Det (r^2) = 0.999 ✓ Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



R = 4.40e+003 A*A + 8.35e+006 A - 1.40e+007
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010



Two

Method Name: D:\MSDCHEM\1\METHODS\123009.M
Calibration Table Last Updated: Mon Jan 04 11:03:41 2010

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081A

Laboratory: TestAmerica Portland
SDG: PTA0583
Client: Environmental Resources Management Inc.-Portlan
Project: Arkema Soils 2010
Calibration: P10B013
Laboratory ID: 9L30009-SCV1
Sequence: 9L30009
Standard ID: 9070139

ANALYTE	EXPECTED (ng/ml)	FOUND (ng/ml)	% DRIFT	QC LIMIT
4,4′-DDD	50.0	48.4	-3.2	30.00
4,4′-DDE	50.0	49.2	-1.6	30.00
4,4′-DDT	50.0	47.1	-5.8	30.00
4,4'-DDD (2)	50.0	49.1	-1.8	30.00
4,4'-DDE (2)	50.0	52.8	5.7	30.00
4,4'-DDT (2)	50.0	50.4	0.7	30.00
Aldrin	50.0	51.6	3.1	30.00
Aldrin (2)	50.0	52.3	4.6	30.00
alpha-BHC	50.0	48.0	-3.9	30.00
alpha-BHC (2)	50.0	48.9	-2.2	30.00
alpha-Chlordane	50.0	49.2	-1.5	30.00
alpha-Chlordane (2)	50.0	49.7	-0.6	30.00
beta-BHC	50.0	51.3	2.6	30.00
beta-BHC (2)	50.0	51.1	2.3	30.00
delta-BHC	50.0	48.4	-3.2	30.00
delta-BHC (2)	50.0	48.4	-3.2	30.00
Dieldrin	50.0	50.4	0.8	30.00
Dieldrin (2)	50.0	51.0	2.1	30.00
Endosulfan I	50.0	49.8	-0.4	30.00
Endosulfan I (2)	50.0	51.2	2.3	30.00
Endosulfan II	50.0	49.8	-0.4	30.00
Endosulfan II (2)	50.0	50.8	1.6	30.00
Endosulfan sulfate	50.0	48.3	-3.3	30.00
Endosulfan sulfate (2)	50.0	50.0	-0.08	30.00
Endrin	50.0	51.6	3.2	30.00
Endrin (2)	50.0	52.2	4.4	30.00
Endrin aldehyde	50.0	50.0	0.0	30.00

9/15/09

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081A

Laboratory: TestAmerica Portland
SDG: PTA0583
Client: Environmental Resources Management Inc.-Portlan
Project: Arkema Soils 2010
Calibration: P10B013
Laboratory ID: 9L30009-SCV1
Sequence: 9L30009
Standard ID: 9070139

Endrin aldehyde (2)	50.0	51.6	3.2	30.00
Endrin ketone	50.0	51.0	1.9	30.00
Endrin ketone (2)	50.0	52.0	4.1	30.00
gamma-BHC (Lindane)	50.0	47.6	-4.7	30.00
gamma-BHC (Lindane) (2)	50.0	50.0	0.1	30.00
gamma-Chlordane	50.0	50.4	0.8	30.00
gamma-Chlordane (2)	50.0	50.3	0.5	30.00
Heptachlor	50.0	51.2	2.4	30.00
Heptachlor (2)	50.0	51.3	2.5	30.00
Heptachlor epoxide	50.0	49.5	-1.0	30.00
Heptachlor epoxide (2)	50.0	49.5	-0.9	30.00
Methoxychlor	50.0	46.0	-8.0	30.00
Methoxychlor (2)	50.0	46.3	-7.3	30.00

* Values outside of QC limits

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081A

Laboratory: TestAmerica Portland
SDG: PTA0583
Client: Environmental Resources Management Inc.-Portlan
Project: Arkema Soils 2010
Calibration: P10B013
Laboratory ID: T000187-SCV1
Sequence: T000187
Standard ID: 9070306

ANALYTE	EXPECTED (ng/ml)	FOUND (ng/ml)	% DRIFT	QC LIMIT
Toxaphene	1000	820	-18.0	30.00
Toxaphene (2)	1000	823	-17.7	30.00

* Values outside of QC limits

Also HIGH in all samples.

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8081A

Laboratory: TestAmerica Portland
SDG: PTA0583
Client: Environmental Resources Management Inc.-Portlan
Project: Arkema Soils 2010
Calibration: P10B013
Laboratory ID: T000187-SCV2
Sequence: T000187
Standard ID: 9070227

ANALYTE	EXPECTED (ng/ml)	FOUND (ng/ml)	% DRIFT	QC LIMIT
Chlordane (tech)	1000	1050	4.6	30.00
Chlordane (tech) (2)	1000	1120	12.2	30.00

* Values outside of QC limits

Sequence Name: D:\MSDChem\1\sequence\123009.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\123009\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

rcv → 12300912
1/4/10

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	12300901	PEST12R	hex 9110159	
2)	Sample	100	12300902	PEST12R	lab info 5ppb	response / resolution check
3)	Sample	1	12300903	PEST12R	hex 9110159	
4)	Sample	2	12300904	PEST12R	9L30009-pem1	9080172.
5)	Sample	3	12300905	PEST12R	9L30009-cal1	5ppb 9070021
6)	Sample	4	12300906	PEST12R	9L30009-cal2	10ppb 9070022
7)	Sample	5	12300907	PEST12R	9L30009-cal3	20ppb 9070023
8)	Sample	6	12300908	PEST12R	9L30009-cal4	50ppb 9070024
9)	Sample	7	12300909	PEST12R	9L30009-cal5	100ppb 9070025
10)	Sample	8	12300910	PEST12R	9L30009-cal6	150ppb 9070026
11)	Sample	9	12300911	PEST12R	9L30009-cal7	200ppb 9070027
12)	Sample	10	12300912	PEST12R	9L30009-scv1	50ppb 9070139.
13)	Sample	11	12300913	PEST12R	9L30009-ccv1	50ppb 9070024. OK
14)	Sample	2	12300914	PEST12R	9L30009-pem2	9080172. 8:08PM
15)	Sample	12	12300915	PEST12R	9120852-blk1	
16)	Sample	13	12300916	PEST12R	9120852-bs1	
17)	Sample	14	12300917	PEST12R	psl0758-05	25x9120852.
18)	Sample	15	12300918	PEST12R	psl0758-04	25x9120852.
19)	Sample	16	12300919	PEST12R	psl0758-03	25x9120852.
20)	Sample	17	12300920	PEST12R	psl0758-02	25x9120852.
21)	Sample	18	12300921	PEST12R	psl0758-01	25x9120852.
22)	Sample	19	12300922	PEST12R	9120852-gpc blk	
23)	Sample	20	12300923	PEST12R	9L30009-ccv2	50ppb 9070024. OK
24)	Sample	21	12300924	PEST12R	psl0758-05	10x9120852.
25)	Sample	22	12300925	PEST12R	psl0758-04	10x9120852.
26)	Sample	23	12300926	PEST12R	psl0758-03	10x9120852.
27)	Sample	24	12300927	PEST12R	psl0758-02	10x9120852.
28)	Sample	25	12300928	PEST12R	psl0758-01	10x9120852.
29)	Sample	26	12300929	PEST12R	9120852-ms1	10x
30)	Sample	27	12300930	PEST12R	9120852-msd1	10x
31)	Sample	28	12300931	PEST12R	9L30009-ccv3	100ppb 9070025 7:39AM OK
32)	Sample	2	12300932	PEST12R	9L30009-pem3	9080172. 10:23AM.
33)	Sample	29	12300933	PEST12R	psl0758-05	5x9120852.
34)	Sample	30	12300934	PEST12R	psl0758-04	3x9120852.
35)	Sample	31	12300935	PEST12R	psl0758-03	3x9120852.
36)	Sample	32	12300936	PEST12R	psl0758-02	3x9120852.
37)	Sample	33	12300937	PEST12R	psl0758-01	3x9120852.
38)	Sample	34	12300938	PEST12R	9L30009-ccv4	100ppb 9070025 DCB 11C2: FAIL ESUL.EFL. 1:02PM
39)	Sample	1	12300939	PEST12R	hex 9110159	
40)	Sample	1	12300940	PEST12R	hex 9110159	
41)	Sample	1	12300941	PEST12R	hex 9110159	
42)						

DL w/ HEX 9110159
Stds good until 1/2/10
witness
1/4/10
1/4/10

Last Modified: Wed Dec 30 14:07:26 2009 Page: 1

Sequence Name: D:\MSDChem\1\sequence\011910.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\011910\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	01191001	PEST12R	hex 9120118	
2)	Sample	1	01191002	PEST12R	hex 9120118 After Column Comp.	
3)	Sample	2	01191003	PEST12R	T0000187-pem1	9080172 11:48AM
4)	Sample	3	01191004	PEST12R	T0000187-cal1	T0.5,9070
5)	Sample	4	01191005	PEST12R	T0000187-cal2	T1.0,9070
6)	Sample	5	01191006	PEST12R	T0000187-cal3	T1.5,9070
7)	Sample	6	01191007	PEST12R	T0000187-cal4	T2.0,9070
8)	Sample	7	01191008	PEST12R	T0000187-cal5	T2.5.0,90
9)	Sample	8	01191009	PEST12R	T0000187-cal6	T5.0,9070
10)	Sample	9	01191010	PEST12R	T0000187-scv1	T1.0,9070
11)	Sample	10	01191011	PEST12R	T0000187-cal7	T.Ch0.1,9
12)	Sample	11	01191012	PEST12R	T0000187-cal8	T.Ch0.2,9
13)	Sample	12	01191013	PEST12R	T0000187-cal9	T.Ch0.5,9
14)	Sample	13	01191014	PEST12R	T0000187-calA	T.Ch1,907
15)	Sample	14	01191015	PEST12R	T0000187-calB	T.Ch2,907
16)	Sample	15	01191016	PEST12R	T0000187-calC	T.Ch4,907
17)	Sample	16	01191017	PEST12R	T0000187-SCV2	T.Ch1,907
18)	Sample	17	01191018	PEST12R	T0000187-ccv1	50ppb PT00093 OK
19)	Sample	18	01191019	PEST12R	T0000187-ccv2	T1.0,9070 Cl:↑ HCO2 OK
20)	Sample	19	01191020	PEST12R	T0000187-ccv3	T.CH 1.09 OK
21)	Sample	2	01191021	PEST12R	T0000187-pem2	9080172 9:03PM ✓
22)	Sample	20	01191022	PEST12R	10A0271-blk1	
23)	Sample	21	01191023	PEST12R	10A0271-bs1	
24)	Sample	22	01191024	PEST12R	10A0271-bs3	
25)	Sample	23	01191025	PEST12R	10A0271-bs4 RR	
26)	Sample	24	01191026	PEST12R	PTA0227-26	10A0271.
27)	Sample	25	01191027	PEST12R	PTA0227-28 RR	10A0271.
28)	Sample	26	01191028	PEST12R	PTA0227-26 MR	5x10A0271.
29)	Sample	27	01191029	PEST12R	PTA0227-28 MR	5x10A0271.
30)	Sample	28	01191030	PEST12R	T0000187-ccv4	T1.0,9070 ↑
31)	Sample	29	01191031	PEST12R	T0000187-ccv5	T.CH 1.09 OK
32)	Sample	30	01191032	PEST12R	T0000187-ccv6	50ppb PT Cl:hept↑ HCO2:OK
33)	Sample	31	01191033	PEST12R	PTA0151-01 MR tmlow	5x10A0271.
34)	Sample	32	01191034	PEST12R	PTA0151-02 MR ML	5x10A0271.
35)	Sample	33	01191035	PEST12R	PTA0207-01 ML	5x10A0271.
36)	Sample	34	01191036	PEST12R	PTA0208-01 ML	5x10A0271.
37)	Sample	2	01191037	PEST12R	T0000187-pem2	9080172 4:07AM ✓
38)	Sample	35	01191038	PEST12R	10A0271-gpc blk	
39)	Sample	36	01191039	PEST12R	T0000187-ccv7	100ppb P OK
40)	Sample	37	01191040	PEST12R	PTA0168-01	10x10A0271.
41)	Sample	38	01191041	PEST12R	10A0271-ms1	10x
42)	Sample	39	01191042	PEST12R	10A0271-msd1	10x
43)	Sample	40	01191043	PEST12R	pta0227-25,10x	

Curve combined w/ 123003.m

T000393-PEM1 File:02051002

column 1

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	0.32	0.52	157.7	0.84	158.54	0.53

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	0.29	0.77	76.79	1.06	77.85	1.36

column 2

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	1.93	2.02	553.6	3.95	557.55	0.71

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	1.13	2.7	295	3.83	298.83	1.28

0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 11:38 am
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv1 100ppb PT00094
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:07:02 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	105.216	-5.2	105	0.00
2		alpha-BHC	100.000	102.587	-2.6	105	0.00
3		gamma-BHC (TCLP)	100.000	104.016	-4.0	106	0.00
4		beta-BHC	100.000	105.701	-5.7	105	0.00
5		delta-BHC	100.000	103.407	-3.4	105	0.00
6		heptachlor (TCLP)	100.000	110.218	-10.2	107	0.00
7		Aldrin	100.000	108.795	-8.8	104	0.00
8		Heptachlor Epoxide (TCLP)	100.000	104.215	-4.2	102	0.00
9		gamma-Chlordane	100.000	109.290	-9.3	105	0.00
10		alpha-Chlordane	100.000	106.540	-6.5	104	0.00
11		Endosulfan I	100.000	103.854	-3.9	101	0.00
12		4,4'-DDE	100.000	100.711	-0.7	103	0.00
13		Dieldrin	100.000	107.330	-7.3	102	0.00
14		Endrin (TCLP)	100.000	112.151	-12.2	106	0.00
15		4,4'-DDD	100.000	98.436	1.6	100	0.00
16		Endosulfan II	100.000	104.988	-5.0	104	0.00
17		4,4'-DDT	100.000	101.279	-1.3	104	0.00
18		Endrin Aldehyde	100.000	101.948	-1.9	103	0.00
19		Endosulfan Sulfate	100.000	104.734	-4.7	104	0.00
20		Methoxychlor (TCLP)	100.000	97.054	2.9	98	0.00
21		Endrin Ketone	100.000	99.049	1.0	96	0.00
22	S	DCBP (Surrogate)	100.000	82.464	17.5#	86	0.00

Signal #2

(*) surrogate spk; no impact.

1	S	TCMX (Surrogage)	100.000	95.969	4.0	96	0.00
2		alpha-BHC	100.000	96.257	3.7	96	0.00
3		gamma-BHC (TCLP)	100.000	95.195	4.8	97	0.00
4		beta-BHC	100.000	97.023	3.0	96	0.00
5		delta-BHC	100.000	92.932	7.1	94	0.00
6		heptachlor (TCLP)	100.000	96.886	3.1	96	0.00
7		Aldrin	100.000	99.902	0.1	99	0.00
8		Heptachlor Epoxide (TCLP	100.000	95.076	4.9	97	0.00
9		gamma-Chlordane	100.000	100.162	-0.2	97	0.00
10		alpha-Chlordane	100.000	98.204	1.8	97	0.00
11		Endosulfan I	100.000	95.328	4.7	97	0.00
12		4,4'-DDE	100.000	100.344	-0.3	94	0.00
13		Dieldrin	100.000	100.003	-0.0	98	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 11:38 am
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv1 100ppb PT00094
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:07:02 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14		Endrin (TCLP)	100.000	98.955	1.0	98	0.00
15		4,4'-DDD	100.000	91.360	8.6	93	0.00
16		Endosulfan II	100.000	94.316	5.7	94	0.00
17		4,4'-DDT	100.000	100.373	-0.4	96	0.00
18		Endrin Aldehyde	100.000	85.496	14.5	89	0.00
19		Endosulfan Sulfate	100.000	94.635	5.4	96	0.00
20		Methoxychlor (TCLP)	100.000	87.697	12.3	90	0.00
21		Endrin Ketone	100.000	89.663	10.3	91	0.00
22	S	DCBP (Surrogate)	100.000	83.663	16.3#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

23	H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23	H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 1:52 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:08:45 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	104.809	-4.8	105	0.00
2		alpha-BHC	100.000	104.675	-4.7	107	0.00
3		gamma-BHC (TCLP)	100.000	103.160	-3.2	105	0.00
4		beta-BHC	100.000	104.374	-4.4	104	0.00
5		delta-BHC	100.000	102.318	-2.3	104	0.00
6		heptachlor (TCLP)	100.000	110.187	-10.2	107	0.00
7		Aldrin	100.000	107.960	-8.0	103	0.00
8		Heptachlor Epoxide (TCLP)	100.000	105.204	-5.2	103	0.00
9		gamma-Chlordane	100.000	108.047	-8.0	104	0.00
10		alpha-Chlordane	100.000	106.374	-6.4	104	0.00
11		Endosulfan I	100.000	104.465	-4.5	102	0.00
12		4,4'-DDE	100.000	99.684	0.3	102	0.00
13		Dieldrin	100.000	106.595	-6.6	101	0.00
14		Endrin (TCLP)	100.000	113.528	-13.5	107	0.00
15		4,4'-DDD	100.000	97.203	2.8	99	0.00
16		Endosulfan II	100.000	105.695	-5.7	105	0.00
17		4,4'-DDT	100.000	99.134	0.9	102	0.00
18		Endrin Aldehyde	100.000	103.846	-3.8	104	0.00
19		Endosulfan Sulfate	100.000	101.728	-1.7	101	0.00
20		Methoxychlor (TCLP)	100.000	95.107	4.9	96	0.00
21		Endrin Ketone	100.000	100.761	-0.8	98	0.00
22	S	DCBP (Surrogate)	100.000	82.993	17.0*	86	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	97.713	2.3	98	0.00
2		alpha-BHC	100.000	100.151	-0.2	101	0.00
3		gamma-BHC (TCLP)	100.000	96.540	3.5	99	0.00
4		beta-BHC	100.000	98.121	1.9	97	0.00
5		delta-BHC	100.000	93.420	6.6	95	0.00
6		heptachlor (TCLP)	100.000	99.961	0.0	99	0.00
7		Aldrin	100.000	103.579	-3.6	102	0.00
8		Heptachlor Epoxide (TCLP	100.000	98.857	1.1	101	0.00
9		gamma-Chlordane	100.000	102.689	-2.7	100	0.00
10		alpha-Chlordane	100.000	100.357	-0.4	99	0.00
11		Endosulfan I	100.000	98.010	2.0	100	0.00
12		4,4'-DDE	100.000	100.843	-0.8	95	0.00
13		Dieldrin	100.000	102.591	-2.6	101	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 1:52 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:08:45 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	102.341	-2.3	102	0.00
15	4,4'-DDD	100.000	90.379	9.6	92	0.00
16	Endosulfan II	100.000	96.405	3.6	96	0.00
17	4,4'-DDT	100.000	100.723	-0.7	96	0.00
18	Endrin Aldehyde	100.000	85.120	14.9	88	0.00
19	Endosulfan Sulfate	100.000	95.490	4.5	97	0.00
20	Methoxychlor (TCLP)	100.000	87.480	12.5	90	0.00
21	Endrin Ketone	100.000	91.875	8.1	93	0.00
22 S	DCBP (Surrogate)	100.000	83.858	16.1#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051016.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 5:30 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv4 100ppb PT00094.
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 18:38:03 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.717	-7.7	108	0.00
2		alpha-BHC	100.000	105.420	-5.4	108	0.00
3		gamma-BHC (TCLP)	100.000	106.090	-6.1	108	0.00
4		beta-BHC	100.000	106.186	-6.2	105	0.00
5		delta-BHC	100.000	104.727	-4.7	106	0.00
6		heptachlor (TCLP)	100.000	109.890	-9.9	106	0.00
7		Aldrin	100.000	111.876	-11.9	107	0.00
8		Heptachlor Epoxide (TCLP)	100.000	106.058	-6.1	104	0.00
9		gamma-Chlordane	100.000	111.381	-11.4	107	0.00
10		alpha-Chlordane	100.000	106.657	-6.7	104	0.00
11		Endosulfan I	100.000	107.819	-7.8	105	0.00
12		4,4'-DDE	100.000	102.039	-2.0	104	0.00
13		Dieldrin	100.000	109.529	-9.5	104	0.00
14		Endrin (TCLP)	100.000	114.229	-14.2	108	0.00
15		4,4'-DDD	100.000	101.197	-1.2	103	0.00
16		Endosulfan II	100.000	105.683	-5.7	105	0.00
17		4,4'-DDT	100.000	95.926	4.1	98	0.00
18		Endrin Aldehyde	100.000	101.331	-1.3	102	0.00
19		Endosulfan Sulfate	100.000	102.116	-2.1	101	0.00
20		Methoxychlor (TCLP)	100.000	92.361	7.6	93	0.00
21		Endrin Ketone	100.000	98.085	1.9	96	0.00
22	S	DCBP (Surrogate)	100.000	82.929	17.1#	86	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	96.378	3.6	96	0.00
2		alpha-BHC	100.000	96.784	3.2	97	0.00
3		gamma-BHC (TCLP)	100.000	96.083	3.9	98	0.00
4		beta-BHC	100.000	97.904	2.1	97	0.00
5		delta-BHC	100.000	91.772	8.2	93	0.00
6		heptachlor (TCLP)	100.000	98.396	1.6	98	0.00
7		Aldrin	100.000	100.838	-0.8	100	0.00
8		Heptachlor Epoxide (TCLP	100.000	96.178	3.8	98	0.00
9		gamma-Chlordane	100.000	100.815	-0.8	98	0.00
10		alpha-Chlordane	100.000	99.398	0.6	98	0.00
11		Endosulfan I	100.000	96.123	3.9	98	0.00
12		4,4'-DDE	100.000	99.582	0.4	93	0.00
13		Dieldrin	100.000	99.724	0.3	98	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051016.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 5:30 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv4 100ppb PT00094.
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 18:38:03 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	100.172	-0.2	100	0.00
15	4,4'-DDD	100.000	91.474	8.5	93	0.00
16	Endosulfan II	100.000	95.024	5.0	95	0.00
17	4,4'-DDT	100.000	94.246	5.8	90	0.00
18	Endrin Aldehyde	100.000	81.860	18.1#	85	0.00
19	Endosulfan Sulfate	100.000	93.785	6.2	95	0.00
20	Methoxychlor (TCLP)	100.000	81.954	18.0#	84	0.00
21	Endrin Ketone	100.000	88.521	11.5	90	0.00
22 S	DCBP (Surrogate)	100.000	79.848	20.2#	84	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051026.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 9:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv5 100ppb PT00094.
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:13:09 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	108.902	-8.9	109	0.00
2		alpha-BHC	100.000	108.806	-8.8	112	0.00
3		gamma-BHC (TCLP)	100.000	109.419	-9.4	111	0.00
4		beta-BHC	100.000	109.559	-9.6	109	0.00
5		delta-BHC	100.000	108.465	-8.5	110	0.00
6		heptachlor (TCLP)	100.000	115.388	-15.4#	112	0.00
7		Aldrin	100.000	113.859	-13.9	108	0.00
8		Heptachlor Epoxide (TCLP)	100.000	109.059	-9.1	107	0.00
9		gamma-Chlordane	100.000	114.290	-14.3	110	0.00
10		alpha-Chlordane	100.000	111.387	-11.4	109	0.00
11		Endosulfan I	100.000	108.773	-8.8	106	0.00
12		4,4'-DDE	100.000	103.919	-3.9	106	0.00
13		Dieldrin	100.000	114.136	-14.1	108	0.00
14		Endrin (TCLP)	100.000	116.263	-16.3#	110	0.00
15		4,4'-DDD	100.000	101.440	-1.4	103	0.00
16		Endosulfan II	100.000	109.004	-9.0	108	0.00
17		4,4'-DDT	100.000	101.681	-1.7	104	0.00
18		Endrin Aldehyde	100.000	105.581	-5.6	106	0.00
19		Endosulfan Sulfate	100.000	107.786	-7.8	107	0.00
20		Methoxychlor (TCLP)	100.000	98.804	1.2	100	0.00
21		Endrin Ketone	100.000	102.460	-2.5	100	0.00
22	S	DCBP (Surrogate)	100.000	89.519	10.5	93	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	98.477	1.5	98	0.00
2		alpha-BHC	100.000	101.565	-1.6	102	0.00
3		gamma-BHC (TCLP)	100.000	99.157	0.8	102	0.00
4		beta-BHC	100.000	100.366	-0.4	99	0.00
5		delta-BHC	100.000	94.220	5.8	96	0.00
6		heptachlor (TCLP)	100.000	100.981	-1.0	100	0.00
7		Aldrin	100.000	104.293	-4.3	103	0.00
8		Heptachlor Epoxide (TCLP	100.000	99.768	0.2	102	0.00
9		gamma-Chlordane	100.000	105.869	-5.9	103	0.00
10		alpha-Chlordane	100.000	102.974	-3.0	102	0.00
11		Endosulfan I	100.000	99.298	0.7	101	0.00
12		4,4'-DDE	100.000	101.155	-1.2	95	0.00
13		Dieldrin	100.000	104.250	-4.3	102	0.00

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051026.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 9:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv5 100ppb PT00094.
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:13:09 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	102.173	-2.2	102	0.00
15	4,4'-DDD	100.000	91.165	8.8	92	0.00
16	Endosulfan II	100.000	97.471	2.5	98	0.00
17	4,4'-DDT	100.000	100.687	-0.7	96	0.00
18	Endrin Aldehyde	100.000	82.048	18.0#	85	0.00
19	Endosulfan Sulfate	100.000	96.864	3.1	98	0.00
20	Methoxychlor (TCLP)	100.000	86.318	13.7	89	0.00
21	Endrin Ketone	100.000	92.582	7.4	94	0.00
22 S	DCBP (Surrogate)	100.000	85.651	14.3	90	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sequence Name: D:\MSDChem\1\sequence\020510.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\020510\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Seq ✓ 2/8/10 MP
rev ✓

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	02051001	PEST12R	hex 9120118	
2)	Sample	2	02051002	PEST12R	T000393-pem1	9080172 10:44 AM
3)	Sample	3	02051003	PEST12R	T000393-ccv1	100ppb PT00094 DCB↓
4)	Sample	4	02051004	PEST12R	10a0728-blk1	
5)	Sample	5	02051005	PEST12R	10a0728-bs1	
6)	Sample	6	02051006	PEST12R	10a0728-bsd1	
7)	Sample	7	02051007	PEST12R	pta0583-31	10a0728
8)	Sample	8	02051008	PEST12R	T000393-ccv2	100ppb PT00094 DCB↓
9)	Sample	9	02051009	PEST12R	10b0016-blk1	
10)	Sample	10	02051010	PEST12R	10b0016-bs1	
11)	Sample	11	02051011	PEST12R	10b0016-bsd1	
12)	Sample	12	02051012	PEST12R	pta0623-01	3x10b0016. LR
13)	Sample	13	02051013	PEST12R	T000393-ccv3	100ppb PT00094 DCB↓ ||C2: EAL↓
14)	Sample	14	02051014	PEST12R	pta~~0633-01~~ 623-01	10b0016.
15)	Sample	15	02051015	PEST12R	pta0734-01	10b0016.
16)	Sample	16	02051016	PEST12R	T000393-ccv4	100ppb PT00094 DCB↓ ||C2: EAL↓ methanol↓
17)	Sample	17	02051017	PEST12R	pta0593-17 NR	50x10a0630.
18)	Sample	18	02051018	PEST12R	10A0630-blk1	
19)	Sample	19	02051019	PEST12R	10A0630-bs1	
20)	Sample	20	02051020	PEST12R	10A0630-ms1	~~RE1~~ µ62 100x
21)	Sample	21	02051021	PEST12R	10A0630-msd1	~~RE1~~ µ102 100x
22)	Sample	22	02051022	PEST12R	pta0583-16	RE1 50x10A0630.
23)	Sample	23	02051023	PEST12R	pta0583-18	RE1 1000x10A0630
24)	Sample	24	02051024	PEST12R	pta0583-19	RE1 4x10A0630.
25)	Sample	25	02051025	PEST12R	pta0583-17	RE1 100x10A0630.
26)	Sample	26	02051026	PEST12R	T000393-ccv5	100ppb PT00094 C1: Endrin↑ heptt↑ 9:56pm C2: EAL↓
27)	Sample	27	02051027	PEST12R	gpc blk 10A0630	
28)	Sample	28	02051028	PEST12R	2,4'-DDX isomer mix	
29)	Sample	1	02051029	PEST12R	hex 9120118	
30)	Sample	1	02051030	PEST12R	hex 9120118	
31)	Sample	1	02051031	PEST12R	hex 9120118	

TMS 2/8/10

T000411-PEM1 File:02081002

column 1

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	0.54	0.88	159.8	1.42	161.22	0.88

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	0.44	0.87	81	1.31	82.31	1.59

column 2

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	2.71	3.17	572.2	5.88	578.08	1.02

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	1.55	3.59	307.3	5.14	312.44	1.65

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 3:21 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv1 50ppb PT00093.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:33:16 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	50.000	53.363	-6.7	107	0.00
2		alpha-BHC	50.000	52.061	-4.1	108	0.00
3		gamma-BHC (TCLP)	50.000	52.415	-4.8	108	0.00
4		beta-BHC	50.000	52.402	-4.8	107	0.00
5		delta-BHC	50.000	50.899	-1.8	105	0.00
6		heptachlor (TCLP)	50.000	55.143	-10.3	110	0.00
7		Aldrin	50.000	54.275	-8.5	107	0.00
8		Heptachlor Epoxide (TCLP)	50.000	53.225	-6.5	106	0.00
9		gamma-Chlordane	50.000	54.588	-9.2	107	0.00
10		alpha-Chlordane	50.000	54.776	-9.6	109	0.00
11		Endosulfan I	50.000	53.449	-6.9	107	0.00
12		4,4'-DDE	50.000	49.718	0.6	103	0.00
13		Dieldrin	50.000	54.449	-8.9	107	0.00
14		Endrin (TCLP)	50.000	56.493	-13.0	111	0.00
15		4,4'-DDD	50.000	48.365	3.3	101	0.00
16		Endosulfan II	50.000	53.189	-6.4	108	0.00
17		4,4'-DDT	50.000	50.469	-0.9	106	0.00
18		Endrin Aldehyde	50.000	51.290	-2.6	105	0.00
19		Endosulfan Sulfate	50.000	51.052	-2.1	105	0.00
20		Methoxychlor (TCLP)	50.000	48.009	4.0	101	0.00
21		Endrin Ketone	50.000	49.520	1.0	100	0.00
22	S	DCBP (Surrogate)	50.000	44.346	11.3	96	-0.01

Signal #2

1	S	TCMX (Surrogage)	50.000	47.468	5.1	94	0.00
2		alpha-BHC	50.000	48.502	3.0	97	0.00
3		gamma-BHC (TCLP)	50.000	48.271	3.5	99	0.00
4		beta-BHC	50.000	48.029	3.9	97	0.00
5		delta-BHC	50.000	45.521	9.0	92	0.00
6		heptachlor (TCLP)	50.000	50.655	-1.3	98	0.00
7		Aldrin	50.000	51.000	-2.0	97	0.00
8		Heptachlor Epoxide (TCLP	50.000	50.153	-0.3	98	0.00
9		gamma-Chlordane	50.000	49.683	0.6	96	0.00
10		alpha-Chlordane	50.000	49.387	1.2	98	0.00
11		Endosulfan I	50.000	50.238	-0.5	98	0.00
12		4,4'-DDE	50.000	46.499	7.0	90	0.00
13		Dieldrin	50.000	47.686	4.6	93	0.00

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 3:21 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv1 50ppb PT00093.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:33:16 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

ok

not reported from this sequence is bracketed samples; no impact.

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	50.000	52.262	-4.5	101	0.00
15	4,4'-DDD	50.000	41.797	16.4#	86	0.00
16	Endosulfan II	50.000	48.803	2.4	97	0.00
17	4,4'-DDT	50.000	47.233	5.5	91	0.00
18	Endrin Aldehyde	50.000	46.188	7.6	92	0.00
19	Endosulfan Sulfate	50.000	48.110	3.8	96	0.00
20	Methoxychlor (TCLP)	50.000	42.578	14.8	86	0.00
21	Endrin Ketone	50.000	44.770	10.5	89	0.00
22 S	DCBP (Surrogate)	50.000	41.984	16.0#	87	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	50.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	50.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	50.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	50.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	50.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	50.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	50.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	50.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	50.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	50.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	50.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	50.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	50.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	50.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 5:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:41:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.759	-7.8	108	0.00
2		alpha-BHC	100.000	104.912	-4.9	108	0.00
3		gamma-BHC (TCLP)	100.000	104.782	-4.8	106	0.00
4		beta-BHC	100.000	105.793	-5.8	105	0.00
5		delta-BHC	100.000	103.665	-3.7	105	0.00
6		heptachlor (TCLP)	100.000	111.987	-12.0	108	0.00
7		Aldrin	100.000	109.980	-10.0	105	0.00
8		Heptachlor Epoxide (TCLP)	100.000	107.293	-7.3	105	0.00
9		gamma-Chlordane	100.000	110.615	-10.6	107	0.00
10		alpha-Chlordane	100.000	106.939	-6.9	105	0.00
11		Endosulfan I	100.000	106.922	-6.9	104	0.00
12		4,4'-DDE	100.000	99.361	0.6	101	0.00
13		Dieldrin	100.000	109.246	-9.2	104	0.00
14		Endrin (TCLP)	100.000	112.985	-13.0	107	0.00
15		4,4'-DDD	100.000	97.511	2.5	99	0.00
16		Endosulfan II	100.000	105.307	-5.3	105	0.00
17		4,4'-DDT	100.000	99.663	0.3	102	0.00
18		Endrin Aldehyde	100.000	99.789	0.2	100	0.00
19		Endosulfan Sulfate	100.000	102.585	-2.6	102	0.00
20		Methoxychlor (TCLP)	100.000	96.952	3.0	98	0.00
21		Endrin Ketone	100.000	101.395	-1.4	99	0.00
22	S	DCBP (Surrogate)	100.000	87.398	12.6	91	-0.01

Signal #2

1	S	TCMX (Surrogage)	100.000	93.603	6.4	94	0.00
2		alpha-BHC	100.000	95.300	4.7	95	0.00
3		gamma-BHC (TCLP)	100.000	94.336	5.7	96	0.00
4		beta-BHC	100.000	95.066	4.9	94	0.00
5		delta-BHC	100.000	88.551	11.4	90	0.00
6		heptachlor (TCLP)	100.000	96.049	4.0	95	0.00
7		Aldrin	100.000	97.487	2.5	96	0.00
8		Heptachlor Epoxide (TCLP	100.000	93.646	6.4	95	0.00
9		gamma-Chlordane	100.000	96.542	3.5	94	0.00
10		alpha-Chlordane	100.000	95.820	4.2	95	0.00
11		Endosulfan I	100.000	94.552	5.4	97	0.00
12		4,4'-DDE	100.000	94.414	5.6	89	0.00
13		Dieldrin	100.000	97.867	2.1	96	0.00

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 5:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:41:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

OK

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14		Endrin (TCLP)	100.000	98.244	1.8	98	0.00
15		4,4'-DDD	100.000	84.067	15.9#	85	0.00
16		Endosulfan II	100.000	91.337	8.7	91	0.00
17		4,4'-DDT	100.000	93.090	6.9	89	0.00
18		Endrin Aldehyde	100.000	88.964	11.0	92	0.00
19		Endosulfan Sulfate	100.000	90.807	9.2	92	0.00
20		Methoxychlor (TCLP)	100.000	84.237	15.8#	87	0.00
21		Endrin Ketone	100.000	87.253	12.7	88	0.00
22	S	DCBP (Surrogate)	100.000	81.808	18.2#	86	0.00

In ov column is not, no report.

Evaluate Continuing Calibration Report - Not Founds

23	H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23	H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081011.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 7:07 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv3 100ppb PT00094.
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:42:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	109.250	-9.3	109	0.00
2		alpha-BHC	100.000	108.586	-8.6	112	0.00
3		gamma-BHC (TCLP)	100.000	107.539	-7.5	109	0.00
4		beta-BHC	100.000	108.443	-8.4	108	0.00
5		delta-BHC	100.000	106.447	-6.4	108	0.00
6		heptachlor (TCLP)	100.000	112.491	-12.5	109	0.00
7		Aldrin	100.000	113.556	-13.6	108	0.00
8		Heptachlor Epoxide (TCLP)	100.000	108.104	-8.1	106	0.00
9		gamma-Chlordane	100.000	112.125	-12.1	108	0.00
10		alpha-Chlordane	100.000	109.719	-9.7	107	0.00
11		Endosulfan I	100.000	108.794	-8.8	106	0.00
12		4,4'-DDE	100.000	102.026	-2.0	104	0.00
13		Dieldrin	100.000	112.587	-12.6	107	0.00
14		Endrin (TCLP)	100.000	116.460	-16.5#	110	0.00
15		4,4'-DDD	100.000	100.338	-0.3	102	0.00
16		Endosulfan II	100.000	109.268	-9.3	109	0.00
17		4,4'-DDT	100.000	102.693	-2.7	105	0.00
18		Endrin Aldehyde	100.000	105.591	-5.6	106	0.00
19		Endosulfan Sulfate	100.000	105.128	-5.1	104	0.00
20		Methoxychlor (TCLP)	100.000	100.505	-0.5	101	0.00
21		Endrin Ketone	100.000	102.924	-2.9	100	0.00
22	S	DCBP (Surrogate)	100.000	87.351	12.6	91	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	97.013	3.0	97	0.00
2		alpha-BHC	100.000	98.894	1.1	99	0.00
3		gamma-BHC (TCLP)	100.000	96.525	3.5	99	0.00
4		beta-BHC	100.000	98.320	1.7	97	0.00
5		delta-BHC	100.000	95.431	4.6	97	0.00
6		heptachlor (TCLP)	100.000	99.279	0.7	99	0.00
7		Aldrin	100.000	102.863	-2.9	102	0.00
8		Heptachlor Epoxide (TCLP	100.000	97.119	2.9	99	0.00
9		gamma-Chlordane	100.000	101.890	-1.9	99	0.00
10		alpha-Chlordane	100.000	100.586	-0.6	100	0.00
11		Endosulfan I	100.000	96.950	3.0	99	0.00
12		4,4'-DDE	100.000	97.301	2.7	91	0.00
13		Dieldrin	100.000	99.791	0.2	98	0.00

this on column 2; note; no impact.

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081011.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 7:07 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv3 100ppb PT00094.
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:42:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	100.032	-0.0	100	0.00
15	4,4'-DDD	100.000	86.440	13.6	87	0.00
16	Endosulfan II	100.000	95.251	4.7	95	0.00
17	4,4'-DDT	100.000	99.181	0.8	94	0.00
18	Endrin Aldehyde	100.000	92.447	7.6	96	0.00
19	Endosulfan Sulfate	100.000	93.815	6.2	95	0.00
20	Methoxychlor (TCLP)	100.000	86.629	13.4	89	0.00
21	Endrin Ketone	100.000	90.447	9.6	91	0.00
22 S	DCBP (Surrogate)	100.000	83.818	16.2#	88	0.00

Surrogate spd; no impact.

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sequence Name: D:\MSDChem\1\sequence\020810.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\020810\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

S'

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	02081001 PEST12R	hex PT0209*		
2)	Sample	2	02081002 PEST12R	T000411-pem1	9080172	2:50PM
3)	Sample	3	02081003 PEST12R	T000411-ccv1	50ppb PT00093.	C2: DDDD DEB
4)	Sample	4	02081004 PEST12R	10A0630-ms1	10x	
5)	Sample	5	02081005 PEST12R	10A0630-msD1	10x	
6)	Sample	6	02081006 PEST12R	pta0583-16	10X10a0630.	
7)	Sample	7	02081007 PEST12R	pta0583-17	10X10a0630.	
8)	Sample	8	02081008 PEST12R	T000411-ccv2	100ppb PT00094	C2: DDDD methoxyl DCB
9)	Sample	9	02081009 PEST12R	pta0583-18	25X10a0630.	
10)	Sample	10	02081010 PEST12R	pta0583-19	10a0630.	
11)	Sample	11	02081011 PEST12R	T000411-ccv3	100ppb PT00094	C1: Endrin ↑ / C2: DCB
12)	Sample	1	02081012 PEST12R	hex PT0209*		7:07PM
13)	Sample	1	02081013 PEST12R	hex PT0209*		
14)	Sample	1	02081014 PEST12R	hex PT0209*		
15)						

Vial witness LAW 2/9/10
VW 2/10/10
MHO 2/9/10

DL w/ HEX PT00209

T000424-PEM1 File:02091012

column 1

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	0.19	0.88	175.8	1.07	176.87	0.60

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	0.17	0.69	84.9	0.86	85.76	1.00

column 2

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	1.63	2.82	505.4	4.45	509.85	0.87

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	0.86	5.4	257.7	6.26	263.96	2.37

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091013.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:02 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:24 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Sequence associated with sample-18;

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

NOTE 4,4-DDD is only compound reported from this sequence.

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	106.736	-6.7	107	0.00
2		alpha-BHC	100.000	104.361	-4.4	107	0.00
3		gamma-BHC (TCLP)	100.000	103.720	-3.7	105	0.00
4		beta-BHC	100.000	105.861	-5.9	105	0.00
5		delta-BHC	100.000	105.129	-5.1	107	0.00
6		heptachlor (TCLP)	100.000	108.590	-8.6	105	0.00
7		Aldrin	100.000	109.493	-9.5	104	0.00
8		Heptachlor Epoxide (TCLP)	100.000	107.260	-7.3	105	0.00
9		gamma-Chlordane	100.000	110.179	-10.2	106	0.00
10		alpha-Chlordane	100.000	106.269	-6.3	104	0.00
11		Endosulfan I	100.000	105.105	-5.1	102	0.00
12		4,4'-DDE	100.000	101.757	-1.8	104	0.00
13		Dieldrin	100.000	111.597	-11.6	106	0.00
14		Endrin (TCLP)	100.000	116.874	-16.9#	111	0.00
15		4,4'-DDD	100.000	104.167	-4.2	106	0.00
16		Endosulfan II	100.000	110.112	-10.1	109	0.00
17		4,4'-DDT	100.000	106.545	-6.5	110	0.00
18		Endrin Aldehyde	100.000	106.896	-6.9	108	0.00
19		Endosulfan Sulfate	100.000	110.849	-10.8	110	0.00
20		Methoxychlor (TCLP)	100.000	106.281	-6.3	107	0.00
21		Endrin Ketone	100.000	105.763	-5.8	103	0.00
22	S	DCBP (Surrogate)	100.000	92.597	7.4	96	-0.01

Signal #2

1	S	TCMX (Surrogage)	100.000	77.270	22.7#	77	0.00
2		alpha-BHC	100.000	77.224	22.8#	76	0.00
3		gamma-BHC (TCLP)	100.000	75.466	24.5#	76	0.00
4		beta-BHC	100.000	77.103	22.9#	76	0.00
5		delta-BHC	100.000	74.873	25.1#	75	0.00
6		heptachlor (TCLP)	100.000	79.213	20.8#	79	0.00
7		Aldrin	100.000	78.817	21.2#	78	0.00
8		Heptachlor Epoxide (TCLP	100.000	77.717	22.3#	79	0.00
9		gamma-Chlordane	100.000	78.082	21.9#	76	0.00
10		alpha-Chlordane	100.000	76.740	23.3#	76	0.00
11		Endosulfan I	100.000	77.289	22.7#	79	0.00
12		4,4'-DDE	100.000	80.426	19.6#	75	0.00
13		Dieldrin	100.000	80.146	19.9#	79	0.00

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091013.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:02 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:24 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

In on column #1; result in sample reported from column #1; ~~Dig sgl in~~ ~~sample~~ no ~~no~~ impact.

[illegible] 4/13/10

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14		Endrin (TCLP)	100.000	81.666	18.3#	81	0.00
15		4,4'-DDD	100.000	76.200	23.8#	77	0.00
16		Endosulfan II	100.000	79.265	20.7#	79	0.00
17		4,4'-DDT	100.000	81.893	18.1#	78	0.00
18		Endrin Aldehyde	100.000	77.639	22.4#	80	0.00
19		Endosulfan Sulfate	100.000	80.754	19.2#	82	0.00
20		Methoxychlor (TCLP)	100.000	77.894	22.1#	80	0.00
21		Endrin Ketone	100.000	77.858	22.1#	79	0.00
22	S	DCBP (Surrogate)	100.000	79.983	20.0#	84	0.00

Evaluate Continuing Calibration Report - Not Founds

23	H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23	H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:52 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	105.316	-5.3	105	-0.01
2		alpha-BHC	100.000	104.335	-4.3	107	-0.01
3		gamma-BHC (TCLP)	100.000	104.572	-4.6	106	-0.01
4		beta-BHC	100.000	105.053	-5.1	104	-0.01
5		delta-BHC	100.000	104.920	-4.9	107	-0.01
6		heptachlor (TCLP)	100.000	109.381	-9.4	106	-0.01
7		Aldrin	100.000	109.210	-9.2	104	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	105.592	-5.6	104	-0.01
9		gamma-Chlordane	100.000	108.071	-8.1	104	-0.01
10		alpha-Chlordane	100.000	107.949	-7.9	106	-0.01
11		Endosulfan I	100.000	106.049	-6.0	103	-0.01
12		4,4'-DDE	100.000	101.898	-1.9	104	-0.01
13		Dieldrin	100.000	108.363	-8.4	103	-0.01
14		Endrin (TCLP)	100.000	114.292	-14.3	108	-0.01
15		4,4'-DDD	100.000	101.670	-1.7	103	-0.01
16		Endosulfan II	100.000	107.245	-7.2	107	-0.01
17		4,4'-DDT	100.000	103.555	-3.6	106	-0.01
18		Endrin Aldehyde	100.000	106.336	-6.3	107	-0.01
19		Endosulfan Sulfate	100.000	107.279	-7.3	106	-0.01
20		Methoxychlor (TCLP)	100.000	104.321	-4.3	105	-0.01
21		Endrin Ketone	100.000	106.279	-6.3	104	-0.01
22	S	DCBP (Surrogate)	100.000	93.234	6.8	97	-0.02

Signal #2

1	S	TCMX (Surrogage)	100.000	77.779	22.2#	78	0.00
2		alpha-BHC	100.000	78.671	21.3#	78	0.00
3		gamma-BHC (TCLP)	100.000	77.848	22.2#	79	0.00
4		beta-BHC	100.000	78.734	21.3#	78	0.00
5		delta-BHC	100.000	76.179	23.8#	76	0.00
6		heptachlor (TCLP)	100.000	79.248	20.8#	79	0.00
7		Aldrin	100.000	80.984	19.0#	80	0.00
8		Heptachlor Epoxide (TCLP	100.000	79.051	20.9#	81	0.00
9		gamma-Chlordane	100.000	80.588	19.4#	78	0.00
10		alpha-Chlordane	100.000	79.280	20.7#	78	0.00
11		Endosulfan I	100.000	78.239	21.8#	80	0.00
12		4,4'-DDE	100.000	80.634	19.4#	76	0.00
13		Dieldrin	100.000	81.981	18.0#	80	0.00

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:52 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

Int on column #1; result in sample reported from Column #1; no impact.

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	82.823	17.2#	82	0.00
15	4,4'-DDD	100.000	73.928	26.1#	75	0.00
16	Endosulfan II	100.000	79.117	20.9#	79	0.00
17	4,4'-DDT	100.000	81.795	18.2#	78	0.00
18	Endrin Aldehyde	100.000	76.948	23.1#	80	0.00
19	Endosulfan Sulfate	100.000	80.489	19.5#	82	0.00
20	Methoxychlor (TCLP)	100.000	74.962	25.0#	77	0.00
21	Endrin Ketone	100.000	78.974	21.0#	80	0.00
22 S	DCBP (Surrogate)	100.000	82.243	17.8#	86	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sequence Name: D:\MSDChem\1\sequence\020910.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\020910\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

SOP ✓ 2/10/10
MR

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	02091001	PEST+ISO	hex PT00209	
2)	Sample	2	02091002	PEST+ISO	T000424-pem1 Lab info	9080172
3)	Sample	3	02091003	PEST+ISO	lab info, PT00093, 50ppb	
4)	Sample	56	02091004	PEST+ISO	T000424-2,4-DDX	100ppb PT00443
5)	Sample	57	02091005	PEST+ISO	pta0583-16	25x10a0630.
6)	Sample	58	02091006	PEST+ISO	pta0583-17	25x10a0630.
7)	Sample	59	02091007	PEST+ISO	pta0583-18	250x10a0630.
8)	Sample	60	02091008	PEST+ISO	pta0583-19	10a0630.
9)	Sample	61	02091009	PEST+ISO	pta0583-31	10a0728.
10)	Sample	2	02091010	PEST12R	T000424-pem2 OK	9080172. > MR.
11)	Sample	3	02091011	PEST12R	T000424-ccv1 Same ↓	100ppb,PT00
12)	Sample	2	02091012	PEST12R	T000424-pem3 6:24pm	9080172. After. M.
13)	Sample	3	02091013	PEST12R	T000424-ccv2	100ppb,PT00 C2 column broke. re-connect w/ glass connector, C2↓
14)	Sample	4	02091014	PEST12R	pta0583-18 rename PE2	100x10a0630. C1: Endrin ↑
15)	Sample	5	02091015	PEST12R	T000424-ccv3	100ppb,PT00 C2↓ || C1 OK
16)	Sample	6	02091016	PEST12R	10b0222-blk1	20x
17)	Sample	7	02091017	PEST12R	10b0222-bs1	20x
18)	Sample	8	02091018	PEST12R	T000424-ccv4	100ppb,PT00 C1: Endrin ↑ || C2↓
19)	Sample	9	02091019	PEST12R	ptb0095-01	100x10b0222.
20)	Sample	10	02091020	PEST12R	10b0222-dup1	100x
21)	Sample	8	02091021	PEST12R	T000424-ccv5 10:55pm	100ppb,PT00 C1: Endrin ↑ || C2↓.
22)	Pause					
23)	Sample	11	02091022	PEST+ISO	2,4'-DDE	
24)	Sample	12	02091023	PEST+ISO	2,4'-DDT > Lab info	
25)	Sample	12	02091024	PEST12R	2,4'-DDT	
26)	Sample	11	02091025	PEST12R	2,4'-DDE	
27)	Sample	1	02091026	PEST+ISO	hex PT00209.	
28)	Sample	1	02091027	PEST+ISO	hex PT00209.	
29)	Sample	1	02091028	PEST+ISO	hex PT00209.	

std 100ppb PT00094. \ MR 2/10/10

OL w/ HEX PT00209

T000443-PEM1 File:02151002

column 1

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	0.33	0.77	158.2	1.1	159.3	0.69

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	0.27	0.69	74.5	0.96	75.46	1.27

column 2

DDT:	DDE (10^6)	DDD (10^6)	DDT (10^6)	DDE+DDE (10^6)	DDE+DDD+DDT (10^6)	breakdown (%)
	2.23	2.72	493.9	4.95	498.85	0.99

Endrin:	E. Al (10^6)	E.K (10^6)	Endrin (10^6)	E.Al+E.K (10^6)	E.Al+E.K.+Endrin (10^6)	breakdown (%)
	1.04	2.95	261.6	3.99	265.59	1.50

0

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151004.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 12:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:41:46 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

\ ATW

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	106.299	-6.3	106	-0.01
2		alpha-BHC	100.000	103.494	-3.5	106	-0.01
3		gamma-BHC (TCLP)	100.000	103.374	-3.4	105	-0.01
4		beta-BHC	100.000	105.170	-5.2	104	-0.01
5		delta-BHC	100.000	103.667	-3.7	105	-0.01
6		heptachlor (TCLP)	100.000	109.937	-9.9	106	-0.01
7		Aldrin	100.000	110.078	-10.1	105	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	106.095	-6.1	104	-0.01
9		gamma-Chlordane	100.000	112.795	-12.8	109	-0.01
10		alpha-Chlordane	100.000	110.062	-10.1	108	-0.01
11		Endosulfan I	100.000	105.940	-5.9	103	-0.01
12		4,4'-DDE	100.000	102.135	-2.1	104	-0.01
13		Dieldrin	100.000	110.645	-10.6	105	-0.01
14		Endrin (TCLP)	100.000	115.022	-15.0#	109	-0.01
15		4,4'-DDD	100.000	104.337	-4.3	106	-0.01
16		Endosulfan II	100.000	110.304	-10.3	110	-0.01
17		4,4'-DDT	100.000	107.060	-7.1	110	-0.01
18		Endrin Aldehyde	100.000	107.090	-7.1	108	-0.01
19		Endosulfan Sulfate	100.000	109.057	-9.1	108	-0.01
20		Methoxychlor (TCLP)	100.000	106.477	-6.5	107	-0.01
21		Endrin Ketone	100.000	108.189	-8.2	105	-0.02
22	S	DCBP (Surrogate)	100.000	99.235	0.8	103	-0.02

In col 1; no ts; no impact.

Signal #2

1	S	TCMX (Surrogage)	100.000	87.131	12.9	87	0.00
2		alpha-BHC	100.000	86.810	13.2	86	0.00
3		gamma-BHC (TCLP)	100.000	86.791	13.2	88	0.00
4		beta-BHC	100.000	89.190	10.8	88	0.00
5		delta-BHC	100.000	83.275	16.7#	84	0.00
6		heptachlor (TCLP)	100.000	87.378	12.6	87	0.00
7		Aldrin	100.000	91.253	8.7	90	0.00
8		Heptachlor Epoxide (TCLP	100.000	87.200	12.8	89	0.00
9		gamma-Chlordane	100.000	91.352	8.6	89	0.00
10		alpha-Chlordane	100.000	91.154	8.8	90	0.00
11		Endosulfan I	100.000	87.268	12.7	89	0.00
12		4,4'-DDE	100.000	90.280	9.7	85	0.00
13		Dieldrin	100.000	91.805	8.2	90	0.00

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151004.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 12:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:41:46 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

In a column #1; result in sample reported from column #1; no impact.

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	92.062	7.9	92	0.00
15	4,4'-DDD	100.000	84.253	15.7#	85	0.00
16	Endosulfan II	100.000	88.271	11.7	88	0.00
17	4,4'-DDT	100.000	95.556	4.4	91	0.00
18	Endrin Aldehyde	100.000	85.719	14.3	89	0.00
19	Endosulfan Sulfate	100.000	90.478	9.5	92	0.00
20	Methoxychlor (TCLP)	100.000	86.160	13.8	89	0.00
21	Endrin Ketone	100.000	87.150	12.8	88	0.00
22 S	DCBP (Surrogate)	100.000	96.088	3.9	101	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 6:08 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:47:31 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.306	-7.3	107	0.00
2		alpha-BHC	100.000	105.231	-5.2	108	-0.01
3		gamma-BHC (TCLP)	100.000	106.183	-6.2	108	0.00
4		beta-BHC	100.000	106.125	-6.1	105	-0.01
5		delta-BHC	100.000	105.404	-5.4	107	-0.01
6		heptachlor (TCLP)	100.000	111.251	-11.3	108	-0.01
7		Aldrin	100.000	112.512	-12.5	107	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	107.656	-7.7	106	-0.01
9		gamma-Chlordane	100.000	113.633	-13.6	109	-0.01
10		alpha-Chlordane	100.000	112.205	-12.2	110	-0.01
11		Endosulfan I	100.000	107.609	-7.6	105	-0.01
12		4,4'-DDE	100.000	103.134	-3.1	105	-0.01
13		Dieldrin	100.000	111.897	-11.9	106	-0.01
14		Endrin (TCLP)	100.000	116.967	-17.0	111	-0.01
15		4,4'-DDD	100.000	102.336	-2.3	104	-0.01
16		Endosulfan II	100.000	109.914	-9.9	109	-0.01
17		4,4'-DDT	100.000	107.622	-7.6	111	-0.01
18		Endrin Aldehyde	100.000	108.190	-8.2	109	-0.01
19		Endosulfan Sulfate	100.000	111.640	-11.6	111	-0.01
20		Methoxychlor (TCLP)	100.000	107.304	-7.3	108	-0.01
21		Endrin Ketone	100.000	109.238	-9.2	106	-0.01
22	S	DCBP (Surrogate)	100.000	98.806	1.2	103	-0.02

Signal #2

1	S	TCMX (Surrogage)	100.000	89.209	10.8	89	0.00
2		alpha-BHC	100.000	89.365	10.6	89	0.00
3		gamma-BHC (TCLP)	100.000	89.792	10.2	92	0.00
4		beta-BHC	100.000	89.228	10.8	88	0.00
5		delta-BHC	100.000	86.518	13.5	87	0.00
6		heptachlor (TCLP)	100.000	89.327	10.7	89	0.00
7		Aldrin	100.000	92.734	7.3	92	0.00
8		Heptachlor Epoxide (TCLP	100.000	88.074	11.9	90	0.00
9		gamma-Chlordane	100.000	94.013	6.0	91	0.00
10		alpha-Chlordane	100.000	92.198	7.8	91	0.00
11		Endosulfan I	100.000	90.197	9.8	92	0.00
12		4,4'-DDE	100.000	90.398	9.6	85	0.00
13		Dieldrin	100.000	93.105	6.9	91	0.00

Is on column 2; no ts; no impact.

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 6:08 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:47:31 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	94.733	5.3	94	0.00
15	4,4'-DDD	100.000	83.101	16.9	84	0.00
16	Endosulfan II	100.000	90.007	10.0	90	0.00
17	4,4'-DDT	100.000	97.820	2.2	93	0.00
18	Endrin Aldehyde	100.000	88.193	11.8	91	0.00
19	Endosulfan Sulfate	100.000	92.336	7.7	94	0.00
20	Methoxychlor (TCLP)	100.000	86.335	13.7	89	0.00
21	Endrin Ketone	100.000	90.623	9.4	92	0.00
22 S	DCBP (Surrogate)	100.000	96.873	3.1	101	0.00

Fail on column #1; result in sample reported from column #1; no impact.

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Sequence Name: D:\MSDChem\1\sequence\021510.S
Comment:
Operator: YUX
Data Path: D:\MSDCHEM\1\DATA\021510\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line			Sample Name/Misc Info			
1)	Sample	1	02151001	PEST12R	hex pt00374	
2)	Sample	2	02151002	PEST12R	T000443-pem1	9080172. 11:08am
3)	Sample	3	02151003	PEST12R	T000443-ccv1	100ppb,PT00 (R) bad injection. No peak!
4)	Sample	3	02151004	PEST12R	T000443-ccv2	100ppb,PT00 C1:Endrin↑ ||C2: d-BHC↓DDD↓DDE↓
5)	Sample	4	02151005	PEST12R	10B0314-blk1	
6)	Sample	5	02151006	PEST12R	pta0583-19re~~1~~2 YUX 2/16/10	10B0314.
7)	Sample	6	02151007	PEST12R	10B0314-bs1	
8)	Sample	7	02151008	PEST12R	10B0314-ms1	
9)	Sample	8	02151009	PEST12R	2/12/10 gpc blk	
10)	Sample	9	02151010	PEST12R	10B0314-ms1	10x
11)	Sample	10	02151011	PEST12R	10B0314-msd1	10x
12)	Sample	11	02151012	PEST12R	pta0583-19re~~1~~2 YUX	10x10B031 (R) surr do not match, poss. bad dilution.
13)	Sample	12	02151013	PEST12R	pta0583-19re1~~2~~ YUX 2/16/10	~~10x~~10B031 OK YUX 2/16/10
14)	Sample	13	02151014	PEST12R	T000443-ccv3	100ppb,PT00 C1:Endrin↑ ||C2: DDD↓ ~~DDE↓~~
15)	Sample	14	02151015	PEST12R	10B0405-blk1	
16)	Sample	15	02151016	PEST12R	10B0405-bs1	
17)	Sample	16	02151017	PEST12R	T000443-ccv4	100ppb,PT00 C1:Endrin↑ ||C2: DDD↓
18)	Sample	17	02151018	PEST12R	10B0405-ms1	5x
19)	Sample	18	02151019	PEST12R	10B0405-msd1	5x
20)	Sample	19	02151020	PEST12R	ptb0312-01	5x10B0405.
21)	Sample	2	02151021	PEST12R	T000443-pem2	9080172. 9:10pm ✓
22)	Sample	20	02151022	PEST12R	T000443-ccv5	100ppb,PT00 C1:Endrin↑ ||C2: DDD↓
23)	Sample	21	02151023	PEST12R	ptb0330-01	10B0405.
24)	Sample	22	02151024	PEST12R	ptb0330-02	4x10B0405.
25)	Sample	23	02151025	PEST12R	T000443-ccv6	100ppb,PT00 C1:Endrin↑ ||C2: d-BHC↓ DDD↓ DDE↓
26)	Sample	24	02151026	PEST12R	ptb0330-02	10B0405.
27)	Sample	25	02151027	PEST12R	ptb0312-01	10B0405.
28)	Sample	26	02151028	PEST12R	T000443-ccv7	100ppb,PT00 C1:Endrin↑ ||C2: d-BHC↓ DDD↓ DDE↓
29)	Sample	27	02151029	PEST12R	pta0719-09	
30)	Sample	28	02151030	PEST12R	pta0719-10	} screen.
31)	Sample	29	02151031	PEST12R	pta0719-11	
32)	Sample	5	02151032	PEST+ISO	pta0583-19re1	10B0314.
33)	Sample	1	02151033	PEST12R	hex pt00374	
34)	Sample	1	02151034	PEST12R	hex pt00374	
35)	Sample	1	02151035	PEST12R	hex pt00374	

file named as ~~RE3 DDP~~

CCV 100ppb PT00094.

DL w/ HEX PT00374.

YUX 2/16/10

YUX 2/16/10

Vial witness YUX

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020510

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-16RE1	4,4'-DDE		46.17	42.05	9.34
Analyzed: 02/05/2010 20:10	4,4'-DDD		109.12	92.42	16.57
File ID: 02051022.D	4,4'-DDT		94.64	85.32	10.36
PTA0583-17RE1	4,4'-DDE		56.23	53.57	4.85
Analyzed: 02/05/2010 21:30	4,4'-DDD		130.16	114.97	12.40
File ID: 02051025.D	4,4'-DDT		84.54	81.82	3.28
PTA0583-18RE1	4,4'-DDE		28.35	25.80	9.42
Analyzed: 02/05/2010 20:37	4,4'-DDT		103.27	99.40	3.82
File ID: 02051023.D					
PTA0583-19RE1	4,4'-DDT		176.07	172.86	1.84
Analyzed: 02/05/2010 21:03					
File ID: 02051024.D					

RPD < 40 %
or
Difference < 2xPL

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020810

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-19	4,4'-DDE		146.34	133.56	9.13
Analyzed: 02/08/2010 18:33	4,4'-DDD		20.19	18.37	9.45
File ID: 02081010.D					

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020910

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-18RE2 Analyzed: 02/09/2010 19:30 File ID: 02091014.D	4,4'-DDD		92.34	67.25	31.44

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 021510

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-19RE2	Endosulfan I		41.39	31.78	26.27
Analyzed: 02/15/2010 13:34	4,4'-DDE		121.16	104.16	15.09
File ID: 02151006.D	4,4'-DDD		13.86	11.88	15.38

Form 4

PREPARATION BATCH SUMMARY

EPA 8081A

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0630 Batch Matrix: Soil Preparation: EPA 3550

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	10A0630-BLK1	02051018.D	01/26/10 11:00	
LCS	10A0630-BS1	02051019.D	01/26/10 11:00	
B-125-8-10	10A0630-MS1	02081004.D	01/26/10 11:00	
B-125-8-10	10A0630-MS2	02051020.D	01/26/10 11:00	Added 2/9/2010 by YX
B-125-8-10	10A0630-MSD1	02081005.D	01/26/10 11:00	
B-125-8-10	10A0630-MSD2	02051021.D	01/26/10 11:00	Added 2/9/2010 by YX
B-125-3-5	PTA0583-16	02081006.D	01/26/10 11:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isom
B-125-3-5	PTA0583-16RE1	02051022.D	01/26/10 11:00	Added 2/9/2010 by YX
B-125-8-10	PTA0583-17	02081007.D	01/26/10 11:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isom
B-125-8-10	PTA0583-17RE1	02051025.D	01/26/10 11:00	Added 2/9/2010 by YX
B-126-3-5	PTA0583-18	02081009.D	01/26/10 11:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isom
B-126-3-5	PTA0583-18RE1	02051023.D	01/26/10 11:00	Added 2/9/2010 by YX
B-126-3-5	PTA0583-18RE2	02091014.D	01/26/10 11:00	Added 2/10/2010 by YX
B-126-8-10	PTA0583-19	02081010.D	01/26/10 11:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isom
B-126-8-10	PTA0583-19RE1	02051024.D	01/26/10 11:00	Added 2/9/2010 by YX

QCAR - Organic Prep, Semi-Volatiles

Batch# 10A0630 Prep Method/Analysis EPA #3550 Matrix Soil

JSC Pest

Sample Integrity **Date/Initials** 1-26-10 CA

Is the method appropriate for the sample? Yes ✓ No ___
Is there adequate amount of sample? Yes ✓ No ___
Are the sample containers appropriate? Yes ✓ No ___
Are the samples within hold time? If not fill out a CAR. Yes ✓ No ___
Do sample ID's match the work order? Yes ✓ No ___
Is sample available for MS/MSD? Yes ✓ No ___

Extraction **Date/Initials** 1-26-10 LD

Was all glassware triple rinsed with solvent? Yes ✓ No ___
Was the "whole bottle extraction procedure" used if water? Yes ___ No ✓

Concentration **Final Solvent:** Hexane

Samples transferred into KDs (date/init.) NA

Macro conc. (date/init./temp.) 1/26/10 gt SW Micro conc. (date/init.) 1/26/10 SW

If applicable:

☒ GPC
☐ OPP Soil: poured over Na_2SO_4 (date/init.) ___
transferred into KDs (date/init.) ___

Macro conc. (date/init./temp.) 2-3-10/CA/95°C ±2°C Micro conc. (date/init.) 2-3-10 LD

Sample Vialing **Date/Initials** 2/4/10. YWK

Are the samples being brought to their normal final volume? Yes ✓ No ___
Is the solvent level indicated on the ALS vials? Yes ___ No ✓
Was the SOP followed with no deviation? If no, explain below. Yes ___ No ___
Is the GPC or TCLP log attached (if applicable)? Yes ✓ No ___
Is the paperwork complete, correct and undated in the computer? Yes ___ No ___

Comments: ___

PREPARATION BENCH SHEET

10A0630

TestAmerica Portland

Printed: 2/9/2010 4:03:36PM

Matrix: Soil **Prepared using: Semivolatiles - EPA 3550** **Surrogate used: 9100207**

Lab Number	Analysis	Prepared	Initial (g)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surrogate	Client	Extraction Comments
10A0630-BLK1	QC	01/26/10 11:00	60.29	2				100		
10A0630-BS1	QC	01/26/10 11:00	60.37	2	9100030		200	100		
10A0630-MS1	QC	01/26/10 11:00	60.21	2	9100030	PTA0583-17	200	100		
10A0630-MSD1	QC	01/26/10 11:00	60.1	2	9100030	PTA0583-17	200	100		
PTA0583-16	JSC 8081A Pest	01/26/10 11:00	60.36	2				100	al Resources Management	level 4 dp, add 2,4 ddx isomer std./
PTA0583-16	JSC 8081A Pest DP	01/26/10 11:00	60.36	2				100	al Resources Management	dont extract!!!!! level 4 dp, MDL a
PTA0583-17	JSC 8081A Pest	01/26/10 11:00	60.45	2				100	al Resources Management	level 4 dp, add 2,4 ddx isomer std./
PTA0583-17	JSC 8081A Pest DP	01/26/10 11:00	60.45	2				100	al Resources Management	dont extract!!!!! level 4 dp, MDL a
PTA0583-18	JSC 8081A Pest	01/26/10 11:00	60.46	2				100	al Resources Management	level 4 dp, add 2,4 ddx isomer std./
PTA0583-18	JSC 8081A Pest DP	01/26/10 11:00	60.46	2				100	al Resources Management	dont extract!!!!! level 4 dp, MDL a
PTA0583-19	JSC 8081A Pest	01/26/10 11:00	60.25	2				100	al Resources Management	level 4 dp, add 2,4 ddx isomer std./
PTA0583-19	JSC 8081A Pest DP	01/26/10 11:00	60.25	2				100	al Resources Management	dont extract!!!!! level 4 dp, MDL a

DCM#
ACETONE#
GLASSWOOL# 00509001
Na2SO4#
FILTER PAPER# WHATMAN 41
BALANCE ID# NCAP-0087
HEXANE#

PREPARATION BENCH SHEET

Batch 10A0630

Printed: 1/26/2010 9:13:22AM

Prep method: EPA 3550

TestAmerica Portland

Matrix: Soil

8

Surrogate 1: 9100207

Lab Number	Analysis	Prepared	Initial (g)	Init	Final (ml)	Init	Spike ID	Spike Amt (uL)	Init	Source ID	Surr 1 (uL)	Init	Surr 2 (uL)	Init	pH	Extraction Comments
10A0630-BLK1	QC	01/26/10 09:12	60 .29	CD	2	MK					100	CD				
10A0630-BS1	QC	01/26/10 09:12	60 .37		2		9100030	200	CD		100					
10A0630-MS1	QC A	01/26/10 09:12	60 .21		2		9100030	200		- 583-17	100					
10A0630-MSD1	QC A	01/26/10 09:12	60 .10		2		9100030	200		- 583-17	100					
PTA0583-16 A	JSC 8081A Pest	01/26/10 09:12	60 .36		2						100					level 4 dp, add 2,4 ddx isomer std./analysis.
PTA0583-17 A	JSC 8081A Pest	01/26/10 09:12	60 .45		2						100					level 4 dp, add 2,4 ddx isomer std./analysis.
PTA0583-18 A	JSC 8081A Pest	01/26/10 09:12	60 .46		2						100					level 4 dp, add 2,4 ddx isomer std./analysis.
PTA0583-19 A	JSC 8081A Pest	01/26/10 09:12	60 .35		2						100					level 4 dp, add 2,4 ddx isomer std./analysis.

Batch Comments:
DCM# 9121232
ACETONE# 9120406
GLASSWOOL# 00509001
Na2SO4# 091352
FILTER PAPER# WHATMAN 41
BALANCE ID# NCAP-0087
HEXANE# PT00309

1-26-10 1100 CD

GPC

2-12-10

436 0 2988

Spiking Witnessed By 1/26/10 Date

Preparation Reviewed By 2-5-10 Date

Sequence Log Report

J2 SCIENTIFIC

Print Date: 1/28/2010
Print Time 8:45:20AM

quence: 012710A

	SampleID	Description	Method	Injection/L	Column	Status	Comments
	GPC BLK	sample	P_P_012010_Method	5000	ABC 1	Sample processed normally	
	BLK	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	BS	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	MS	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	MSD	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	PTA0583-16	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	PTA0583-17	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	PTA0583-18	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	
	PTA0583-19	sample	P_P_012710_Method	5000	ABC 1	Sample processed normally	

erator Name:

tes:

ge 1 of 1

Start: 12:59:21, 01/27/10

End: 22:09:49, 01/27/10

Outcome: Sequence executed normally

AccuChrome (tm) by J2

Form 4

PREPARATION BATCH SUMMARY

EPA 8081A

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0728 Batch Matrix: Water Preparation: EPA 3510/600 Series

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	10A0728-BLK1	02051004.D	01/28/10 14:40	
LCS	10A0728-BS1	02051005.D	01/28/10 14:40	
LCS Dup	10A0728-BSD1	02051006.D	01/28/10 14:40	
RINSATE	PTA0583-31	02051007.D	01/28/10 14:40	level 4 dp, MDL add 2,4 ddx isomers

QCAR - Organic Prep, Semi-Volatiles

Batch# 10A0728 Prep Method/Analysis 3510 SS 8081A Matrix Water

Sample Integrity **Date/Initials** 1-28-10 CD

Is the method appropriate for the sample? Yes ✓ No ___
Is there adequate amount of sample? Yes ✓ No ___
Are the sample containers appropriate? Yes ✓ No ___
Are the samples within hold time? If not fill out a CAR. Yes ✓ No ___
Do sample ID's match the work order? Yes ✓ No ✓ CD
Is sample available for MS/MSD? Yes ✓ OVS No ✓

Extraction **Date/Initials** 1-28-10 CD

Was all glassware triple rinsed with solvent? Yes ✓ No ___
Was the "whole bottle extraction procedure" used if water? Yes ✓ No ___

Concentration **Final Solvent:** Hexane

Samples transferred into KDs (date/init.) 1-29-10 CD

Macro conc. (date/init./temp.) 1-29-10/CD/95° ±2°C Micro conc. (date/init.) 1-29-10 CD

If applicable:

- ☐ GPC
- ☐ OPP Soil: poured over Na_2SO_4 (date/init.) ___
  transferred into KDs (date/init.) ___

Macro conc. (date/init./temp.) Micro conc. (date/init.)

Sample Vialing **Date/Initials** 2/2/10 YMM

Are the samples being brought to their normal final volume? Yes ✓ No ___
Is the solvent level indicated on the ALS vials? Yes ___ No ✓
Was the SOP followed with no deviation? If no, explain below. Yes ✓ No ___
Is the GPC or TCLP log attached (if applicable)? Yes ___ No ___ NA
Is the paperwork complete, correct and undated in the computer? Yes ✓ No ___

Comments:

PREPARATION BENCH SHEET

Batch 10A0728

Printed: 1/28/2010 9:13:26AM

Prep method: EPA 3510/600 Series

TestAmerica Portland

Matrix: Water (4)

Surrogate 1: 9100207

Lab Number	Analysis	Prepared	Initial (ml)	Init	Final (ml)	Init	Spike ID	Spike Amt (uL)	Init	Source ID	Surr 1 (uL)	Init	Surr 2 (uL)	Init	pH	Extraction Comments
10A0728-BLK1	QC	01/28/10 09:11	2000	CD	1	YMC	9100030				50	CD			7	
10A0728-BS1	QC	01/28/10 09:11	2000		1		~~9100030~~	100	CD		50				7	
10A0728-BSD1	QC	01/28/10 09:11	2000		1		~~9100030~~	100			50				7	
PTA0583-31 AD	JSC 8081A Pest DP	01/28/10 09:11	2000 60		1						50				5	level 4 dp, MDL add 2,4 ddx isomers

Batch Comments:
DCM# 9050321
GLASSWOOL# 00509001
Na2S04# 091352
HEXANE# PT00209

1-28-10 1440 CD

2-12-10

Spiking Witnessed By 1/28/10 Date

Preparation Reviewed By 2/3/10 Date

440 002988

Form 4

PREPARATION BATCH SUMMARY

EPA 8081A

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10B0314 Batch Matrix: Soil Preparation: EPA 3550

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	10B0314-BLK1	02151005.D	02/11/10 07:30	
LCS	10B0314-BS1	02151007.D	02/11/10 07:30	
B-126-8-10	10B0314-MS1	02151010.D	02/11/10 07:30	
B-126-8-10	10B0314-MSD1	02151011.D	02/11/10 07:30	
B-126-8-10	PTA0583-19RE2	02151006.D	02/11/10 07:30	Re-extract added 2/10/2010 by YX
B-126-8-10	PTA0583-19RE3	02151013.D	02/11/10 07:30	Added 2/16/2010 by YX

QCAR - Organic Prep, Semi-Volatiles

Batch# 10B0314 Prep Method/Analysis EPA # 3550 Matrix Soil

JSC 8081/DP RE

Sample Integrity **Date/Initials** 2-11-10 CD

Is the method appropriate for the sample?	Yes ✓ No ___
Is there adequate amount of sample?	Yes ✓ No ___
Are the sample containers appropriate?	Yes ✓ No ___
Are the samples within hold time? If not fill out a CAR.	Yes ___ No ✓
Do sample ID's match the work order?	Yes ✓ No ___
Is sample available for MS/MSD?	Yes ✓ No ___

Extraction **Date/Initials** 2-11-10 CD

Was all glassware triple rinsed with solvent?	Yes ✓ No ___
Was the "whole bottle extraction procedure" used if water?	Yes ___ No NA

Concentration **Final Solvent:** Hexane

Samples transferred into KDs (date/init.) NA

Macro conc. (date/init./temp.) 2-11-10/CD/95° ± 2°C Micro conc. (date/init.) ___

If applicable:

- ☒ GPC
- ☐ OPP Soil: poured over Na_2SO_4 (date/init.) ___
  transferred into KDs (date/init.) ___

Macro conc. (date/init./temp.) 2/15/10 MZ 95°±2°C Micro conc. (date/init.) 2/15/10 MZ

Sample Vialing **Date/Initials** 2/15/10 [illegible]

Are the samples being brought to their normal final volume?	Yes ✓ No ___
Is the solvent level indicated on the ALS vials?	Yes ___ No ✓
Was the SOP followed with no deviation? If no, explain below.	Yes ✓ No ___
Is the GPC or TCLP log attached (if applicable)?	Yes NA No ___
Is the paperwork complete, correct and undated in the computer?	Yes ✓ No ___

Comments: ___

PREPARATION BENCH SHEET

Batch 10B0314

TestAmerica Portland

Printed: 2/11/2010 6:08:20AM

Prep method: EPA 3550

Matrix: Soil (S)

Surrogate 1: ~~9100207~~ PT00372 2/11/10 CD

Lab Number	Analysis	Prepared	Initial (g)	Init	Final (ml)*	Init	Spike ID	Spike Amt (uL)	Init	Source ID	Surr 1 (uL)	Init	Surr 2 (uL)	Init	pH	Extraction Comments
10B0314-BLK1	QC	02/11/10 06:05	60.21	CD	2	CD					100	CD				
10B0314-BS1	QC	02/11/10 06:05	60.20	↓	2	↓	9100030	200	CD		100	↓				
10B0314-MS1	QC	02/11/10 06:05	60.19	↓	2	↓	9100030	200	↓	583-19	100	↓				
10B0314-MSD1	QC	02/11/10 06:05	60.05	↓	2	↓	9100030	200	↓	↓	100	↓				
PTA0583-19RE2	JSC 8081A Pest DP	02/11/10 06:05	60.16	↓	2	↓					100	↓				Re-extract added 2/10/2010 by YX

2-11-10 0730 CD

Batch Comments:
DCM# 9050521
ACETONE# 9120406
GLASSWOOL# 00509001
Na2SO4# 091352
FILTER PAPER# WHATMAN 41
BALANCE ID# NCAP-0087
HEXANE# PT00374

*Pre-GPC final volume = 10mL
GPC cleanup used 5mL,
post GPC final vol = 1mL to account for only GPC cleaning half of extract.

LSW
2/15/10

2-12-10

Spiking Witnessed By: Brianna Eddy Date: 2/11/10

Preparation Reviewed By: LSW Date: 2/16/10

4432988

AccuPrep sequence report System name = J2 GPC Page 2
Sequence 021210 Report Printed 11:40:48, 02/15/10

SAMPLE TABLE:

Pos	Desig	Description	Type	Inj	Meth name	V(uL)	Done?	Start	Fin
1	GPC Blank	021210	sample	1	P_P_021210	5000	Y	09:09:40, 02/12/1	
2	Blank	10B0314	sample	1	P_P_021210	5000	Y	10:10:37, 02/12/1	
3	BS	10B0314	sample	1	P_P_021210	5000	Y	11:11:33, 02/12/1	
4	MS	10B0314	sample	1	P_P_021210	5000	Y	12:12:28, 02/12/1	
5	MSD	10B0314	sample	1	P_P_021210	5000	Y	13:13:21, 02/12/1	
6	PT0583-19RE	10B0314	sample	1	P_P_021210	5000	Y	14:14:17, 02/12/1	
7	Blank	10B0305	sample	1	P_P_021210	5000	Y	15:15:12, 02/12/1	
8	BS1	10B0305	sample	1	P_P_021210	5000	Y	16:16:05, 02/12/1	
9	BS2	10B0305	sample	1	P_P_021210	5000	Y	17:17:00, 02/12/1	
10	BSD	10B0305	sample	1	P_P_021210	5000	Y	18:17:55, 02/12/1	
11	PT0189-01	10B0305	sample	1	P_P_021210	5000	Y	19:18:49, 02/12/1	
12	Blank	10B0364	sample	1	P_P_021210	5000	Y	20:19:44, 02/12/1	
13	BS	10B0364	sample	1	P_P_021210	5000	Y	21:20:38, 02/12/1	
14	BSD	10B0364	sample	1	P_P_021210	5000	Y	22:21:34, 02/12/1	
15	PT0047-01	10B0364	sample	1	P_P_021210	5000	Y	23:22:30, 02/12/1	

METHOD DETECTION AND REPORTING LIMITS
EPA 8081A

Laboratory: TestAmerica Portland **SDG:** PTA0583

Client: Environmental Resources Management Inc.-Portland **Project:** Arkema Soils 2010

Matrix: Soil **Instrument:** SV-ECD12

Analyte	MDL	MRL	Units
2,4,5,6-Tetrachloro-m-xylene			ug/kg
4,4′-DDD	0.330	0.670	ug/kg
4,4′-DDE	0.330	0.670	ug/kg
4,4′-DDT	0.330	0.670	ug/kg
Aldrin	0.330	0.670	ug/kg
alpha-BHC	0.330	0.670	ug/kg
alpha-Chlordane	0.330	0.670	ug/kg
beta-BHC	0.330	0.670	ug/kg
Chlordane (tech)	7.50	15.0	ug/kg
delta-BHC	0.330	0.670	ug/kg
Dieldrin	0.330	0.670	ug/kg
Dieldrin (2)	0.330	0.670	ug/kg
Endosulfan I	0.330	0.670	ug/kg
Endosulfan II	0.330	0.670	ug/kg
Endosulfan sulfate	0.330	0.670	ug/kg
Endrin	0.330	0.670	ug/kg
Endrin (2)	0.330	0.670	ug/kg
Endrin aldehyde	0.330	0.670	ug/kg
Endrin ketone	0.330	0.670	ug/kg
gamma-BHC (Lindane)	0.330	0.670	ug/kg
gamma-Chlordane	0.330	0.670	ug/kg
Heptachlor	0.330	0.670	ug/kg
Heptachlor epoxide	0.330	0.670	ug/kg
Methoxychlor	0.330	0.670	ug/kg
Toxaphene	10.0	20.0	ug/kg

METHOD DETECTION AND REPORTING LIMITS
EPA 8081A

Laboratory: TestAmerica Portland **SDG:** PTA0583

Client: Environmental Resources Management Inc.-Portland **Project:** Arkema Soils 2010

Matrix: Water **Instrument:** SV-ECD12

Analyte	MDL	MRL	Units
2,4,5,6-Tetrachloro-m-xylene			ug/l
4,4′-DDD	0.00500	0.0100	ug/l
4,4′-DDE	0.00500	0.0100	ug/l
4,4′-DDT	0.00500	0.0100	ug/l
Aldrin	0.00500	0.0100	ug/l
alpha-BHC	0.00500	0.0100	ug/l
alpha-Chlordane	0.00500	0.0100	ug/l
beta-BHC	0.00500	0.0100	ug/l
Chlordane (tech)	0.0500	0.100	ug/l
delta-BHC	0.00500	0.0100	ug/l
Dieldrin	0.00500	0.0100	ug/l
Endosulfan I	0.00500	0.0100	ug/l
Endosulfan II	0.00500	0.0100	ug/l
Endosulfan sulfate	0.00500	0.0100	ug/l
Endrin	0.00500	0.0100	ug/l
Endrin aldehyde	0.00500	0.0100	ug/l
Endrin ketone	0.00500	0.0100	ug/l
gamma-BHC (Lindane)	0.00500	0.0100	ug/l
gamma-Chlordane	0.00500	0.0100	ug/l
Heptachlor	0.00500	0.0100	ug/l
Heptachlor epoxide	0.00500	0.0100	ug/l
Methoxychlor	0.00500	0.0100	ug/l
Toxaphene	0.250	0.250	ug/l

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): ZB5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	NBZ #	FBP #	TPH #
PTA0583-01	500-23783-1	72	42	92
PTA0583-06	500-23783-2	58	53	56
PTA0583-11	500-23783-3	63	64	71
PTA0583-16	500-23783-4	53	48	102
PTA0583-17	500-23783-5	58	51	117
PTA0583-18	500-23783-6	60	57	98
PTA0583-19	500-23783-7	55	32	77
PTA0583-20	500-23783-8	58	49	79
PTA0583-21	500-23783-9	42	33	75
PTA0583-22	500-23783-10	29	21	67
PTA0583-23	500-23783-11	41	33	54
PTA0583-24	500-23783-12	34	16 X	37
PTA0583-25	500-23783-13	75	59	120 X
	MB 500-79534/1-A	78	79	93
	LCS 500-79534/2-A	84	76	96
PTA0583-17 MS	500-23783-5 MS	65	63	87
PTA0583-17 MSD	500-23783-5 MSD	57	58	94

Flag "X" for all compounds.

note; no impact.

	QC LIMITS
NBZ = Nitrobenzene-d5	28-110
FBP = 2-Fluorobiphenyl	21-123
TPH = Terphenyl-d14	36-119

Column to be used to flag recovery values

FORM II 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ZB5MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	NBZ #	FBP #	TPH #
PTA0583-31	500-23783-14	72	70	88
	MB 500-79607/1-A	68	66	85
	LCS 500-79607/2-A	73	72	98
	LCSD 500-79607/3-A	65	61	87

	QC LIMITS
NBZ = Nitrobenzene-d5	51-110
FBP = 2-Fluorobiphenyl	45-110
TPH = Terphenyl-d14	52-122

Column to be used to flag recovery values

FORM II 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 23783-5S.D

Lab ID: 500-23783-5 MS Client ID: PTA0583-17 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Monochloronaphthalene, Total	407	98 U	246	60	30-113	
Dichloronaphthalene, Total	407	98 U	283	70	33-114	
Tetrachloronaphthalene, Total	407	98 U	350	86	46-116	
Octachloronaphthalene, Total	407	98 U	302	74	42-122	

Calculations are performed before rounding

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 23783-5T.D

Lab ID: 500-23783-5 MSD Client ID: PTA0583-17 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Monochloronaphthalene, Total	405	231	57	6	20	39-113	
Dichloronaphthalene, Total	405	264	65	7	20	33-114	
Tetrachloronaphthalene, Total	405	311	77	12	20	46-116	
Octachloronaphthalene, Total	405	272	67	11	20	42-122	

Calculations are performed before rounding

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: 79534BS.D

Lab ID: LCS 500-79534/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Monochloronaphthalene, Total	333	242	73	39-113	
Dichloronaphthalene, Total	333	245	73	33-114	
Tetrachloronaphthalene, Total	333	241	72	46-116	
Octachloronaphthalene, Total	333	247	74	42-122	

Calculations are performed before rounding

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 79607BS.D

Lab ID: LCS 500-79607/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Monochloronaphthalene, Total	10.0	6.76	68	40-130	
Dichloronaphthalene, Total	10.0	6.55	66	40-130	
Tetrachloronaphthalene, Total	10.0	7.32	73	40-130	
Octachloronaphthalene, Total	10.0	8.58	86	40-130	

Calculations are performed before rounding

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 79607BD.D

Lab ID: LCSD 500-79607/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Monochloronaphthalene, Total	10.0	6.06	61	11	20	40-130	
Dichloronaphthalene, Total	10.0	6.07	61	8	20	40-130	
Tetrachloronaphthalene, Total	10.0	6.47	65	12	20	40-130	
Octachloronaphthalene, Total	10.0	7.63	76	12	20	40-130	

Calculations are performed before rounding

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Lab File ID: 79534M.D Lab Sample ID: MB 500-79534/1-A

Matrix: Solid Date Extracted: 01/27/2010 07:15

Instrument ID: MS11 Date Analyzed: 01/29/2010 15:23

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 500-79534/2-A	79534BS.D	01/29/2010 16:41
PTA0583-06	500-23783-2	23783-2.D	01/29/2010 17:39
PTA0583-11	500-23783-3	23783-3.D	01/29/2010 17:58
PTA0583-17	500-23783-5	23783-5.D	01/29/2010 18:37
PTA0583-18	500-23783-6	23783-6.D	01/29/2010 18:56
PTA0583-20	500-23783-8	23783-8.D	01/29/2010 19:35
PTA0583-23	500-23783-11	23783-11.D	01/29/2010 20:33
PTA0583-24	500-23783-12	23783-12.D	01/29/2010 20:52
PTA0583-25	500-23783-13	23783-13.D	01/29/2010 21:12
PTA0583-01	500-23783-1	23783-1A.D	02/02/2010 13:10
PTA0583-16	500-23783-4	23783-4A.D	02/02/2010 13:30
PTA0583-19	500-23783-7	23783-7A.D	02/02/2010 13:49
PTA0583-21	500-23783-9	23783-9A.D	02/02/2010 14:09
PTA0583-22	500-23783-10	23783-10A.D	02/02/2010 14:28
PTA0583-17 MS	500-23783-5 MS	23783-5S.D	02/02/2010 14:47
PTA0583-17 MSD	500-23783-5 MSD	23783-5T.D	02/02/2010 15:07

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Lab File ID: 79607M.D Lab Sample ID: MB 500-79607/1-A

Matrix: Water Date Extracted: 01/28/2010 07:36

Instrument ID: MS11 Date Analyzed: 01/29/2010 15:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 500-79607/2-A	79607BS.D	01/29/2010 16:02
	LCSD 500-79607/3-A	79607BD.D	01/29/2010 16:21
PTA0583-31	500-23783-14	23783-14.D	01/29/2010 17:00

SAMPLE INFORMATION SUMMARY

BATCH: \\CHI-MS1\chem\ms11.i\012910-halo.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
11A0129.D	29-JAN-2010 11:04	DFTPP	1.00	ms11	tune11.m	012910-halo.b
0129HALO.D	29 JAN-2010 11:24	Unknown	1.00	ms11	simhalo.m	012910-halo.b
11I0129J.D	29-JAN-2010 11:49	Cal Level 1	1.00	ms11	simhalo.m	012910-halo.b
11I0129I.D	29-JAN-2010 12:09	Cal Level 2	1.00	ms11	simhalo.m	012910-halo.b
11I0129H.D	29-JAN-2010 12:28	Cal Level 3	1.00	ms11	simhalo.m	012910-halo.b
11I0129G.D	29-JAN-2010 12:48	Cal Level 4	1.00	ms11	simhalo.m	012910-halo.b
11I0129F.D	29-JAN-2010 13:07	Cal Level 5	1.00	ms11	simhalo.m	012910-halo.b
11I0129E.D	29-JAN-2010 13:26	Cal Level 6	1.00	ms11	simhalo.m	012910-halo.b
11I0129D.D	29-JAN-2010 13:46	Cal Level 7	1.00	ms11	simhalo.m	012910-halo.b
11I0129C.D	29-JAN-2010 14:05	Cal Level 8	1.00	ms11	simhalo.m	012910-halo.b
11I0129B.D	29-JAN-2010 14:25	Cal Level 9	1.00	ms11	simhalo.m	012910-halo.b
11I0129A.D	29 JAN 2010 14:44	Cal Level 10	1.00	ms11	simhalo.m	012910-halo.b
11C0129A.D	29-JAN-2010 15:03	Cal Level 5	1.00	ms11	simhalo.m	012910-halo.b
79534M.D	29 JAN-2010 15:23	BLANK	1.00	ms11	simhalo.m	012910-halo.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
11A0129.D	LIQUID	SV	[redacted]	010306	DFTPP	010306
0129HALO.D	LIQUID	SV	Halowax mix	SDGa02500		SDGa02500
11I0129J.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129I.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129H.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129G.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129F.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129E.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129D.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129C.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129B.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11I0129A.D	LIQUID	SV	[redacted]	SDGa02500		SDGa02500
11C0129A.D	LIQUID	SV	[redacted]-914004	SDGa02500	IC-914004	SDGa02500
79534M.D	SOLID	SV	[redacted]	500-79534	MB 500-79534/1-A	SDGa02500

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
11A0129.D	all.sub		242297	242298	33200	233976301
0129HALO.D	HALO.sub	halototal.spk	242304	242298	239491	180445
11I0129J.D	HALO.sub	halototal.spk	242314	242298	40061	180445
11I0129I.D	HALO.sub	halototal.spk	242313	242298	40061	180445
11I0129H.D	HALO.sub	halototal.spk	242312	242298	40061	180445
11I0129G.D	HALO.sub	halototal.spk	242317	242298	40061	180445
11I0129F.D	HALO.sub	halototal.spk	242320	242298	40061	180445
11I0129E.D	HALO.sub	halototal.spk	40049	242298	40061	180445
11I0129D.D	HALO.sub	halototal.spk	242324	242298	40061	180445
11I0129C.D	HALO.sub	halototal.spk	40053	242298	40061	180445
11I0129B.D	HALO.sub	halototal.spk	40057	242298	40061	180445
11I0129A.D	HALO.sub	halototal.spk	40060	242298	40061	180445
11C0129A.D	OCTASTY.sub	halototal.spk	40072	242298	40061	180445
79534M.D	HALO.sub	halototal.spk	93714	40029	40061	180445

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SAMPLE INFORMATION SUMMARY

BATCH: \\CHI-MS1\chem\ms11.i\012910-halo.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
79607M.D	29-JAN-2010 15:42	BLANK	1.00	ms11	simhalo.m	012910-halo.b
79607BS.D	29-JAN-2010 16:02	BS	1.00	ms11	simhalo.m	012910-halo.b
79607BD.D	29-JAN-2010 16:21	BSD	1.00	ms11	simhalo.m	012910-halo.b
79534BS.D	29-JAN-2010 16:41	BS	1.00	ms11	simhalo.m	012910-halo.b
23783-14.D	29-JAN-2010 17:00	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-1.D	29-JAN-2010 17:19	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-2.D	29-JAN-2010 17:39	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-3.D	29-JAN-2010 17:58	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-4.D	29-JAN-2010 18:17	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-5.D	29-JAN-2010 18:37	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-6.D	29-JAN-2010 18:56	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-7.D	29-JAN-2010 19:16	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-8.D	29-JAN-2010 19:35	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-9.D	29-JAN-2010 19:54	Unknown	1.00	ms11	simhalo.m	012910-halo.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
79607M.D	LIQUID	SV	[redacted]	500-79607	MB 500-79607/1-A	SDGa02500
79607BS.D	LIQUID	SV	[redacted]	500-79607	LCS 500-79607/2-A	SDGa02500
79607BD.D	LIQUID	SV	[redacted]	500-79607	LCSD 500-79607/3-A	SDGa02500
79534BS.D	SOLID	SV	[redacted]	500-79534	LCS 500-79534/2-A	SDGa02500
23783-14.D	LIQUID	SV	[redacted]	500-79607	PTA0583-31	SDGa02500
23783-1.D	SOLID	SV	500-23783-A-1-A	500-79534	PTA0583-01	SDGa02500
23783-2.D	SOLID	SV	[redacted]	500-79534	PTA0583-06	SDGa02500
23783-3.D	SOLID	SV	[redacted]	500-79534	PTA0583-11	SDGa02500
23783-4.D	SOLID	SV	500-23783-A-4-A	500-79534	PTA0583-16	SDGa02500
23783-5.D	SOLID	SV	[redacted]	500-79534	PTA0583-17	SDGa02500
23783-6.D	SOLID	SV	[redacted]	500-79534	PTA0583-18	SDGa02500
23783-7.D	SOLID	SV	500-23783-A-7-A	500-79534	PTA0583-19	SDGa02500
23783-8.D	SOLID	SV	[redacted]	500-79534	PTA0583-20	SDGa02500
23783-9.D	SOLID	SV	500-23783-A-9-A	500-79534	PTA0583-21	SDGa02500

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
79607M.D	HALO.sub	halototal.spk	83717	40029	40061	180445
79607BS.D	HALO.sub	halototal.spk	83716	40029	40061	180445
79607BD.D	HALO.sub	halototal.spk	83715	40029	40061	180445
79534BS.D	HALO.sub	halototal.spk	83713	40029	40061	180445
23783-14.D	HALO.sub	halototal.spk	83702	40029	40061	180445
23783-1.D	HALO.sub	halototal.spk	83697	40029	40061	180445
23783-2.D	HALO.sub	halototal.spk	83703	40029	40061	180445
23783-3.D	HALO.sub	halototal.spk	83704	40029	40061	180445
23783-4.D	HALO.sub	halototal.spk	83705	40029	40061	180445
23783-5.D	HALO.sub	halototal.spk	83706	40029	40061	180445
23783-6.D	HALO.sub	halototal.spk	83709	40029	40061	180445
23783-7.D	HALO.sub	halototal.spk	83710	40029	40061	180445
23783-8.D	HALO.sub	halototal.spk	83711	40029	40061	180445
23783-9.D	HALO.sub	halototal.spk	83712	40029	40061	180445

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SAMPLE INFORMATION SUMMARY

BATCH: \\CHI-MS1\chem\ms11.i\012910-halo.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
23783-10.D	29-JAN-2010 20:14	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-11.D	29-JAN-2010 20:33	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-12.D	29-JAN-2010 20:52	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-13.D	29-JAN-2010 21:12	Unknown	1.00	ms11	simhalo.m	012910-halo.b
23783-5S.D	29-JAN-2010 21:31	MS	1.00	ms11	simhalo.m	012910-halo.b
23783-5T.D	29-JAN-2010 21:51	MSD	1.00	ms11	simhalo.m	012910-halo.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
23783-10.D	SOLID	SV	[redacted]	500-79534	PTA0583-22	SDGa02500
23783-11.D	SOLID	SV	[redacted]	500-79534	PTA0583-23	SDGa02500
23783-12.D	SOLID	SV	[redacted]	500-79534	PTA0583-24	SDGa02500
23783-13.D	SOLID	SV	500-23783-A-13-A	500-79534	PTA0583-25	SDGa02500
23783-5S.D	SOLID	SV	[redacted]	500-79534	PTA0583-17	SDGa02500
23783-5T.D	SOLID	SV	[redacted]	500-79534	PTA0583-17	SDGa02500

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
23783-10.D	HALO.sub	halototal.spk	83698	40029	40061	180445
23783-11.D	HALO.sub	halototal.spk	83699	40029	40061	180445
23783-12.D	HALO.sub	halototal.spk	83700	40029	40061	180445
23783-13.D	HALO.sub	halototal.spk	83701	40029	40061	180445
23783-5S.D	HALO.sub	halototal.spk	83707	40029	40061	180445
23783-5T.D	HALO.sub	halototal.spk	83708	40029	40061	180445

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FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Lab File ID: 11A0129.D DFTPP Injection Date: 01/29/2010

Instrument ID: MS11 DFTPP Injection Time: 11:04

Analysis Batch No.: 79811

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.0	
68	Less than 2.0 % of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	41.8	
70	Less than 2.0 % of mass 69	0.2	(0.4)1
127	40.0 - 60.0 % of mass 198	49.5	
197	Less than 1.0 % of mass 198	0.1	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	25.2	
365	Greater than 1.0 % of mass 198	3.0	
441	Present but less than mass 443	11.5	
442	Greater than 40.0 % of mass 198	81.8	
443	17.0 - 23.0 % of mass 442	16.2	(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 500-79811/10	11I0129J.D	01/29/2010	11:49
	IC 500-79811/9	11I0129I.D	01/29/2010	12:09
	IC 500-79811/8	11I0129H.D	01/29/2010	12:28
	IC 500-79811/7	11I0129G.D	01/29/2010	12:48
	ICIS 500-79811/6	11I0129F.D	01/29/2010	13:07
	IC 500-79811/5	11I0129E.D	01/29/2010	13:26
	IC 500-79811/4	11I0129D.D	01/29/2010	13:46
	IC 500-79811/3	11I0129C.D	01/29/2010	14:05
	IC 500-79811/2	11I0129B.D	01/29/2010	14:25
	IC 500-79811/1	11I0129A.D	01/29/2010	14:44
	CCV 500-79811/11	11C0129A.D	01/29/2010	15:03
	MB 500-79534/1-A	79534M.D	01/29/2010	15:23
	MB 500-79607/1-A	79607M.D	01/29/2010	15:42
	LCS 500-79607/2-A	79607BS.D	01/29/2010	16:02
	LCSD 500-79607/3-A	79607BD.D	01/29/2010	16:21
	LCS 500-79534/2-A	79534BS.D	01/29/2010	16:41
PTA0583-31	500-23783-14	23783-14.D	01/29/2010	17:00
PTA0583-06	500-23783-2	23783-2.D	01/29/2010	17:39
PTA0583-11	500-23783-3	23783-3.D	01/29/2010	17:58
PTA0583-17	500-23783-5	23783-5.D	01/29/2010	18:37
PTA0583-18	500-23783-6	23783-6.D	01/29/2010	18:56
PTA0583-20	500-23783-8	23783-8.D	01/29/2010	19:35
PTA0583-23	500-23783-11	23783-11.D	01/29/2010	20:33
PTA0583-24	500-23783-12	23783-12.D	01/29/2010	20:52

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Lab File ID: 11A0129.D DFTPP Injection Date: 01/29/2010

Instrument ID: MS11 DFTPP Injection Time: 11:04

Analysis Batch No.: 79811

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.0	
68	Less than 2.0 % of mass 69	0.2	(0.5)1
69	Mass 69 relative abundance	41.8	
70	Less than 2.0 % of mass 69	0.2	(0.4)1
127	40.0 - 60.0 % of mass 198	49.5	
197	Less than 1.0 % of mass 198	0.1	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	25.2	
365	Greater than 1.0 % of mass 198	3.0	
441	Present but less than mass 443	11.5	
442	Greater than 40.0 % of mass 198	81.8	
443	17.0 - 23.0 % of mass 442	16.2	(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
PTA0583-25	500-23783-13	23783-13.D	01/29/2010	21:12

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 500-23783

Instrument ID: MS11 Calibration Date(s): 01/29/10

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF0.5=11I0129J.D RRF1 =11I0129I.D
RRF2 =11I0129H.D RRF4 =11I0129G.D RRF5 =11C0129A.D

COMPOUND	RRF0.5	RRF1	RRF2	RRF4	RRF5	$\overline{RRF}$	% RSD
1-Chloronaphthalene							
1,4-Dichloronaphthalene							
1,2,3-Trichloronaphthalene							
1,2,3,4-Tetrachloronaphthal							
1,2,3,5,8-Pentachloronaphth							
1,2,3,4,6,7-Hexachloronapht							
1,2,3,4,5,6,7,8-Octachloron							
1,2,3,4,5,6,7-Heptachlorona							
Monochloronaphthalene, Tota	1.811	1.707	1.548	1.454	1.433		
Dichloronaphthalene, Total	2.823	3.027	2.390	2.396	2.283		
Trichloronaphthalene, Total	0.386	0.348	0.365	0.349	0.331		
Tetrachloronaphthalene, Tot	0.388	0.360	0.382	0.332	0.322		
Pentachloronaphthalene, Tot	0.315	0.271	0.320	0.245	0.262		
Hexachloronaphthalene, Tota	0.206	0.200	0.192	0.160	0.168		
Heptachloronaphthalene, Tot	0.102	0.118	0.107	0.114	0.114		
Octachloronaphthalene, Tota	0.094	0.089	0.094	0.098	0.093		
Octachlorostyrene					0.088		
Nitrobenzene-d5	0.401	0.379	0.410	0.327	0.300		
2-Fluorobiphenyl	2.124	1.907	1.911	1.721	1.724		
Terphenyl-d14	0.681	0.747	0.767	0.684	0.682		

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: TESTAMERICA CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 500-23783

Instrument ID: MS11 Calibration Date(s): 01/29/10

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF10 =11I0129E.D RRF15 =11I0129D.D
RRF20 =11I0129C.D RRF15 =11I0129B.D RRF20 =11I0129A.D

COMPOUND	RRF10	RRF15	RRF20	RRF15	RRF20	$\overline{RRF}$	% RSD	
1-Chloronaphthalene								<-
1,4-Dichloronaphthalene								<-
1,2,3-Trichloronaphthalene								<-
1,2,3,4-Tetrachloronaphthal								<-
1,2,3,5,8-Pentachloronaphth								<-
1,2,3,4,6,7-Hexachloronapht								<-
1,2,3,4,5,6,7,8-Octachloron								<-
1,2,3,4,5,6,7-Heptachlorona								<-
Monochloronaphthalene, Tota	1.280	1.249	1.400			1.485	13.2	
Dichloronaphthalene, Total	2.156	2.133	2.095			2.413	14.1	
Trichloronaphthalene, Total	0.350			0.359	0.356	0.356	4.4	
Tetrachloronaphthalene, Tot	0.361	0.342	0.302			0.349	8.5	
Pentachloronaphthalene, Tot	0.278			0.241	0.266	0.275	10.6	
Hexachloronaphthalene, Tota	0.188			0.182	0.190	0.186	8.3	
Heptachloronaphthalene, Tot	0.106			0.094	0.094	0.106	8.3	
Octachloronaphthalene, Tota	0.096	0.087	0.089			0.092	4.2	
Octachlorostyrene						0.088	0.0	<-
Nitrobenzene-d5	0.332	0.302	0.282			0.342	14.3	
2-Fluorobiphenyl	1.417	1.399	1.520			1.715	1.0	
Terphenyl-d14	0.617	0.579	0.704			0.683	9.1	

SYSbkpt.

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RSD > 15%

FORM VI SV-1 1/87 Rev.

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Sample No.: ICIS 500-79811/6 Date Analyzed: 01/29/2010 13:07

Instrument ID: MS11 GC Column: ZB5MS ID: 0.25(mm)

Lab File ID (Standard): 11I0129F.D Heated Purge: (Y/N) N

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		157990	3.49	466992	4.64	227826	6.32
UPPER LIMIT		315980	3.99	933984	5.14	455652	6.82
LOWER LIMIT		78995	2.99	233496	4.14	113913	5.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 500-79811/11		232941	3.44	728496	4.64	297668	6.32
MB 500-79534/1-A		177490	3.41	610926	4.62	287301	6.30
MB 500-79607/1-A		200440	3.41	650346	4.64	316622	6.32
LCS 500-79607/2-A		200635	3.44	647590	4.64	302310	6.32
LCSD 500-79607/3-A		194187	3.44	627105	4.62	289210	6.30
LCS 500-79534/2-A		162346	3.40	479935	4.62	219920	6.32
500-23783-14	PTA0583-31	204870	3.44	611200	4.62	290573	6.30
500-23783-2	PTA0583-06	197593	3.41	638919	4.62	312135	6.32
500-23783-3	PTA0583-11	210400	3.41	650922	4.62	303030	6.32
500-23783-5	PTA0583-17	201026	3.41	577921	4.62	311306	6.32
500-23783-6	PTA0583-18	203616	3.41	649607	4.62	336813	6.32
500-23783-8	PTA0583-20	212711	3.41	597200	4.62	335140	6.32
500-23783-11	PTA0583-23	223172	3.41	662966	4.62	352579	6.32
500-23783-12	PTA0583-24	194883	3.41	533468	4.62	299899	6.32
500-23783-13	PTA0583-25	211680	3.43	591469	4.64	350920	6.32

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Sample No.: ICIS 500-79811/6 Date Analyzed: 01/29/2010 13:07

Instrument ID: MS11 GC Column: ZB5MS ID: 0.25(mm)

Lab File ID (Standard): 11I0129F.D Heated Purge: (Y/N) N

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		441388	7.68	313483	9.69	330517	10.63
UPPER LIMIT		882776	8.18	626966	10.19	661034	11.13
LOWER LIMIT		220694	7.18	156742	9.19	165259	10.13
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 500-79811/11		603697	7.68	384041	9.69	332209	10.63
MB 500-79534/1-A		637496	7.68	480611	9.69	527056	10.64
MB 500-79607/1-A		623310	7.68	469462	9.69	503555	10.64
LCS 500-79607/2-A		587401	7.68	381325	9.69	402469	10.63
LCSD 500-79607/3-A		567639	7.68	372319	9.69	402551	10.64
LCS 500-79534/2-A		430480	7.68	287897	9.69	311612	10.64
500-23783-14	PTA0583-31	617761	7.68	445188	9.69	466132	10.64
500-23783-2	PTA0583-06	637473	7.68	546003	9.69	489031	10.64
500-23783-3	PTA0583-11	552313	7.68	461917	9.70	477798	10.66
500-23783-5	PTA0583-17	503497	7.70	541174	9.69	572619	10.65
500-23783-6	PTA0583-18	568161	7.68	496276	9.69	503837	10.66
500-23783-8	PTA0583-20	543553	7.68	476572	9.69	428924	10.65
500-23783-11	PTA0583-23	550572	7.68	575097	9.69	558997	10.65
500-23783-12	PTA0583-24	459636	7.68	508749	9.69	455905	10.65
500-23783-13	PTA0583-25	536671	7.68	550226	9.69	553999	10.66

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

SAMPLE INFORMATION SUMMARY

BATCH: \\CHI-MS1\chem\ms11.i\020210.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
11I0129F.D	29-JAN-2010 13:07	Unknown	1.00	ms11	simhalo.m	020210.b
0202HALO.D	02-FEB-2010 10:45	Unknown	1.00	ms11	simhalo.m	020210.b
11A0202A.D	02-FEB-2010 11:42	DFTPP	1.00	ms11	tune11.m	020210.b
11C0202A.D	02-FEB-2010 12:21	Continuing Cal	1.00	ms11	simhalo.m	020210.b
11C0202B.D	02-FEB-2010 12:51	Continuing Cal	1.00	ms11	simhalo.m	020210.b
23783-1A.D	02-FEB-2010 13:10	Unknown	1.00	ms11	simhalo.m	020210.b
23783-4A.D	02-FEB-2010 13:30	Unknown	1.00	ms11	simhalo.m	020210.b
23783-7A.D	02-FEB-2010 13:49	Unknown	1.00	ms11	simhalo.m	020210.b
23783-9A.D	02-FEB-2010 14:09	Unknown	1.00	ms11	simhalo.m	020210.b
23783-10A.D	02-FEB-2010 14:28	Unknown	1.00	ms11	simhalo.m	020210.b
23783-5S.D	02-FEB-2010 14:47	MS	1.00	ms11	simhalo.m	020210.b
23783-5T.D	02-FEB-2010 15:07	MSD	1.00	ms11	simhalo.m	020210.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
11I0129F.D	LIQUID	SV	MPIS		MPIS	
0202HALO.D	LIQUID	SV	Halowax mix	SDGa02500		SDGa02500
11A0202A.D	LIQUID	SV	[redacted]	010306	DFTPP	010306
11C0202A.D	LIQUID	SV	[redacted]	SDGa02500	CCV-856772	SDGa02500
11C0202B.D	LIQUID	SV	[redacted]	SDGa02500	CCV-914004	SDGa02500
23783-1A.D	SOLID	SV	[redacted]	500-79534	PTA0583-01	SDGa02500
23783-4A.D	SOLID	SV	[redacted]	500-79534	PTA0583-16	SDGa02500
23783-7A.D	SOLID	SV	[redacted]	500-79534	PTA0583-19	SDGa02500
23783-9A.D	SOLID	SV	[redacted]	500-79534	PTA0583-21	SDGa02500
23783-10A.D	SOLID	SV	[redacted]	500-79534	PTA0583-22	SDGa02500
23783-5S.D	SOLID	SV	[redacted]	500-79534	PTA0583-17	SDGa02500
23783-5T.D	SOLID	SV	[redacted]	-79534	PTA0583-17	SDGa02500

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
11I0129F.D	HALO.sub	halototal.spk	2458	242298	40061	180445
0202HALO.D	HALO.sub	halototal.spk	40156	40148	40061	180445
11A0202A.D	all.sub		40160	40161	33200	233976301
11C0202A.D	HALO.sub	halototal.spk	242906	40161	40061	180445
11C0202B.D	OCTASTY.sub	halototal.spk	40173	40161	40061	180445
23783-1A.D	HALO.sub	halototal.spk	40179	40161	40061	180445
23783-4A.D	HALO.sub	halototal.spk	40185	40161	40061	180445
23783-7A.D	HALO.sub	halototal.spk	40186	40161	40061	180445
23783-9A.D	HALO.sub	halototal.spk	242924	40161	40061	180445
23783-10A.D	HALO.sub	halototal.spk	242915	40161	40061	180445
23783-5S.D	HALO.sub	halototal.spk	242916	40161	40061	180445
23783-5T.D	HALO.sub	halototal.spk	242917	40161	40061	180445

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W 2/04/10

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Lab File ID: 11A0202A.D DFTPP Injection Date: 02/02/2010

Instrument ID: MS11 DFTPP Injection Time: 11:42

Analysis Batch No.: 79890

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	34.4	
68	Less than 2.0 % of mass 69	0.3	(0.8)1
69	Mass 69 relative abundance	44.2	
70	Less than 2.0 % of mass 69	0.2	(0.4)1
127	40.0 - 60.0 % of mass 198	50.6	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.2	
275	10.0 - 30.0 % of mass 198	21.2	
365	Greater than 1.0 % of mass 198	2.7	
441	Present but less than mass 443	7.8	
442	Greater than 40.0 % of mass 198	59.8	
443	17.0 - 23.0 % of mass 442	11.8	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 500-79890/2	11C0202A.D	02/02/2010	12:21
	CCV 500-79890/3	11C0202B.D	02/02/2010	12:51
PTA0583-01	500-23783-1	23783-1A.D	02/02/2010	13:10
PTA0583-16	500-23783-4	23783-4A.D	02/02/2010	13:30
PTA0583-19	500-23783-7	23783-7A.D	02/02/2010	13:49
PTA0583-21	500-23783-9	23783-9A.D	02/02/2010	14:09
PTA0583-22	500-23783-10	23783-10A.D	02/02/2010	14:28
PTA0583-17 MS	500-23783-5 MS	23783-5S.D	02/02/2010	14:47
PTA0583-17 MSD	500-23783-5 MSD	23783-5T.D	02/02/2010	15:07

TAL Chicago

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ms11.i
Lab File ID: 11C0202A.D
Analysis Type: WATER
Lab Sample ID: CCV-856772
Method: \\CHI-MS1\chem\ms11.i\020210.b\simhalo.m

Injection Date: 02-FEB-2010 12:21
Init. Cal. Date(s): 29-JAN-2010 29-JAN-2010
Init. Cal. Times: 11:49 15:03
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 2 Nitrobenzene-d5	0.34176	0.35478	0.35478	0.010	3.80963	100	Averaged	
$ 4 2-Fluorobiphenyl	5.00000	4.42182	1.39383	0.010	-11.56353	100	Wt Linear	
$ 7 Terphenyl-d14	0.68262	0.76127	0.76127	0.010	11.52181	100	Averaged	
18 Monochloronaphthalene, Tota	1.48519	1.24426	1.24426	0.010	-16.22220	30.00000	Averaged	
19 Dichloronaphthalene, Total	2.41287	2.46559	2.46559	0.010	2.18514	30.00000	Averaged	
20 Trichloronaphthalene, Total	0.35547	0.38845	0.38845	0.010	9.27776	30.00000	Averaged	
21 Tetrachloronaphthalene, Tot	0.34868	0.40180	0.40180	0.010	15.23591	30.00000	Averaged	
22 Pentachloronaphthalene, Tot	0.27474	0.35285	0.35285	0.010	28.43105	30.00000	Averaged	
23 Hexachloronaphthalene, Tota	0.18563	0.24261	0.24261	0.010	30.69502	30.00000	Averaged	<-
24 Heptachloronaphthalene, Tot	0.10614	0.10375	0.10375	0.010	-2.24887	30.00000	Averaged	
25 Octachloronaphthalene, Tota	0.09266	0.09650	0.09650	0.010	4.14682	30.00000	Averaged	
26 Octachlorostyrene	0.08799	++++	0.00000	0.010	++++	30.00000	Averaged	<

no to / no impact.

1/DCS to 20%

TAL Chicago

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ms11.i
Lab File ID: 11C0202B.D
Analysis Type: WATER
Lab Sample ID: CCV-914004
Method: \\CHI-MS1\chem\ms11.i\020210.b\simhalo.m

Injection Date: 02-FEB-2010 12:51
Init. Cal. Date(s): 29-JAN-2010 29-JAN-2010
Init. Cal. Times: 11:49 15:03
Quant Type: ISTD

surrogate qd; no impact.

COMPOUND	RRF / AMOUNT	RF5	CCAL RRF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 2 Nitrobenzene-d5	0.34176	0.33861	0.33861	0.010	-0.92186	100	Averaged
$ 4 2-Fluorobiphenyl	5.00000	3.93587	1.25104	0.010	-21.28268	100	Wt Linear
$ 7 Terphenyl-d14	0.68262	0.80391	0.80391	0.010	17.76874	100	Averaged
26 Octachlorostyrene	0.08799	0.06766	0.06766	0.010	-23.11094	30.00000	Averaged

flag "UJ" in samples -01, -16, -19, -21, & -22

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Sample No.: MPIS 500-79890/4 Date Analyzed: 01/29/2010 13:07

Instrument ID: MS11 GC Column: ZB5MS ID: 0.25(mm)

Lab File ID (Standard): 11I0129F.D Heated Purge: (Y/N) N

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		157990	3.49	466992	4.64	227826	6.32
UPPER LIMIT		315980	3.99	933984	5.14	455652	6.82
LOWER LIMIT		78995	2.99	233496	4.14	113913	5.82
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 500-79890/2		192732	3.43	656166	4.56	326006	6.23
CCV 500-79890/3		160705	3.32	668199	4.54	354084	6.23
500-23783-1	PTA0583-01	142814	3.32	450588	4.54	276180	6.23
500-23783-4	PTA0583-16	117288	3.32	403164	4.54	232780	6.23
500-23783-7	PTA0583-19	175866	3.32	498509	4.54	277600	6.23
500-23783-9	PTA0583-21	158484	3.34	559215	4.54	283806	6.23
500-23783-10	PTA0583-22	120510	3.32	538677	4.54	268628	6.23
500-23783-5 MS	PTA0583-17 MS	152507	3.34	513456	4.54	284878	6.24
500-23783-5 MSD	PTA0583-17 MSD	156341	3.34	586759	4.54	288360	6.24

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Chicago Job No.: 500-23783-1

SDG No.:

Sample No.: MPIS 500-79890/4 Date Analyzed: 01/29/2010 13:07

Instrument ID: MS11 GC Column: ZB5MS ID: 0.25(mm)

Lab File ID (Standard): 11I0129F.D Heated Purge: (Y/N) N

CCV Std; no impact.

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
		441388	7.68	313483	9.69	330517	10.63
UPPER LIMIT		882776	8.18	626966	10.19	661034	11.13
LOWER LIMIT		220694	7.18	156742	9.19	165259	10.13
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 500-79890/2		577172	7.60	573904	9.61	508468	10.56
CCV 500-79890/3		685401	7.60	657090*	9.61	488263	10.57
500-23783-1	PTA0583-01	527228	7.60	520083	9.61	421844	10.56
500-23783-4	PTA0583-16	407433	7.60	400203	9.61	367015	10.57
500-23783-7	PTA0583-19	523852	7.60	544250	9.61	486653	10.57
500-23783-9	PTA0583-21	553574	7.60	578215	9.61	539034	10.57
500-23783-10	PTA0583-22	512679	7.60	489025	9.61	391851	10.57
500-23783-5 MS	PTA0583-17 MS	392274	7.64	495184	9.63	507301	10.58
500-23783-5 MSD	PTA0583-17 MSD	415851	7.64	487233	9.63	526089	10.58

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 500-79534/1-A
Matrix: Solid
Lab File ID: 79534M.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3541
Date Extracted: 01/27/2010 07:15
Sample wt/vol: 15.0000(g)
Date Analyzed: 01/29/2010 15:23
Con. Extract Vol.: 0.5(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79811
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	83	U	83	30
28699-88-9	Dichloronaphthalene, Total	83	U	83	26
1321-65-9	Trichloronaphthalene, Total	83	U	83	26
1335-88-2	Tetrachloronaphthalene, Total	83	U	83	23
1321-64-8	Pentachloronaphthalene, Total	83	U	83	36
1335-87-1	Hexachloronaphthalene, Total	83	U	83	57
32241-08-0	Heptachloronaphthalene, Total	83	U	83	33
2234-13-1	Octachloronaphthalene, Total	83	U	83	21
29082-74-4	Octachlorostyrene	83	U	83	38

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	78	28-110	
321-60-8	2-Fluorobiphenyl	79	21-123	
1718-51-0	Terphenyl-d14	93	36-119	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 500-79607/1-A
Matrix: Water
Lab File ID: 79607M.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3510C
Date Extracted: 01/28/2010 07:36
Sample wt/vol: 1000(mL)
Date Analyzed: 01/29/2010 15:42
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79811
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	2.5	U	2.5	0.22
28699-88-9	Dichloronaphthalene, Total	2.5	U	2.5	0.36
1321-65-9	Trichloronaphthalene, Total	2.5	U	2.5	0.20
1335-88-2	Tetrachloronaphthalene, Total	2.5	U	2.5	0.34
1321-64-8	Pentachloronaphthalene, Total	2.5	U	2.5	1.1
1335-87-1	Hexachloronaphthalene, Total	2.5	U	2.5	1.4
32241-08-0	Heptachloronaphthalene, Total	2.5	U	2.5	0.94
2234-13-1	Octachloronaphthalene, Total	2.5	U	2.5	0.40
29082-74-4	Octachlorostyrene	2.5	U	2.5	0.56

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	68	51-110	
321-60-8	2-Fluorobiphenyl	66	45-110	
1718-51-0	Terphenyl-d14	85	52-122	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID: PTA0583-17 MS
Lab Sample ID: 500-23783-5 MS
Matrix: Solid
Lab File ID: 23783-5S.D
Analysis Method: 8270C
Date Collected: 01/21/2010 16:30
Extract. Method: 3541
Date Extracted: 01/27/2010 07:15
Sample wt/vol: 15.3708(g)
Date Analyzed: 02/02/2010 14:47
Con. Extract Vol.: 0.5(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture: 20.1
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79890
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	246		100	37
28699-88-9	Dichloronaphthalene, Total	283		100	31
1321-65-9	Trichloronaphthalene, Total	100	U	100	32
1335-88-2	Tetrachloronaphthalene, Total	350		100	28
1321-64-8	Pentachloronaphthalene, Total	100	U	100	44
1335-87-1	Hexachloronaphthalene, Total	100	U	100	69
32241-08-0	Heptachloronaphthalene, Total	100	U	100	40
2234-13-1	Octachloronaphthalene, Total	302		100	26
29082-74-4	Octachlorostyrene	100	U	100	47

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	65	28-110	
321-60-8	2-Fluorobiphenyl	63	21-123	
1718-51-0	Terphenyl-d14	87	36-119	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago | Job No.: 500-23783-1

SDG No.:

Client Sample ID: PTA0583-17 MSD | Lab Sample ID: 500-23783-5 MSD

Matrix: Solid | Lab File ID: 23783-5T.D

Analysis Method: 8270C | Date Collected: 01/21/2010 16:30

Extract. Method: 3541 | Date Extracted: 01/27/2010 07:15

Sample wt/vol: 15.4324(g) | Date Analyzed: 02/02/2010 15:07

Con. Extract Vol.: 0.5(mL) | Dilution Factor: 1

Injection Volume: | Level: (low/med) Low

% Moisture: 20.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 79890 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	231		100	37
28699-88-9	Dichloronaphthalene, Total	264		100	31
1321-65-9	Trichloronaphthalene, Total	100	U	100	32
1335-88-2	Tetrachloronaphthalene, Total	311		100	28
1321-64-8	Pentachloronaphthalene, Total	100	U	100	43
1335-87-1	Hexachloronaphthalene, Total	100	U	100	69
32241-08-0	Heptachloronaphthalene, Total	100	U	100	40
2234-13-1	Octachloronaphthalene, Total	272		100	26
29082-74-4	Octachlorostyrene	100	U	100	47

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	57	28-110	
321-60-8	2-Fluorobiphenyl	58	21-123	
1718-51-0	Terphenyl-d14	94	36-119	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 500-79534/2-A
Matrix: Solid
Lab File ID: 79534BS.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3541
Date Extracted: 01/27/2010 07:15
Sample wt/vol: 15.0000(g)
Date Analyzed: 01/29/2010 16:41
Con. Extract Vol.: 0.5(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79811
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	242		83	30
28699-88-9	Dichloronaphthalene, Total	245		83	26
1321-65-9	Trichloronaphthalene, Total	83	U	83	26
1335-88-2	Tetrachloronaphthalene, Total	241		83	23
1321-64-8	Pentachloronaphthalene, Total	83	U	83	36
1335-87-1	Hexachloronaphthalene, Total	83	U	83	57
32241-08-0	Heptachloronaphthalene, Total	83	U	83	33
2234-13-1	Octachloronaphthalene, Total	247		83	21
29082-74-4	Octachlorostyrene	83	U	83	38

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	84	28-110	
321-60-8	2-Fluorobiphenyl	76	21-123	
1718-51-0	Terphenyl-d14	96	36-119	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 500-79607/2-A
Matrix: Water
Lab File ID: 79607BS.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3510C
Date Extracted: 01/28/2010 07:36
Sample wt/vol: 1000(mL)
Date Analyzed: 01/29/2010 16:02
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79811
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	6.76		2.5	0.22
28699-88-9	Dichloronaphthalene, Total	6.55		2.5	0.36
1321-65-9	Trichloronaphthalene, Total	2.5	U	2.5	0.20
1335-88-2	Tetrachloronaphthalene, Total	7.32		2.5	0.34
1321-64-8	Pentachloronaphthalene, Total	2.5	U	2.5	1.1
1335-87-1	Hexachloronaphthalene, Total	2.5	U	2.5	1.4
32241-08-0	Heptachloronaphthalene, Total	2.5	U	2.5	0.94
2234-13-1	Octachloronaphthalene, Total	8.58		2.5	0.40
29082-74-4	Octachlorostyrene	2.5	U	2.5	0.56

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	73	51-110	
321-60-8	2-Fluorobiphenyl	72	45-110	
1718-51-0	Terphenyl-d14	98	52-122	

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Chicago
Job No.: 500-23783-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 500-79607/3-A
Matrix: Water
Lab File ID: 79607BD.D
Analysis Method: 8270C
Date Collected:
Extract. Method: 3510C
Date Extracted: 01/28/2010 07:36
Sample wt/vol: 1000(mL)
Date Analyzed: 01/29/2010 16:21
Con. Extract Vol.: 1.0(mL)
Dilution Factor: 1
Injection Volume:
Level: (low/med) Low
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 79811
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
90-13-1	Monochloronaphthalene, Total	6.06		2.5	0.22
28699-88-9	Dichloronaphthalene, Total	6.07		2.5	0.36
1321-65-9	Trichloronaphthalene, Total	2.5	U	2.5	0.20
1335-88-2	Tetrachloronaphthalene, Total	6.47		2.5	0.34
1321-64-8	Pentachloronaphthalene, Total	2.5	U	2.5	1.1
1335-87-1	Hexachloronaphthalene, Total	2.5	U	2.5	1.4
32241-08-0	Heptachloronaphthalene, Total	2.5	U	2.5	0.94
2234-13-1	Octachloronaphthalene, Total	7.63		2.5	0.40
29082-74-4	Octachlorostyrene	2.5	U	2.5	0.56

CAS NO.	SURROGATE	%REC	LIMITS	Q
4165-60-0	Nitrobenzene-d5	65	51-110	
321-60-8	2-Fluorobiphenyl	61	45-110	
1718-51-0	Terphenyl-d14	87	52-122	

Organic Prep Worksheet

Batch Number: 500-79534
Method: 3541
Analyst: Werner, Sean T

Date Open: Jan 27 2010 7:15AM
Batch End: Jan 27 2010 11:00AM

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	EXBNASIMSW_00007	SMHALOSPK_00009
MB~500-79534/1		3541, 8270C		15.0000 g	0.5 mL	250 uL	
LCS~500-79534/2		3541, 8270C		15.0000 g	0.5 mL	250 uL	500 uL
500-23783-A-1	PTA0583-01	3541, 8270C	T	15.1812 g	0.5 mL	250 uL	
500-23783-A-2	PTA0583-06	3541, 8270C	T	15.8506 g	0.5 mL	250 uL	
500-23783-A-3	PTA0583-11	3541, 8270C	T	15.7570 g	0.5 mL	250 uL	
500-23783-A-4	PTA0583-16	3541, 8270C	T	15.7662 g	0.5 mL	250 uL	
500-23783-A-5	PTA0583-17	3541, 8270C	T	15.9562 g	0.5 mL	250 uL	
500-23783-A-5~MS	PTA0583-17	3541, 8270C	T	15.3708 g	0.5 mL	250 uL	500 uL
500-23783-A-5~MSD	PTA0583-17	3541, 8270C	T	15.4324 g	0.5 mL	250 uL	500 uL
500-23783-A-6	PTA0583-18	3541, 8270C	T	15.3373 g	0.5 mL	250 uL	
500-23783-A-7	PTA0583-19	3541, 8270C	T	15.4646 g	0.5 mL	250 uL	
500-23783-A-8	PTA0583-20	3541, 8270C	T	15.2555 g	0.5 mL	250 uL	
500-23783-A-9	PTA0583-21	3541, 8270C	T	15.1567 g	0.5 mL	250 uL	
500-23783-A-10	PTA0583-22	3541, 8270C	T	15.4716 g	0.5 mL	250 uL	
500-23783-A-11	PTA0583-23	3541, 8270C	T	15.6402 g	0.5 mL	250 uL	
500-23783-A-12	PTA0583-24	3541, 8270C	T	15.5292 g	0.5 mL	250 uL	
500-23783-A-13	PTA0583-25	3541, 8270C	T	15.4292 g	0.5 mL	250 uL	

Organic Prep Worksheet

Batch Number: 500-79607
Method: 3510C
Analyst: Scott, Sherri L

Date Open: Jan 28 2010 7:36AM
Batch End: Jan 28 2010 9:00AM

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	pH of the sample after first adjustment	pH of the sample after the second adjust	EXBNASIMSW_00007	SMHALOSPK_00009
MB~500-79607/1		3510C, 8270C		1000 mL	1.0 mL	2	12	500 uL	
LCS~500-79607/2		3510C, 8270C		1000 mL	1.0 mL	2	12	500 uL	1000 uL
LCSD~500-79607/3		3510C, 8270C		1000 mL	1.0 mL	2	12	500 uL	1000 uL
500-23783-B-14	PTA0583-31	3510C, 8270C	T	910 mL	1.0 mL	2	12	500 uL	

Extraction Date: 1/28/10
Method Code: 3510C/8270C-SIM
Solvent: DCM
Solvent Lot No.: 1149505

TestAmerica Chicago
Organic Extraction Record
GC/MS Semi-Volatiles

01/29/10

Page No.:
Batch No.: 79
Analyst Initials:
Balance ID No.:

Acid / Base (circle & define): 50% H2SO4 / 10 N NaOH Lot No.: 635029 / H34K53 Sodium Sulfate Lot No.: No9

Matrix:
a. Water
b. Soil
c. Other

Extraction Method:
a. SW-846 3510 (Sep Funnel)
b. SW-846 3550 (Sonication)
c. SW-846 3580 (Waste Dil.)
d. SW-846 3520 (Cont.)
e. SW-846 3541 (Soxhlet)
f. Other:

Method Extraction Time
Start Time: 0735
End Time: 0910

	Sample #	Sample ID	ICOC	pH[1]			Initial Vol/Wt. (mls/g)	Final Vol.[2] (mLs)	Conc.	Clean-Up Absorbent
1	79607-MB			6	2	12	1000	1.0		
2	LCS			6	2	12	1000			
3	LCSD			6	2	12	1000			
4	500-23783-14			6	2	12	910			
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

[1]Sample pH / Acid Adjusted pH / Base Adjusted pH
[2]The extract volume for BNAs is ~0.8 mLs when the final volume is documented as 1.0 mL. Final volume adjustment is complete

___ Insufficient Sample for MS/MSD ___ MS/MSD Designated ___ MS/MSD Chosen * Emulsion Centrifuged w/

Comments/Variance:

Surrogate: BNA SIM surr Volume: 500 ul Std. ID#:
LCS/MS Solution: Halogen MS Volume: 100 ul Std. ID#:
LCS/MS Solution: NA Volume: Std. ID#:

Analyst Signature: Date: 1/28/10
Reviewer Signature: Date: 01/29/10

Extraction Custody Record

Extracts Transferred	Relinquished by	Date	Time	Received by	Date	Time
		01/28/10	0920		0940	

Analysis Custody Record

Sample(s)	Date/Time Out	Date/Time In	Analyst	Sample(s)	Date/Time Out	Date/Time In

CHI-22-16-011/J-04/09

Extraction Date: 01/27/10
Method Code: 3541
Solvent Dcm: [illegible]
Solvent Lot No.: 123240

TestAmerica Chicago
Organic Extraction Record
GC/MS Semi-Volatiles

01/29/10

Page No.:
Batch No.:
Analyst Initials:
Balance ID No.:

Acid / Base (circle & define): _____ Lot No.: _____ Sodium Sulfate Lot No.: [illegible]

Matrix:
a. Water
b. Soil
c. Other _____

Extraction Method:
a. SW-846 3510 (Sep Funnel)
b. SW-846 3550 (Sonication)
c. SW-846 3580 (Waste Dil.)
d. SW-846 3520 (Cont.)
e. SW-846 3541 (Soxhlet)
f. Other _____

Method Extraction
Start Time: [illegible]
End Time: [illegible]

	Sample #	Sample ID	COC	pH[1]	Initial Vol/Wt. (mLs/g)	Final Vol.[2] (mLs)	Conc.	Clean-U Absorb
1	77534 -MB				15.000	0.5		
2	-LCS				15.000			
3	500-23753 -1				15.1812			
4	-2				15.5566			
5	-3				15.7336			
6	-4				15.7660			
7	-5				15.9560			
8	-5MS				15.3908			
9	-5MSD				15.4324			
10	-6				15.3373			
11	-7				15.4615			
12	-8				15.2051			
13	-9				15.1667			
14	-10				15.9718			
15	-11				15.6902			
16	-12				15.6292			
17	-13				15.9292			
18								
19								
20								
21								
22								
23								
24								
25								

[1]Sample pH / Acid Adjusted pH / Base Adjusted pH
[2]The extract volume for BNAs is ~0.8 mLs when the final volume is documented as 1.0 mL. Final volume adjustment is optio

___ Insufficient Sample for MS/MSD ✓ MS/MSD Designated ___ MS/MSD Chosen * Emulsion Centrifuge

Comments/Variance: _____

Surrogate: BNA Surr Surrogate (Surr) Volume: 250uL Std. ID#: [illegible]
LCS/MS Solution: Hexadec Spike Volume: 50uL Std. ID#: [illegible]
LCS/MS Solution: NIA Volume: _____ Std. ID#: _____

Analyst Signature: [signature] Date: 01/27/10
Reviewer Signature: [signature] Date: 01/28/10

Extraction Custody Record

Extracts Transferred	Relinquished by	Date	Time	Received by	Date	Time
Complete Ext	[signature]	01/27/10	0120	[signature]	1/29/10	0745

Analysis Custody Record

Sample(s)	Date/Time Out	Date/Time In	Analyst	Sample(s)	Date/Time Out	Date/Time
Comp						

CHI-22-16-011/J-04/09

General Chemistry Worksheet

Batch Number: 500-79522
Method: Moisture
Analyst: Kolarczyk, Paul F

Date Open: Jan 26 2010 4:12PM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Dish ID	Empty Dish Weight	Mass of wet Sample	Mass of Dry Sample
500-23783-A-1	PTA0583-01	Moisture	T	1 No Unit	1.30 g	11.33 g	9.07 g
500-23783-A-2	PTA0583-06	Moisture	T	2 No Unit	1.31 g	11.33 g	9.44 g
500-23783-A-3	PTA0583-11	Moisture	T	3 No Unit	1.30 g	12.09 g	10.33 g
500-23783-A-4	PTA0583-16	Moisture	T	4 No Unit	1.29 g	11.49 g	9.61 g
500-23783-A-5	PTA0583-17	Moisture	T	5 No Unit	1.30 g	11.87 g	9.75 g
500-23783-A-5~DU		Moisture	T	6 No Unit	1.31 g	11.62 g	9.68 g
500-23783-A-5~MS	PTA0583-17	Moisture	T		1.30 g	11.87 g	9.75 g
500-23783-A-5~MSD	PTA0583-17	Moisture	T		1.30 g	11.87 g	9.75 g
500-23783-A-6	PTA0583-18	Moisture	T	7 No Unit	1.31 g	11.45 g	10.27 g
500-23783-A-7	PTA0583-19	Moisture	T	8 No Unit	1.29 g	13.64 g	11.12 g
500-23783-A-8	PTA0583-20	Moisture	T	9 No Unit	1.31 g	11.29 g	9.08 g
500-23783-A-9	PTA0583-21	Moisture	T	10 No Unit	1.31 g	12.52 g	10.66 g
500-23783-A-10	PTA0583-22	Moisture	T	11 No Unit	1.30 g	13.78 g	9.98 g
500-23783-A-11	PTA0583-23	Moisture	T	12 No Unit	1.29 g	11.22 g	7.70 g
500-23783-A-12	PTA0583-24	Moisture	T	13 No Unit	1.27 g	11.37 g	8.77 g
500-23783-A-13	PTA0583-25	Moisture	T	14 No Unit	1.29 g	11.48 g	10.09 g

Balance ID:	971 No Unit
Date samples were place in the oven:	01/26/2010
Time samples were place in the oven:	16:50
Oven Temp when samples are put in oven:	105 Degrees C
Date samples were removed from oven:	01/27/2010
Time Samples were removed from oven:	08:30
Oven Temp when samples removed from oven:	105 Degrees C
Oven ID:	776

TestAmerica Portland

Sample ID: PTA0583-31

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 031	**Work Order #....:**	LTMGF1AA	**Matrix....:**	WATER
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.96
Prep Date....:	01/28/10	**Analysis Date....:**	01/29/10		
Prep Batch # ....:	0028223	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	1038 mL	**Analyst ID....:**	Grandfield S. Virginia		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		9.6	2.3	pg/L
Total TCDD	ND		9.6	2.3	pg/L
1,2,3,7,8-PeCDD	ND		48	4.0	pg/L
Total PeCDD	ND		48	4 0	pg/L
1,2,3,4,7,8-HxCDD	ND		48	2.8	pg/L
1,2,3,6,7,8-HxCDD	ND		48	2.5	pg/L
1,2,3,7,8,9-HxCDD	ND		48	2.1	pg/L
Total HxCDD	ND		48	2.8	pg/L
1,2,3,4,6,7,8-HpCDD	ND		48	4.1	pg/L
Total HpCDD	ND		48	4.1	pg/L
OCDD	**17**	**J**	**96**	**5.5**	**pg/L**
2,3,7,8-TCDF	**1.6**	**J Q**	**9.6**	**1.4**	**pg/L**
Total TCDF	**1.6**		**9.6**	**1.4**	**pg/L**
1,2,3,7,8-PeCDF	ND		48	2.8	pg/L
2,3,4,7,8-PeCDF	ND		48	3.0	pg/L
Total PeCDF	ND		48	3 0	pg/L
1,2,3,4,7,8-HxCDF	**2.6**	**J Q**	**48**	**2.0**	**pg/L**
1,2,3,6,7,8-HxCDF	ND		48	1.8	pg/L
2,3,4,6,7,8-HxCDF	ND		48	2.0	pg/L
1,2,3,7,8,9-HxCDF	ND		48	1.8	pg/L
Total HxCDF	**2.6**		**48**	**1.9**	**pg/L**
1,2,3,4,6,7,8-HpCDF	ND		48	2.5	pg/L
1,2,3,4,7,8,9-HpCDF	ND		48	2 8	pg/L
Total HpCDF	ND		48	2.8	pg/L
OCDF	ND		96	5.6	pg/L

TestAmerica Portland

Sample ID: PTA0583-31

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 031	**Work Order #....:**	LTMGF1AA	**Matrix....:**	WATER
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.96
Prep Date....:	01/28/10	**Analysis Date....:**	01/29/10		
Prep Batch # ....:	0028223	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	1038 mL	**Analyst ID....:**	Grandfield S. Virginia		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	40 - 135
13C-1,2,3,7,8-PeCDD	80	40 - 135
13C-1,2,3,6,7,8-HxCDD	103	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	102	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	83	40 - 135
13C-1,2,3,4,7,8-HxCDF	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	111	40 - 135

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC)

TestAmerica Portland

Sample ID: PTA0583-01

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 001	**Work Order #....:**	LTMC51AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.1 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.1	0.11	pg/g
Total TCDD	ND		1.1	0.11	pg/g
1,2,3,7,8-PeCDD	ND		5.6	0.15	pg/g
Total PeCDD	ND		5.6	0.15	pg/g
1,2,3,4,7,8-HxCDD	ND		5.6	0.23	pg/g
1,2,3,6,7,8-HxCDD	ND		5.6	0.17	pg/g
1,2,3,7,8,9-HxCDD	**0.20**	**J Q**	**5.6**	**0.18**	**pg/g**
Total HxCDD	**1.7**		**5.6**	**0.19**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**4.0**	**J**	**5.6**	**0.18**	**pg/g**
Total HpCDD	**8.9**		**5.6**	**0.18**	**pg/g**
OCDD	**30**		**11**	**0.13**	**pg/g**
Total TCDF	**1000**		**1.1**	**0.12**	**pg/g**
1,2,3,7,8-PeCDF	**500**		**5.6**	**1.6**	**pg/g**
2,3,4,7,8-PeCDF	**190**		**5.6**	**1.6**	**pg/g**
Total PeCDF	**1100**		**5.6**	**1.6**	**pg/g**
1,2,3,4,7,8-HxCDF	**750**		**5.6**	**1.1**	**pg/g**
1,2,3,6,7,8-HxCDF	**220**		**5.6**	**0.95**	**pg/g**
2,3,4,6,7,8-HxCDF	**32**		**5.6**	**1.1**	**pg/g**
1,2,3,7,8,9-HxCDF	**16**		**5.6**	**1.2**	**pg/g**
Total HxCDF	**1300**		**5.6**	**1.1**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**240**		**5.6**	**5.1**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**760**	**G**	**6.0**	**6.0**	**pg/g**
Total HpCDF	**2500**		**5.6**	**5.5**	**pg/g**
OCDF	**260**	**B**	**11**	**0.44**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	40 - 135
13C-1,2,3,7,8-PeCDD	111	40 - 135
13C-1,2,3,6,7,8-HxCDD	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	86	40 - 135
13C-2,3,7,8-TCDF	86	40 - 135
13C-1,2,3,7,8-PeCDF	96	40 - 135
13C-1,2,3,4,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	93	40 - 135

TestAmerica Portland

Sample ID: PTA0583-01

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 001	**Work Order #....:**	LTMC51AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.1 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

G Elevated reporting limit The reporting limit is elevated due to matrix interference.

J Estimated Result

Q Estimated maximum possible concentration (EMPC).

TestAmerica Portland

Sample ID: PTA0583-01

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 001	**Work Order #....:**	LTMC51AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.1 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	410	1.1	0.43	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	95	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

TestAmerica Portland

Sample ID: PTA0583-06

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 006	**Work Order #....:**	LTME51AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.7
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	16
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.22 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		12	0.99	pg/g
Total TCDD	**2.0**		**12**	**0.99**	**pg/g**
1,2,3,7,8-PeCDD	ND		58	1.1	pg/g
Total PeCDD	**1.8**		**58**	**1.1**	**pg/g**
1,2,3,4,7,8-HxCDD	**2.3**	**J**	**58**	**2.2**	**pg/g**
1,2,3,6,7,8-HxCDD	**4.1**	**J**	**58**	**1.7**	**pg/g**
1,2,3,7,8,9-HxCDD	**2.4**	**J**	**58**	**1.7**	**pg/g**
Total HxCDD	**29**		**58**	**1.9**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**110**		**58**	**2.0**	**pg/g**
Total HpCDD	**200**		**58**	**2.0**	**pg/g**
OCDD	**960**		**120**	**2.4**	**pg/g**
Total TCDF	**4500**		**12**	**0.98**	**pg/g**
1,2,3,7,8-PeCDF	**1400**		**58**	**8.5**	**pg/g**
2,3,4,7,8-PeCDF	**490**		**58**	**8.8**	**pg/g**
Total PeCDF	**2900**		**58**	**8.7**	**pg/g**
1,2,3,4,7,8-HxCDF	**2200**		**58**	**3.1**	**pg/g**
1,2,3,6,7,8-HxCDF	**540**		**58**	**2.6**	**pg/g**
2,3,4,6,7,8-HxCDF	**91**		**58**	**2.9**	**pg/g**
1,2,3,7,8,9-HxCDF	**23**		**58**	**3.2**	**pg/g**
Total HxCDF	**3300**		**58**	**2.9**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**650**		**58**	**3.5**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**240**		**58**	**4.1**	**pg/g**
Total HpCDF	**1200**		**58**	**3.7**	**pg/g**
OCDF	**760**	**B**	**120**	**1.8**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	90	40 - 135
13C-1,2,3,7,8-PeCDD	101	40 - 135
13C-1,2,3,6,7,8-HxCDD	80	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	79	40 - 135
13C-OCDD	68	40 - 135
13C-2,3,7,8-TCDF	86	40 - 135
13C-1,2,3,7,8-PeCDF	88	40 - 135
13C-1,2,3,4,7,8-HxCDF	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84	40 - 135

TestAmerica Portland

Sample ID: PTA0583-06

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 006	**Work Order #....:**	LTME51AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.7
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	16
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.22 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination The associated method blank contains the target analyte at a reportable level

J Estimated Result

TestAmerica Portland

Sample ID: PTA0583-06

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 006	**Work Order #....:**	LTME51AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.7
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	16
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.22 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	2400	12	3.2	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	93	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-11

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 011	**Work Order #....:**	LTMFD1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.9
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	14
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.07 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		12	2.8	pg/g
Total TCDD	ND		12	2.8	pg/g
1,2,3,7,8-PeCDD	ND		58	3.2	pg/g
Total PeCDD	**3.9**		**58**	**3.2**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		58	5.1	pg/g
1,2,3,6,7,8-HxCDD	**5.3**	**J**	**58**	**3.9**	**pg/g**
1,2,3,7,8,9-HxCDD	ND		58	4.0	pg/g
Total HxCDD	**39**		**58**	**4.3**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**140**		**58**	**5.9**	**pg/g**
Total HpCDD	**280**		**58**	**5.9**	**pg/g**
OCDD	**1300**		**120**	**4.8**	**pg/g**
Total TCDF	**11000**		**12**	**3.2**	**pg/g**
1,2,3,7,8-PeCDF	**3800**		**58**	**23**	**pg/g**
2,3,4,7,8-PeCDF	**1400**		**58**	**23**	**pg/g**
Total PeCDF	**8600**		**58**	**23**	**pg/g**
1,2,3,4,7,8-HxCDF	**5900**		**58**	**13**	**pg/g**
1,2,3,6,7,8-HxCDF	**1700**		**58**	**11**	**pg/g**
2,3,4,6,7,8-HxCDF	**250**		**58**	**12**	**pg/g**
1,2,3,7,8,9-HxCDF	**48**	**J**	**58**	**13**	**pg/g**
Total HxCDF	**9900**		**58**	**12**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**2300**		**58**	**15**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1400**		**58**	**18**	**pg/g**
Total HpCDF	**6700**		**58**	**17**	**pg/g**
OCDF	**2500**	**B**	**120**	**4.4**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	45	40 - 135
13C-1,2,3,7,8-PeCDD	54	40 - 135
13C-1,2,3,6,7,8-HxCDD	48	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	46	40 - 135
13C-OCDD	35 *	40 - 135
13C-2,3,7,8-TCDF	46	40 - 135
13C-1,2,3,7,8-PeCDF	48	40 - 135
13C-1,2,3,4,7,8-HxCDF	52	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	47	40 - 135

Signal to noise OK per case narrative; no impact.

TestAmerica Portland

Sample ID: PTA0583-11

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 011	**Work Order #....:**	LTMFD1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.9
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	14
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.07 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

- * Surrogate recovery is outside stated control limits.
- B Method blank contamination The associated method blank contains the target analyte at a reportable level
- J Estimated Result.

TestAmerica Portland

Sample ID: PTA0583-11

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 011	**Work Order #....:**	LTMFD1AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	9.9
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	14
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.07 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	5000	12	6.6	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	51	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-16

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 016	**Work Order #....:**	LTMFP1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	17
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.14 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	0.28	J Q	1.2	0.16	pg/g
Total TCDD	4.0		1.2	0.16	pg/g
1,2,3,7,8-PeCDD	0.58	J	5.9	0.31	pg/g
Total PeCDD	1.5		5.9	0.31	pg/g
1,2,3,4,7,8-HxCDD	1.2	J	5.9	0.29	pg/g
1,2,3,6,7,8-HxCDD	2.8	J	5.9	0.22	pg/g
1,2,3,7,8,9-HxCDD	1.1	J Q	5.9	0.23	pg/g
Total HxCDD	24		5.9	0.24	pg/g
1,2,3,4,6,7,8-HpCDD	37		5.9	0.49	pg/g
Total HpCDD	73		5.9	0.49	pg/g
OCDD	310		12	0.76	pg/g
Total TCDF	99		1.2	0.26	pg/g
1,2,3,7,8-PeCDF	50		5.9	0.51	pg/g
2,3,4,7,8-PeCDF	27		5.9	0.53	pg/g
Total PeCDF	150		5.9	0.52	pg/g
1,2,3,4,7,8-HxCDF	90		5.9	0.66	pg/g
1,2,3,6,7,8-HxCDF	21		5.9	0.55	pg/g
2,3,4,6,7,8-HxCDF	3.8	J	5.9	0.61	pg/g
1,2,3,7,8,9-HxCDF	1.4	J	5.9	0.67	pg/g
Total HxCDF	150		5.9	0.62	pg/g
1,2,3,4,6,7,8-HpCDF	34		5.9	0.49	pg/g
1,2,3,4,7,8,9-HpCDF	12		5.9	0.57	pg/g
Total HpCDF	82		5.9	0.53	pg/g
OCDF	83	B	12	0.83	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	40 - 135
13C-1,2,3,7,8-PeCDD	100	40 - 135
13C-1,2,3,6,7,8-HxCDD	73	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	79	40 - 135
13C-OCDD	73	40 - 135
13C-2,3,7,8-TCDF	81	40 - 135
13C-1,2,3,7,8-PeCDF	84	40 - 135
13C-1,2,3,4,7,8-HxCDF	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	74	40 - 135

TestAmerica Portland

Sample ID: PTA0583-16

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 016	**Work Order #....:**	LTMFP1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	17
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.14 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

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)

TestAmerica Portland

Sample ID: PTA0583-16

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 016	**Work Order #....:**	LTMFP1AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	17
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.14 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	40	1.2	0.31	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	91	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-17

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 017	**Work Order #....:**	LTMFQ1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.94
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	25
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.6 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	3.0		1.3	0.12	pg/g
Total TCDD	55		1.3	0.12	pg/g
1,2,3,7,8-PeCDD	8.4		6.3	0.27	pg/g
Total PeCDD	73		6.3	0.27	pg/g
1,2,3,4,7,8-HxCDD	5.6	J	6.3	0.26	pg/g
1,2,3,6,7,8-HxCDD	9.1		6.3	0.19	pg/g
1,2,3,7,8,9-HxCDD	5.5	J	6.3	0.20	pg/g
Total HxCDD	95		6.3	0.21	pg/g
1,2,3,4,6,7,8-HpCDD	84		6.3	0.78	pg/g
Total HpCDD	170		6.3	0.78	pg/g
OCDD	590		13	0.56	pg/g
Total TCDF	640		1.3	0.12	pg/g
1,2,3,7,8-PeCDF	60		6.3	1.4	pg/g
2,3,4,7,8-PeCDF	73		6.3	1.4	pg/g
Total PeCDF	710		6.3	1.4	pg/g
1,2,3,4,7,8-HxCDF	80		6.3	0.65	pg/g
1,2,3,6,7,8-HxCDF	51		6.3	0.54	pg/g
2,3,4,6,7,8-HxCDF	44		6.3	0.60	pg/g
1,2,3,7,8,9-HxCDF	2.3	J	6.3	0.66	pg/g
Total HxCDF	490		6.3	0.61	pg/g
1,2,3,4,6,7,8-HpCDF	120		6.3	0.33	pg/g
1,2,3,4,7,8,9-HpCDF	14		6.3	0.39	pg/g
Total HpCDF	240		6.3	0.36	pg/g
OCDF	99	B	13	0.27	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	40 - 135
13C-1,2,3,7,8-PeCDD	97	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	78	40 - 135
13C-2,3,7,8-TCDF	82	40 - 135
13C-1,2,3,7,8-PeCDF	87	40 - 135
13C-1,2,3,4,7,8-HxCDF	89	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	84	40 - 135

TestAmerica Portland

Sample ID: PTA0583-17

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 017	**Work Order #....:**	LTMFQ1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.94
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	25
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.6 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

J Estimated Result.

TestAmerica Portland

Sample ID: PTA0583-17

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 017	**Work Order #....:**	LTMFQ2AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	25
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.6 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	42	1.3	0.45	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	93	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-18

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 018	**Work Order #....:**	LTMFR1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	13
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.15 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	0.85	J	1.1	0.22	pg/g
Total TCDD	36		1.1	0.22	pg/g
1,2,3,7,8-PeCDD	3.9	J	5.7	0.41	pg/g
Total PeCDD	28		5.7	0.41	pg/g
1,2,3,4,7,8-HxCDD	4.0	J	5.7	0.30	pg/g
1,2,3,6,7,8-HxCDD	7.8		5.7	0.23	pg/g
1,2,3,7,8,9-HxCDD	7.1		5.7	0.24	pg/g
Total HxCDD	63		5.7	0.25	pg/g
1,2,3,4,6,7,8-HpCDD	130		5.7	1.4	pg/g
Total HpCDD	250		5.7	1.4	pg/g
OCDD	1300		11	1.1	pg/g
Total TCDF	400		1.1	0.32	pg/g
1,2,3,7,8-PeCDF	200		5.7	2.8	pg/g
2,3,4,7,8-PeCDF	87		5.7	2.9	pg/g
Total PeCDF	490		5.7	2.8	pg/g
1,2,3,4,7,8-HxCDF	350		5.7	0.97	pg/g
1,2,3,6,7,8-HxCDF	82		5.7	0.81	pg/g
2,3,4,6,7,8-HxCDF	15		5.7	0.90	pg/g
1,2,3,7,8,9-HxCDF	5.8		5.7	0.98	pg/g
Total HxCDF	570		5.7	0.91	pg/g
1,2,3,4,6,7,8-HpCDF	130		5.7	1.0	pg/g
1,2,3,4,7,8,9-HpCDF	56		5.7	1.2	pg/g
Total HpCDF	280		5.7	1.1	pg/g
OCDF	210	B	11	0.50	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	40 - 135
13C-1,2,3,7,8-PeCDD	68	40 - 135
13C-1,2,3,6,7,8-HxCDD	58	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	60	40 - 135
13C-OCDD	55	40 - 135
13C-2,3,7,8-TCDF	61	40 - 135
13C-1,2,3,7,8-PeCDF	63	40 - 135
13C-1,2,3,4,7,8-HxCDF	61	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	57	40 - 135

TestAmerica Portland

Sample ID: PTA0583-18

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 018	**Work Order #....:**	LTMFR1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	13
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.15 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination The associated method blank contains the target analyte at a reportable level.

J Estimated Result

TestAmerica Portland

Sample ID: PTA0583-18

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 018	**Work Order #....:**	LTMFR1AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	13
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.15 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	180	1.1	0.40	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	67	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

TestAmerica Portland

Sample ID: PTA0583-19

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 019	**Work Order #....:**	LTMFT1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.2	0.12	pg/g
Total TCDD	ND		1.2	0.12	pg/g
1,2,3,7,8-PeCDD	ND		6.0	0.18	pg/g
Total PeCDD	**0.24**		**6.0**	**0.18**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		6.0	0 21	pg/g
1,2,3,6,7,8-HxCDD	**0.33**	**J Q**	**6.0**	**0.16**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.23**	**J**	**6.0**	**0.16**	**pg/g**
Total HxCDD	**2.5**		**6.0**	**0.17**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**4.8**	**J**	**6.0**	**0.22**	**pg/g**
Total HpCDD	**11**		**6.0**	**0.22**	**pg/g**
OCDD	**38**		**12**	**0.23**	**pg/g**
Total TCDF	**11**		**1.2**	**0.10**	**pg/g**
1,2,3,7,8-PeCDF	**7.3**		**6.0**	**0.18**	**pg/g**
2,3,4,7,8-PeCDF	**3.0**	**J**	**6.0**	**0.18**	**pg/g**
Total PeCDF	**18**		**6.0**	**0.18**	**pg/g**
1,2,3,4,7,8-HxCDF	**12**		**6.0**	**0.16**	**pg/g**
1,2,3,6,7,8-HxCDF	**3.0**	**J**	**6.0**	**0.13**	**pg/g**
2,3,4,6,7,8-HxCDF	**0.58**	**J**	**6.0**	**0.15**	**pg/g**
1,2,3,7,8,9-HxCDF	**0.17**	**J Q**	**6.0**	**0.16**	**pg/g**
Total HxCDF	**21**		**6.0**	**0.15**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**5.8**	**J**	**6.0**	**0.18**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1.6**	**J**	**6.0**	**0.21**	**pg/g**
Total HpCDF	**13**		**6.0**	**0.19**	**pg/g**
OCDF	**9.1**	**J B**	**12**	**0.15**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	40 - 135
13C-1,2,3,7,8-PeCDD	90	40 - 135
13C-1,2,3,6,7,8-HxCDD	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	85	40 - 135
13C-OCDD	77	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	83	40 - 135
13C-1,2,3,4,7,8-HxCDF	87	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	86	40 - 135

TestAmerica Portland

Sample ID: PTA0583-19

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 019	**Work Order #....:**	LTMFT1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-19

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 019	**Work Order #....:**	LTMFT1AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	5.7	1.2	0.29	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	90	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-20

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 020	**Work Order #....:**	LTMFV1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	24
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.14 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.3	0.15	pg/g
Total TCDD	**0.24**		**1.3**	**0.15**	**pg/g**
1,2,3,7,8-PeCDD	ND		6.5	0.19	pg/g
Total PeCDD	ND		6.5	0.19	pg/g
1,2,3,4,7,8-HxCDD	ND		6.5	0.31	pg/g
1,2,3,6,7,8-HxCDD	**0.50**	**J**	**6.5**	**0.23**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.29**	**J Q**	**6.5**	**0.24**	**pg/g**
Total HxCDD	**3.0**		**6.5**	**0.25**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**9.6**		**6.5**	**0.32**	**pg/g**
Total HpCDD	**19**		**6.5**	**0.32**	**pg/g**
OCDD	**140**		**13**	**0.27**	**pg/g**
2,3,7,8-TCDF	**0.78**	**J**	**1.3**	**0.061**	**pg/g**
Total TCDF	**2.2**		**1.3**	**0.061**	**pg/g**
1,2,3,7,8-PeCDF	**0.86**	**J Q**	**6.5**	**0.20**	**pg/g**
2,3,4,7,8-PeCDF	ND		6.5	0.21	pg/g
Total PeCDF	**2.5**		**6.5**	**0.21**	**pg/g**
1,2,3,4,7,8-HxCDF	**2.6**	**J**	**6.5**	**0.12**	**pg/g**
1,2,3,6,7,8-HxCDF	**1.4**	**J**	**6.5**	**0.10**	**pg/g**
2,3,4,6,7,8-HxCDF	**0.24**	**J Q**	**6.5**	**0.11**	**pg/g**
1,2,3,7,8,9-HxCDF	ND		6.5	0.12	pg/g
Total HxCDF	**9.3**		**6.5**	**0.11**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**3.7**	**J**	**6.5**	**0.15**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**2.2**	**J**	**6.5**	**0.18**	**pg/g**
Total HpCDF	**12**		**6.5**	**0.16**	**pg/g**
OCDF	**6.4**	**J B**	**13**	**0.15**	**pg/g**

TestAmerica Portland

Sample ID: PTA0583-20

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 020	**Work Order #....:**	LTMFV1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	24
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.14 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	40 - 135
13C-1,2,3,7,8-PeCDD	86	40 - 135
13C-1,2,3,6,7,8-HxCDD	84	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	81	40 - 135
13C-OCDD	73	40 - 135
13C-2,3,7,8-TCDF	75	40 - 135
13C-1,2,3,7,8-PeCDF	79	40 - 135
13C-1,2,3,4,7,8-HxCDF	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	83	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-21

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 021	**Work Order #....:**	LTMFW1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.13 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	0.27	J Q	1.2	0.10	pg/g
Total TCDD	2.6		1.2	0.10	pg/g
1,2,3,7,8-PeCDD	0.45	J	6.1	0.20	pg/g
Total PeCDD	4.0		6.1	0.20	pg/g
1,2,3,4,7,8-HxCDD	0.59	J	6.1	0.19	pg/g
1,2,3,6,7,8-HxCDD	1.6	J	6.1	0.14	pg/g
1,2,3,7,8,9-HxCDD	1.1	J	6.1	0.15	pg/g
Total HxCDD	12		6.1	0.16	pg/g
1,2,3,4,6,7,8-HpCDD	31		6.1	0.49	pg/g
Total HpCDD	67		6.1	0.49	pg/g
OCDD	410		12	0.30	pg/g
Total TCDF	47		1.2	0.11	pg/g
1,2,3,7,8-PeCDF	220		6.1	1.1	pg/g
2,3,4,7,8-PeCDF	37		6.1	1.2	pg/g
Total PeCDF	420		6.1	1.2	pg/g
1,2,3,4,7,8-HxCDF	800		6.1	1.1	pg/g
1,2,3,6,7,8-HxCDF	180		6.1	0.93	pg/g
2,3,4,6,7,8-HxCDF	17		6.1	1.0	pg/g
1,2,3,7,8,9-HxCDF	6.6		6.1	1.1	pg/g
Total HxCDF	1200		6.1	1.1	pg/g
1,2,3,4,6,7,8-HpCDF	160		6.1	0.61	pg/g
1,2,3,4,7,8,9-HpCDF	71		6.1	0.71	pg/g
Total HpCDF	310		6.1	0.66	pg/g
OCDF	160	B	12	0.24	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	81	40 - 135
13C-1,2,3,7,8-PeCDD	88	40 - 135
13C-1,2,3,6,7,8-HxCDD	78	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	79	40 - 135
13C-OCDD	70	40 - 135
13C-2,3,7,8-TCDF	78	40 - 135
13C-1,2,3,7,8-PeCDF	81	40 - 135
13C-1,2,3,4,7,8-HxCDF	86	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	79	40 - 135

TestAmerica Portland

Sample ID: PTA0583-21

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 021	**Work Order #....:**	LTMFW1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.13 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-21

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 021	**Work Order #....:**	LTMFW1AE	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.98
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	20
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.13 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	15	1.2	0.30	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	91	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

TestAmerica Portland

Sample ID: PTA0583-22

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 022	**Work Order #....:**	LTMFX1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.92
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	36
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.76 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	**0.50**	**J Q**	**1.5**	**0.13**	**pg/g**
Total TCDD	**1.3**		**1.5**	**0.13**	**pg/g**
1,2,3,7,8-PeCDD	ND		7.3	0.16	pg/g
Total PeCDD	ND		7.3	0.16	pg/g
1,2,3,4,7,8-HxCDD	ND		7.3	0.27	pg/g
1,2,3,6,7,8-HxCDD	**0.24**	**J Q**	**7.3**	**0.20**	**pg/g**
1,2,3,7,8,9-HxCDD	ND		7.3	0.21	pg/g
Total HxCDD	**1.9**		**7.3**	**0.22**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**7.6**		**7.3**	**0.29**	**pg/g**
Total HpCDD	**17**		**7.3**	**0.29**	**pg/g**
OCDD	**83**		**15**	**0.34**	**pg/g**
Total TCDF	**8.7**		**1.5**	**0.062**	**pg/g**
1,2,3,7,8-PeCDF	**2.0**	**J**	**7.3**	**0.13**	**pg/g**
2,3,4,7,8-PeCDF	**0.39**	**J Q**	**7.3**	**0.14**	**pg/g**
Total PeCDF	**4.2**		**7.3**	**0.13**	**pg/g**
1,2,3,4,7,8-HxCDF	**4.2**	**J**	**7.3**	**0.16**	**pg/g**
1,2,3,6,7,8-HxCDF	**1.3**	**J**	**7.3**	**0.14**	**pg/g**
2,3,4,6,7,8-HxCDF	**0.16**	**J Q**	**7.3**	**0.15**	**pg/g**
1,2,3,7,8,9-HxCDF	ND		7.3	0.17	pg/g
Total HxCDF	**9.3**		**7.3**	**0.15**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**5.7**	**J**	**7.3**	**0.22**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1.0**	**J**	**7.3**	**0.26**	**pg/g**
Total HpCDF	**13**		**7.3**	**0.24**	**pg/g**
OCDF	**11**	**J B**	**15**	**0.13**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	79	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	77	40 - 135
13C-OCDD	71	40 - 135
13C-2,3,7,8-TCDF	79	40 - 135
13C-1,2,3,7,8-PeCDF	78	40 - 135
13C-1,2,3,4,7,8-HxCDF	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	77	40 - 135

TestAmerica Portland

Sample ID: PTA0583-22

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 022	**Work Order #....:**	LTMFX1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.92
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	36
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.76 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-22

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 022	**Work Order #....:**	LTMFX1AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.92
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	36
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.76 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	2.7	1.5	0.30	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	90	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-23

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 023	**Work Order #....:**	LTMF01AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	34
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.45 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.4	0.14	pg/g
Total TCDD	**1.2**		**1.4**	**0.14**	**pg/g**
1,2,3,7,8-PeCDD	ND		7.2	0.18	pg/g
Total PeCDD	**0.29**		**7.2**	**0.18**	**pg/g**
1,2,3,4,7,8-HxCDD	**0.26**	**J Q**	**7.2**	**0.16**	**pg/g**
1,2,3,6,7,8-HxCDD	**0.30**	**J Q**	**7.2**	**0.12**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.38**	**J Q**	**7.2**	**0.13**	**pg/g**
Total HxCDD	**4.3**		**7.2**	**0.14**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**5.1**	**J**	**7.2**	**0.21**	**pg/g**
Total HpCDD	**11**		**7.2**	**0.21**	**pg/g**
OCDD	**39**		**14**	**0.24**	**pg/g**
Total TCDF	**3.9**		**1.4**	**0.060**	**pg/g**
1,2,3,7,8-PeCDF	**1.9**	**J**	**7.2**	**0.14**	**pg/g**
2,3,4,7,8-PeCDF	**0.64**	**J Q**	**7.2**	**0.14**	**pg/g**
Total PeCDF	**5.3**		**7.2**	**0.14**	**pg/g**
1,2,3,4,7,8-HxCDF	**5.1**	**J**	**7.2**	**0.13**	**pg/g**
1,2,3,6,7,8-HxCDF	**1.6**	**J**	**7.2**	**0.11**	**pg/g**
2,3,4,6,7,8-HxCDF	**0.24**	**J**	**7.2**	**0.12**	**pg/g**
1,2,3,7,8,9-HxCDF	ND		7.2	0.13	pg/g
Total HxCDF	**9.3**		**7.2**	**0.12**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**3.7**	**J**	**7.2**	**0.13**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1.4**	**J**	**7.2**	**0.15**	**pg/g**
Total HpCDF	**7.2**		**7.2**	**0.14**	**pg/g**
OCDF	**5.1**	**J B**	**14**	**0.096**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	78	40 - 135
13C-1,2,3,7,8-PeCDD	84	40 - 135
13C-1,2,3,6,7,8-HxCDD	78	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	79	40 - 135
13C-OCDD	71	40 - 135
13C-2,3,7,8-TCDF	77	40 - 135
13C-1,2,3,7,8-PeCDF	80	40 - 135
13C-1,2,3,4,7,8-HxCDF	84	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	78	40 - 135

TestAmerica Portland

Sample ID: PTA0583-23

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 023	**Work Order #....:**	LTMF01AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	34
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.45 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-23

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 023	**Work Order #....:**	LTMF01AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	34
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.45 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	1.0	J	1.4	0.30	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	84	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

J Estimated Result.

TestAmerica Portland

Sample ID: PTA0583-24

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 024	**Work Order #....:**	LTMF11AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	25
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.3	0.12	pg/g
Total TCDD	ND		1.3	0.12	pg/g
1,2,3,7,8-PeCDD	ND		6.6	0.18	pg/g
Total PeCDD	ND		6.6	0.18	pg/g
1,2,3,4,7,8-HxCDD	ND		6.6	0.25	pg/g
1,2,3,6,7,8-HxCDD	ND		6 6	0 19	pg/g
1,2,3,7,8,9-HxCDD	ND		6.6	0.20	pg/g
Total HxCDD	**1.1**		**6.6**	**0.21**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**2.7**	**J Q**	**6.6**	**0.36**	**pg/g**
Total HpCDD	**6.7**		**6.6**	**0.36**	**pg/g**
OCDD	**30**		**13**	**0.21**	**pg/g**
2,3,7,8-TCDF	**0.48**	**J Q**	**1.3**	**0.056**	**pg/g**
Total TCDF	**0.69**		**1.3**	**0.056**	**pg/g**
1,2,3,7,8-PeCDF	**0.39**	**J Q**	**6.6**	**0.081**	**pg/g**
2,3,4,7,8-PeCDF	**0.13**	**J Q**	**6.6**	**0.084**	**pg/g**
Total PeCDF	**0.84**		**6.6**	**0.083**	**pg/g**
1,2,3,4,7,8-HxCDF	**1.1**	**J**	**6.6**	**0.10**	**pg/g**
1,2,3,6,7,8-HxCDF	**0.29**	**J Q**	**6.6**	**0.085**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		6.6	0.095	pg/g
1,2,3,7,8,9-HxCDF	ND		6 6	0.10	pg/g
Total HxCDF	**2.1**		**6.6**	**0.096**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**1.2**	**J**	**6.6**	**0.12**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**0.26**	**J Q**	**6.6**	**0.14**	**pg/g**
Total HpCDF	**3.2**		**6.6**	**0.13**	**pg/g**
OCDF	**3.3**	**J B**	**13**	**0.086**	**pg/g**

TestAmerica Portland

Sample ID: PTA0583-24

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 024	**Work Order #....:**	LTMF11AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	25
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	40 - 135
13C-1,2,3,7,8-PeCDD	85	40 - 135
13C-1,2,3,6,7,8-HxCDD	78	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	71	40 - 135
13C-OCDD	60	40 - 135
13C-2,3,7,8-TCDF	77	40 - 135
13C-1,2,3,7,8-PeCDF	79	40 - 135
13C-1,2,3,4,7,8-HxCDF	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	69	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

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)

TestAmerica Portland

Sample ID: PTA0583-25

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 025	**Work Order #....:**	LTMF21AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.04 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	0.22	J Q	1.1	0.11	pg/g
Total TCDD	4.0		1.1	0.11	pg/g
1,2,3,7,8-PeCDD	0.68	J	5.6	0.21	pg/g
Total PeCDD	6.6		5.6	0.21	pg/g
1,2,3,4,7,8-HxCDD	1.7	J	5.6	0.28	pg/g
1,2,3,6,7,8-HxCDD	3.1	J	5.6	0.21	pg/g
1,2,3,7,8,9-HxCDD	2.3	J	5.6	0.22	pg/g
Total HxCDD	24		5.6	0.23	pg/g
1,2,3,4,6,7,8-HpCDD	82		5.6	0.26	pg/g
Total HpCDD	160		5.6	0.26	pg/g
OCDD	760		11	0.53	pg/g
Total TCDF	59		1.1	0.041	pg/g
1,2,3,7,8-PeCDF	20		5.6	0.42	pg/g
2,3,4,7,8-PeCDF	8.3		5.6	0.43	pg/g
Total PeCDF	59		5.6	0.42	pg/g
1,2,3,4,7,8-HxCDF	37		5.6	0.19	pg/g
1,2,3,6,7,8-HxCDF	10		5.6	0.16	pg/g
2,3,4,6,7,8-HxCDF	2.8	J	5.6	0.18	pg/g
1,2,3,7,8,9-HxCDF	0.49	J Q	5.6	0.20	pg/g
Total HxCDF	77		5.6	0.18	pg/g
1,2,3,4,6,7,8-HpCDF	27		5.6	0.34	pg/g
1,2,3,4,7,8,9-HpCDF	8.6		5.6	0.40	pg/g
Total HpCDF	60		5.6	0.37	pg/g
OCDF	57	B	11	0.14	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	40 - 135
13C-1,2,3,7,8-PeCDD	86	40 - 135
13C-1,2,3,6,7,8-HxCDD	85	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	84	40 - 135
13C-OCDD	76	40 - 135
13C-2,3,7,8-TCDF	76	40 - 135
13C-1,2,3,7,8-PeCDF	82	40 - 135
13C-1,2,3,4,7,8-HxCDF	92	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	85	40 - 135

TestAmerica Portland

Sample ID: PTA0583-25

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 025	**Work Order #....:**	LTMF21AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10.04 g	**Analyst ID....:**	Susan X. Yan		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-25

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A220427 - 025	**Work Order #....:**	LTMF21AD	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	01/28/10	**Analysis Date....:**	02/11/10	**Percent Moisture:**	11
Prep Batch # ....:	0028433	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.04 g	**Analyst ID....:**	Susan X. Yan		

Confirmation Run

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	20	1.1	0.28	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	92	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A280000 - 223B	**Work Order #....:**	LTWME1AD	**Matrix....:**	WATER
Date Sampled....:	01/19/10	**Date Received....:**	01/21/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	01/29/10		
Prep Batch # ....:	0028223	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	1000 mL	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND	10	1.9	pg/L
Total TCDD	ND	10	1.9	pg/L
1,2,3,7,8-PeCDD	ND	50	6.1	pg/L
Total PeCDD	ND	50	6.1	pg/L
1,2,3,4,7,8-HxCDD	ND	50	6.0	pg/L
1,2,3,6,7,8-HxCDD	ND	50	5.5	pg/L
1,2,3,7,8,9-HxCDD	ND	50	4.6	pg/L
Total HxCDD	ND	50	6.0	pg/L
1,2,3,4,6,7,8-HpCDD	ND	50	4.5	pg/L
Total HpCDD	ND	50	4.5	pg/L
OCDD	ND	100	5.9	pg/L
2,3,7,8-TCDF	ND	10	1.7	pg/L
Total TCDF	ND	10	1.7	pg/L
1,2,3,7,8-PeCDF	ND	50	3 3	pg/L
2,3,4,7,8-PeCDF	ND	50	3.5	pg/L
Total PeCDF	ND	50	3.5	pg/L
1,2,3,4,7,8-HxCDF	ND	50	4.6	pg/L
1,2,3,6,7,8-HxCDF	ND	50	4.0	pg/L
2,3,4,6,7,8-HxCDF	ND	50	4.5	pg/L
1,2,3,7,8,9-HxCDF	ND	50	4.2	pg/L
Total HxCDF	ND	50	4.6	pg/L
1,2,3,4,6,7,8-HpCDF	ND	50	4.5	pg/L
1,2,3,4,7,8,9-HpCDF	ND	50	5.1	pg/L
Total HpCDF	ND	50	5.1	pg/L
OCDF	ND	100	6.2	pg/L

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A280000 - 223B	**Work Order #....:**	LTWME1AD	**Matrix....:**	WATER
Date Sampled....:	01/19/10	**Date Received....:**	01/21/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	01/29/10		
Prep Batch # ....:	0028223	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	1000 mL	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	40 - 135
13C-1,2,3,7,8-PeCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	64	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	88	40 - 135
13C-OCDD	81	40 - 135
13C-2,3,7,8-TCDF	84	40 - 135
13C-1,2,3,7,8-PeCDF	75	40 - 135
13C-1,2,3,4,7,8-HxCDF	45	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	69	40 - 135

QUALIFIERS

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A280000 - 433B	**Work Order #....:**	LTXGG1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	0.0
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		2.0	0.15	pg/g
Total TCDD	ND		2.0	0.15	pg/g
1,2,3,7,8-PeCDD	ND		10	0.24	pg/g
Total PeCDD	ND		10	0.24	pg/g
1,2,3,4,7,8-HxCDD	ND		10	0.37	pg/g
1,2,3,6,7,8-HxCDD	ND		10	0.28	pg/g
1,2,3,7,8,9-HxCDD	ND		10	0.29	pg/g
Total HxCDD	ND		10	0.37	pg/g
1,2,3,4,6,7,8-HpCDD	ND		10	0.31	pg/g
Total HpCDD	ND		10	0.31	pg/g
OCDD	ND		20	0.22	pg/g
2,3,7,8-TCDF	ND		2.0	0.041	pg/g
Total TCDF	ND		2.0	0.041	pg/g
1,2,3,7,8-PeCDF	ND		10	0.076	pg/g
2,3,4,7,8-PeCDF	ND		10	0.078	pg/g
Total PeCDF	ND		10	0.078	pg/g
1,2,3,4,7,8-HxCDF	ND		10	0.080	pg/g
1,2,3,6,7,8-HxCDF	ND		10	0.066	pg/g
2,3,4,6,7,8-HxCDF	ND		10	0.074	pg/g
1,2,3,7,8,9-HxCDF	ND		10	0.081	pg/g
Total HxCDF	ND		10	0.081	pg/g
1,2,3,4,6,7,8-HpCDF	ND		10	0.11	pg/g
1,2,3,4,7,8,9-HpCDF	ND		10	0.13	pg/g
Total HpCDF	ND		10	0.13	pg/g
OCDF	**0.22**	**J**	**20**	**0.092**	**pg/g**

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0A280000 - 433B	**Work Order #....:**	LTXGG1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	01/28/10	**Analysis Date....:**	02/09/10	**Percent Moisture:**	0.0
Prep Batch # ....:	0028433	**Instrument ID....:**	4D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Susan X. Yan		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	40 - 135
13C-1,2,3,7,8-PeCDD	90	40 - 135
13C-1,2,3,6,7,8-HxCDD	91	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	83	40 - 135
13C-OCDD	75	40 - 135
13C-2,3,7,8-TCDF	75	40 - 135
13C-1,2,3,7,8-PeCDF	80	40 - 135
13C-1,2,3,4,7,8-HxCDF	88	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

J Estimated Result

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0A220427	**Work Order # ...:**	LTMFQ1AJ-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	G0A220427 - 017		LTMFQ1AK-MSD		
Prep Date .....:	01/28/10	**Analysis Date ..:**	02/09/10		
Prep Batch # ...:	0028433				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	4D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10.6 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	3.0	24.8	25.4	pg/g	90	(77 - 130)		
	3.0	25.0	27.0	pg/g	96	(77 - 130)	6.1	(0 - 30)
1,2,3,7,8-PeCDD	8.4	124	126	pg/g	95	(79 - 134)		
	8.4	125	129	pg/g	97	(79 - 134)	2.5	(0 - 29)
1,2,3,4,7,8-HxCDD	5.6	124	139	pg/g	108	(65 - 144)		
	5.6	125	137	pg/g	105	(65 - 144)	2.0	(0 - 36)
1,2,3,6,7,8-HxCDD	9.1	124	126	pg/g	94	(73 - 147)		
	9.1	125	130	pg/g	97	(73 - 147)	3.5	(0 - 36)
1,2,3,7,8,9-HxCDD	5.5	124	127	pg/g	98	(80 - 143)		
	5.5	125	130	pg/g	100	(80 - 143)	2.6	(0 - 31)
1,2,3,4,6,7,8-HpCDD	84	124	207	pg/g	100	(86 - 134)		
	84	125	165	pg/g	66 a	(86 - 134)	22	(0 - 28)
OCDD	590	248	1320	pg/g	293 a	(80 - 137)		
	590	250	632	pg/g	15 a p	(80 - 137)	70	(0 - 32)
1,2,3,7,8-PeCDF	60	124	160	pg/g	81	(81 - 134)		
	60	125	178	pg/g	94	(81 - 134)	10	(0 - 27)
2,3,4,7,8-PeCDF	73	124	148	pg/g	61 a	(76 - 132)		
	73	125	159	pg/g	69 a	(76 - 132)	6.8	(0 - 31)
1,2,3,4,7,8-HxCDF	80	124	176	pg/g	78	(72 - 140)		
	80	125	202	pg/g	98	(72 - 140)	14	(0 - 32)
1,2,3,6,7,8-HxCDF	51	124	136	pg/g	68	(63 - 152)		
	51	125	150	pg/g	79	(63 - 152)	9.9	(0 - 38)
2,3,4,6,7,8-HxCDF	44	124	131	pg/g	71 a	(72 - 151)		
	44	125	137	pg/g	75	(72 - 151)	4.4	(0 - 35)
1,2,3,7,8,9-HxCDF	2.3	124	130	pg/g	103	(72 - 152)		
	2.3	125	138	pg/g	109	(72 - 152)	6.2	(0 - 36)
1,2,3,4,6,7,8-HpCDF	120	124	181	pg/g	48 a	(81 - 137)		
	120	125	181	pg/g	48 a	(81 - 137)	0.040	(0 - 33)
1,2,3,4,7,8,9-HpCDF	14	124	144	pg/g	105	(79 - 139)		
	14	125	157	pg/g	115	(79 - 139)	8.7	(0 - 35)
OCDF	99	248	398	pg/g	121 B	(75 - 141)		
	99	250	356	pg/g	103 B	(75 - 141)	11	(0 - 45)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0A220427	**Work Order # ...:**	LTMFQ1AJ-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	G0A220427 - 017		LTMFQ1AK-MSD		
Prep Date .....:	01/28/10	**Analysis Date ..:**	02/09/10		
Prep Batch # ...:	0028433				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	4D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10.6 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(40 - 135)
	84	(40 - 135)
13C-1,2,3,7,8-PeCDD	94	(40 - 135)
	100	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	84	(40 - 135)
	86	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	84	(40 - 135)
	84	(40 - 135)
13C-OCDD	77	(40 - 135)
	77	(40 - 135)
13C-1,2,3,7,8-PeCDF	84	(40 - 135)
	86	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	90	(40 - 135)
	91	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	81	(40 - 135)
	81	(40 - 135)

Notes:

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

p Relative percent difference (RPD) is outside stated control limits.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0A220427	**Work Order # ...:**	LTMFQ1AL-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	G0A220427 - 017		LTMFQ1AM-MSD		
Prep Date .....:	01/28/10	**Analysis Date ..:**	02/11/10		
Prep Batch # ...:	0028433				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	5D2	**Method.....:**	SW846 8290
Initial Wgt/Vol:	10.6 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDF	**42**	**24.8**	**41.6**	**pg/g**	**0.0 a**	**(79 - 137)**		
	42	**25.0**	**48.2**	**pg/g**	**26 a**	**(79 - 137)**	**0.0**	**(0 - 30)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	89	(40 - 135)
	92	(40 - 135)

Notes:

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0A220427	**Work Order # ...:**	LTWME1AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	G0A280000 - 223				
Prep Date .....:	01/28/10	**Analysis Date ..:**	01/29/10		
Prep Batch # ...:	0028223				
Dilution Factor :	1				
Analyst ID.....:	Sonia Ouni	**Instrument ID..:**	1D5	**Method.....:**	SW846 8290
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**170**	**pg/L**	**85**	**(64 - 142)**
1,2,3,7,8-PeCDD	**1000**	**998**	**pg/L**	**100**	**(71 - 140)**
1,2,3,4,7,8-HxCDD	**1000**	**836**	**pg/L**	**84**	**(56 - 146)**
1,2,3,6,7,8-HxCDD	**1000**	**1060**	**pg/L**	**106**	**(73 - 144)**
1,2,3,7,8,9-HxCDD	**1000**	**872**	**pg/L**	**87**	**(71 - 151)**
1,2,3,4,6,7,8-HpCDD	**1000**	**1040**	**pg/L**	**104**	**(78 - 139)**
OCDD	**2000**	**2030**	**pg/L**	**101**	**(80 - 132)**
2,3,7,8-TCDF	**200**	**203**	**pg/L**	**101**	**(71 - 142)**
1,2,3,7,8-PeCDF	**1000**	**1060**	**pg/L**	**106**	**(76 - 135)**
2,3,4,7,8-PeCDF	**1000**	**997**	**pg/L**	**100**	**(74 - 137)**
1,2,3,4,7,8-HxCDF	**1000**	**1150**	**pg/L**	**115**	**(75 - 131)**
1,2,3,6,7,8-HxCDF	**1000**	**1140**	**pg/L**	**114**	**(76 - 133)**
2,3,4,6,7,8-HxCDF	**1000**	**1290**	**pg/L**	**129**	**(80 - 137)**
1,2,3,7,8,9-HxCDF	**1000**	**1100**	**pg/L**	**110**	**(77 - 142)**
1,2,3,4,6,7,8-HpCDF	**1000**	**1080**	**pg/L**	**108**	**(79 - 133)**
1,2,3,4,7,8,9-HpCDF	**1000**	**995**	**pg/L**	**100**	**(83 - 130)**
OCDF	**2000**	**2190**	**pg/L**	**110**	**(72 - 140)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	82	(40 - 135)
13C-1,2,3,7,8-PeCDD	83	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	102	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	98	(40 - 135)
13C-OCDD	91	(40 - 135)
13C-2,3,7,8-TCDF	85	(40 - 135)
13C-1,2,3,7,8-PeCDF	85	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	87	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	107	(40 - 135)

Notes:

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0A220427	**Work Order # ...:**	LTXGG1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	G0A280000 - 433				
Prep Date .....:	01/28/10	**Analysis Date ..:**	02/09/10		
Prep Batch # ...:	0028433				
Dilution Factor :	1				
Analyst ID.....:	Susan X. Yan	**Instrument ID..:**	4D5	**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**	**19.5**	**pg/g**	**98**	**(77 - 130)**
1,2,3,7,8-PeCDD	**100**	**100**	**pg/g**	**100**	**(79 - 134)**
1,2,3,4,7,8-HxCDD	**100**	**99.9**	**pg/g**	**100**	**(65 - 144)**
1,2,3,6,7,8-HxCDD	**100**	**104**	**pg/g**	**104**	**(73 - 147)**
1,2,3,7,8,9-HxCDD	**100**	**98.9**	**pg/g**	**99**	**(80 - 143)**
1,2,3,4,6,7,8-HpCDD	**100**	**105**	**pg/g**	**105**	**(86 - 134)**
OCDD	**200**	**202**	**pg/g**	**101**	**(80 - 137)**
2,3,7,8-TCDF	**20.0**	**20.2**	**pg/g**	**101**	**(79 - 137)**
1,2,3,7,8-PeCDF	**100**	**110**	**pg/g**	**110**	**(81 - 134)**
2,3,4,7,8-PeCDF	**100**	**117**	**pg/g**	**117**	**(76 - 132)**
1,2,3,4,7,8-HxCDF	**100**	**114**	**pg/g**	**114**	**(72 - 140)**
1,2,3,6,7,8-HxCDF	**100**	**111**	**pg/g**	**111**	**(63 - 152)**
2,3,4,6,7,8-HxCDF	**100**	**112**	**pg/g**	**112**	**(72 - 151)**
1,2,3,7,8,9-HxCDF	**100**	**102**	**pg/g**	**102**	**(72 - 152)**
1,2,3,4,6,7,8-HpCDF	**100**	**110**	**pg/g**	**110**	**(81 - 137)**
1,2,3,4,7,8,9-HpCDF	**100**	**101**	**pg/g**	**101**	**(79 - 139)**
OCDF	**200**	**202**	**pg/g**	**101**	**(75 - 141)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(40 - 135)
13C-1,2,3,7,8-PeCDD	99	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	95	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	89	(40 - 135)
13C-OCDD	82	(40 - 135)
13C-2,3,7,8-TCDF	81	(40 - 135)
13C-1,2,3,7,8-PeCDF	87	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	90	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	89	(40 - 135)

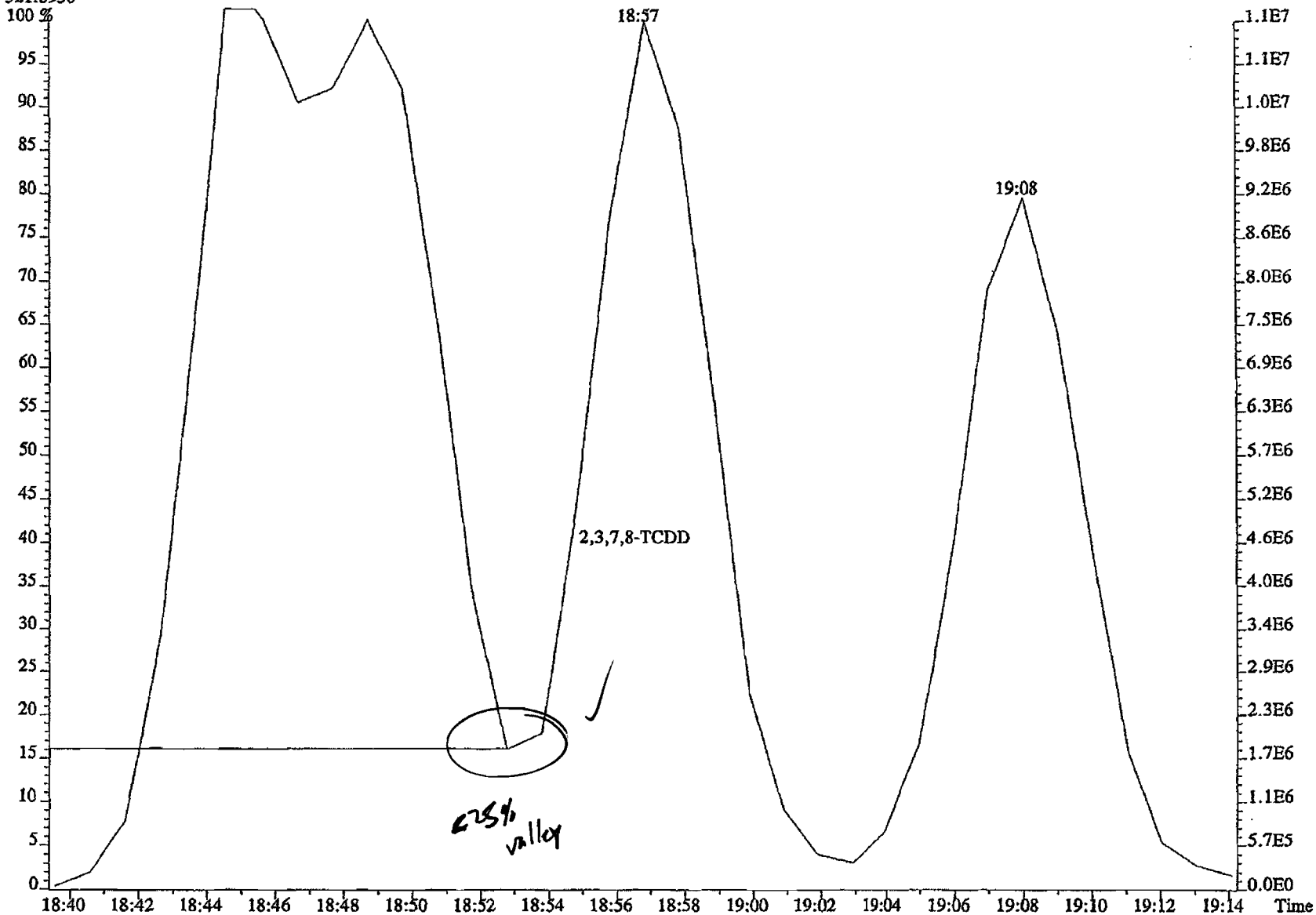
Notes:

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

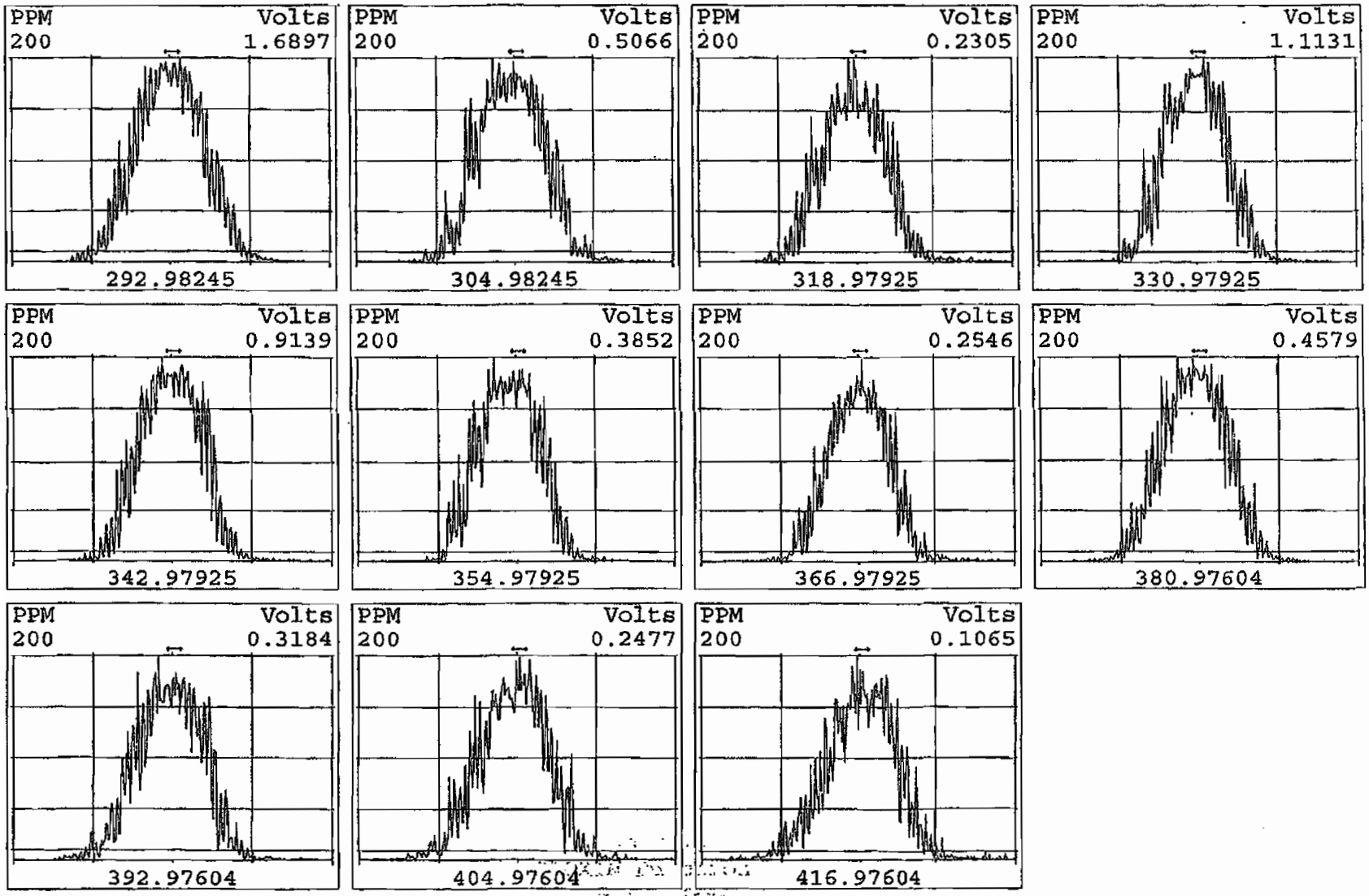
Bold print denotes control parameters

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
31DE09A1D5	1	CP1231A	DB-5 CPSM 3732-04				1.000	
31DE09A1D5	2	ST1231B	CS-1 09DXN422				1.000	
31DE09A1D5	3	ST1231C	CS-2 09DXN423				1.000	
31DE09A1D5	4	ST1231D	CS-3 09DXN425				1.000	
31DE09A1D5	5	ST1231E	CS-4 09DXN426				1.000	
31DE09A1D5	6	ST1231F	CS-5 09DXN456				1.000	
31DE09A1D5	7	SB1231C	Solvent Blank C-14				1.000	
31DE09A1D5	8	ST1231G	2nd Source 09DXN449	500	1613B/8290		1.000	
31DE09A1D5	9						1.000	
31DE09A1D5	10						1.000	
31DE09A1D5	11						1.000	
31DE09A1D5	12						1.000	
31DE09A1D5	13						1.000	
31DE09A1D5	14						1.000	
31DE09A1D5	15		AM 12-31-09				1.000	
31DE09A1D5	16						1.000	

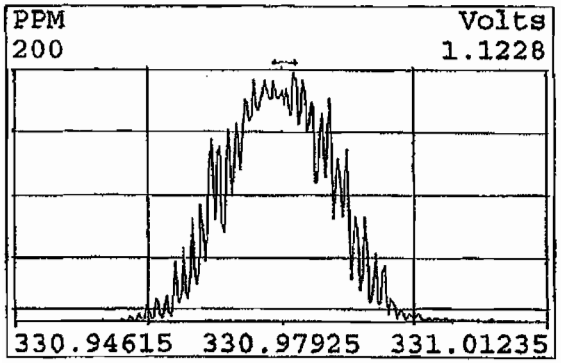
File:31DE09A1D5 #1-410 Acq:31-DEC-2009 23:25:43 GC EI+ Voltage SIR 70SE
Sample#1 Text:CP1231A :DB-5 CPSM 3732-04 Exp:DIOXIN
321.8936

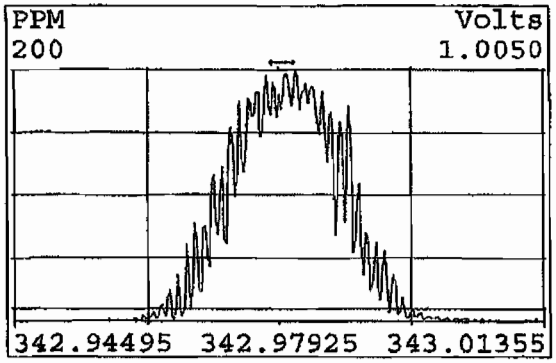


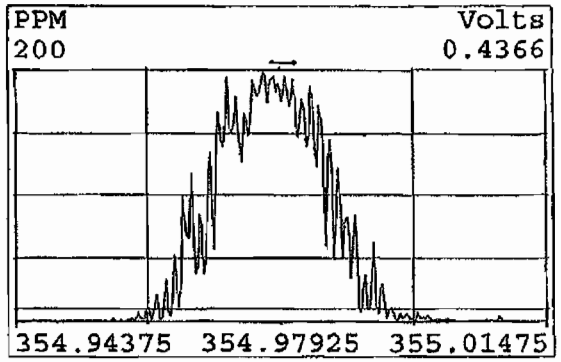
Peak Locate Examination:31-DEC-2009:23:19 File:31DE09A1D5
Experiment:DIOXIN Function:1 Reference:PFK

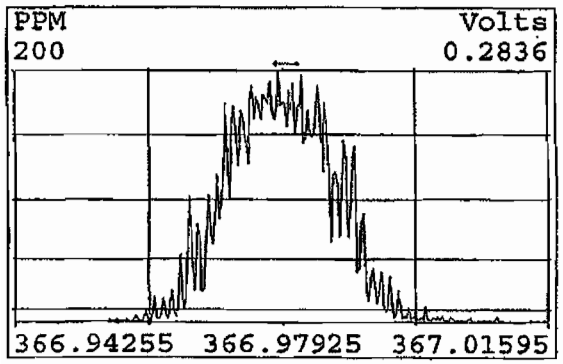


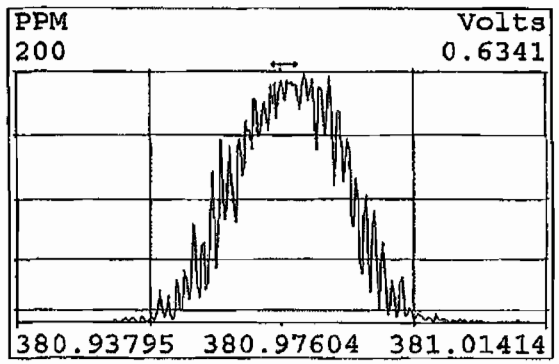
Peak Locate Examination:31-DEC-2009:23:20 File:31DE09A1D5
Experiment:DIOXIN Function:2 Reference:PFK

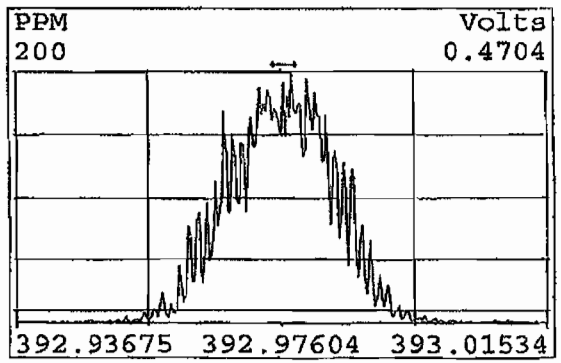


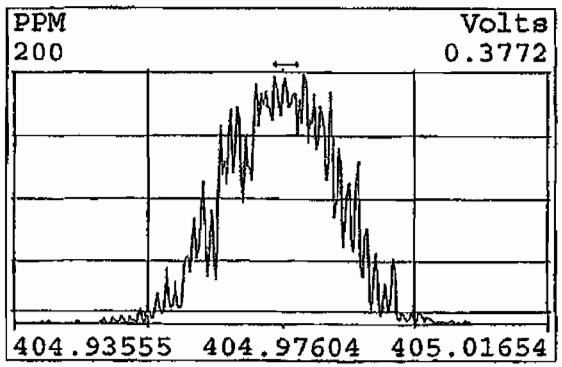


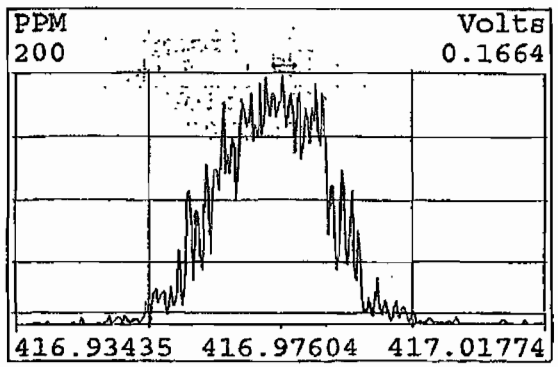




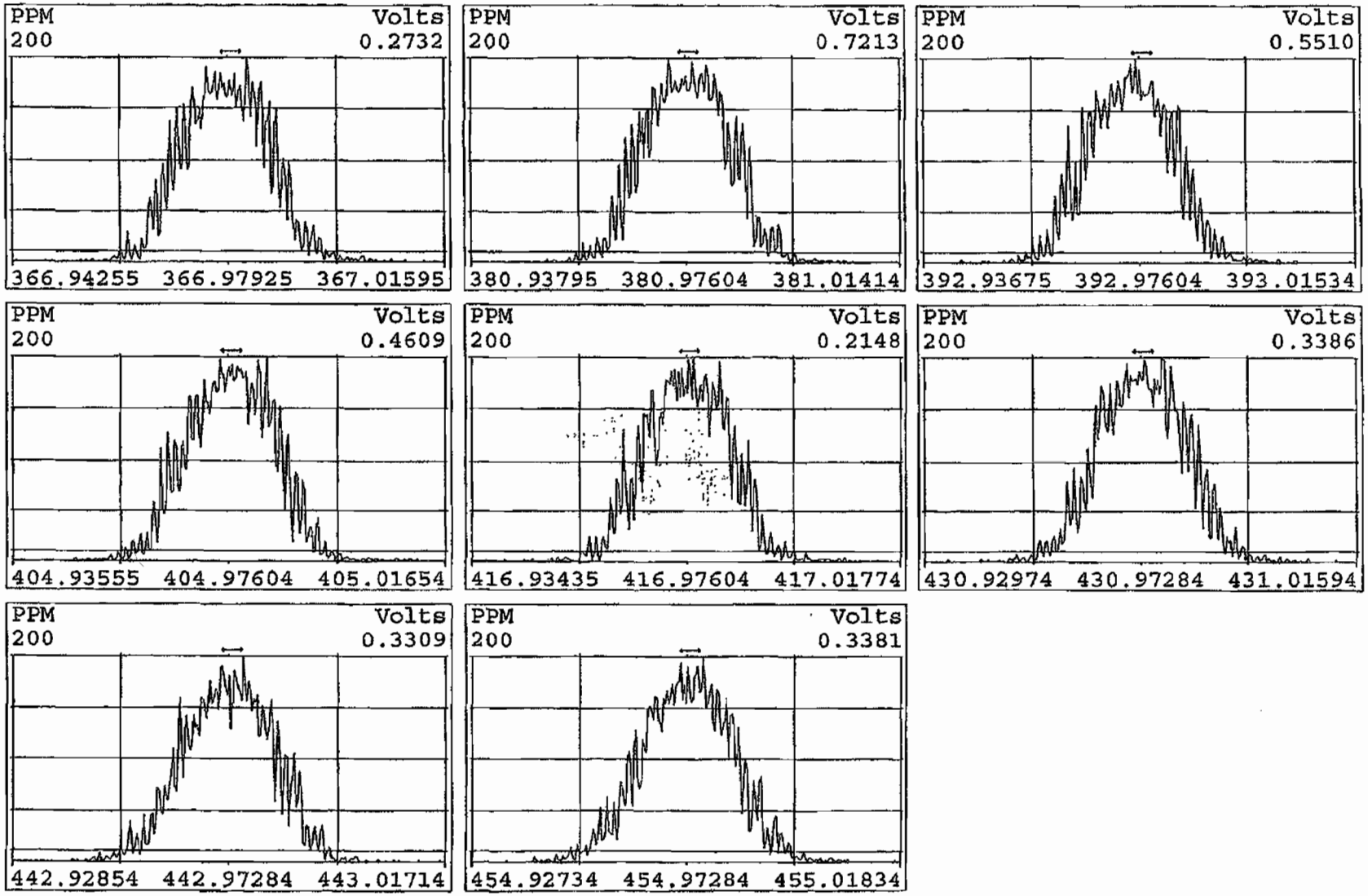




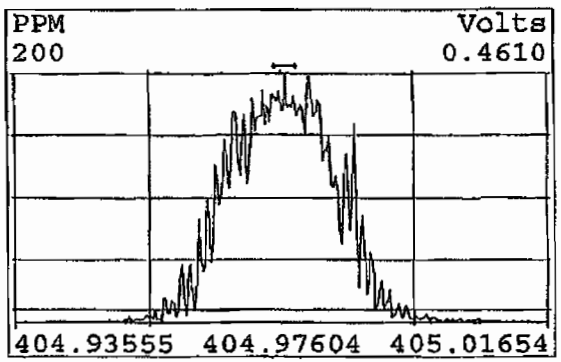


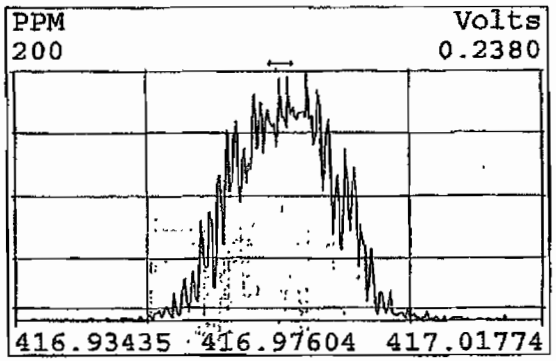


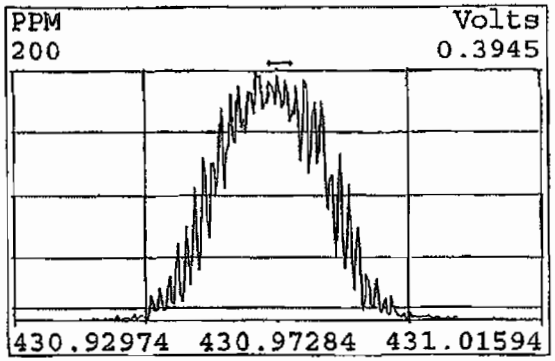
Peak Locate Examination:31-DEC-2009:23:21 File:31DE09A1D5
Experiment:DIOXIN Function:3 Reference:PFK

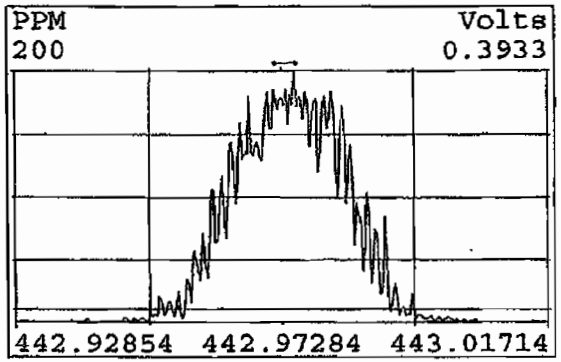


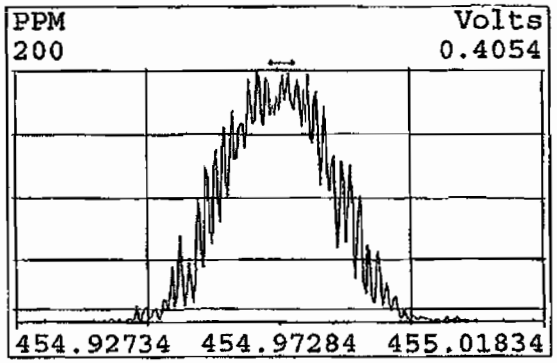
Peak Locate Examination:31-DEC-2009:23:22 File:31DE09A1D5
Experiment:DIOXIN Function:4 Reference:PFK

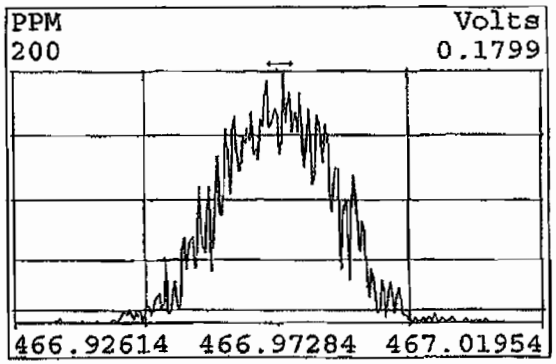


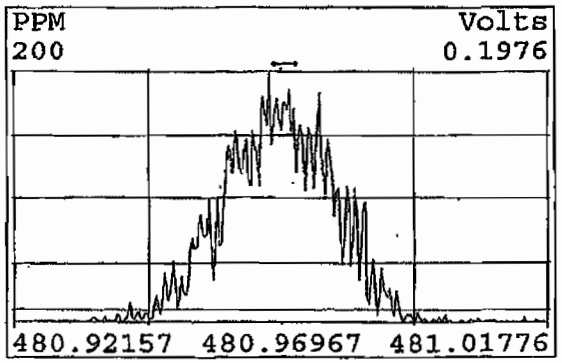




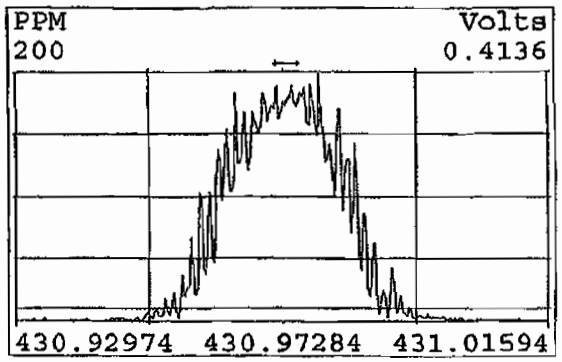


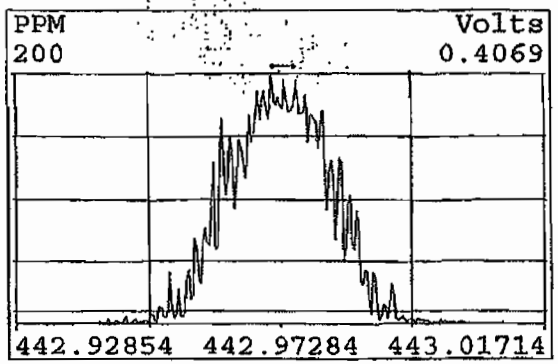


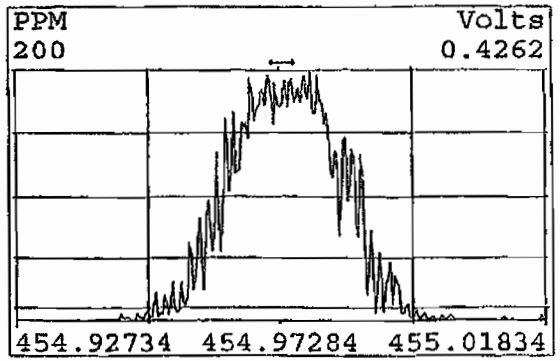


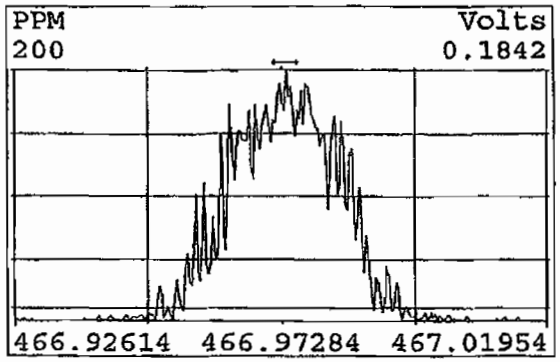


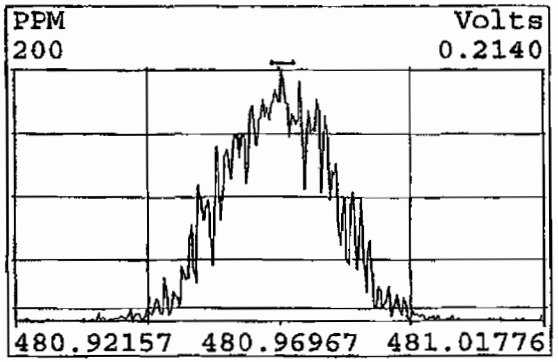
Peak Locate Examination:31-DEC-2009:23:24 File:31DE09A1D5
Experiment:DIOXIN Function:5 Reference:PFK

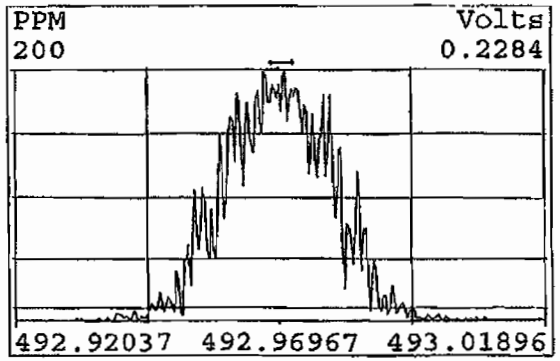


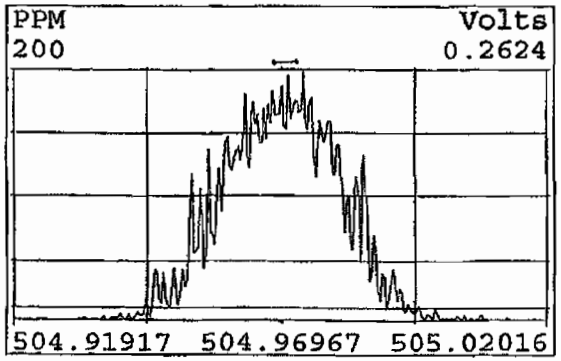


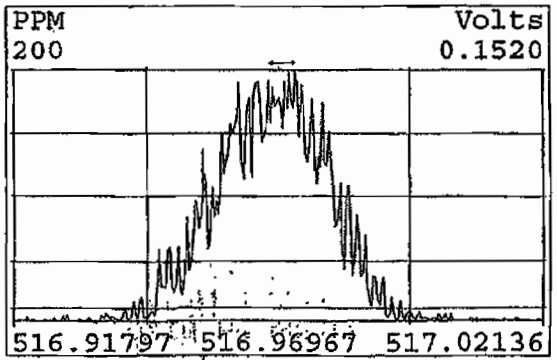




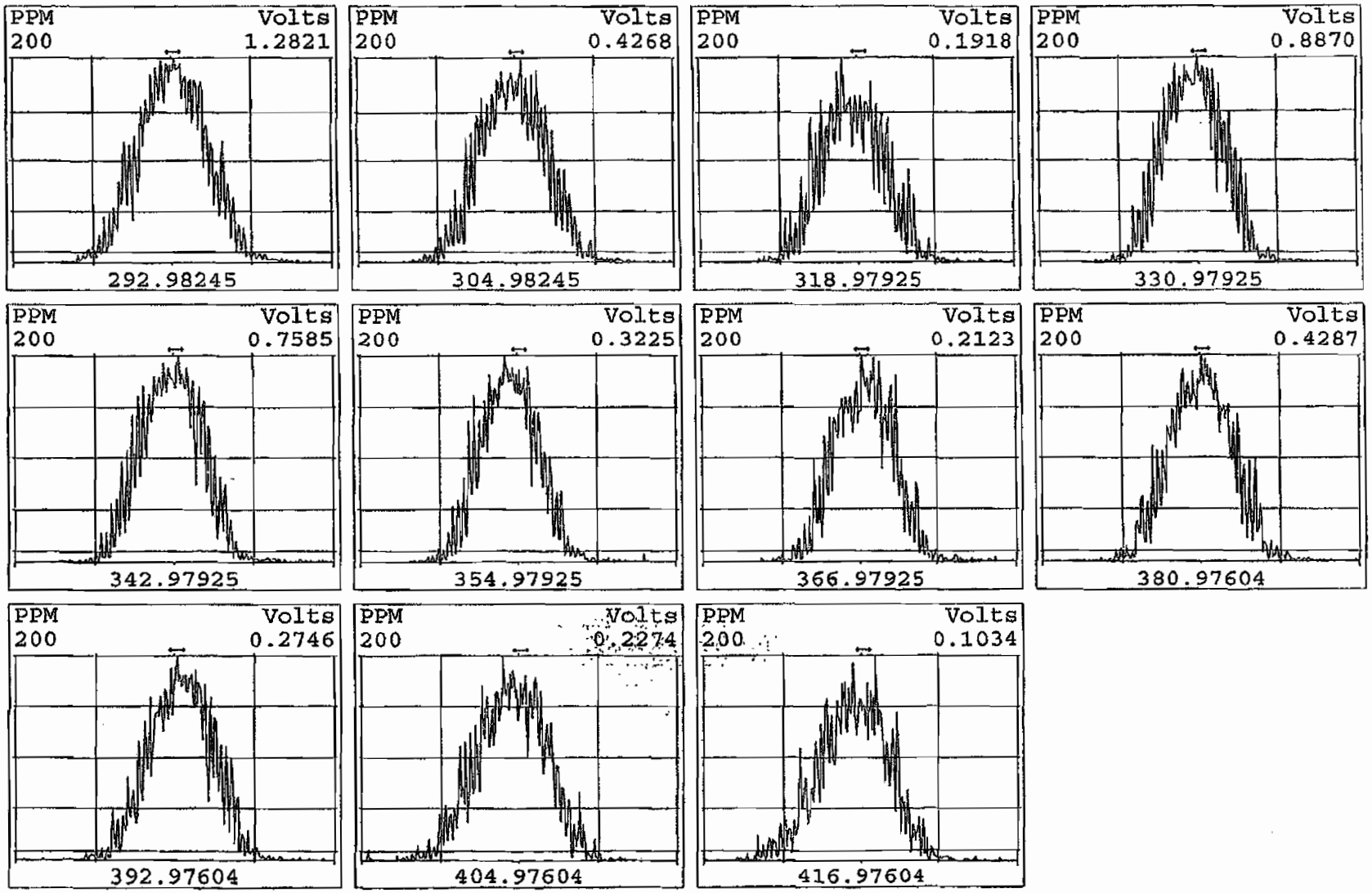




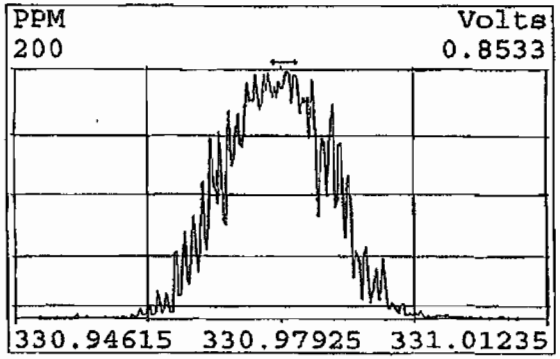


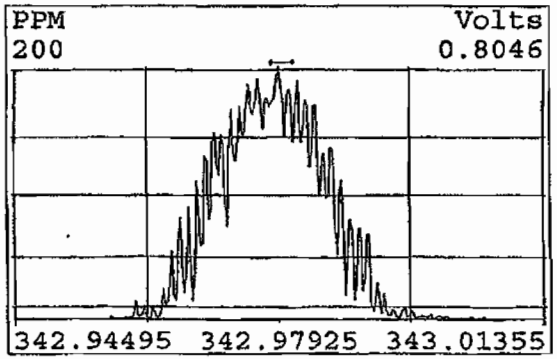


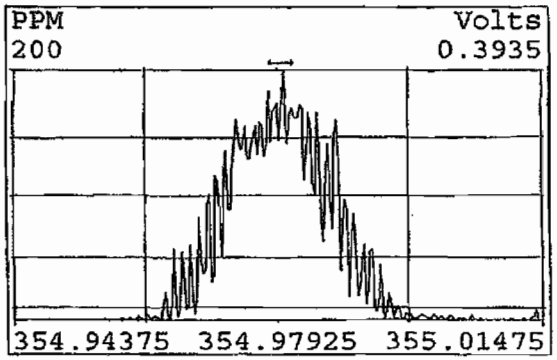
Peak Locate Examination: 1-JAN-2010:07:36 File:RESCHECK1D5
Experiment:DIOXIN Function:1 Reference:PFK

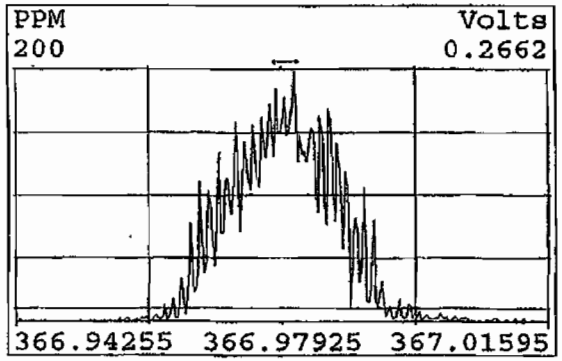


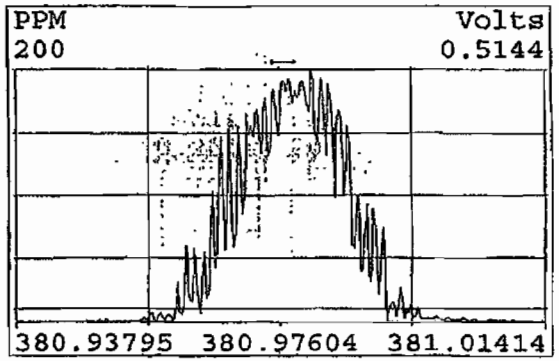
Peak Locate Examination: 1-JAN-2010:07:37 File:RESCHECK1D5
Experiment:DIOXIN Function:2 Reference:PFK

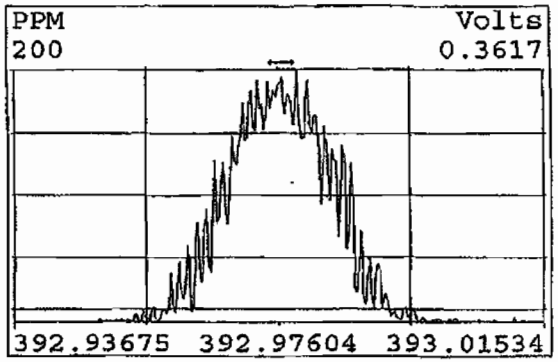


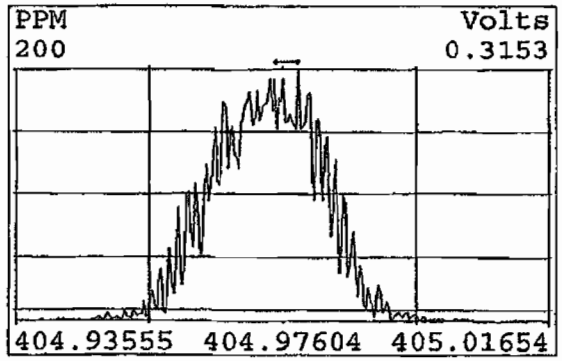


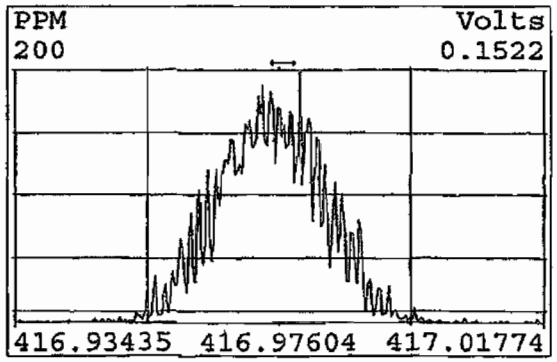




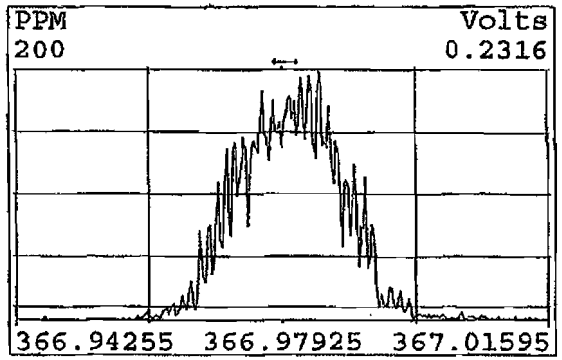


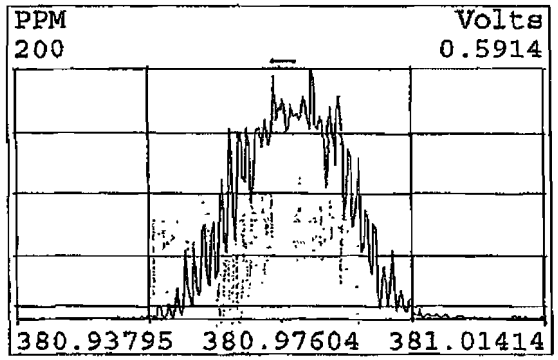


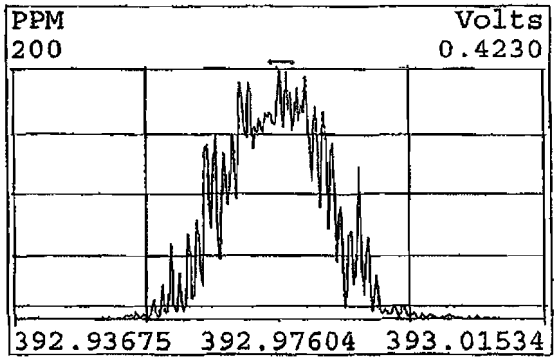


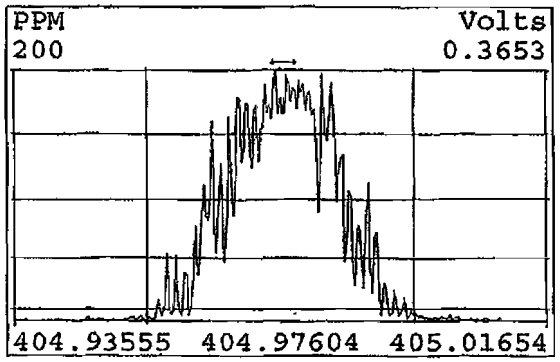


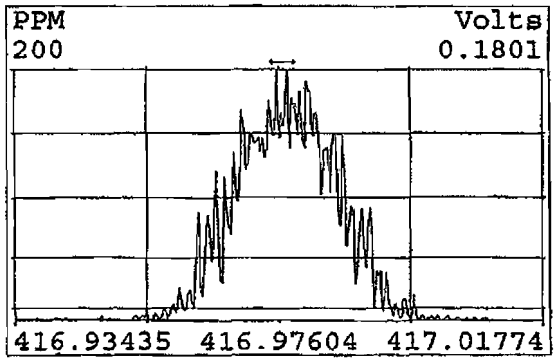
Peak Locate Examination: 1-JAN-2010:07:38 File:RESCHECK1D5
Experiment:DIOXIN Function:3 Reference:PFK

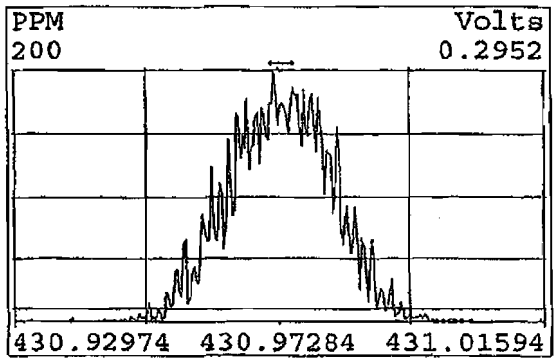


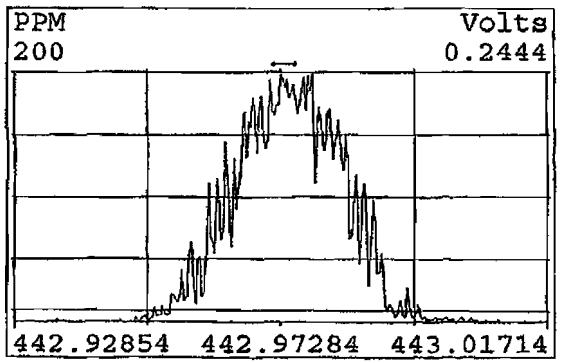


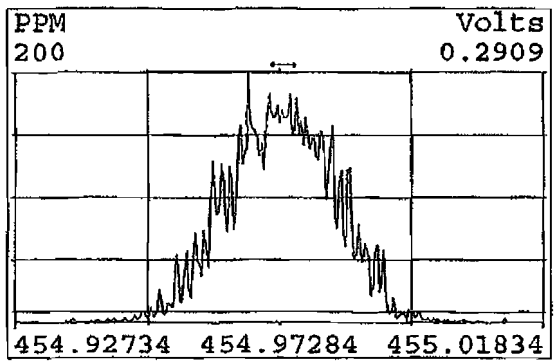




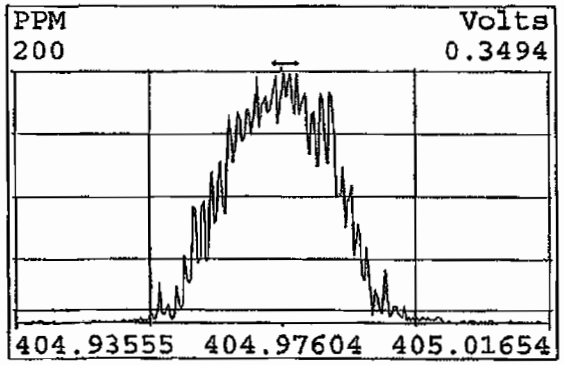


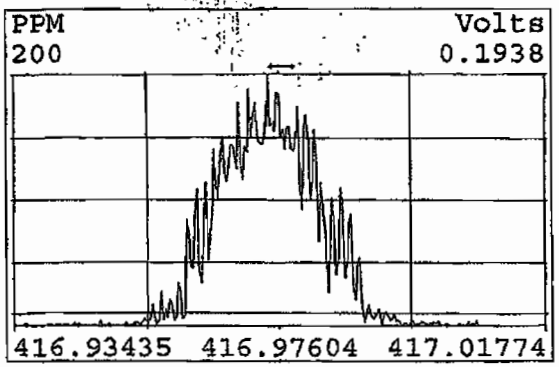


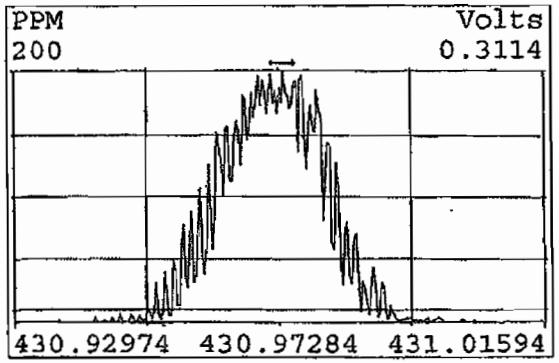


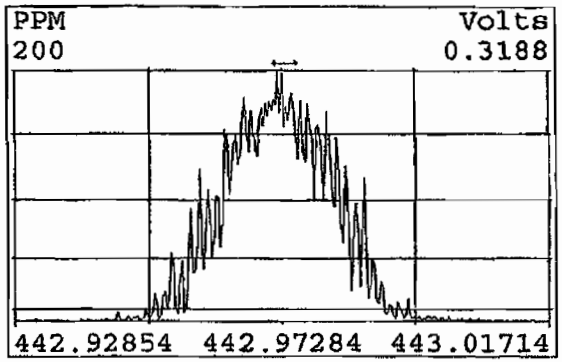


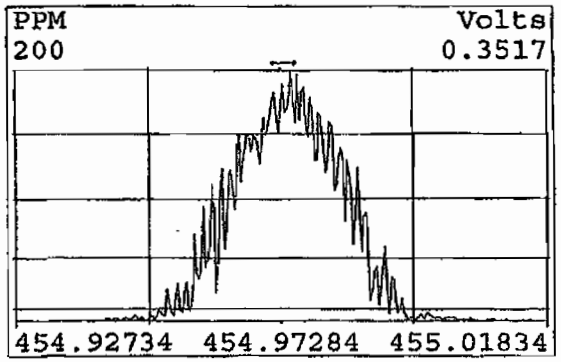
Peak Locate Examination: 1-JAN-2010:07:39 File:RESCHECK1D5
Experiment:DIOXIN Function:4 Reference:PFK

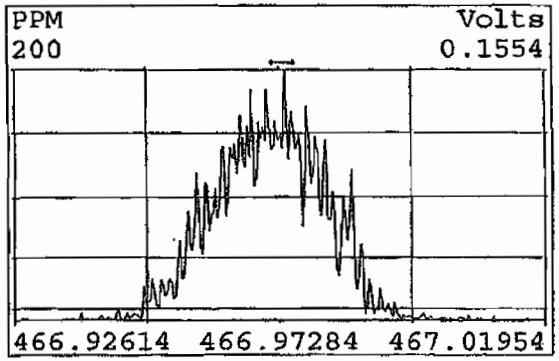


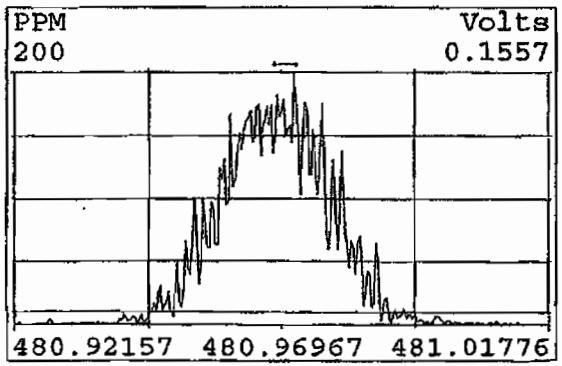




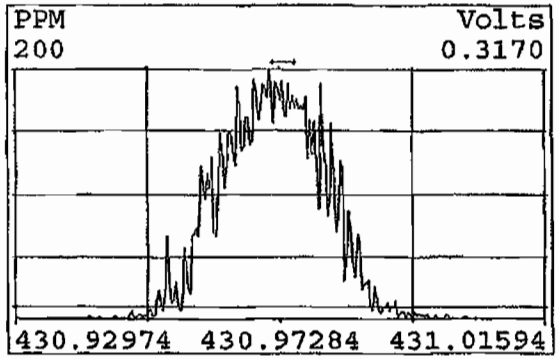


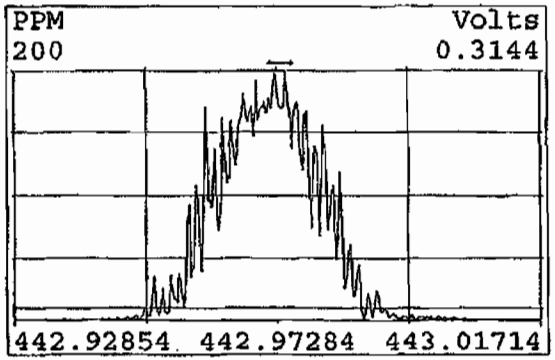


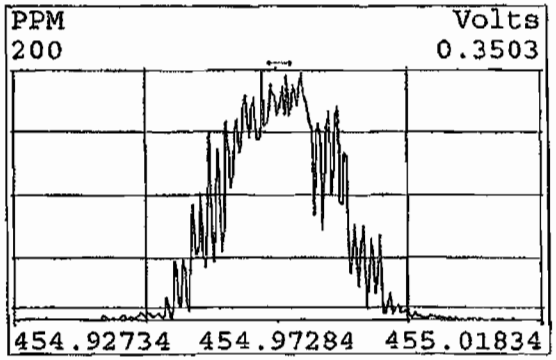


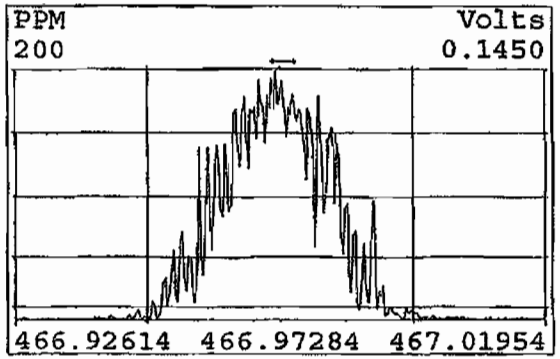


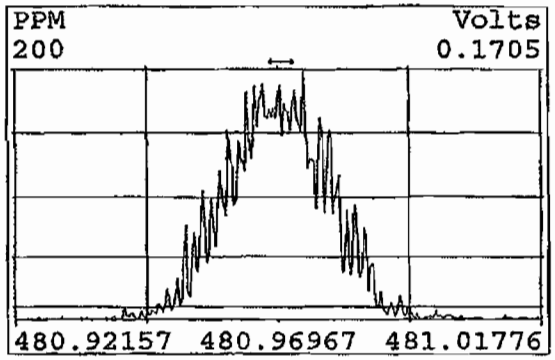
Peak Locate Examination: 1-JAN-2010:07:40 File:RESCHECK1D5
Experiment:DIOXIN Function:5 Reference:PFK

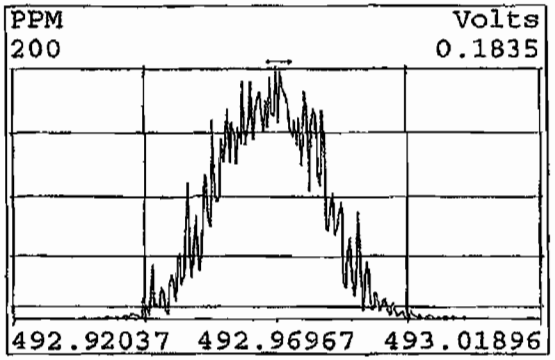


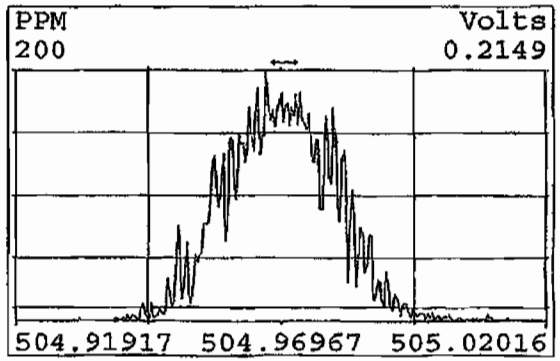


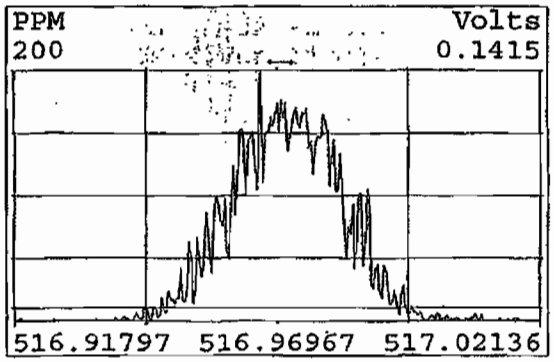












Run: 15SE098D2 Analyte: 8290 Cal: 82901231091D5

ST1231B :CS-1 09DXN422 ST1231C :CS-2 09DXN423 ST1231D :CS-3 09DXN425
ST1231E :CS-4 09DXN426 ST1231F :CS-5 09DXN456

				31DE09A1D531DE09A1D531DE09A1D531DE09A1D531DE09A1D5				
				S2	S3	S4	S5	S6
Name	Mean	S. D.	%RSD	RRF1	RRF2	RRF3	RRF4	RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.566	0.079	5.03 %	1.52	1.48	1.64	1.53	1.66
2,3,7,8-TCDF	0.860	0.090	10.4 %	0.77	0.77	0.87	0.91	0.98
Total TCDF	0.860	0.090	10.4 %	0.77	0.77	0.87	0.91	0.98
13C-2,3,7,8-TCDD	0.993	0.079	7.91 %	0.93	0.93	1.01	0.97	1.12
2,3,7,8-TCDD	0.934	0.120	12.9 %	0.86	0.77	0.95	1.01	1.07
Total TCDD	0.934	0.120	12.9 %	0.86	0.77	0.95	1.01	1.07
37Cl-2,3,7,8-TCDD	2.218	0.347	15.7 %	2.02	1.82	2.18	2.33	2.74
13C-1,2,3,7,8-PeCDF	1.073	0.114	10.6 %	1.00	0.98	1.09	1.03	1.26
1,2,3,7,8-PeCDF	1.000	0.119	11.9 %	0.85	0.90	1.04	1.10	1.11
2,3,4,7,8-PeCDF	0.939	0.122	13.0 %	0.79	0.84	0.97	1.05	1.05
Total F2 PeCDF	0.969	0.120	12.4 %	0.82	0.87	1.01	1.08	1.08
Total F1 PeCDF	0.969	0.120	12.4 %	0.82	0.87	1.01	1.08	1.08
13C-1,2,3,7,8-PeCDD	0.666	0.081	12.1 %	0.61	0.59	0.67	0.67	0.80
1,2,3,7,8-PeCDD	0.929	0.127	13.7 %	0.79	0.81	0.94	1.04	1.06
Total PeCDD	0.929	0.127	13.7 %	0.79	0.81	0.94	1.04	1.06
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-
13C-1,2,3,4,7,8-HxCDF	0.893	0.084	9.37 %	0.98	0.88	0.90	0.76	0.94
1,2,3,4,7,8-HxCDF	1.199	0.171	14.2 %	0.96	1.08	1.31	1.33	1.32
1,2,3,6,7,8-HxCDF	1.371	0.160	11.7 %	1.12	1.30	1.48	1.51	1.45
2,3,4,6,7,8-HxCDF	1.242	0.152	12.3 %	1.02	1.15	1.32	1.36	1.36
1,2,3,7,8,9-HxCDF	1.326	0.218	16.4 %	1.02	1.19	1.44	1.57	1.42
Total HxCDF	1.285	0.174	13.5 %	1.03	1.18	1.39	1.44	1.38
13C-1,2,3,6,7,8-HxCDD	0.732	0.084	11.4 %	0.83	0.69	0.75	0.61	0.78
1,2,3,4,7,8-HxCDD	0.970	0.170	17.5 %	0.74	0.88	0.98	1.15	1.11

RSD < 20% unlabeled
< 30% labeled

1,2,3,6,7,8-HxCDD	1.058	0.118	11.2 %	0.88	1.01	1.09	1.16	1.15
1,2,3,7,8,9-HxCDD	1.275	0.243	19.0 %	0.92	1.19	1.33	1.57	1.37
Total HxCDD	1.101	0.175	15.9 %	0.84	1.02	1.14	1.30	1.21
13C-1,2,3,4,6,7,8-HpCDF	0.860	0.055	6.38 %	0.92	0.85	0.88	0.78	0.88
1,2,3,4,6,7,8-HpCDF	1.287	0.138	10.8 %	1.10	1.18	1.34	1.41	1.40
1,2,3,4,7,8,9-HpCDF	1.135	0.151	13.3 %	0.95	1.00	1.19	1.27	1.27
Total HpCDF	1.211	0.145	11.9 %	1.02	1.09	1.27	1.34	1.33
13C-1,2,3,4,6,7,8-HpCDD	0.752	0.046	6.08 %	0.80	0.74	0.75	0.68	0.79
1,2,3,4,6,7,8-HpCDD	0.998	0.122	12.2 %	0.85	0.88	1.05	1.10	1.10
Total HpCDD	0.998	0.122	12.2 %	0.85	0.88	1.05	1.10	1.10
13C-OCDD	0.564	0.039	6.86 %	0.58	0.54	0.57	0.51	0.61
OCDF	1.437	0.202	14.1 %	1.16	1.30	1.52	1.63	1.59
OCDD	1.110	0.128	11.5 %	0.96	0.98	1.16	1.23	1.22

Run text: ST1231G Sample text: ST1231G :2nd Source 09DXN449
Run #6 Filename: 31DE09A1D5 S: 8 I: 1 Results: 31DE09A1D51613
Acquired: 1-JAN-10 04:19:56 Processed: 4-JAN-10 08:47:22
Run: 31DE09A1D5 Analyte: 1613 Cal: 16131231091D5
Factor 1: 400.000 Factor 2: 20.000 Sample size: 1.000000

Name	Resp	RA		RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	233268000	0.81	y	18:42	-	74.89	-	3.7	n
13C-2,3,7,8-TCDF	353417000	0.79	y	18:09	1.57	1934.92	1.89	96.7	n
2,3,7,8-TCDF	29473900	0.75	y	18:10	0.86	193.98	1.19	-	n
Total TCDF	29878342	0.71	y	17:44	0.86	196.64	1.19	-	n
13C-2,3,7,8-TCDD	237599000	0.79	y	18:54	0.99	2050.84	3.63	102.5	n
2,3,7,8-TCDD	20517060	0.77	y	18:55	0.93	184.95	1.19	-	n
Total TCDD	20584547	4.35	n	18:08	0.93	185.56	1.19	-	n
37Cl-2,3,7,8-TCDD	54584600	1.00	y	18:55	2.22	210.99	0.58	105.5	n
13C-1,2,3,7,8-PeCDF	258286200	1.61	y	23:34	1.07	2064.12	1.55	103.2	n
1,2,3,7,8-PeCDF	61444300	1.63	y	23:35	1.00	475.75	1.74	-	n
13C-2,3,4,7,8-PeCDF	243753700	1.62	y	24:59	1.03	2025.63	1.61	101.3	n
2,3,4,7,8-PeCDF	55918300	1.65	y	25:01	0.98	469.60	2.00	-	n
Total F2 PeCDF	119226673	0.82	n	22:06	0.99	960.37	1.86	-	n
Total F1 PeCDF	218994	0.56	n	16:04	0.99	1.76	1.60	-	n
13C-1,2,3,7,8-PeCDD	156506400	1.64	y	25:46	0.67	2013.73	1.54	100.7	n
1,2,3,7,8-PeCDD	33662100	1.63	y	25:48	0.93	462.96	2.68	-	n
Total PeCDD	33824671	3.66	n	25:27	0.93	465.20	2.68	-	n
13C-1,2,3,7,8,9-HxCDD	177940200	1.25	y	32:51	-	64.87	-	-	n
13C-1,2,3,4,7,8-HxCDF	184934800	0.51	y	31:27	0.89	2328.15	4.47	116.4	n
1,2,3,4,7,8-HxCDF	53136200	1.31	y	31:28	1.20	479.25	2.45	-	n
13C-1,2,3,6,7,8-HxCDF	244860900	0.52	y	31:36	1.14	2407.44	3.49	120.4	n
1,2,3,6,7,8-HxCDF	62674400	1.23	y	31:37	1.07	477.98	2.04	-	n
13C-2,3,4,6,7,8-HxCDF	206484200	0.51	y	32:17	0.99	2340.79	4.03	117.0	n
2,3,4,6,7,8-HxCDF	51999200	1.28	y	32:18	1.12	450.75	2.09	-	n
13C-1,2,3,7,8,9-HxCDF	200333300	0.51	y	33:03	1.07	2099.56	3.72	105.0	n
1,2,3,7,8,9-HxCDF	52210900	1.25	y	33:04	1.09	476.28	2.26	-	n
Total HxCDF	220020700	1.31	y	31:28	1.12	1884.27	2.20	-	n
13C-1,2,3,4,7,8-HxCDD	148948400	1.25	y	32:27	0.73	2291.14	1.29	114.6	n
1,2,3,4,7,8-HxCDD	35533800	1.25	y	32:28	0.97	493.76	1.44	-	n
13C-1,2,3,6,7,8-HxCDD	152466700	1.30	y	32:33	0.73	2340.82	1.29	117.0	n
1,2,3,6,7,8-HxCDD	38830200	1.26	y	32:34	1.06	481.27	1.47	-	n
1,2,3,7,8,9-HxCDD	40200100	1.26	y	32:52	1.27	419.65	1.16	-	n
Total HxCDD	114605618	3.00	n	32:17	1.10	1395.19	1.34	-	n
13C-1,2,3,4,6,7,8-HpCDF	173164700	0.43	y	34:36	0.86	2262.83	6.25	113.1	n
1,2,3,4,6,7,8-HpCDF	54083400	1.05	y	34:37	1.29	485.50	1.92	-	n
13C-1,2,3,4,7,8,9-HpCDF	152527600	0.42	y	35:53	0.77	2233.57	7.00	111.7	n
1,2,3,4,7,8,9-HpCDF	44615700	1.05	y	35:54	1.27	459.77	2.42	-	n
Total HpCDF	98699100	1.05	y	34:37	1.28	945.27	2.15	-	n

Rounds to 120%

80-120% unlabeled
90-130% labeled

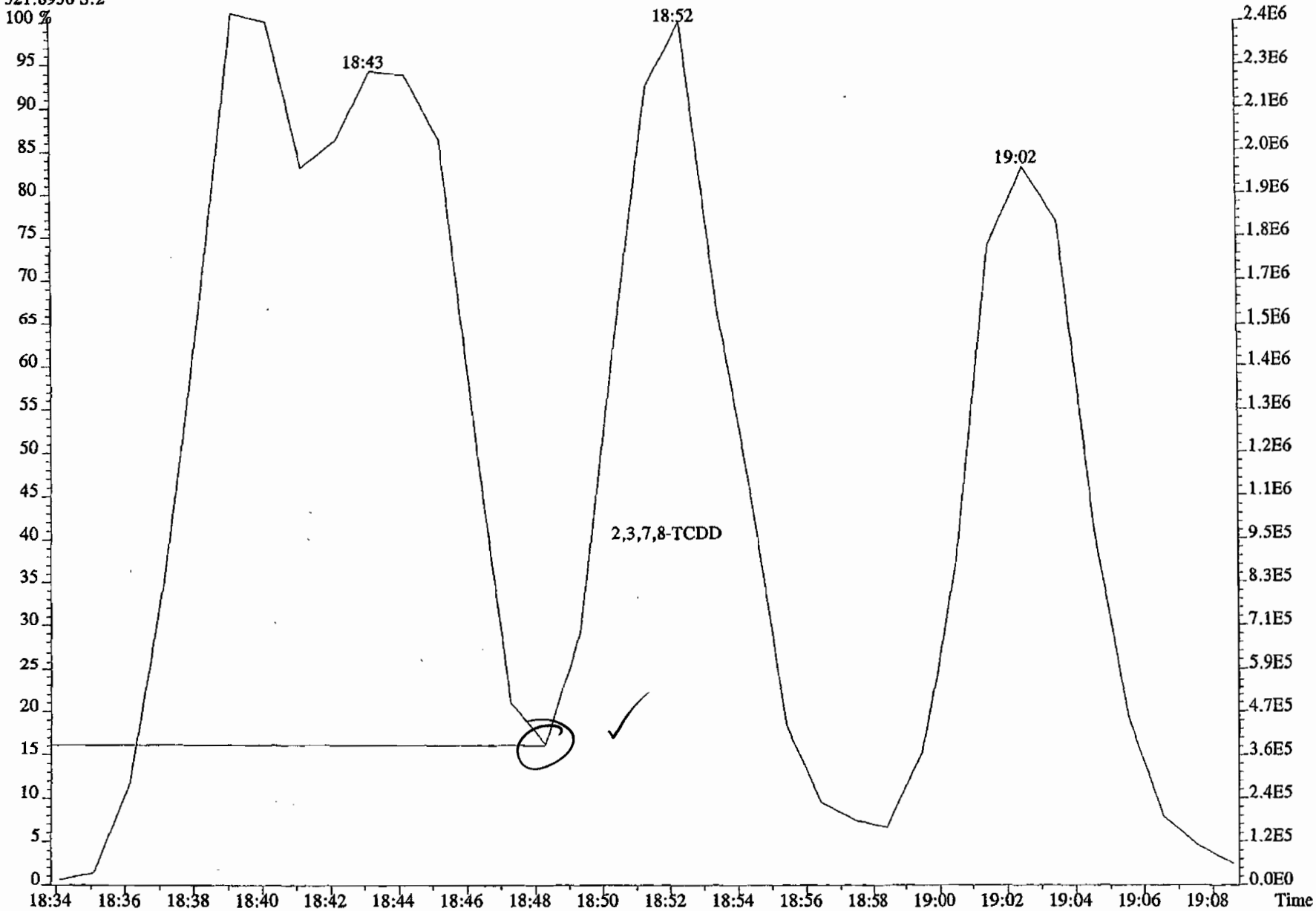
13C-1,2,3,4,6,7,8-HpCDD	150261100	1.06	y	35:32	0.75	2245.36	4.02	112.3	n
1,2,3,4,6,7,8-HpCDD	35301400	1.05	y	35:33	1.00	470.89	2.29	-	n
Total HpCDD	35553500	0.78	n	34:54	1.00	474.25	2.29	-	n
13C-OCDD	214408000	0.91	y	38:20	0.56	4269.63	4.55	106.7	n
OCDF	71179900	0.89	y	38:28	1.44	923.89	2.51	-	n
OCDD	55918600	0.88	y	38:20	1.11	940.23	2.77	-	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
29JA101D5	1	ST0129	CS3 09DXN425				1.000	
29JA101D5	2	CP0129	DB-5 CPSM 3732-04				1.000	
29JA101D5	3	SB0129	Solvent Blank C-14				1.000	
29JA101D5	4	LTWME-1-AA	G0A280000-223B	20	8290/WATER	100	1.000	L
29JA101D5	5	LTWME-1-AC	G0A280000-223C	20	8290/WATER		1.000	L
29JA101D5	6	LTH77-1-AA	G0A210537-1	20	8290/WATER		0.910	L
29JA101D5	7	LTLTL-1-AA	G0A220495-1	20	8290/WATER		0.969	L
29JA101D5	8	LTLT1-1-AA	G0A220497-1	20	8290/WATER		1.037	L
29JA101D5	9	LTLT8-1-AA	G0A220501-1	20	8290/WATER		1.042	L
29JA101D5	10	LTMGF-1-AA	G0A220427-31	20	8290/WATER		1.038	L
29JA101D5	11	LTNQ9-1-AA	G0A230482-1	20	8290/SOLID		10.190	g
29JA101D5	12	LTNRA-1-AA	G0A230482-2	20	8290/SOLID		10.520	g
29JA101D5	13	LTNRC-1-AA	G0A230482-3	20	8290/SOLID		10.390	g
29JA101D5	14	LTNRQ-1-AA	G0A230486-1	20	8290/SOLID		10.120	g
29JA101D5	15	LTNRR-1-AA	G0A230486-2	20	8290/SOLID		10.500	g
29JA101D5	16	LTNRT-1-AA	G0A230486-3	20	8290/SOLID		10.290	g
29JA101D5	17	LTNRV-1-AA	G0A230486-4	20	8290/SOLID		10.730	g
29JA101D5	18	SB0129A	Solvent Blank C-14				1.000	
29JA101D5	19	ST0129A	CS3 09DXN425				1.000	
29JA101D5	20	CP0129A	DB-5 CPSM 3732-04				1.000	
29JA101D5	21	SB0129B	Solvent Blank C-14				1.000	
29JA101D5	22	LTVHV-1-AA	G0A270000-386B	20	8290/SOLID	100	10.000	g
JA101D5	23	LTVHV-1-AC	G0A270000-386C	20	8290/SOLID		10.000	g
29JA101D5	24	LTNRW-1-AA	G0A230486-5	20	8290/SOLID		10.770	g
29JA101D5	25	LTNR1-1-AA	G0A230487-1	20	8290/SOLID		10.020	g
29JA101D5	26	LTNR2-1-AA	G0A230487-2	20	8290/SOLID		10.000	g
29JA101D5	27	LTNR3-1-AA	G0A230487-3	20	8290/SOLID		10.280	g
29JA101D5	28	LTNR4-1-AA	G0A230487-4	20	8290/SOLID		10.440	g
29JA101D5	29	LTNR5-1-AA	G0A230487-5	20	8290/SOLID		10.000	g
29JA101D5	30	LTNR6-1-AA	G0A230487-6	20	8290/SOLID		10.280	g
29JA101D5	31	LTNR8-1-AA	G0A230487-7	20	8290/SOLID		10.230	g
29JA101D5	32	LTNR9-1-AA	G0A230489-1	20	8290/SOLID		10.010	g
29JA101D5	33	LTNTA-1-AA	G0A230489-2	20	8290/SOLID		10.110	g
29JA101D5	34	LTH2E-1-AA	G0A210504-1	10	8290/SOLID	98	11.400	g
29JA101D5	35	LTH3L-1-AA	G0A210504-2	10	8290/SOLID		10.800	g
29JA101D5	36	SB0129C	Solvent Blank C-14				1.000	
29JA101D5	37	ST0129B	CS3 09DXN425				1.000	
29JA101D5	38	CP0129B	DB-5 CPSM 3732-04				1.000	
29JA101D5	39	SB0129D	Solvent Blank C-14				1.000	
29JA101D5	40	LTLVV-1-AA	G0A220000-331B	10	8290/SOLID	98	10.000	g
29JA101D5	41	LTLVV-1-AC	G0A220000-331C	10	8290/SOLID		10.000	g
29JA101D5	42	LTH3M-1-AA	G0A210504-3	10	8290/SOLID		12.000	g
29JA101D5	43	LTH3N-1-AA	G0A210504-4	10	8290/SOLID		10.700	g
29JA101D5	44	LTH34-1-AA	G0A210512-1	10	8290/SOLID		11.400	g
29JA101D5	45	LTH35-1-AA	G0A210512-2	10	8290/SOLID		10.200	g
29JA101D5	46	LTH36-1-AA	G0A210512-3	10	8290/SOLID		10.600	g
29JA101D5	47	LTH37-1-AA	G0A210512-4	10	8290/SOLID		0.058	g
JA101D5	48	LTH38-1-AA	G0A210513-1	10	8290/SOLID		12.000	g
JA101D5	49	LTH39-1-AA	G0A210513-2	10	8290/SOLID		0.022	g
29JA101D5	50	LTH4A-1-AA	G0A210513-3	10	8290/SOLID		10.700	g
29JA101D5	51	LTH4C-1-AA	G0A210513-4	10	8290/SOLID		11.100	g
29JA101D5	52	LTLHV-1-AG	F0A220455-1	20	8290/SOLID	98	10.425	g
29JA101D5	53	LTLH7-1-AG	F0A220455-2	20	8290/SOLID		10.285	g

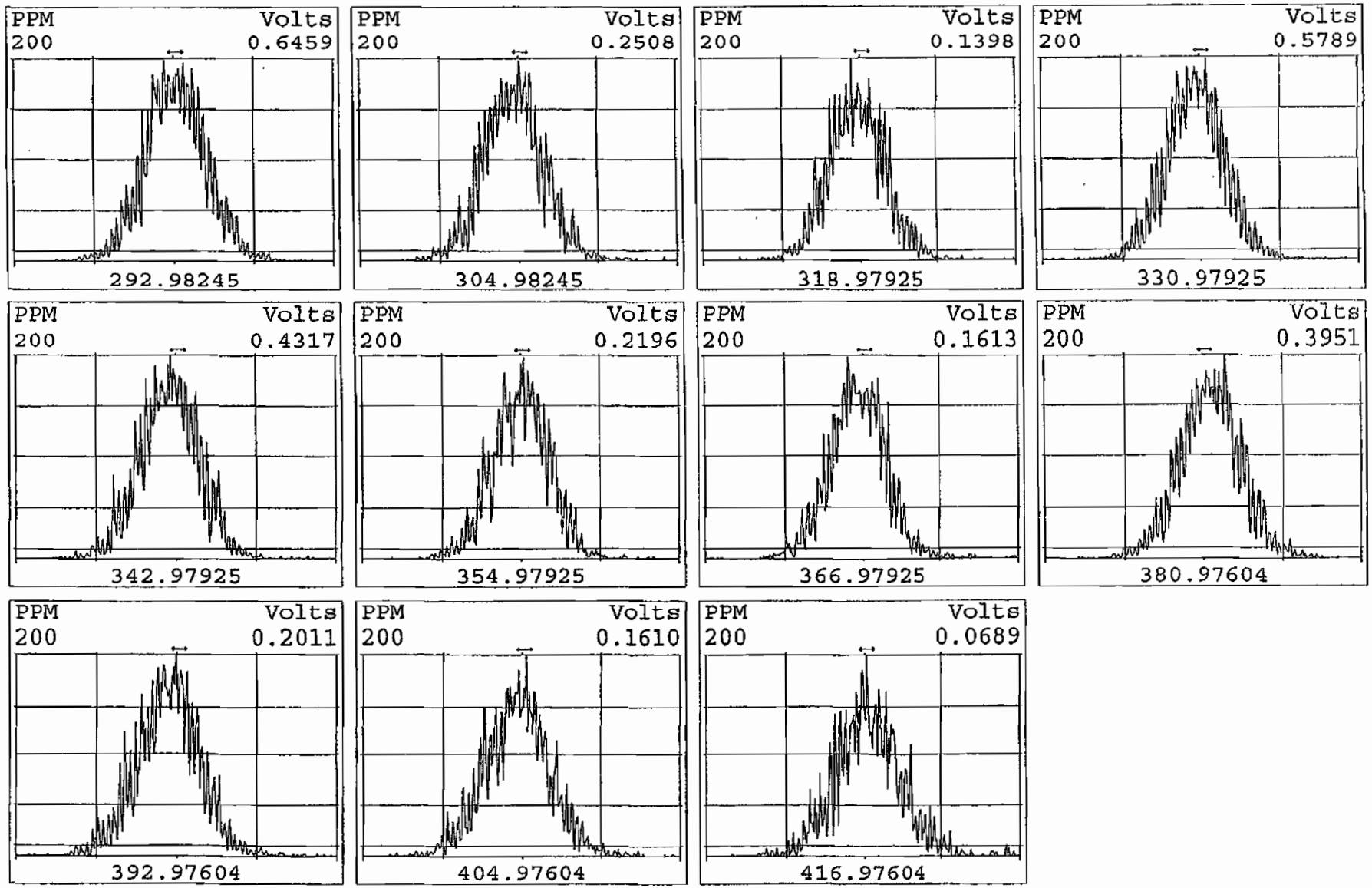
29JA101D5	54	LTM99-1-AG	F0A230442-1	20	8290/SOLID	10.085 g
29JA101D5	55	LTNAD-1-AF	F0A230442-2	20	8290/SOLID	10.000 g
29JA101D5	56	LTNAE-1-AF	F0A230442-3	20	8290/SOLID	10.075 g
`JA101D5	57	ST0129C	CS3 09DXN425			1.000
JA101D5	58					1.000
29JA101D5	59					1.000
29JA101D5	60					1.000
29JA101D5	61		MG 01/29/10			1.000

AK 2/1/10

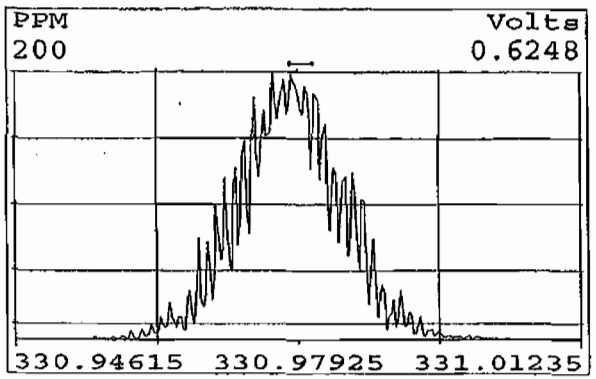
File:29JA101D5 #1-402 Acq:29-JAN-2010 16:19:51 GC EI+ Voltage SIR 70SE
Sample#2 Text:CP0129 :DB-5 CPSM 3732-04 Exp:DIOXIN
321.8936 S:2

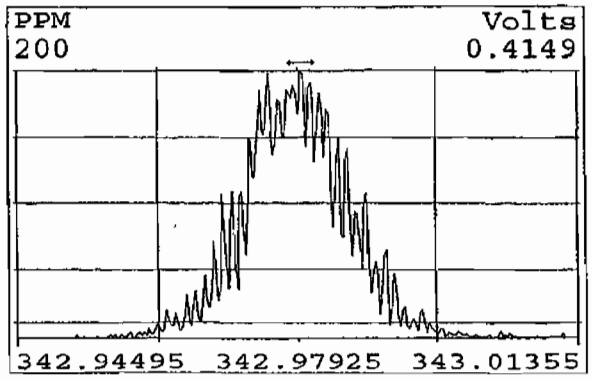


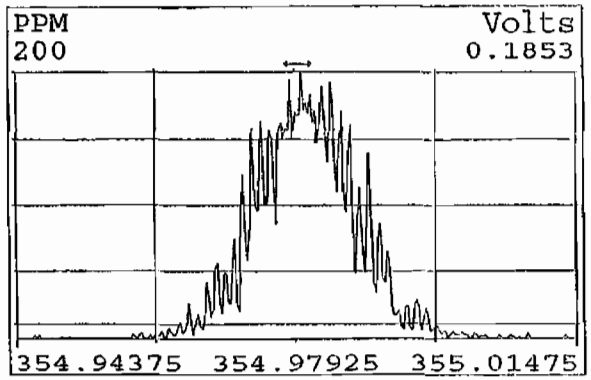
Peak Locate Examination:29-JAN-2010:15:35 File:29JA101D5
Experiment:DIOXIN Function:1 Reference:PFK

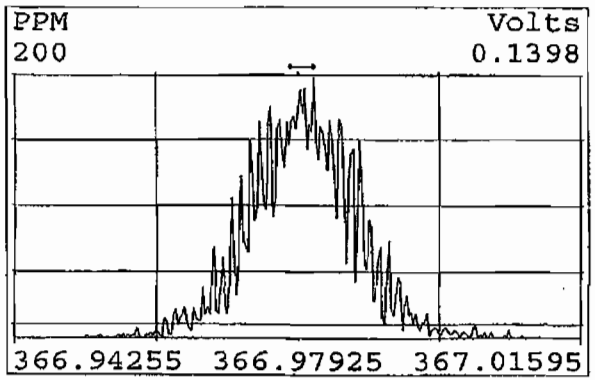


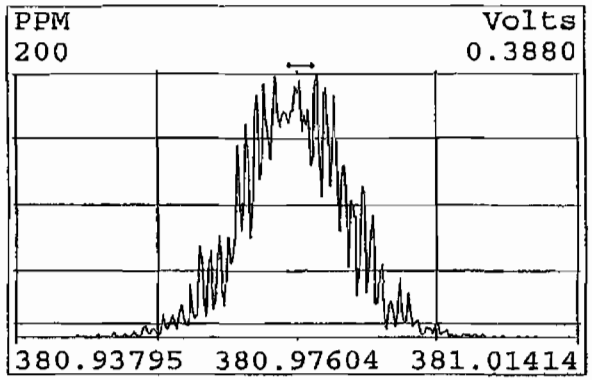
Peak Locate Examination:29-JAN-2010:15:36 File:29JA101D5
Experiment:DIOXIN Function:2 Reference:PFK

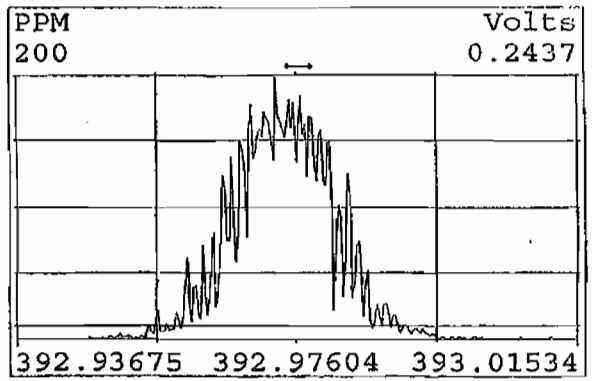


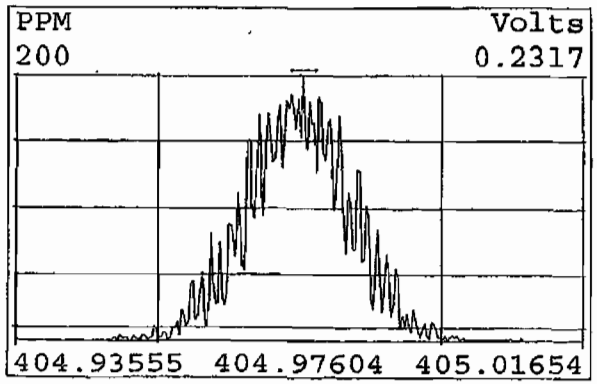


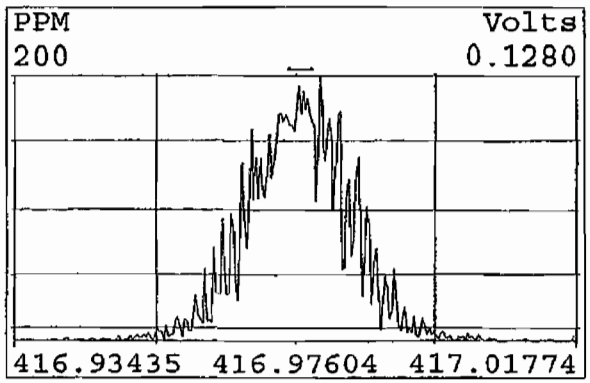




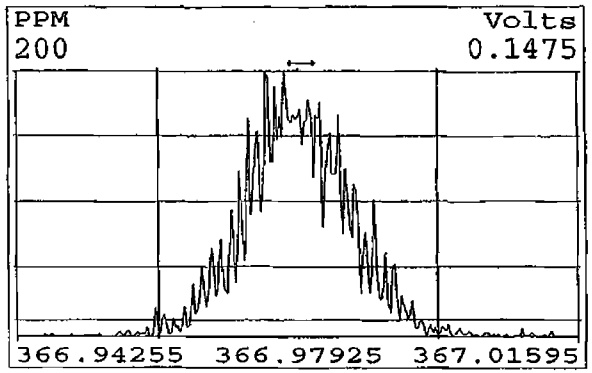


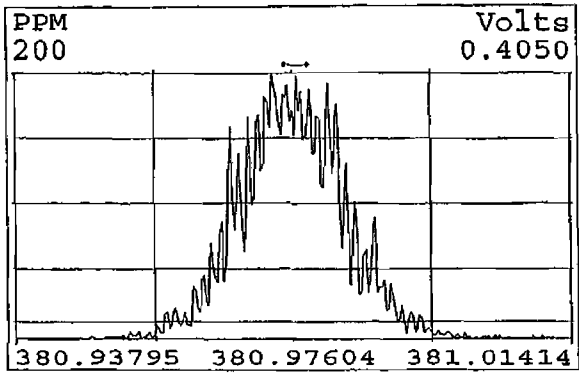


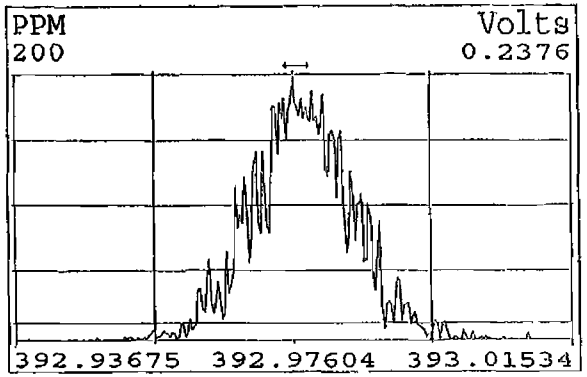


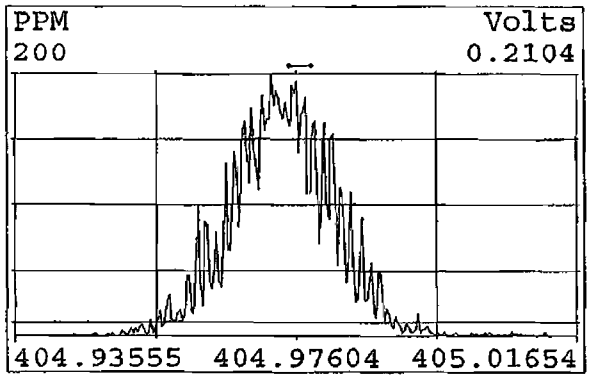


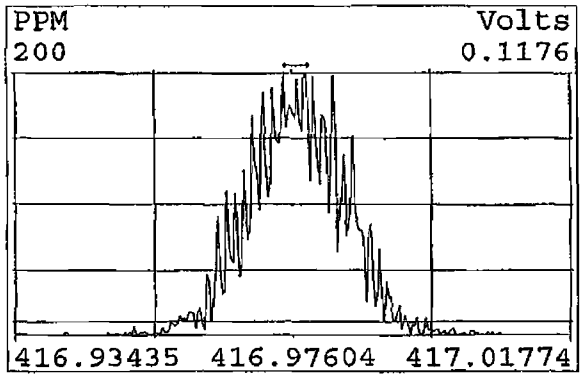
Peak Locate Examination:29-JAN-2010:15:36 File:29JA101D5
Experiment:DIOXIN Function:3 Reference:PFK

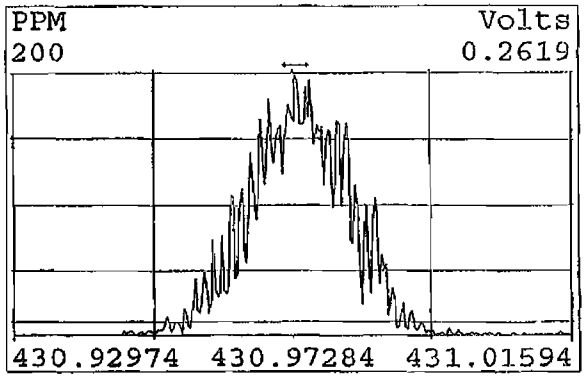


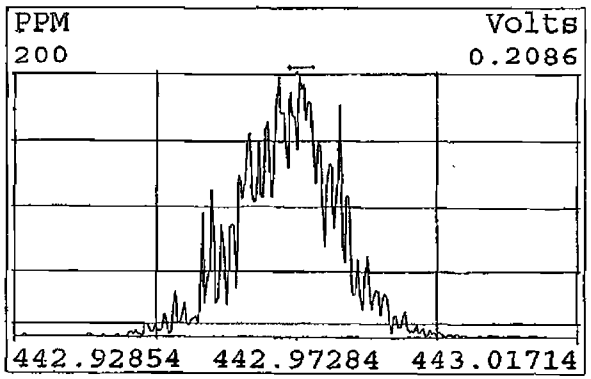


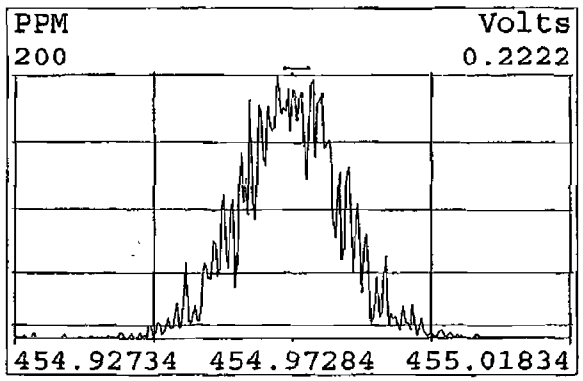




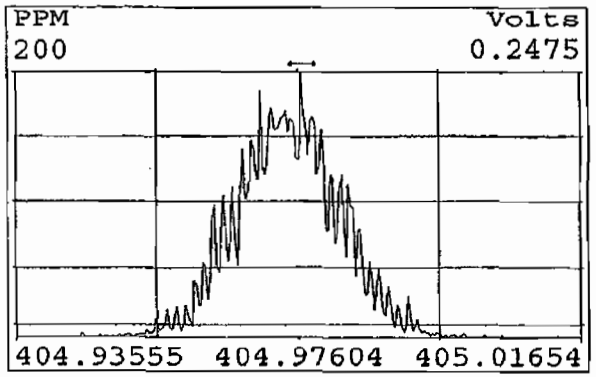


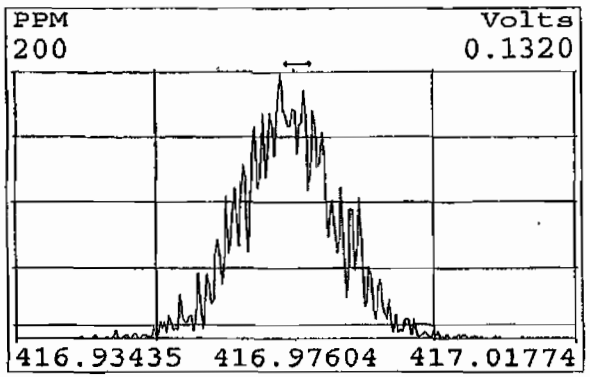


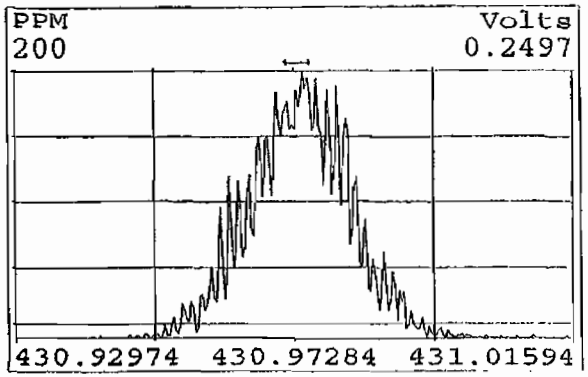


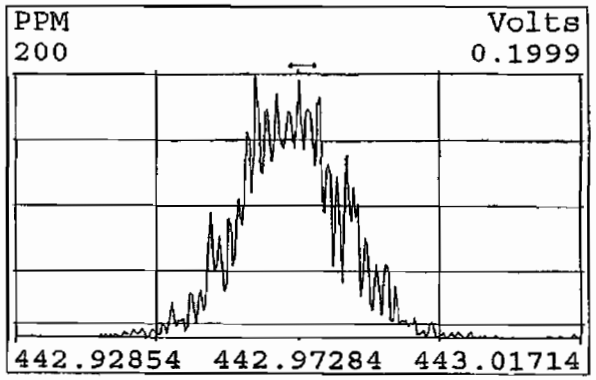


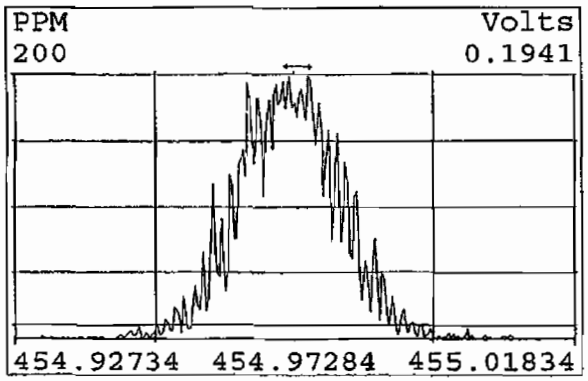
Peak Locate Examination:29-JAN-2010:15:37 File:29JA101D5
Experiment:DIOXIN Function:4 Reference:PFK

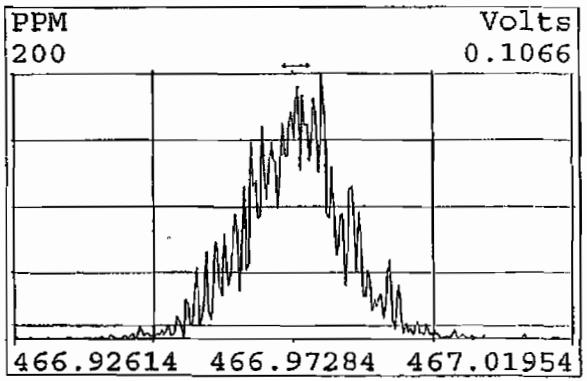


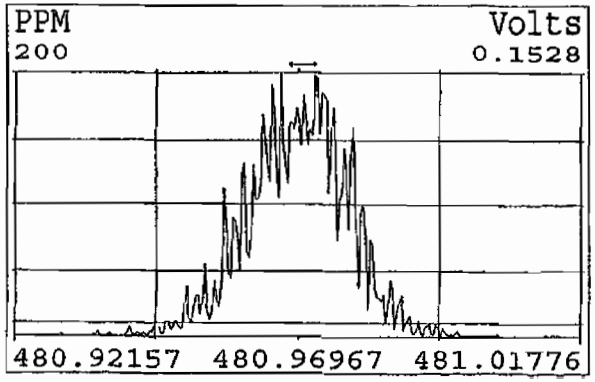




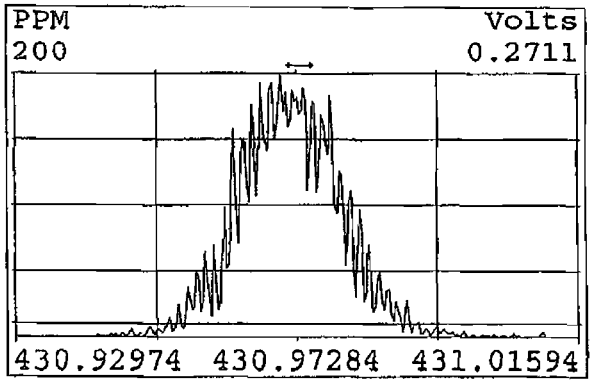


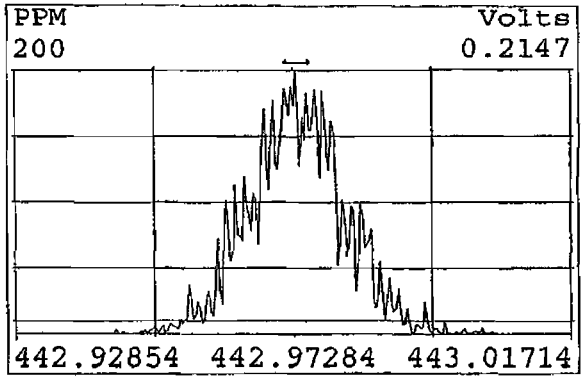


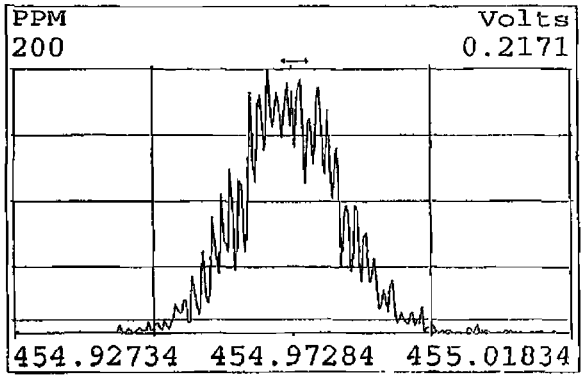


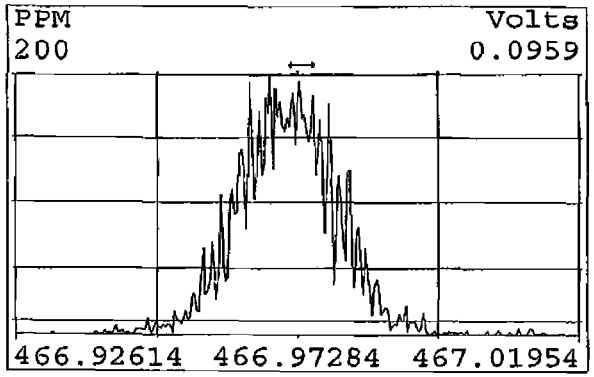


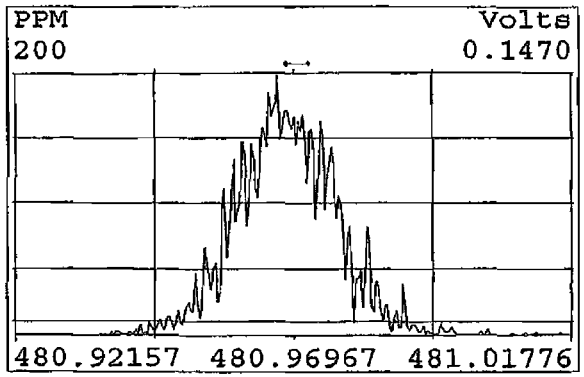
Peak Locate Examination:29-JAN-2010:15:37 File:29JA101D5
Experiment:DIOXIN Function:5 Reference:PFK

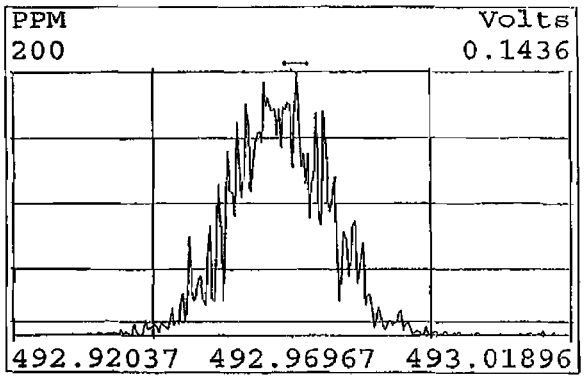


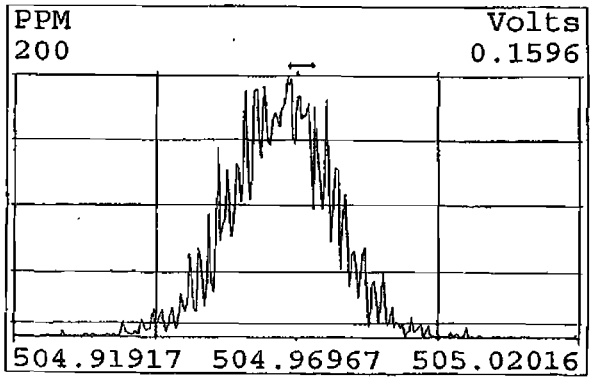


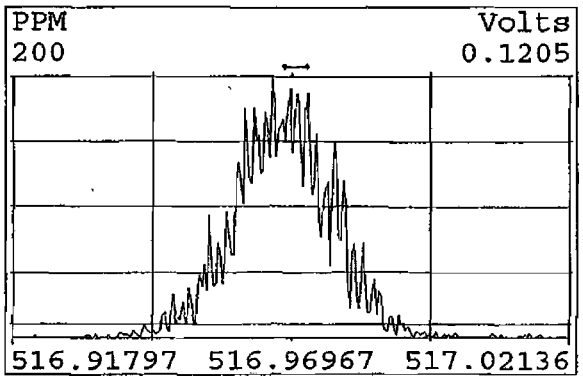




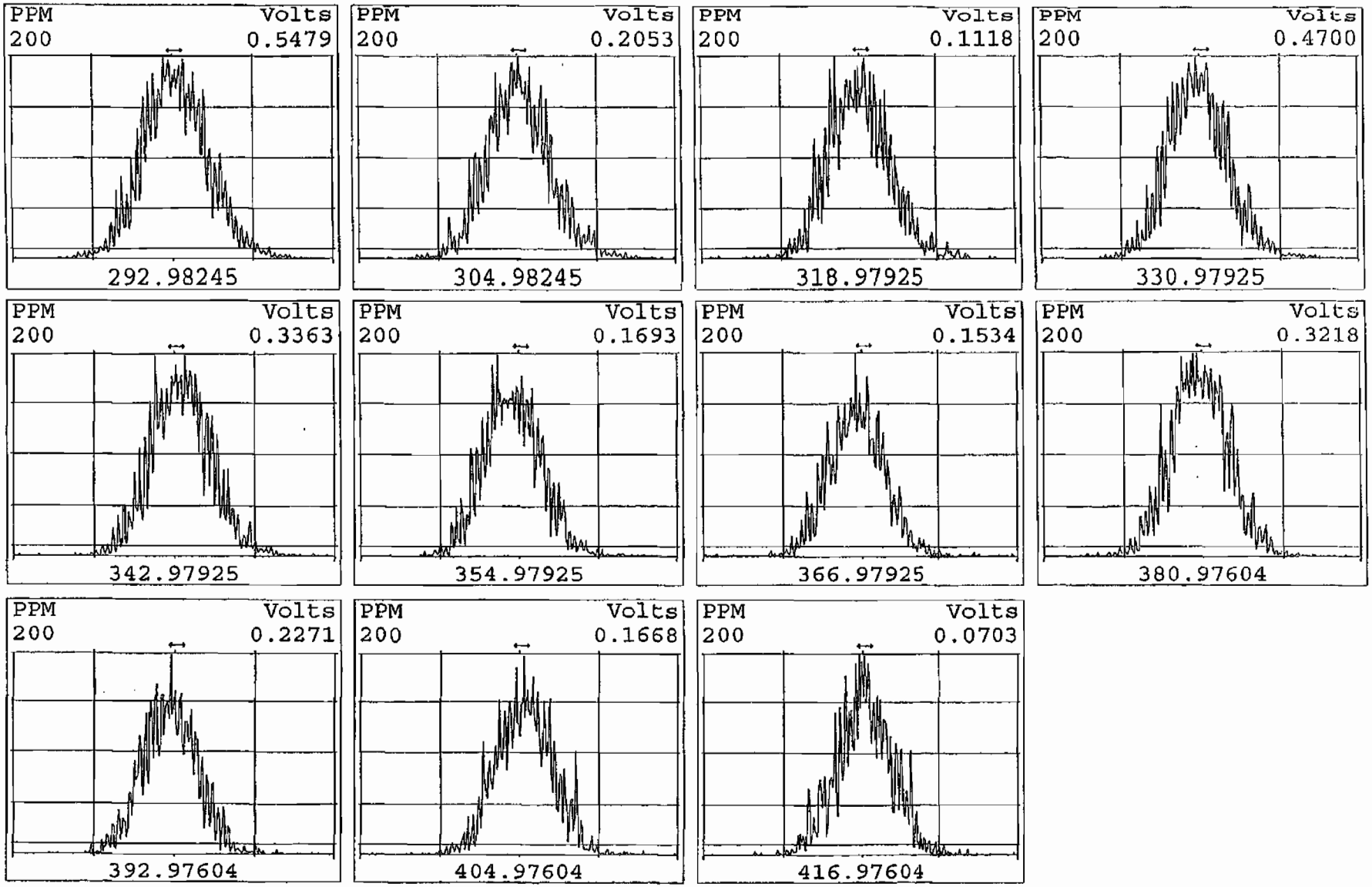




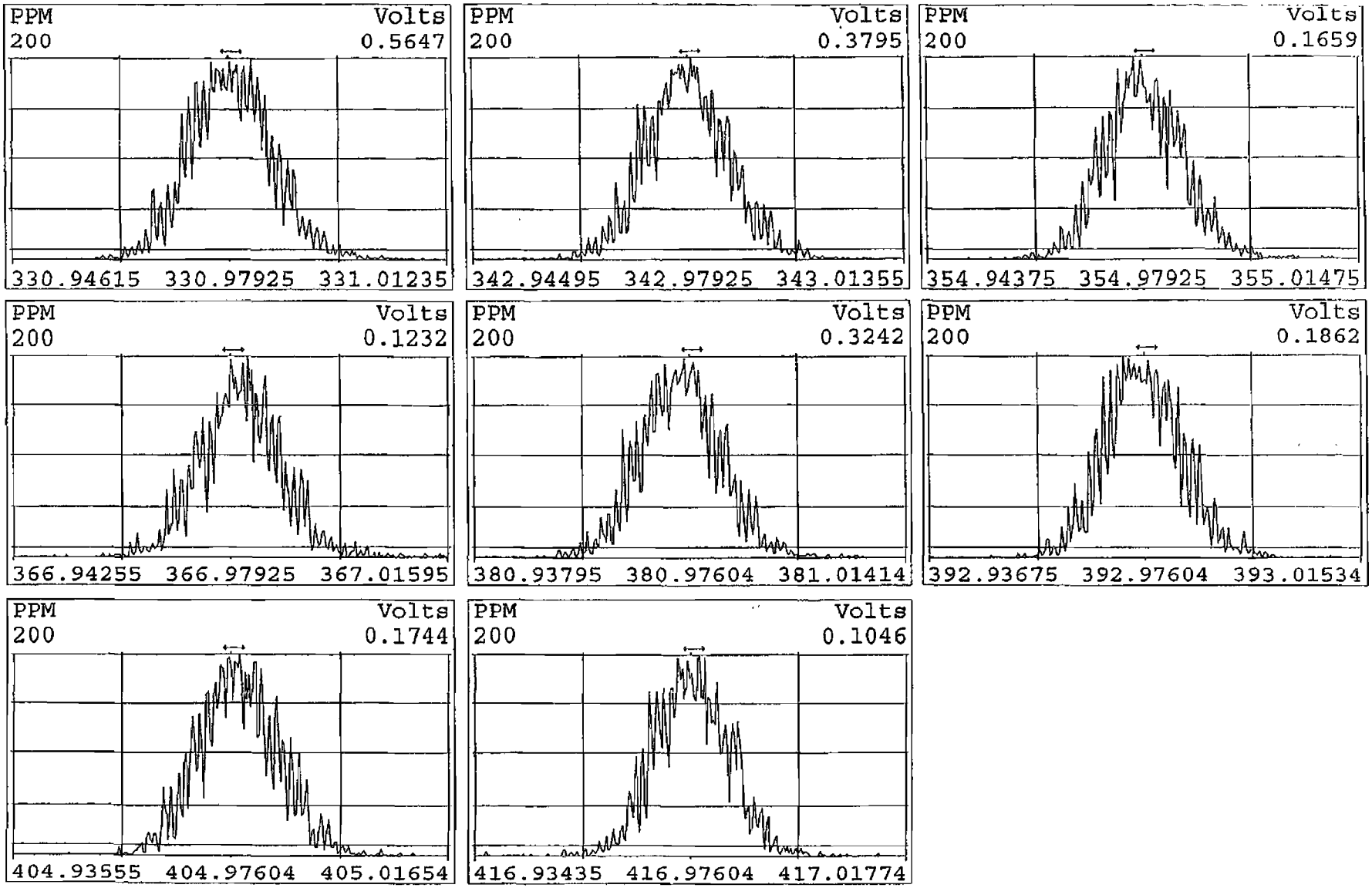




Peak Locate Examination: 1-FEB-2010:08:19 File:ENDRES29JA101D5
Experiment:DIOXIN Function:1 Reference:PFK

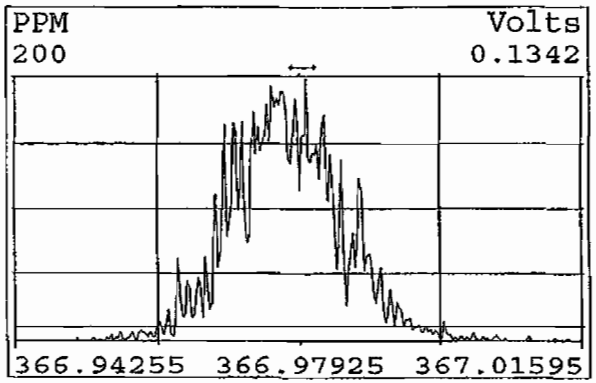


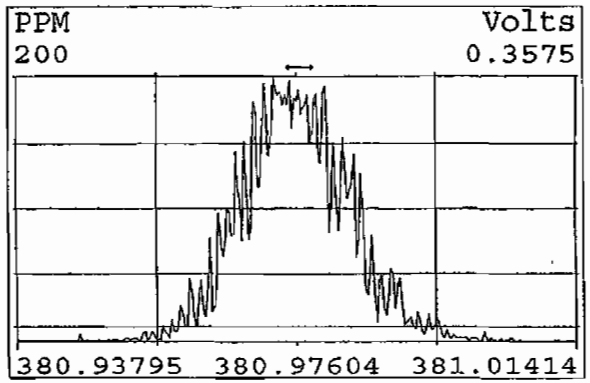
Peak Locate Examination: 1-FEB-2010:08:20 File:ENDRES29JA101D5
Experiment:DIOXIN Function:2 Reference:PFK

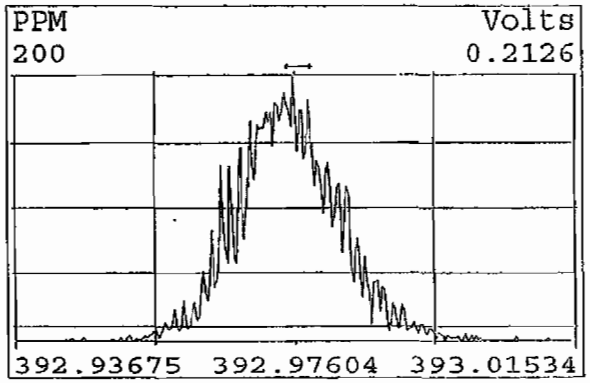


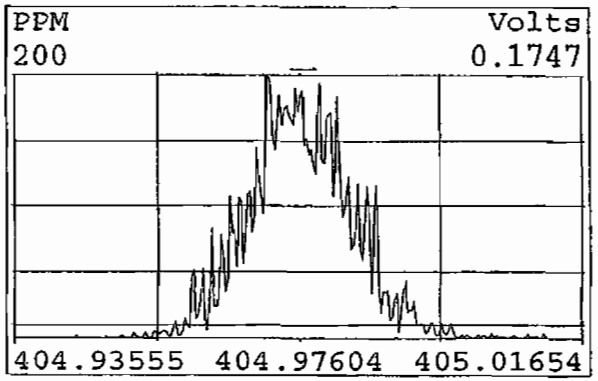
Peak Locate Examination: 1-FEB-2010:08:20 File:ENDRES29JA101D5

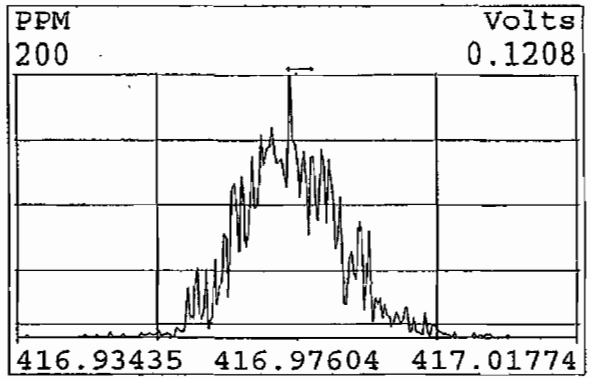
Experiment:DIOXIN Function:3 Reference:PFK

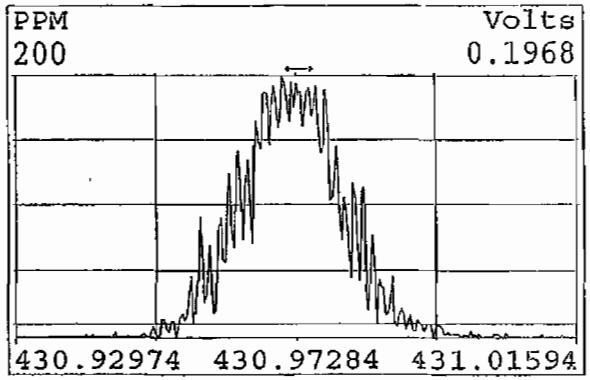


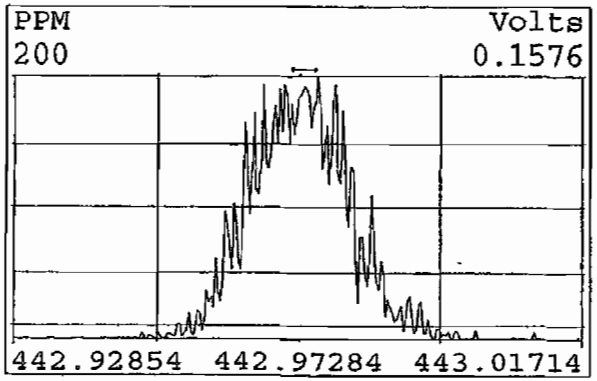


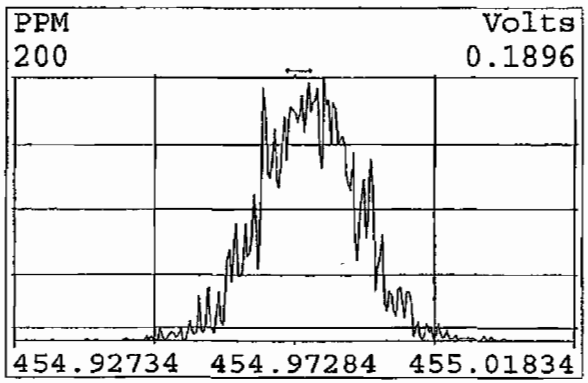




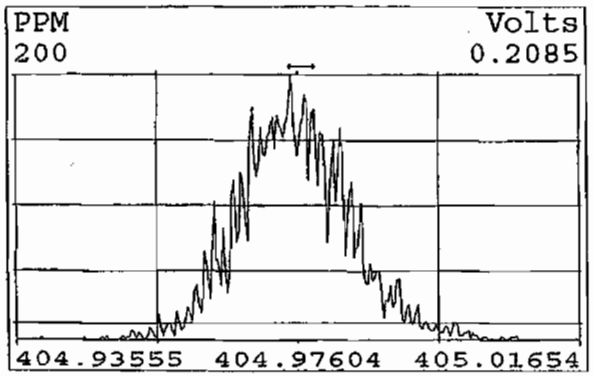


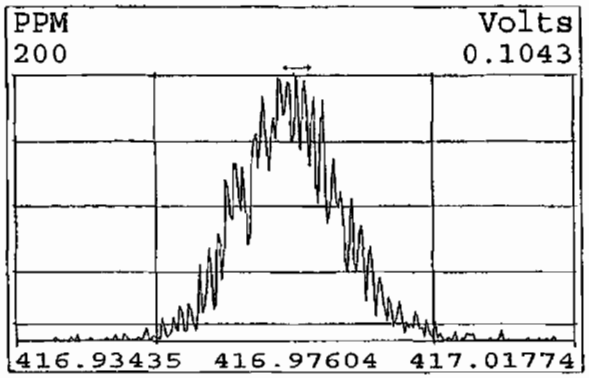


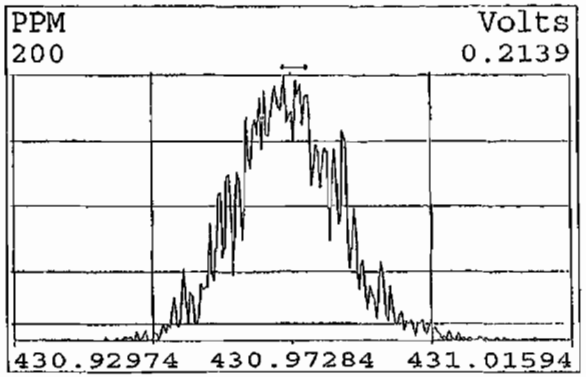


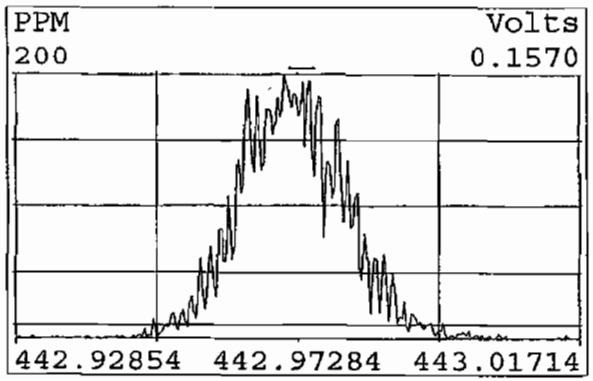


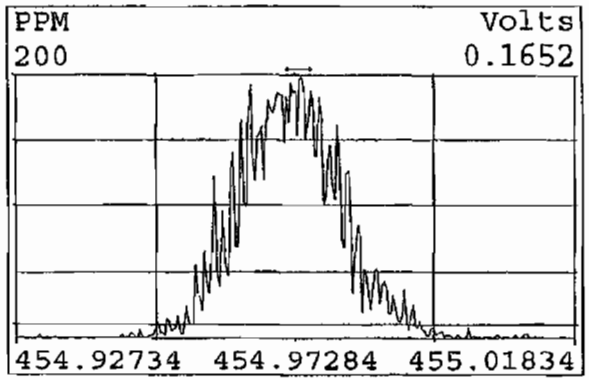
Peak Locate Examination: 1-FEB-2010:08:21 File:ENDRES29JA101D5
Experiment:DIOXIN Function:4 Reference:PFK

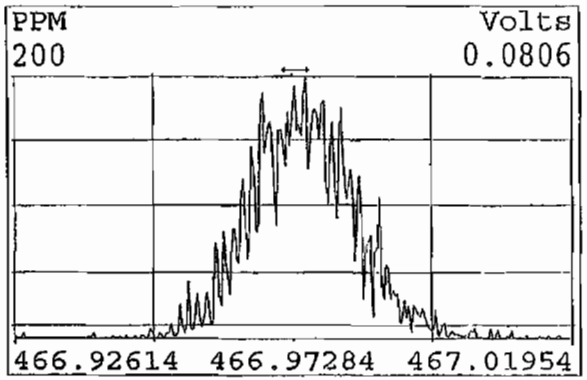


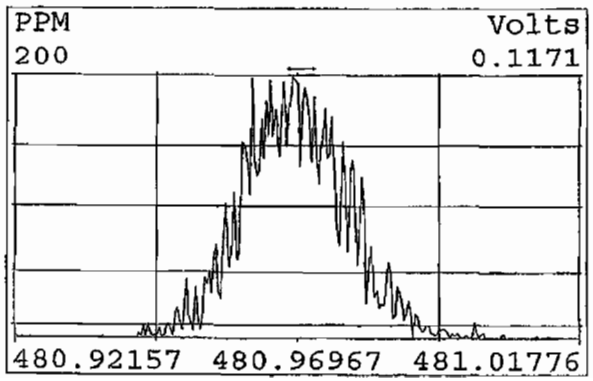




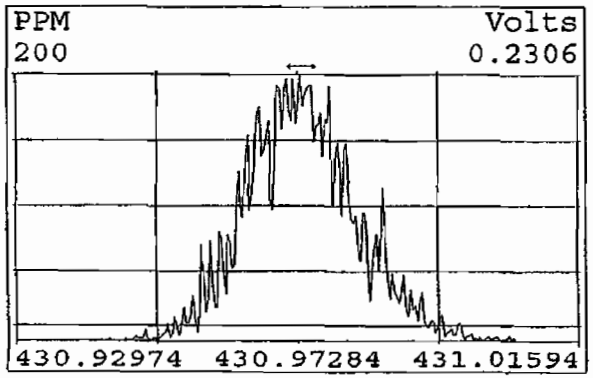


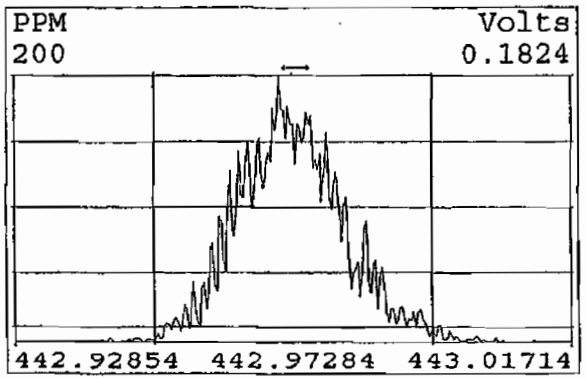


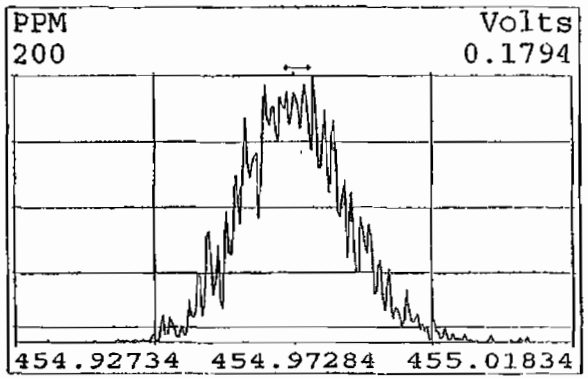


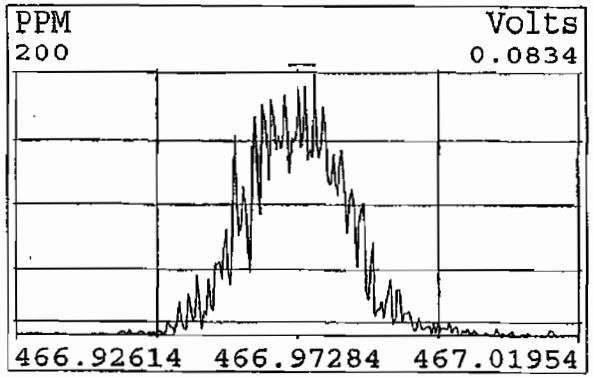


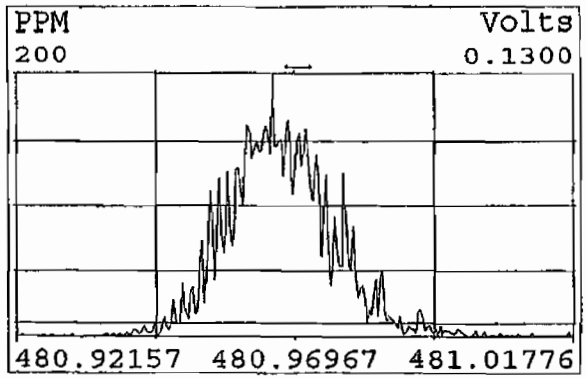
Peak Locate Examination: 1-FEB-2010:08:21 File:ENDRES29JA101D5
Experiment:DIOXIN Function:5 Reference:PFK

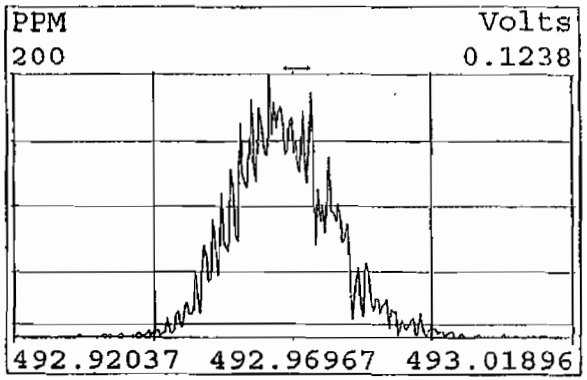


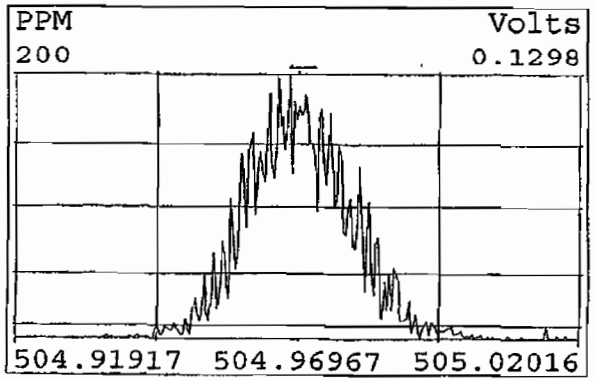


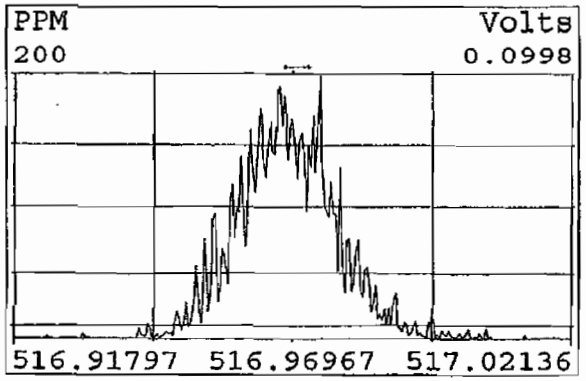












Run text: ST0129 File text: ST0129 :CS3 09DXN425
Run #6 Filename 29JA101D5 S: 1 I: 1
Acquired: 29-JAN-10 15:38:01 Processed: 1-FEB-10 09:21:48
Run: 29JA101D5 Analyte: 8290 Cal: 82901231091D5 Results: 29JA101D58290

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	107790400	0.77	y	18:41	-	100.00	-	n
13C-2,3,7,8-TCDF	176171900	0.76	y	18:09	1.63	100.00	4.4	n
2,3,7,8-TCDF	15255200	0.76	y	18:10	0.87	10.00	0.7	n
Total TCDF	15399309	0.23	n	17:11	0.87	10.00	0.7	n
13C-2,3,7,8-TCDD	103325200	0.80	y	18:55	0.96	100.00	-3.5	n
2,3,7,8-TCDD	8518960	0.74	y	18:56	0.82	10.00	-11.7	n
Total TCDD	8580280	0.74	y	18:56	0.82	10.00	-11.7	n
37Cl-2,3,7,8-TCDD	21066400	1.00	y	18:56	1.95	10.00	-11.9	n
13C-1,2,3,7,8-PeCDF	111766000	1.68	y	23:34	1.04	100.00	-3.4	n
1,2,3,7,8-PeCDF	59743100	1.66	y	23:36	1.07	50.00	6.9	n
2,3,4,7,8-PeCDF	52985800	1.64	y	25:01	0.95	50.00	1.0	n
Total F2 PeCDF	113397381	1.96	n	22:07	1.01	100.00	4.1	n
Total F1 PeCDF	138477	0.81	n	14:45	1.01	100.00	4.1	n
13C-1,2,3,7,8-PeCDD	69132900	1.72	y	25:46	0.64	100.00	-3.8	n
1,2,3,7,8-PeCDD	31218400	1.63	y	25:49	0.90	50.00	-2.8	n
Total PeCDD	31227854	0.38	n	24:40	0.90	50.00	-2.8	n
13C-1,2,3,7,8,9-HxCDD	88332400	1.29	y	32:55	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	79277000	0.53	y	31:29	0.90	100.00	0.5	n
1,2,3,4,7,8-HxCDF	52648000	1.35	y	31:31	1.33	50.00	10.8	n
1,2,3,6,7,8-HxCDF	61469800	1.24	y	31:39	1.55	50.00	13.1	n
2,3,4,6,7,8-HxCDF	56101900	1.27	y	32:20	1.42	50.00	14.0	n
1,2,3,7,8,9-HxCDF	55874300	1.30	y	33:07	1.41	50.00	6.3	n
Total HxCDF	226316450	1.35	y	31:31	1.43	200.00	11.0	n
13C-1,2,3,6,7,8-HxCDD	71934800	1.26	y	32:35	0.81	100.00	11.2	n
1,2,3,4,7,8-HxCDD	29420500	1.29	y	32:30	0.82	50.00	-15.7	y
1,2,3,6,7,8-HxCDD	38299300	1.30	y	32:36	1.06	50.00	0.6	y
1,2,3,7,8,9-HxCDD	42997800	1.30	y	32:55	1.20	50.00	-6.3	n
Total HxCDD	111185201	2.53	n	31:51	1.03	150.00	-6.8	y
13C-1,2,3,4,6,7,8-HpCDF	83040800	0.42	y	34:39	0.94	100.00	9.3	n
1,2,3,4,6,7,8-HpCDF	58020800	1.05	y	34:39	1.40	50.00	8.6	n
1,2,3,4,7,8,9-HpCDF	47704900	1.06	y	35:56	1.15	50.00	1.2	n
Total HpCDF	106035514	1.05	y	34:39	1.27	100.00	5.1	n
13C-1,2,3,4,6,7,8-HpCDD	61914500	1.07	y	35:34	0.70	100.00	-6.8	n
1,2,3,4,6,7,8-HpCDD	32717700	1.04	y	35:35	1.06	50.00	5.9	n
Total HpCDD	32890143	1.39	n	34:56	1.06	50.00	5.9	n
13C-OCDD	82509300	0.92	y	38:21	0.47	200.00	-17.3	n
OCDF	67050400	0.90	y	38:27	1.63	100.00	13.1	n
OCDD	45949000	0.90	y	38:21	1.11	100.00	0.4	n

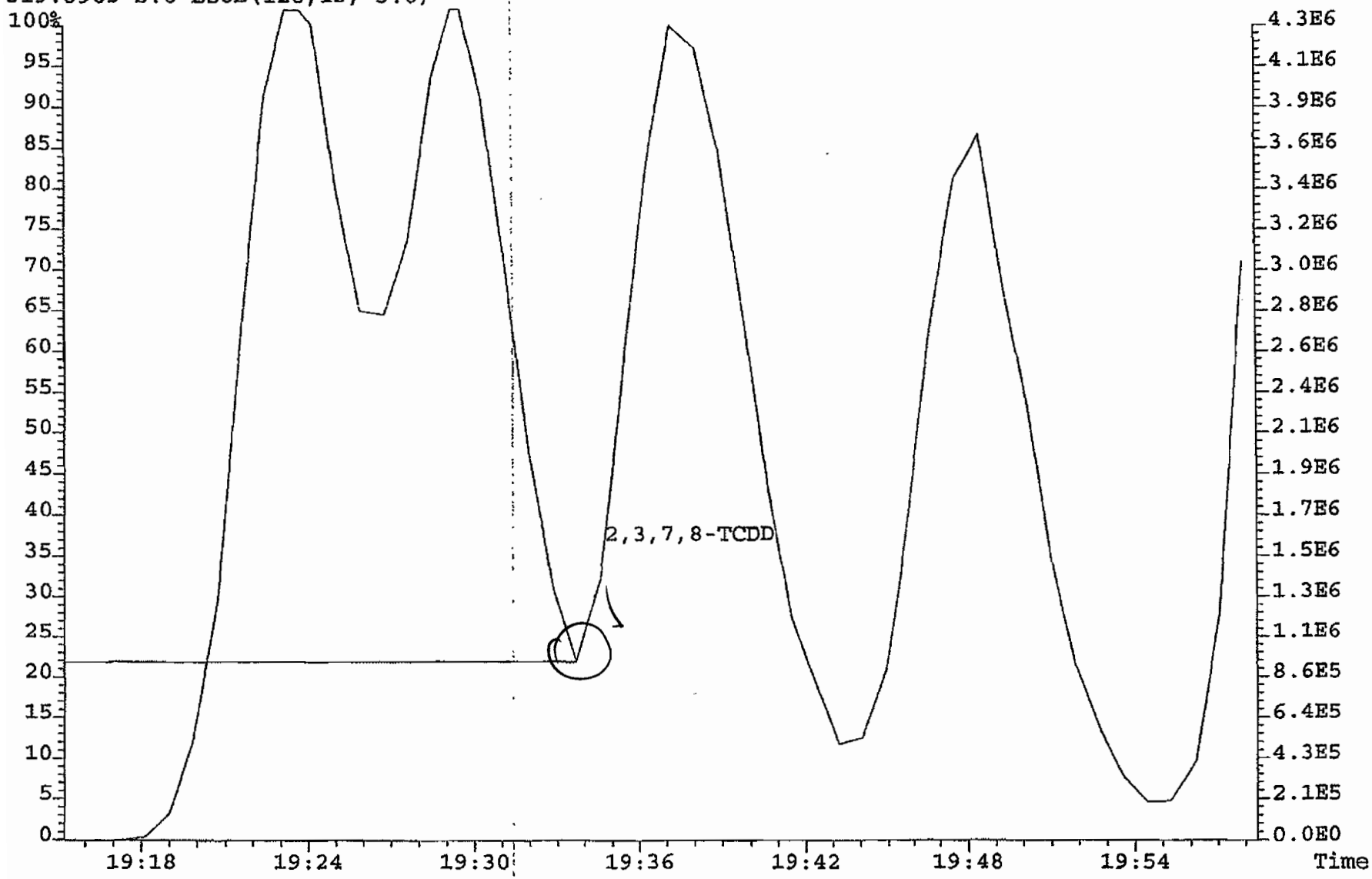
%RDS ±20% for calibrated; ±30% for labeled.

Run text: ST0129A File text: ST0129A :CS3 09DXN425
Run #22 Filename 29JA101D5 S: 19 I: 1
Acquired: 30-JAN-10 04:11:07 Processed: 1-FEB-10 09:22:09
Run: 29JA101D5 Analyte: 8290 Cal: 82901231091D5 Results: 29JA101D58290

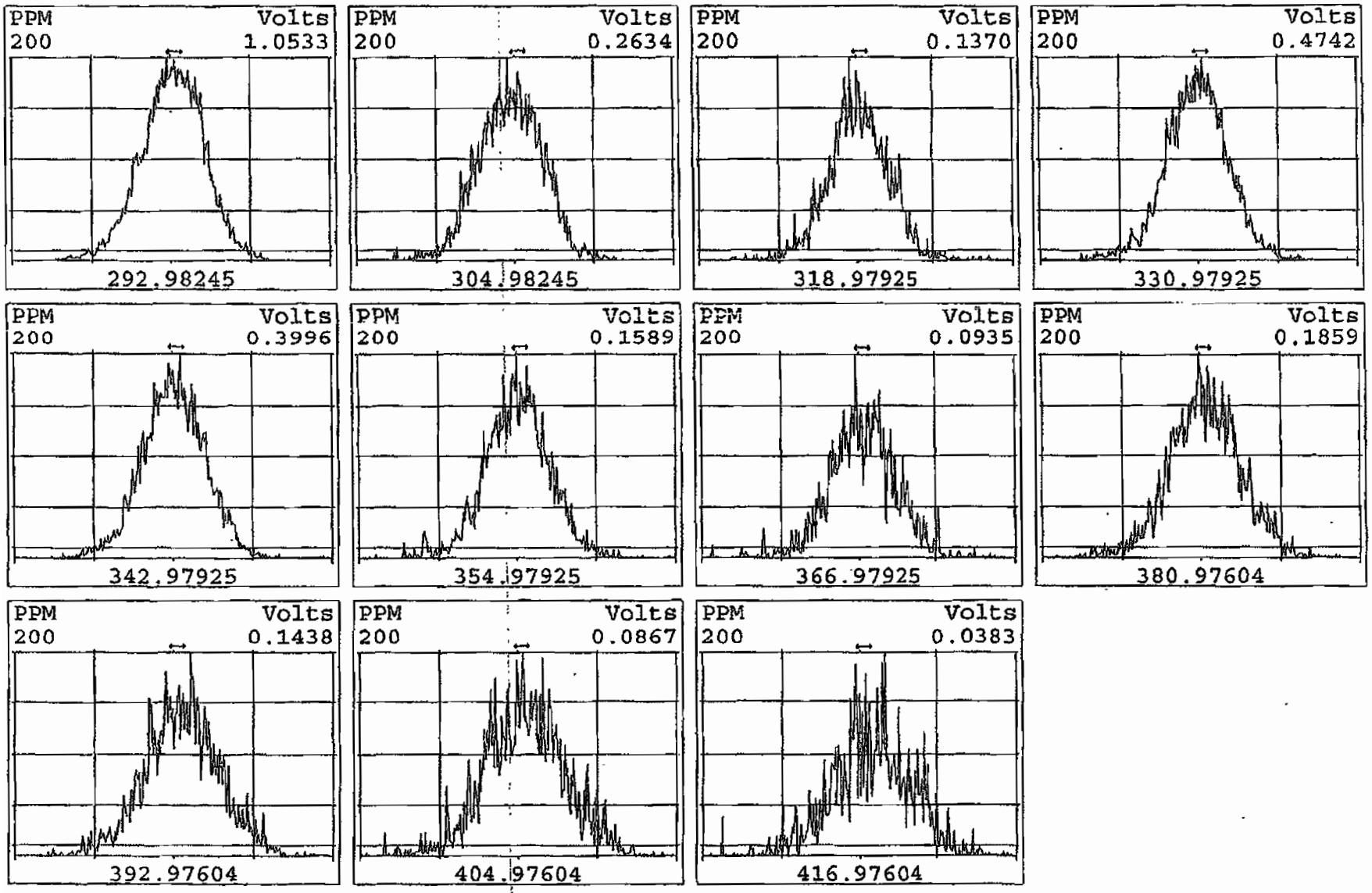
Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	104749400	0.79	y	18:38	-	100.00	-	n
13C-2,3,7,8-TCDF	175043800	0.79	y	18:05	1.67	100.00	6.7	n
2,3,7,8-TCDF	15360100	0.75	y	18:06	0.88	10.00	2.1	n
Total TCDF	15441216	0.45	n	17:42	0.88	10.00	2.1	n
13C-2,3,7,8-TCDD	104867500	0.78	y	18:50	1.00	100.00	0.8	n
2,3,7,8-TCDD	8676820	0.74	y	18:52	0.83	10.00	-11.4	n
Total TCDD	8793281	1.32	n	15:57	0.83	10.00	-11.4	n
37Cl-2,3,7,8-TCDD	20772800	1.00	y	18:51	1.98	10.00	-10.6	n
13C-1,2,3,7,8-PeCDF	119839400	1.70	y	23:28	1.14	100.00	6.6	n
1,2,3,7,8-PeCDF	64038100	1.67	y	23:29	1.07	50.00	6.9	n
2,3,4,7,8-PeCDF	58285400	1.66	y	24:55	0.97	50.00	3.6	n
Total F2 PeCDF	122990033	1.39	y	22:02	1.02	100.00	5.3	n
Total F1 PeCDF	187738	0.45	n	15:17	1.02	100.00	5.3	n
13C-1,2,3,7,8-PeCDD	73002300	1.67	y	25:40	0.70	100.00	4.6	n
1,2,3,7,8-PeCDD	33344800	1.69	y	25:42	0.91	50.00	-1.7	n
Total PeCDD	33393671	2.45	n	25:13	0.91	50.00	-1.7	n
13C-1,2,3,7,8,9-HxCDD	95193800	1.35	y	32:52	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	86839600	0.52	y	31:25	0.91	100.00	2.2	n
1,2,3,4,7,8-HxCDF	54840400	1.29	y	31:26	1.26	50.00	5.3	n
1,2,3,6,7,8-HxCDF	63530700	1.28	y	31:35	1.46	50.00	6.7	n
2,3,4,6,7,8-HxCDF	59013500	1.31	y	32:17	1.36	50.00	9.4	n
1,2,3,7,8,9-HxCDF	59205500	1.31	y	33:05	1.36	50.00	2.8	n
Total HxCDF	236697288	1.29	y	31:26	1.36	200.00	6.0	n
13C-1,2,3,6,7,8-HxCDD	67613700	1.32	y	32:32	0.71	100.00	-3.0	n
1,2,3,4,7,8-HxCDD	31864200	1.29	y	32:27	0.94	50.00	-2.8	n
1,2,3,6,7,8-HxCDD	40574200	1.33	y	32:33	1.20	50.00	13.4	n
1,2,3,7,8,9-HxCDD	45535100	1.28	y	32:52	1.35	50.00	5.6	n
Total HxCDD	117973500	1.29	y	32:27	1.16	150.00	5.6	n
13C-1,2,3,4,6,7,8-HpCDF	92610500	0.41	y	34:37	0.97	100.00	13.1	n
1,2,3,4,6,7,8-HpCDF	65214500	1.05	y	34:38	1.41	50.00	9.5	n
1,2,3,4,7,8,9-HpCDF	54093200	1.04	y	35:55	1.17	50.00	2.9	n
Total HpCDF	119307700	1.05	y	34:38	1.29	100.00	6.4	n
13C-1,2,3,4,6,7,8-HpCDD	74599900	1.07	y	35:32	0.78	100.00	4.2	n
1,2,3,4,6,7,8-HpCDD	38587100	1.07	y	35:33	1.03	50.00	3.7	n
Total HpCDD	38812638	0.83	n	34:55	1.03	50.00	3.7	n
13C-OCDD	105438800	0.90	y	38:18	0.55	200.00	-1.9	n
OCDF	84109300	0.91	y	38:26	1.60	100.00	11.0	n
OCDD	59312000	0.89	y	38:18	1.13	100.00	1.4	n

ata file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
04FE104D5	1	STO204	CS-3 09DXN425				1.00000	
04FE104D5	2	STO204A	CS-1 09DXN422				1.00000	
04FE104D5	3	STO204B	CS-2 09DXN423				1.00000	
04FE104D5	4	STO204C	CS-5 09DXN456				1.00000	
04FE104D5	5	STO204D	CS-4 09DXN426				1.00000	
04FE104D5	6	CPO204	DB-5 CPSM 3732-04				1.00000	
04FE104D5	7	STO204E	2nd Source 09DXN449				1.00000	
04FE104D5	8						1.00000	
04FE104D5	9						1.00000	
04FE104D5	10						1.00000	
04FE104D5	11						1.00000	
04FE104D5	12						1.00000	
04FE104D5	13						1.00000	
04FE104D5	14		KSS 02-04-10				1.00000	
04FE104D5	15						1.00000	

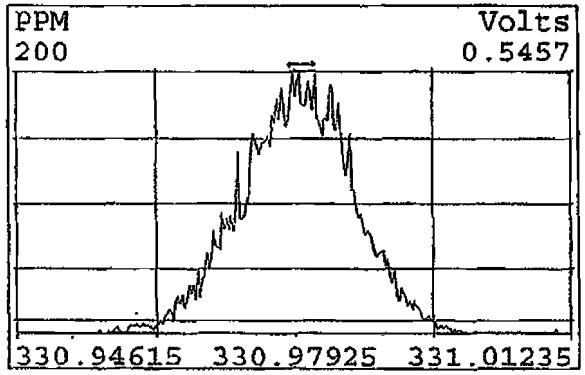
File:04FE104D5 #1-578 Acq: 4-FEB-2010 13:22:32 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 Text:CP0204 :DB-5 CPSM 3732-04 Exp:DIOXIN
319.8965 S:6 BSUB(128,15,-3.0)

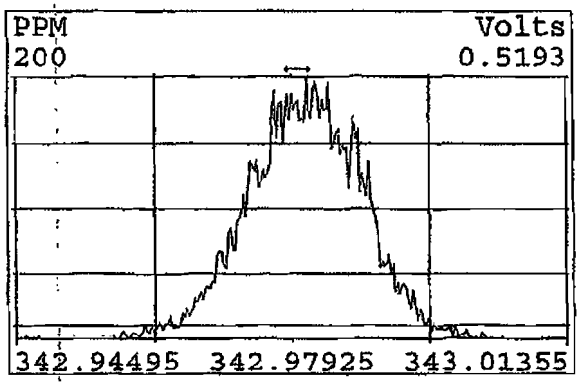


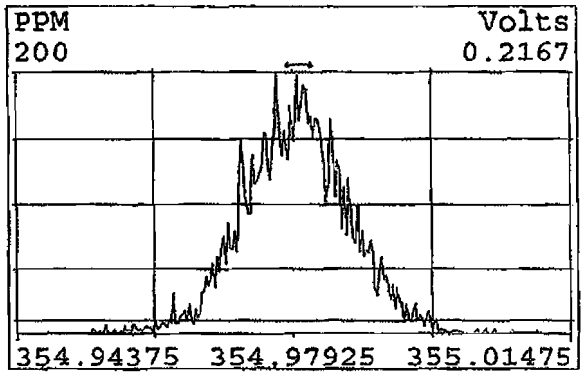
Peak Locate Examination: 4-FEB-2010;09:40 File:04FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

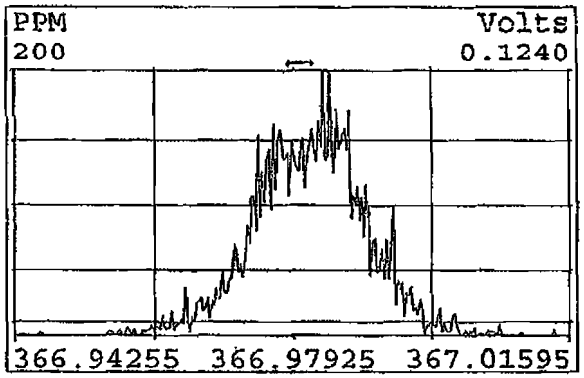


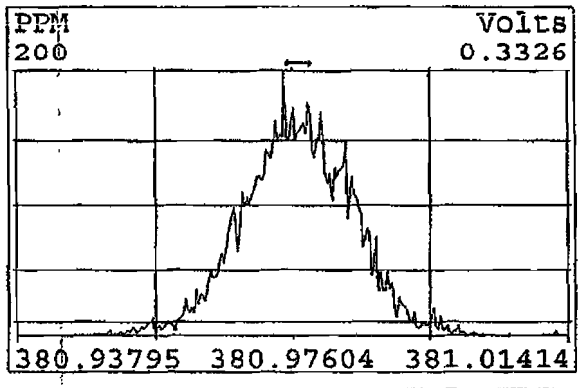
Peak Locate Examination: 4-FEB-2010:09:40 File:04FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

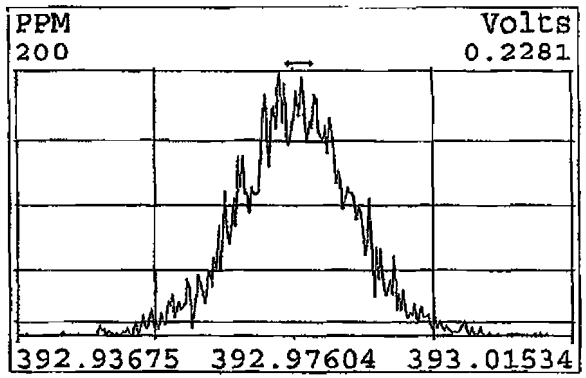


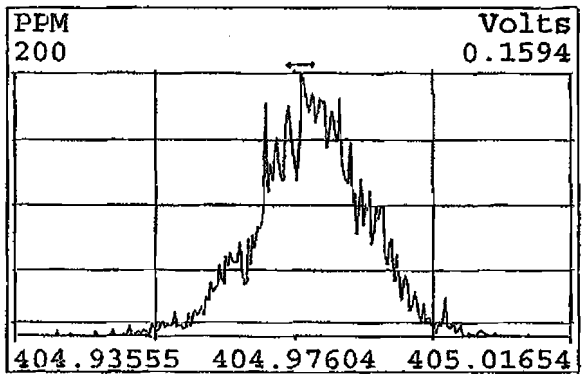


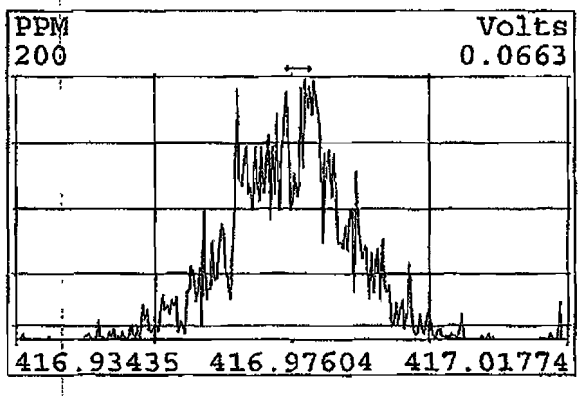




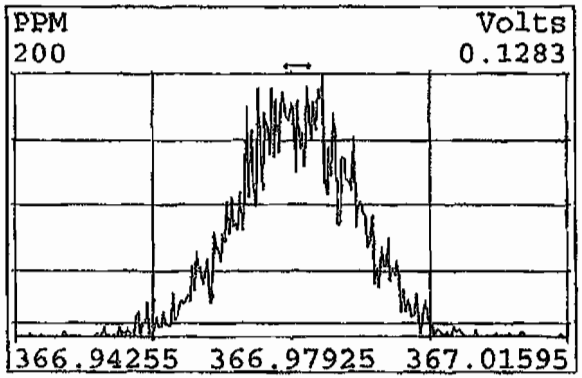


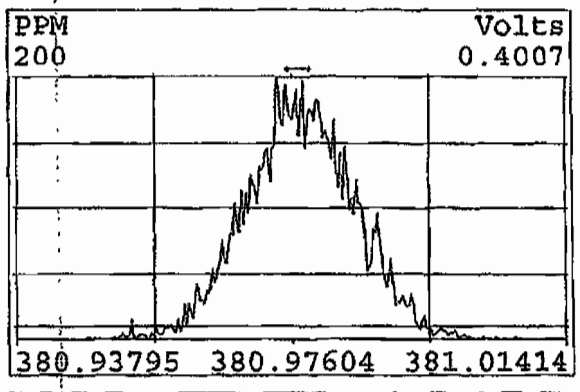


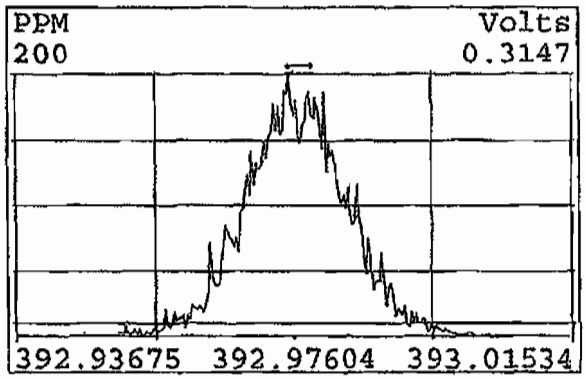


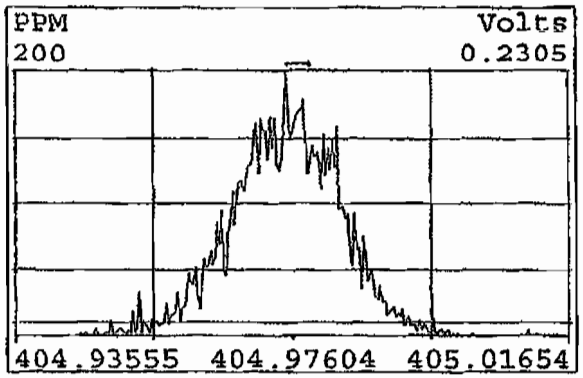


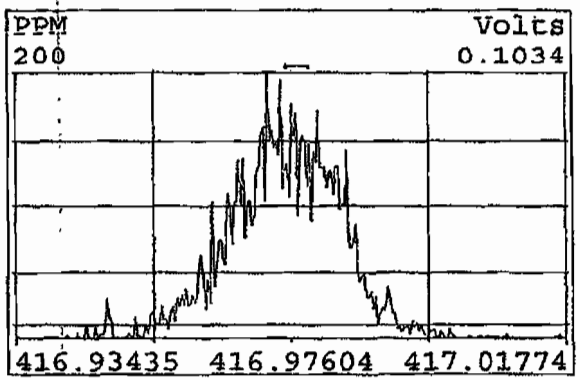
Peak Locate Examination: 4-FEB-2010:09:41 File:04FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

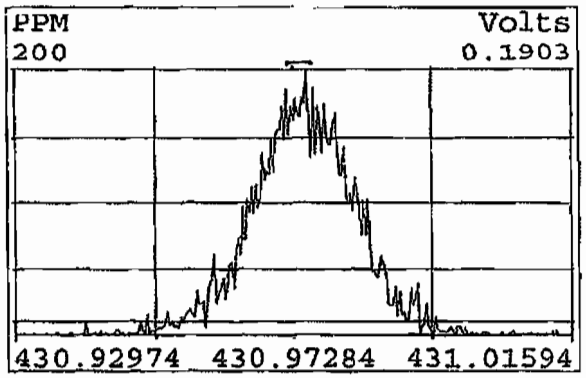


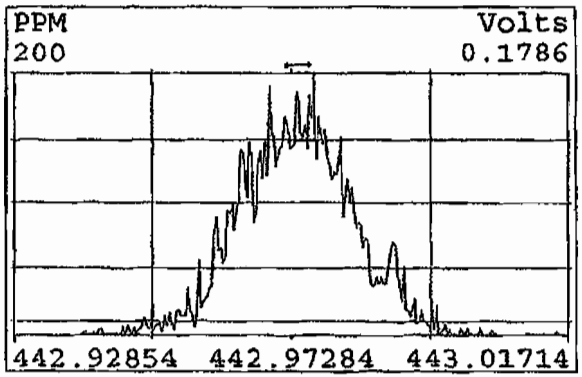


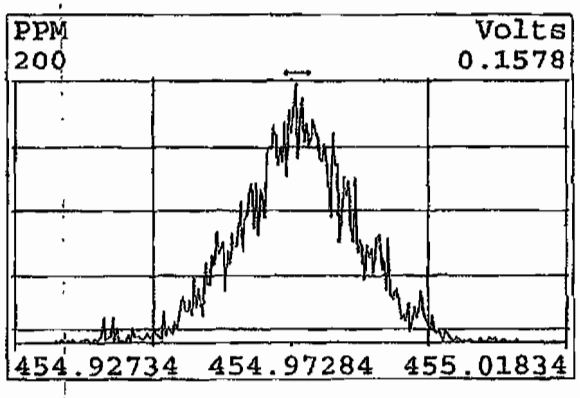




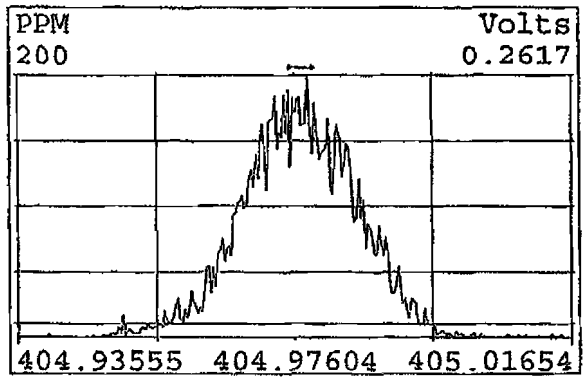


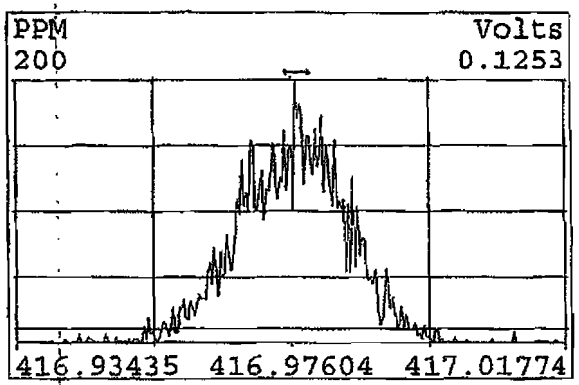


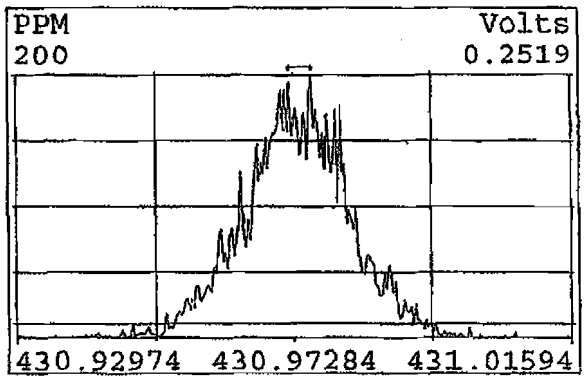


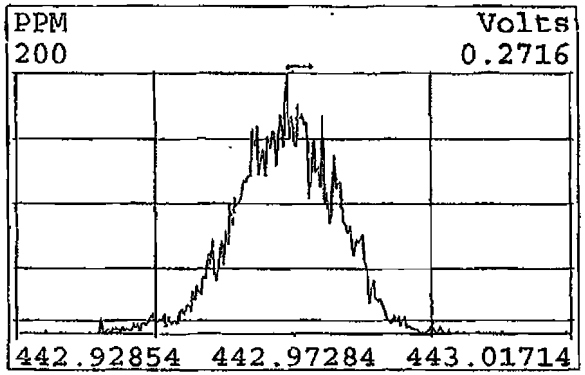


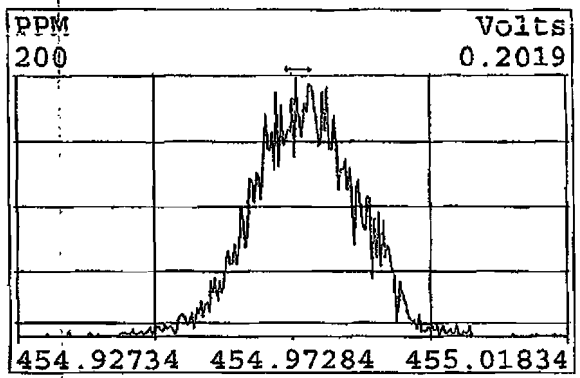
Peak Locate Examination: 4-FEB-2010:09:41 File:04FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

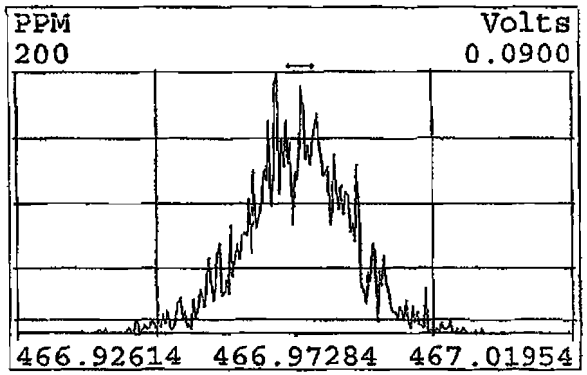


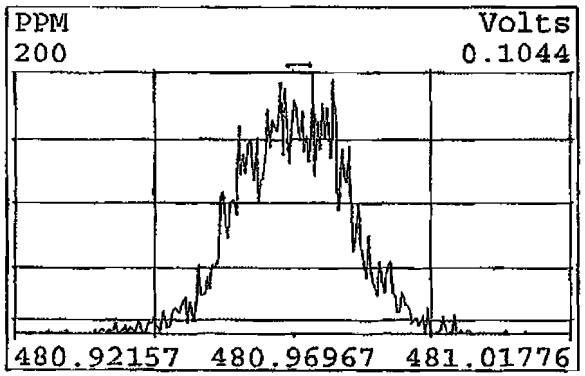




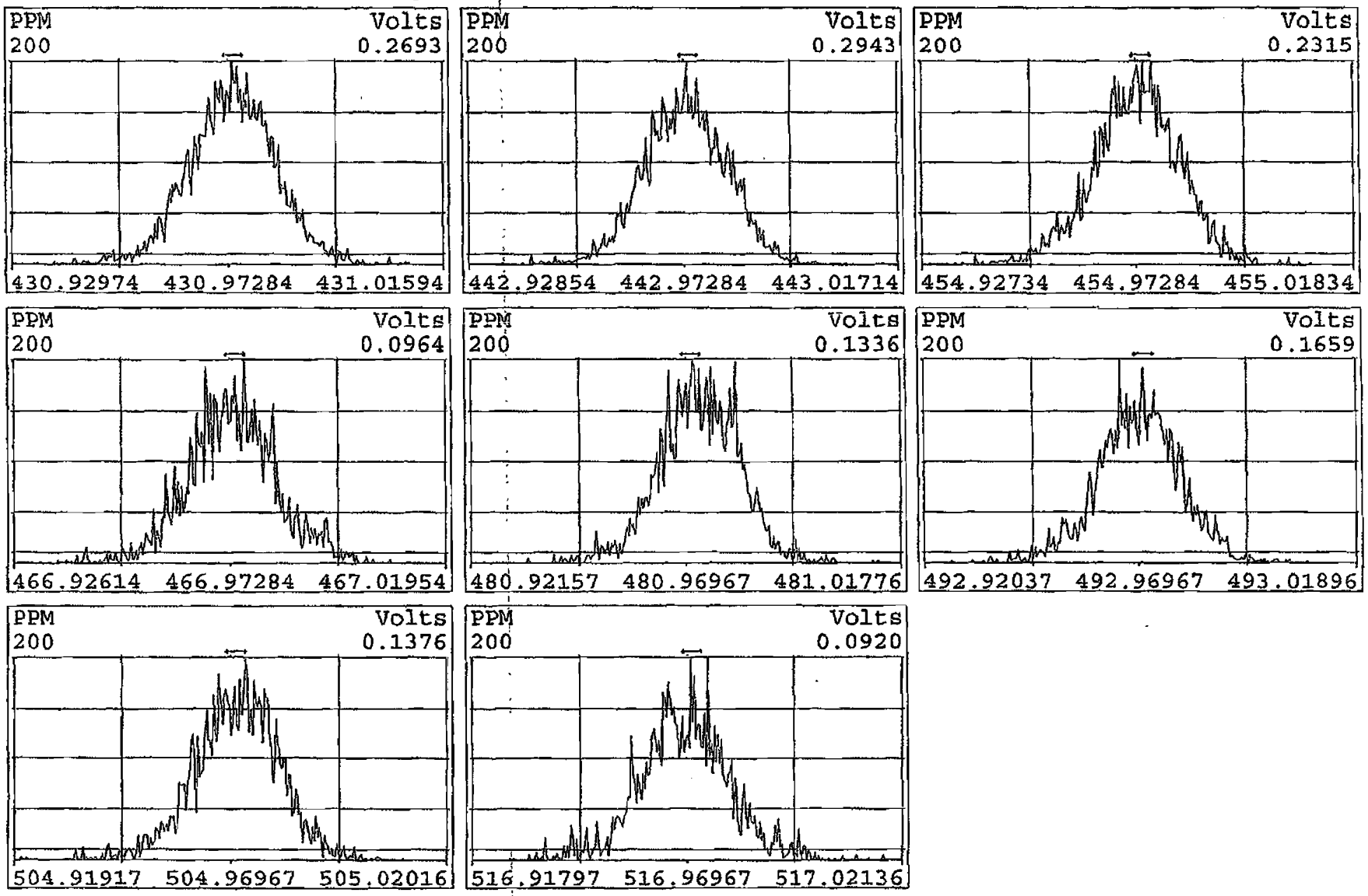




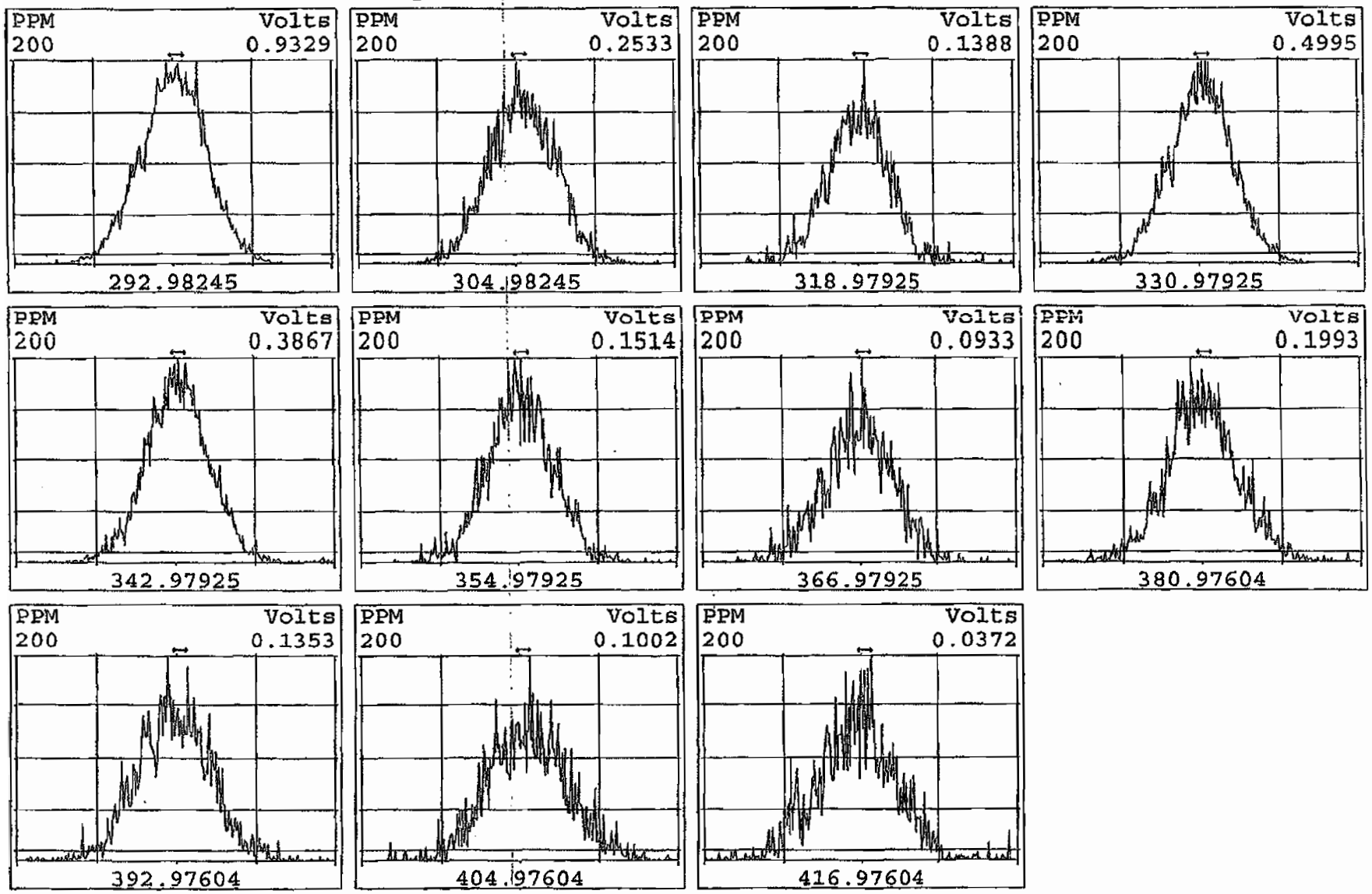




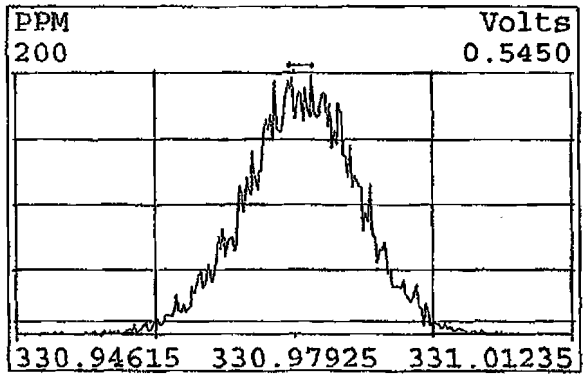
Peak Locate Examination: 4-FEB-2010:09:42 File:04FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

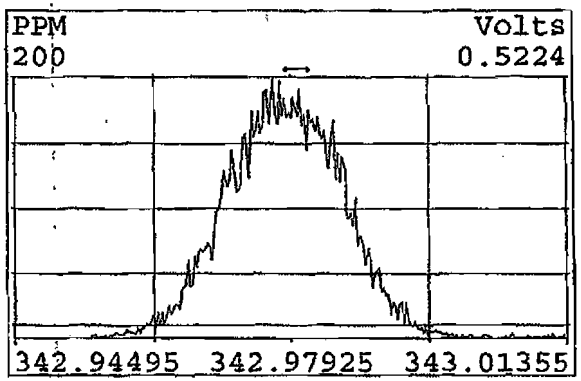


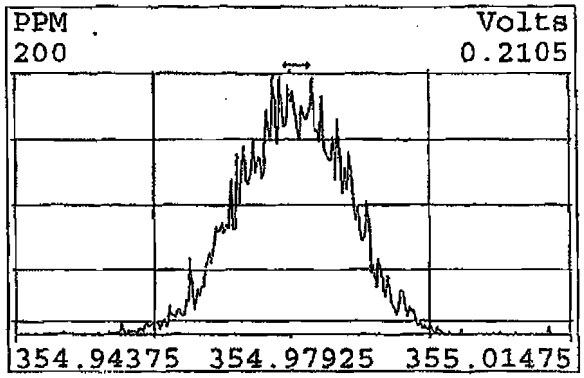
Peak Locate Examination: 4-FEB-2010:14:53 File:ENDRES04FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

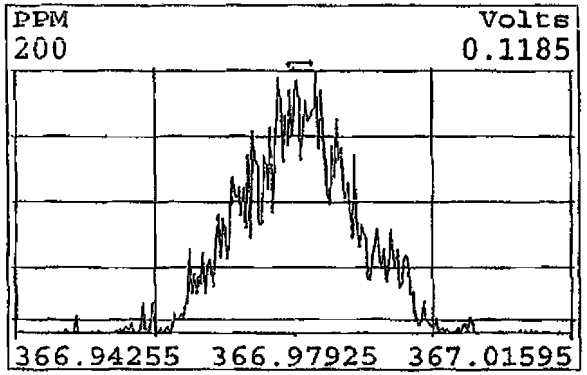


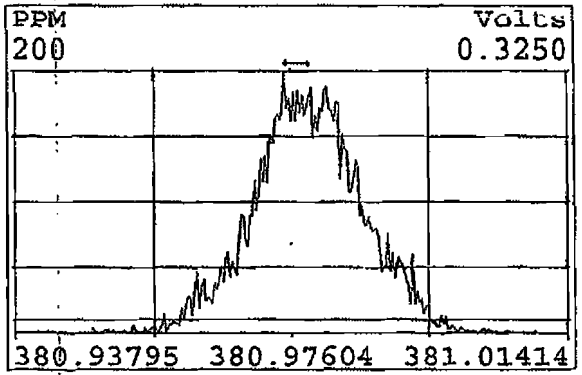
Peak Locate Examination: 4-FEB-2010:14:54 File:ENDRES04FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

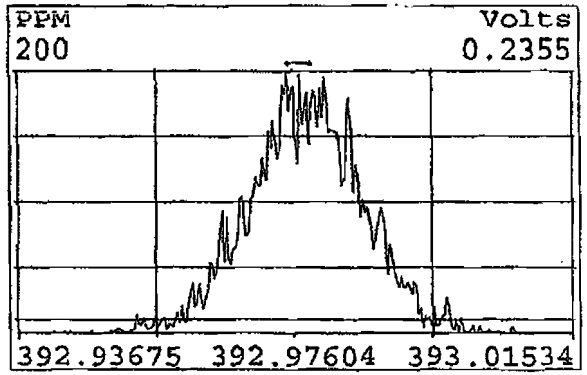


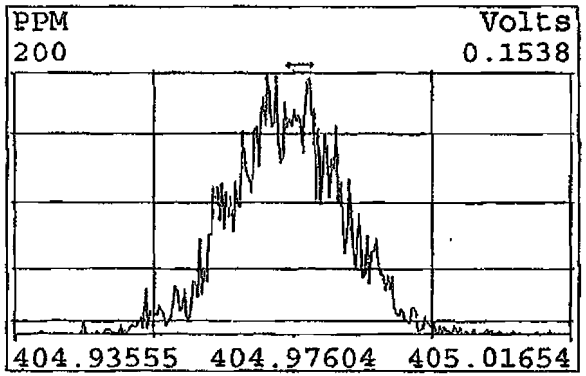


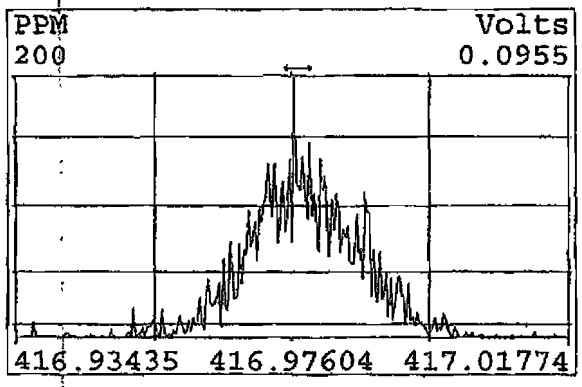




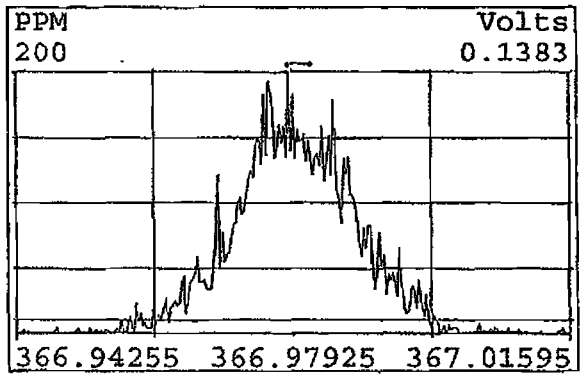


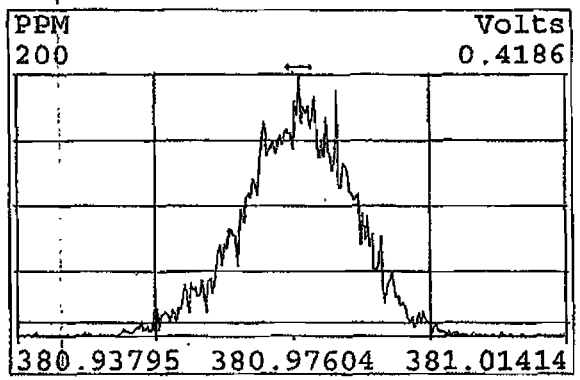


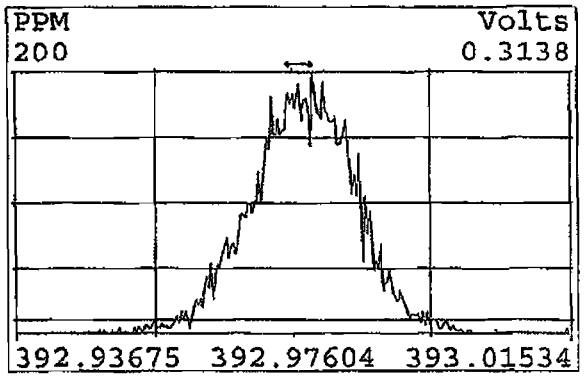


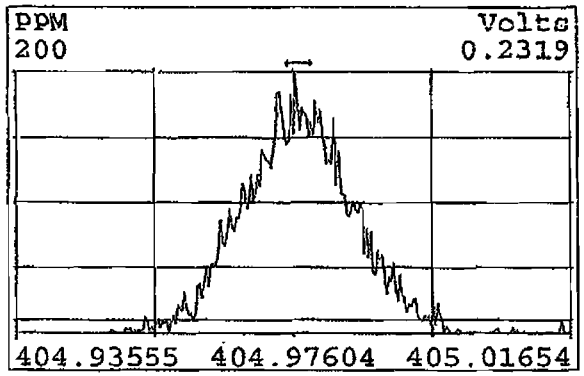


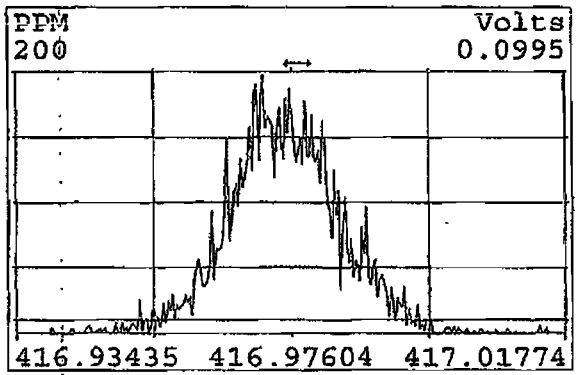
Peak Locate Examination: 4-FEB-2010:14:54 File:ENDRES04FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

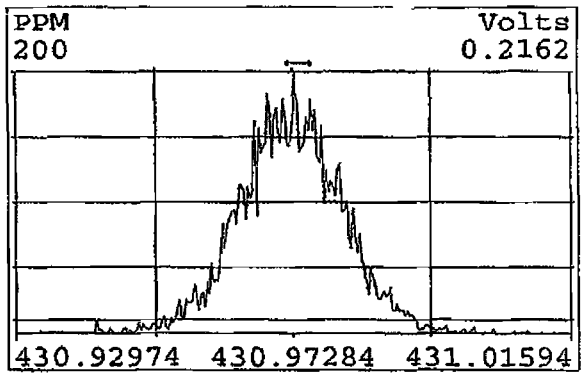


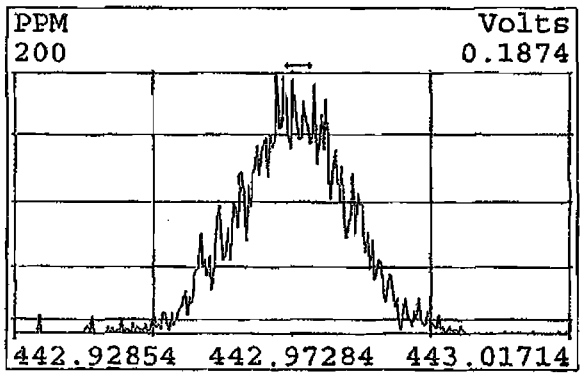


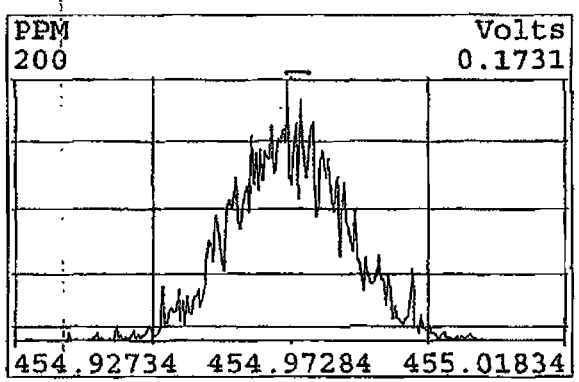




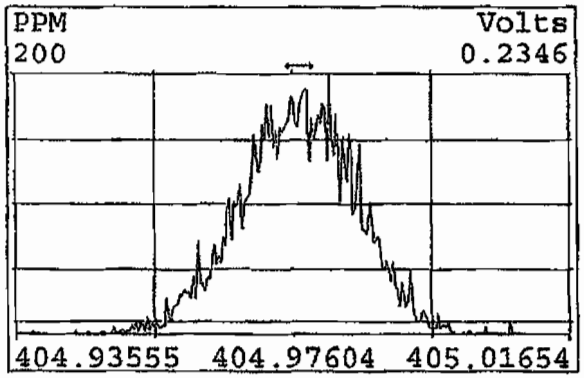


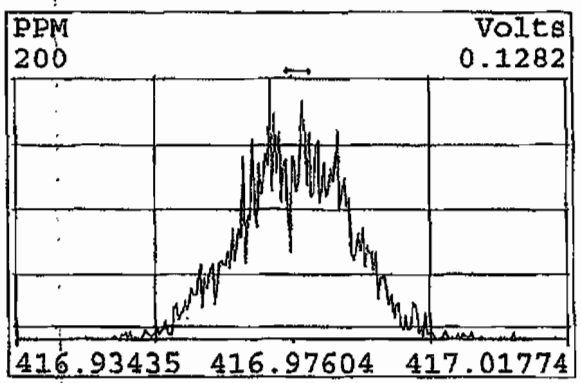


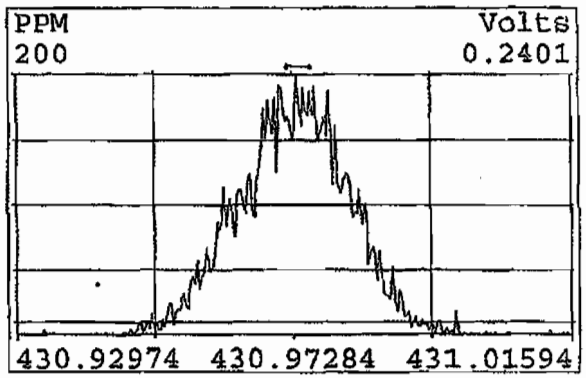


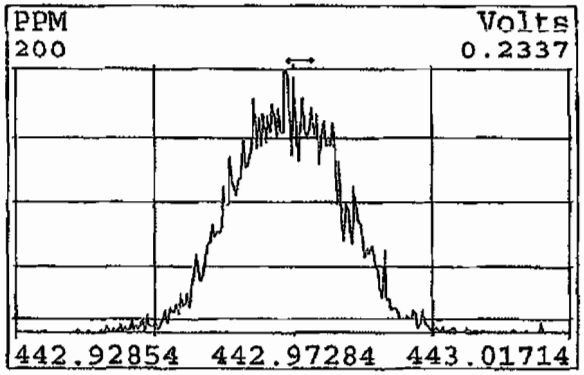


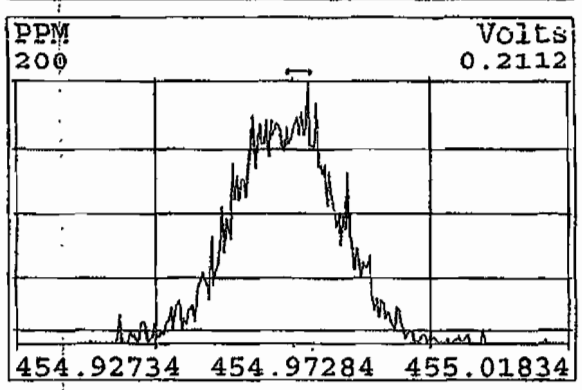
Peak Locate Examination: 4-FEB-2010:14:55 File:ENDRES04FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

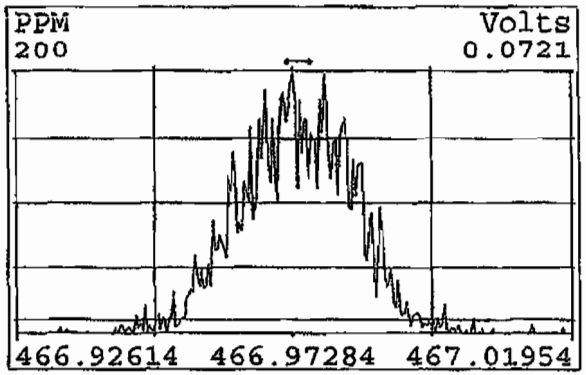


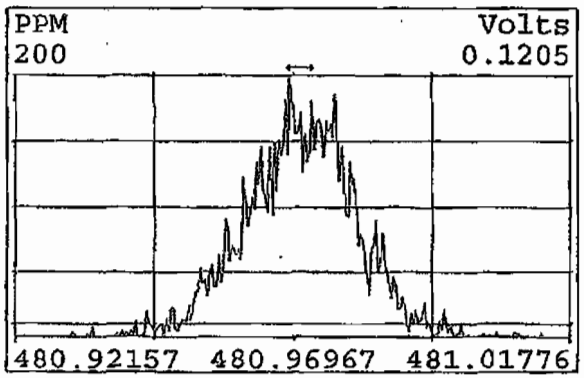




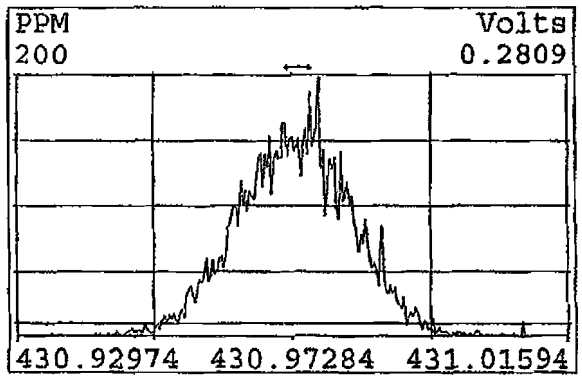


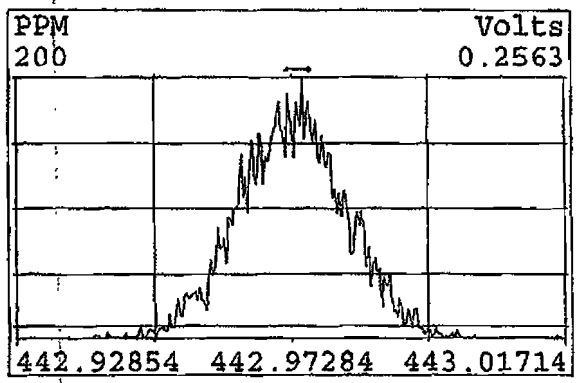


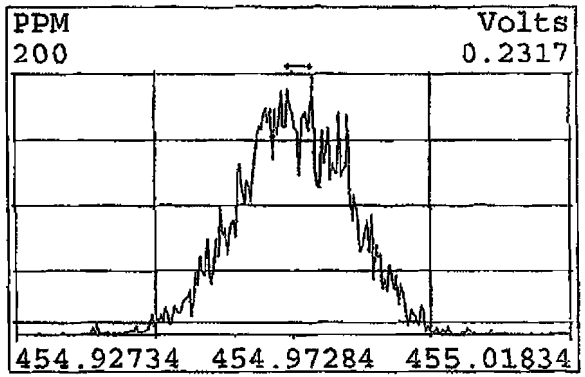


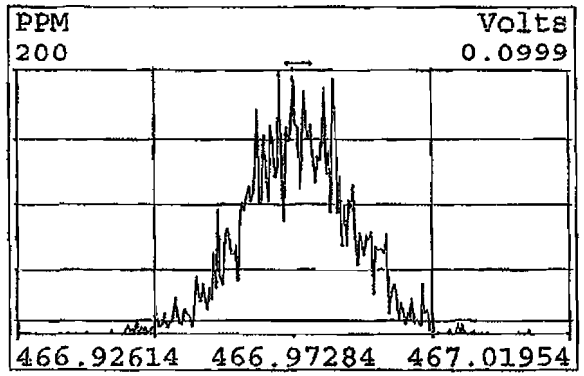


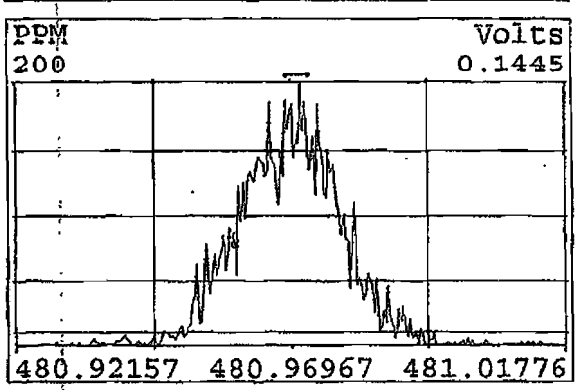
Peak Locate Examination: 4-FEB-2010:14:55 File:ENDRES04FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

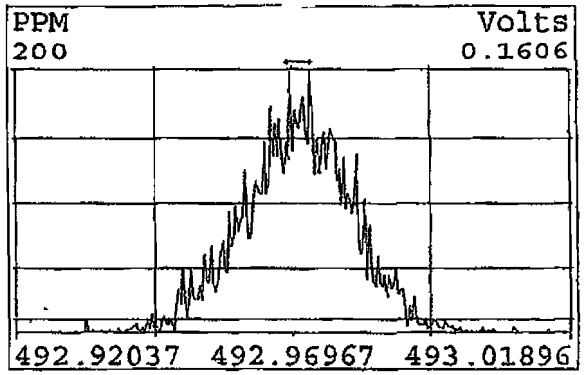


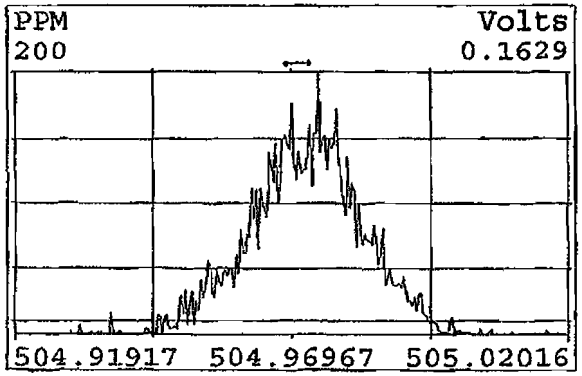


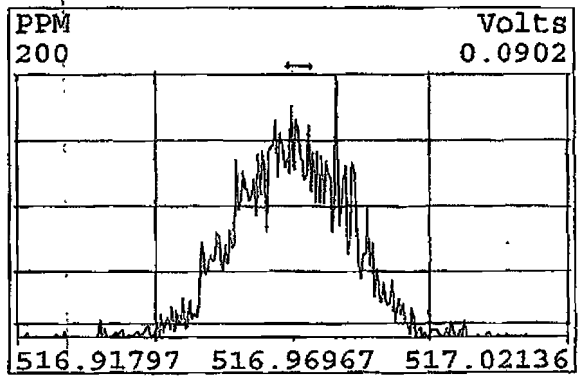












Run: 04FE104D5 Analyte: 8290 Cal: 82900204104D5

ST0204 :CS-3 09DXN425 ST0204A :CS-1 09DXN422 ST0204B :CS-2 09DXN423
ST0204C :CS-5 09DXN456 ST0204D :CS-4 09DXN426

Name	Mean	S. D.	%RSD	04FE104D5 S1 RRF1	04FE104D5 S2 RRF2	04FE104D5 S3 RRF3	04FE104D5 S4 RRF4	04FE104D5 S5 RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.570	0.092	5.86 %	1.67	1.59	1.55	1.61	1.43
2,3,7,8-TCDF	1.052	0.051	4.86 %	1.09	0.98	1.02	1.09	1.08
Total TCDF	1.052	0.051	4.86 %	1.09	0.98	1.02	1.09	1.08
13C-2,3,7,8-TCDD	1.001	0.057	5.65 %	1.03	0.97	0.95	1.08	0.96
2,3,7,8-TCDD	1.054	0.050	4.70 %	1.08	1.02	0.99	1.11	1.08
Total TCDD	1.054	0.050	4.70 %	1.08	1.02	0.99	1.11	1.08
37Cl-2,3,7,8-TCDD	2.416	0.164	6.77 %	2.42	2.35	2.25	2.69	2.36
13C-1,2,3,7,8-PeCDF	1.337	0.127	9.47 %	1.38	1.26	1.23	1.54	1.27
1,2,3,7,8-PeCDF	1.070	0.057	5.34 %	1.12	0.99	1.04	1.09	1.12
2,3,4,7,8-PeCDF	1.036	0.054	5.21 %	1.08	0.97	0.99	1.06	1.09
Total F2 PeCDF	1.053	0.055	5.24 %	1.10	0.98	1.01	1.07	1.10
Total F1 PeCDF	1.053	0.055	5.24 %	1.10	0.98	1.01	1.07	1.10
13C-1,2,3,7,8-PeCDD	0.812	0.084	10.4 %	0.86	0.77	0.74	0.94	0.76
1,2,3,7,8-PeCDD	1.038	0.067	6.47 %	1.03	0.95	1.00	1.09	1.11
Total PeCDD	1.038	0.067	6.47 %	1.03	0.95	1.00	1.09	1.11
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-
13C-1,2,3,4,7,8-HxCDF	1.015	0.057	5.60 %	1.03	1.03	0.98	1.09	0.94
1,2,3,4,7,8-HxCDF	1.239	0.064	5.14 %	1.28	1.15	1.20	1.28	1.30
1,2,3,6,7,8-HxCDF	1.490	0.054	3.63 %	1.52	1.43	1.48	1.46	1.57
2,3,4,6,7,8-HxCDF	1.339	0.065	4.85 %	1.37	1.25	1.32	1.32	1.43
1,2,3,7,8,9-HxCDF	1.220	0.092	7.58 %	1.24	1.08	1.19	1.25	1.34
Total HxCDF	1.322	0.066	5.00 %	1.35	1.23	1.30	1.33	1.41
13C-1,2,3,6,7,8-HxCDD	0.884	0.041	4.68 %	0.88	0.88	0.89	0.95	0.83
1,2,3,4,7,8-HxCDD	0.903	0.090	10.0 %	1.00	0.81	0.81	0.92	0.98

1,2,3,6,7,8-HxCDD	1.190	0.048	4.00 %	1.17	1.17	1.14	1.20	1.26
1,2,3,7,8,9-HxCDD	1.158	0.110	9.51 %	1.22	1.01	1.08	1.20	1.28
Total HxCDD	1.083	0.078	7.16 %	1.13	1.00	1.01	1.11	1.18
13C-1,2,3,4,6,7,8-HpCDF	0.945	0.040	4.25 %	0.97	0.95	0.92	1.00	0.89
1,2,3,4,6,7,8-HpCDF	1.299	0.053	4.10 %	1.35	1.24	1.25	1.31	1.35
1,2,3,4,7,8,9-HpCDF	1.102	0.071	6.42 %	1.17	1.01	1.04	1.13	1.15
Total HpCDF	1.200	0.062	5.15 %	1.26	1.12	1.15	1.22	1.25
13C-1,2,3,4,6,7,8-HpCDD	0.793	0.040	5.08 %	0.82	0.79	0.76	0.85	0.75
1,2,3,4,6,7,8-HpCDD	1.056	0.061	5.82 %	1.08	0.96	1.03	1.09	1.12
Total HpCDD	1.056	0.061	5.82 %	1.08	0.96	1.03	1.09	1.12
13C-OCDD	0.582	0.046	7.84 %	0.61	0.57	0.54	0.65	0.54
OCDF	1.558	0.101	6.46 %	1.56	1.43	1.49	1.63	1.68
OCDD	1.193	0.056	4.70 %	1.21	1.11	1.16	1.22	1.26

Run: 04FE104D5 Analyte: TETRAS Cal: TETRAS0204104D5

ST0204 :CS-3 09DXN425 ST0204A :CS-1 09DXN422 ST0204B :CS-2 09DXN423
ST0204C :CS-5 09DXN456 ST0204D :CS-4 09DXN426

Name	Mean	S. D.	%RSD	04FE104D5 S1 RRF1	04FE104D5 S2 RRF2	04FE104D5 S3 RRF3	04FE104D5 S4 RRF4	04FE104D5 S5 RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.570	0.092	5.86 %	1.67	1.59	1.55	1.61	1.43
2,3,7,8-TCDF	1.052	0.051	4.86 %	1.09	0.98	1.02	1.09	1.08
13C-2,3,7,8-TCDD	1.001	0.057	5.65 %	1.03	0.97	0.95	1.08	0.96
2,3,7,8-TCDD	1.054	0.050	4.70 %	1.08	1.02	0.99	1.11	1.08
37Cl-2,3,7,8-TCDD	2.416	0.164	6.77 %	2.42	2.35	2.25	2.69	2.36

Run text: ST0204E Sample text: ST0204E :2nd Source 09DXN449
Run #7 Filename: 04FE104D5 S: 7 I: 1 Results: 04FE104D51613SS
Acquired: 4-FEB-10 14:06:33 Processed: 4-FEB-10 14:47:04
Run: 04FE104D5 Analyte: 1613 Cal: 16130204104D5
Factor 1: 400.000 Factor 2: 20.000 Sample size: 1.000000

spiked @ 200/500/1000 2/4/10 KB

Name	Resp	RA		RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	175287100	0.81	y	19:22	-	105.30	-	-	n
13C-2,3,7,8-TCDF	266922000	0.78	y	18:50	1.57	1939.28	0.72	97.0	n
2,3,7,8-TCDF	26307300	0.73	y	18:50	1.05	187.31 ✓ 94%	0.49	-	n
Total TCDF	26695670	1.00	n	18:27	1.05	190.08	0.49	-	n
13C-2,3,7,8-TCDD	181958400	0.80	y	19:36	1.00	2074.30	1.30	103.7	n
2,3,7,8-TCDD	18371850	0.78	y	19:38	1.05	191.59 ✓ 96%	0.96	-	n
Total TCDD	18453194	0.36	n	15:21	1.05	192.44	0.96	-	n
37Cl-2,3,7,8-TCDD	44269600	1.00	y	19:37	2.42	209.09	0.01	104.5	n
13C-1,2,3,7,8-PeCDF	245877900	1.64	y	24:30	1.34	2098.83	2.44	104.9	n
1,2,3,7,8-PeCDF	63525100	1.52	y	24:30	1.07	483.13 ✓ 97%	1.41	-	n
13C-2,3,4,7,8-PeCDF	242738100	1.62	y	25:58	1.31	2107.55	2.48	105.4	n
2,3,4,7,8-PeCDF	62244900	1.54	y	26:00	1.05	486.28 ✓ 97%	1.51	-	n
Total F2 PeCDF	127148228	1.73	y	23:00	1.06	980.03	1.46	-	n
Total F1 PeCDF	*	*	n	NotFnd	1.06	*	0.66	-	n
13C-1,2,3,7,8-PeCDD	137224100	1.69	y	26:47	0.81	1928.05	0.47	96.4	n
1,2,3,7,8-PeCDD	37422200	1.65	y	26:48	1.04	525.48 ✓ 105%	2.24	-	n
Total PeCDD	37733904	1.65	y	26:48	1.04	529.86	2.24	-	n
13C-1,2,3,7,8,9-HxCDD	164296200	1.27	y	33:04	-	100.71	-	-	n
13C-1,2,3,4,7,8-HxCDF	187336200	0.51	y	31:53	1.01	2247.73	0.92	112.4	n
1,2,3,4,7,8-HxCDF	55922500	1.21	y	31:54	1.24	481.68 ✓ 96%	0.59	-	n
13C-1,2,3,6,7,8-HxCDF	235114700	0.52	y	32:01	1.33	2149.85	0.70	107.5	n
1,2,3,6,7,8-HxCDF	64341100	1.22	y	32:01	1.13	482.24 ✓ 96%	0.56	-	n
13C-2,3,4,6,7,8-HxCDF	214823600	0.52	y	32:35	1.18	2212.73	0.79	110.6	n
2,3,4,6,7,8-HxCDF	58389600	1.19	y	32:36	1.15	472.99 ✓ 95%	0.53	-	n
13C-1,2,3,7,8,9-HxCDF	192523600	0.53	y	33:14	1.10	2140.01	0.85	107.0	n
1,2,3,7,8,9-HxCDF	53423000	1.21	y	33:15	1.13	491.82 ✓ 98%	0.62	-	n
Total HxCDF	232534013	1.21	y	31:54	1.16	1932.53	0.57	-	n
13C-1,2,3,4,7,8-HxCDD	122968200	1.28	y	32:43	0.74	2010.84	0.07	100.5	n
1,2,3,4,7,8-HxCDD	37078000	1.26	y	32:43	1.07	562.04 ✓ 112%	1.35	-	n
13C-1,2,3,6,7,8-HxCDD	151023300	1.30	y	32:47	0.88	2079.99	0.06	104.0	n
1,2,3,6,7,8-HxCDD	46262200	1.31	y	32:48	1.19	514.82 ✓ 103%	1.28	-	n
1,2,3,7,8,9-HxCDD	44506700	1.29	y	33:05	1.26	516.67 ✓ 103%	1.19	-	n
Total HxCDD	127846900	1.26	y	32:43	1.18	1593.53	1.27	-	n
13C-1,2,3,4,6,7,8-HpCDF	165616100	0.44	y	34:34	0.94	2133.88	3.91	106.7	n
1,2,3,4,6,7,8-HpCDF	51186200	0.94	y	34:35	1.30	475.89 ✓ 95%	2.19	-	n
13C-1,2,3,4,7,8,9-HpCDF	140442700	0.43	y	35:41	0.81	2102.73	4.54	105.1	n
1,2,3,4,7,8,9-HpCDF	43079900	0.96	y	35:42	1.28	479.11 ✓ 96%	2.92	-	n
Total HpCDF	94266100	0.94	y	34:35	1.29	955.00	2.52	-	n

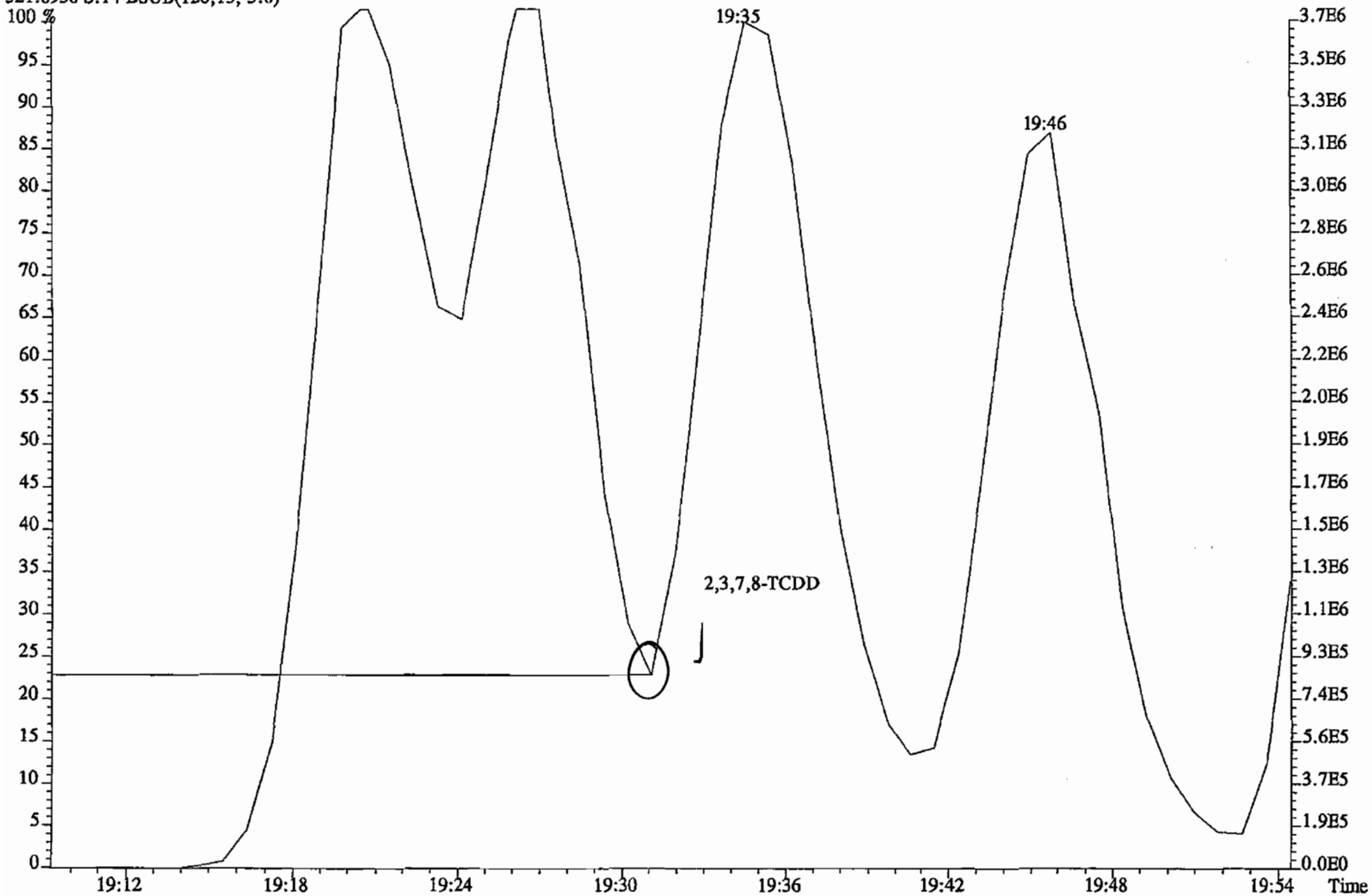
13C-1,2,3,4,6,7,8-HpCDD	139296600	1.07	y	35:23	0.79	2138.52		2.90	106.9	n
1,2,3,4,6,7,8-HpCDD	35570300	1.06	y	35:23	1.06	483.63	✓ 97 %	1.89	-	n
Total HpCDD	36207386	4.47	n	34:35	1.06	492.29		1.89	-	n
13C-OCDD	194917600	0.95	y	37:52	0.58	4077.38		3.13	101.9	n
OCDF	75151300	0.89	y	37:58	1.56	990.09	✓ 99 %	1.04	-	n
OCDD	58400500	0.88	y	37:52	1.19	1004.50	✓ 100 %	1.52	-	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
08FE104D5	1	ST0208	CS3 10DXN049				1.00000	
08FE104D5	2	ST0208A	CS3 09DXN425				1.00000	
08FE104D5	3	CP0208	DB-5 CPSM 3732-04				1.00000	
08FE104D5	4	SB0208	Solvent Blank C-14				1.00000	
08FE104D5	5	LT331-1-AA	G0B020000-261B	20	1613B-Tetras/	3	1.00000	L
08FE104D5	6	LT331-1-AC	G0B020000-261C	20	1613B-Tetras/		1.00000	L
08FE104D5	7	LTRHF-1-AA	G0A260491-1	20	1613B-Tetras/		1.05510	L
08FE104D5	8	LT49F-1-AA	D0B030409-1	20	8290/SOLID	6	10.78000	g
08FE104D5	9	LT49G-1-AA	D0B030409-2	20	8290/SOLID		10.33000	g
08FE104D5	10	LT49H-1-AA	D0B030409-3	20	8290/SOLID		10.20000	g
08FE104D5	11	LT44M-1-AC	G0B020000-507C	20	8290/SOLID		10.00000	g
08FE104D5	12	LT44M-1-AA	G0B020000-507B	20	8290/SOLID		10.00000	g
08FE104D5	13	ST0208B	CS3 09DXN425				1.00000	
08FE104D5	14	CP0208A	DB-5 CPSM 3732-04				1.00000	
08FE104D5	15	SB0208A	Solvent Blank C-14				1.00000	
08FE104D5	16	LT5PC-1-AA	G0B030000-229B	20	1613B/WATER	5	1.00000	L
08FE104D5	17	LT5PC-1-AC	G0B030000-229C	20	1613B/WATER		1.00000	L
08FE104D5	18	LTRH1-1-AA	G0A260496-1	20	1613B/WATER		0.95750	L
08FE104D5	19	LTRJF-1-AA	G0A260496-2	20	1613B/WATER		0.94220	L
08FE104D5	20	LTXGG-1-AC	G0A280000-433C	20	8290/SOLID	3	10.00000	g
08FE104D5	21	LTXGG-1-AA	G0A280000-433B	20	8290/SOLID		10.00000	g
08FE104D5	22	LTMC5-1-AA	G0A220427-1	20	8290/SOLID		10.10000	g
08FE104D5	23	LTME5-1-AA	G0A220427-6	20	8290/SOLID		10.22000	g
08FE104D5	24	LTMFD-1-AA	G0A220427-11	20	8290/SOLID		10.07000	g
08FE104D5	25	LTMFP-1-AA	G0A220427-16	20	8290/SOLID		10.14000	g
08FE104D5	26	LTMFQ-1-AA	G0A220427-17	20	8290/SOLID		10.60000	g
08FE104D5	27	LTMFQ-1-AC	G0A220427-17S	20	8290/SOLID		10.79000	g
08FE104D5	28	LTMFQ-1-AD	G0A220427-17D	20	8290/SOLID		10.70000	g
08FE104D5	29	SB0208B	Solvent Blank C-14				1.00000	
08FE104D5	30	SB0208C	Solvent Blank C-14				1.00000	
08FE104D5	31	ST0208C	CS3 09DXN425				1.00000	
08FE104D5	32	CP0208B	DB-5 CPSM 3732-04				1.00000	
08FE104D5	33	SB0208D	Solvent Blank C-14				1.00000	
08FE104D5	34	LTNAF-1-AF	G0A230442-4	20	8290/SOLID	100	10.00000	g
08FE104D5	35	LTNAG-1-AF	G0A230442-5	20	8290/SOLID		10.35500	g
08FE104D5	36	LTNAG-1-ANS	G0A230442-5S	20	8290/SOLID		10.00000	g
08FE104D5	37	LTNAG-1-APD	G0A230442-5D	20	8290/SOLID		10.27500	g
08FE104D5	38	LTNAH-1-AF	G0A230442-6	20	8290/SOLID		10.29000	g
08FE104D5	39	LTNAJ-1-AF	G0A230442-7	20	8290/SOLID		10.00500	g
08FE104D5	40	LTMFR-1-AA	G0A220427-18	20	8290/SOLID	3	10.15000	g
08FE104D5	41	LTMFT-1-AA	G0A220427-19	20	8290/SOLID		10.47000	g
08FE104D5	42	LTMFV-1-AA	G0A220427-20	20	8290/SOLID		10.14000	g
08FE104D5	43	LTMFW-1-AA	G0A220427-21	20	8290/SOLID		10.13000	g
08FE104D5	44	LTMFX-1-AA	G0A220427-22	20	8290/SOLID		10.76000	g
08FE104D5	45	LTMF0-1-AA	G0A220427-23	20	8290/SOLID		10.45000	g
08FE104D5	46	LTMF1-1-AA	G0A220427-24	20	8290/SOLID		10.00000	g
08FE104D5	47	LTMF2-1-AA	G0A220427-25	20	8290/SOLID		10.04000	g
08FE104D5	48	SB0208E	Solvent Blank C-14				1.00000	
FE104D5	49	ST0208D	CS3 09DXN425				1.00000	
08FE104D5	50	CP0208C	DB-5 CPSM 3732-05				1.00000	
08FE104D5	51	SB0208F	Solvent Blank C-14				1.00000	
08FE104D5	52	LTM7A-2-AA	G0A230431-1RX	20	8290/SOLID	6	2.00000	g
08FE104D5	53	LTMQ8-2-AC	G0A220628-1RX	20	1613B/SOLID		10.38000	g

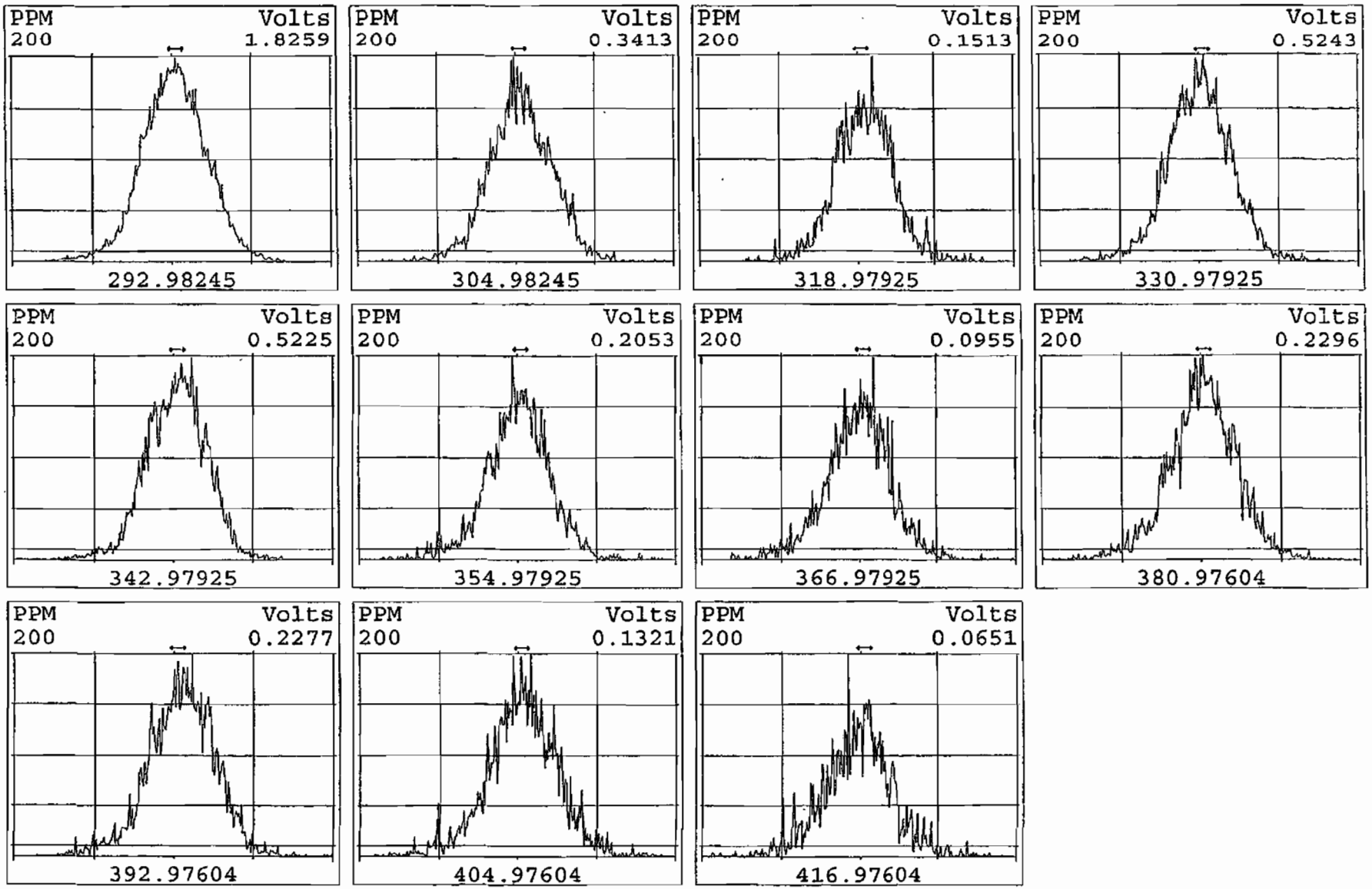
08FE104D5	54	LTRD0-1-AA	G0A260482-1	20	1613B/WATER		1.05750	L
08FE104D5	55	LTRE4-1-AA	G0A260482-2	20	1613B/WATER		1.06020	L
08FE104D5	56	LTRE7-1-AA	G0A260482-3	20	1613B/WATER		1.07650	L
08FE104D5	57	LT0QC-1-AA	G0A290502-1	20	1613B/WATER	5	0.99520	L
08FE104D5	58	LT0QF-1-AA	G0A290502-2	20	1613B/WATER		1.02980	L
08FE104D5	59	LT0QJ-1-AA	G0A290503-1	20	1613B/WATER		1.05130	L
08FE104D5	60	LT0QN-1-AA	G0A290503-2	20	1613B/WATER		1.03410	L
08FE104D5	61	LT9TH-1-AC	G0B050000-245 (245-1LCS)	20	1613B/WATER	7	1.00000	L
08FE104D5	62	LT9TH-1-AA	G0B050000-245 (245-1MB)	20	1613B/WATER		1.00000	L
08FE104D5	63	LTMAJ-1-AA	G0A220574-1	20	1613B/WATER	5	0.83720	L
08FE104D5	64	LTW3N-1-AA	G0A280510-1	20	1613B/WATER	7	1.03160	L
08FE104D5	65	LTW3P-1-AA	G0A280510-2	20	1613B/WATER		1.05650	L
08FE104D5	66	SB0208G	Solvent Blank C-14				1.00000	
08FE104D5	67	ST0208E	CS3 10DXN049				1.00000	
08FE104D5	68						1.00000	
08FE104D5	69						1.00000	
08FE104D5	70		KSS, AM 02-08-10				1.00000	
08FE104D5	71		KT, KSS 02-09-10				1.00000	
08FE104D5	72						1.00000	
08FE104D5	73						1.00000	
08FE104D5	74						1.00000	

LOGFILE √ 2/10/10 KSS

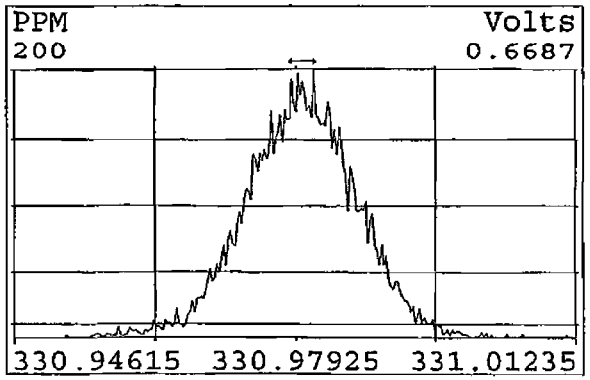
File:08FE104D5 #1-578 Acq: 8-FEB-2010 22:34:52 GC EI+ Voltage SIR Autospec-UltimaE
Sample#14 Text:CP0208A :DB-5 CPSM 3732-04 Exp:DIOXIN
321.8936 S:14 BSUB(128,15,-3.0)

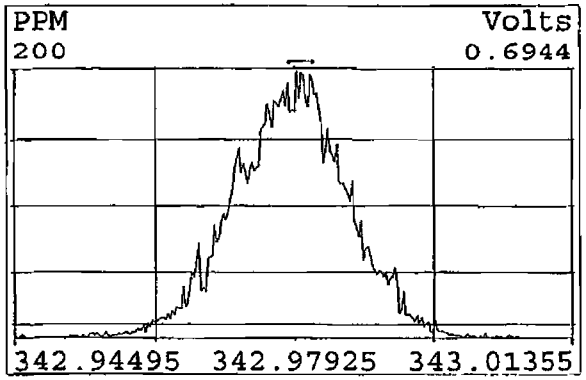


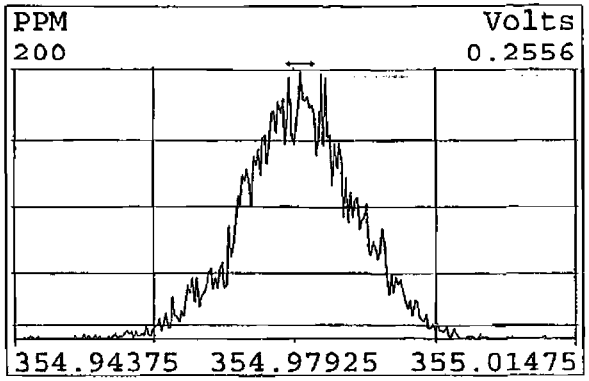
Peak Locate Examination: 8-FEB-2010:13:00 File:08FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

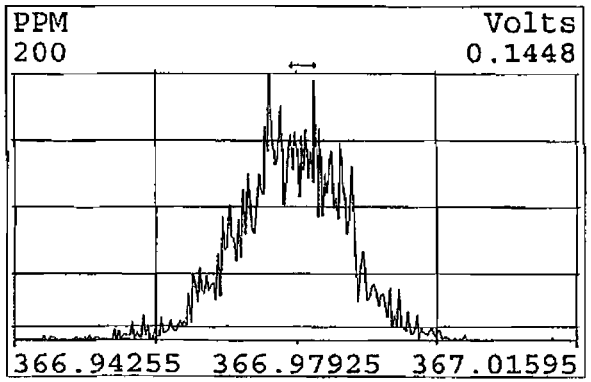


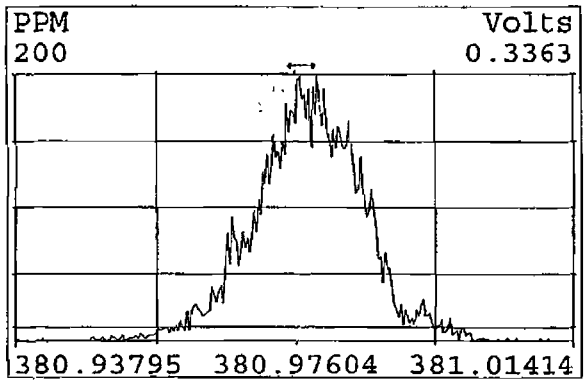
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

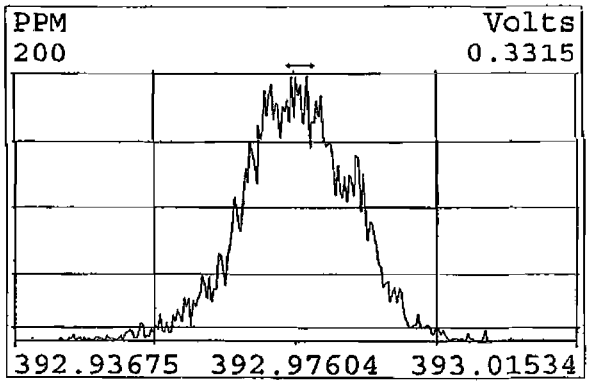


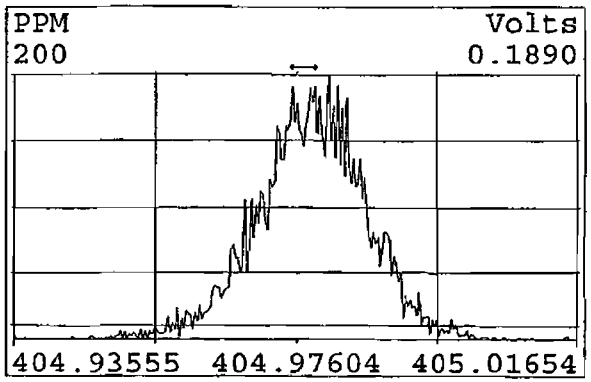


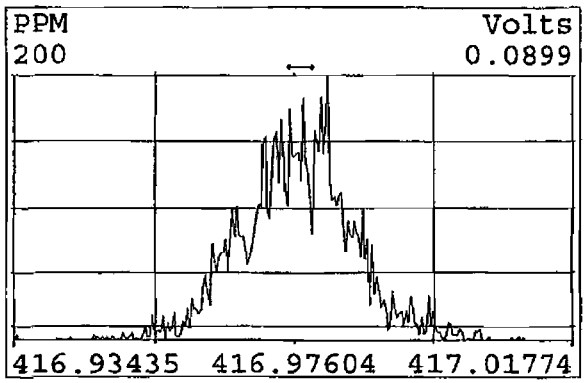




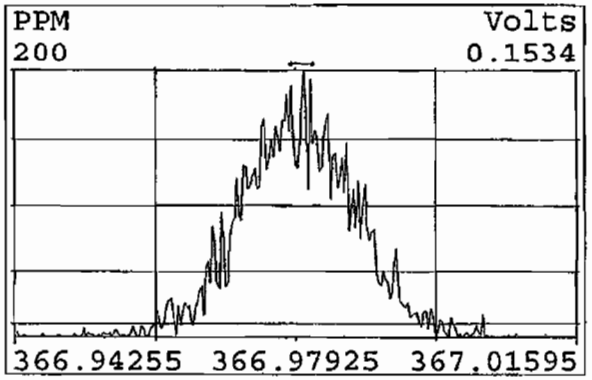


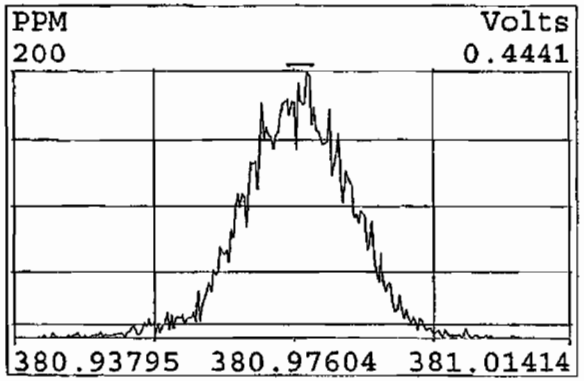


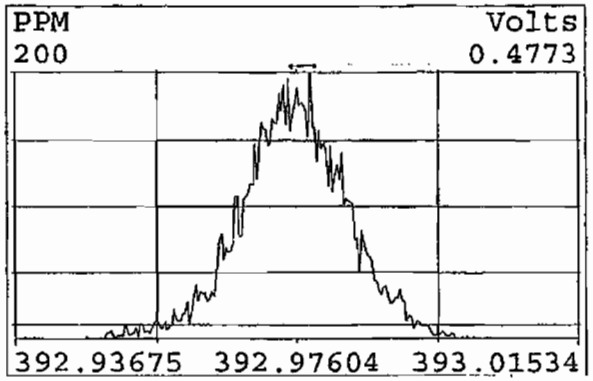


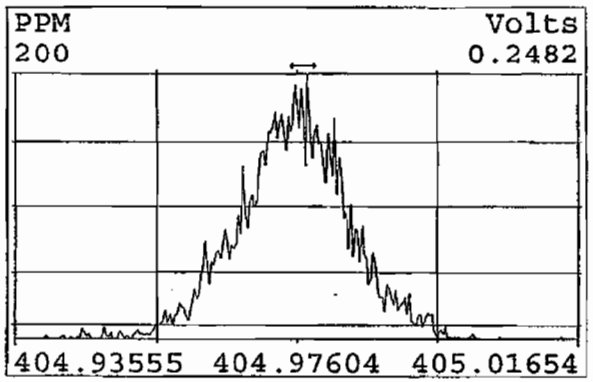


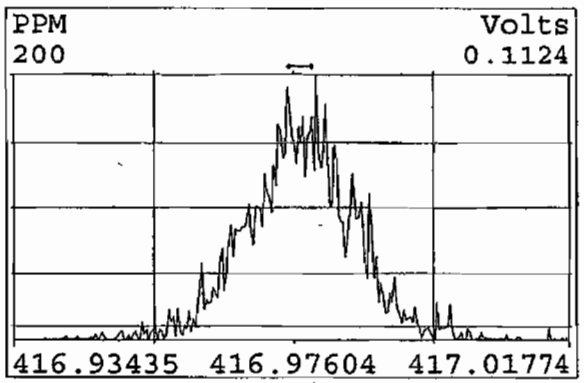
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

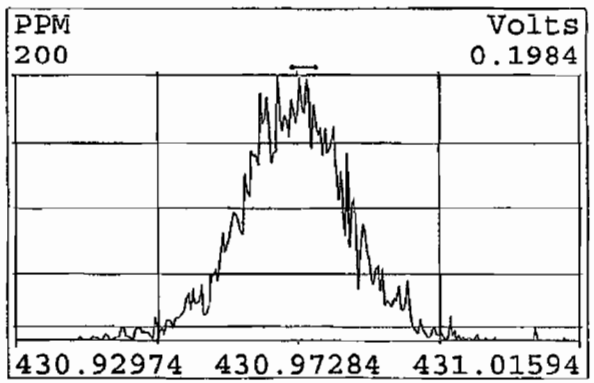


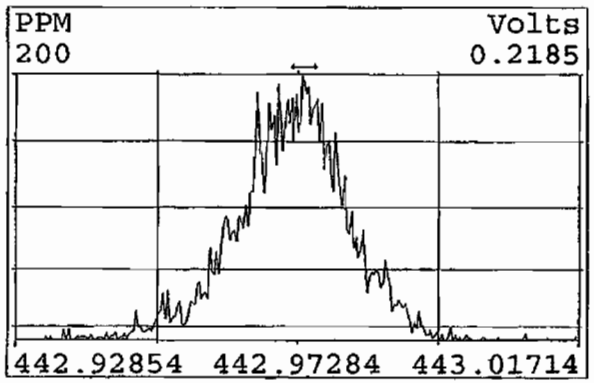


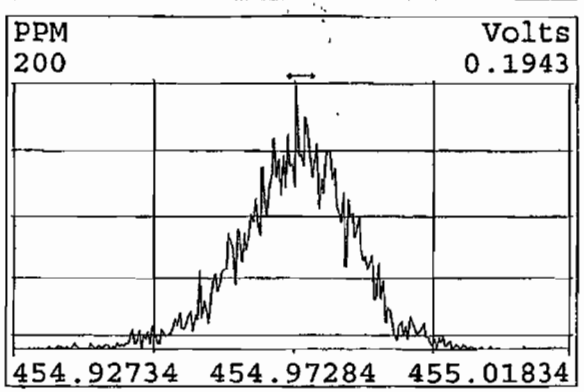




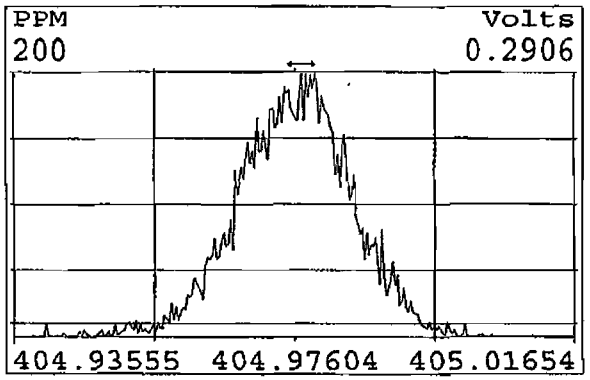


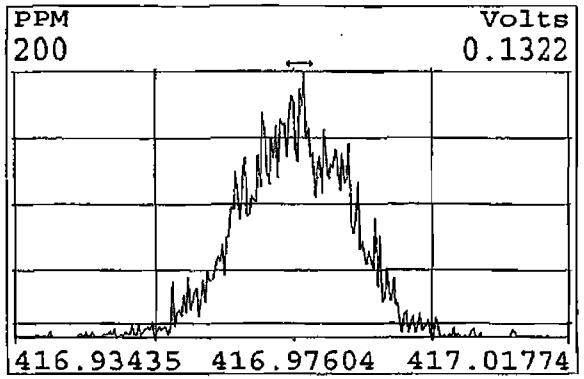


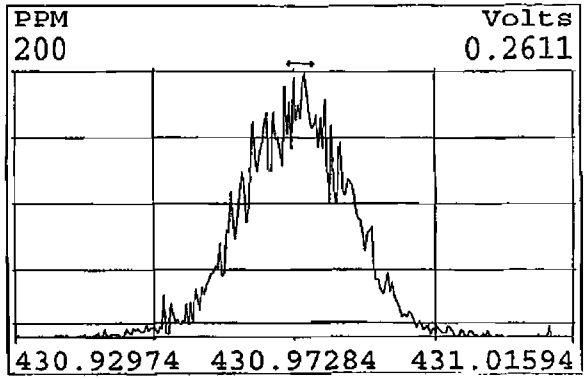


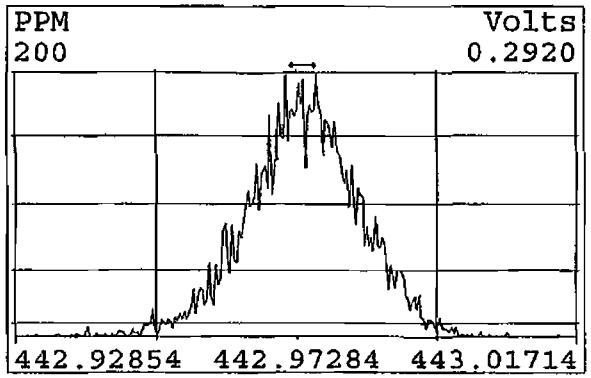


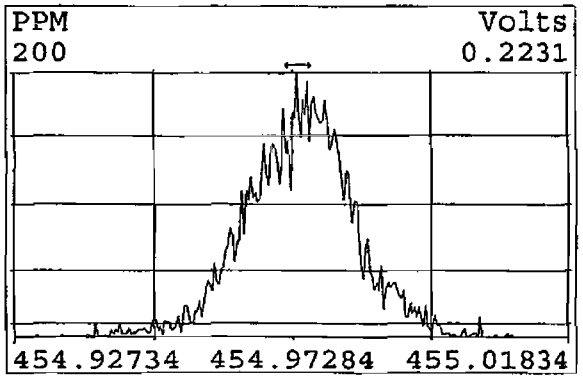
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

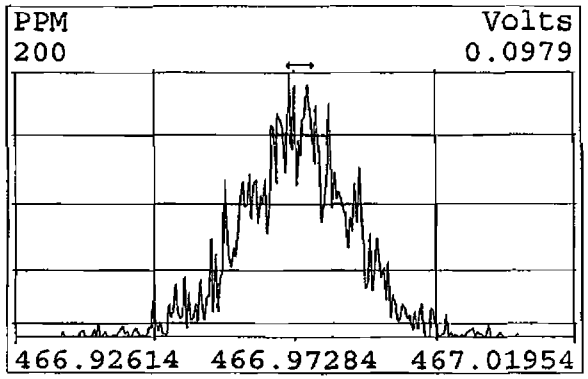


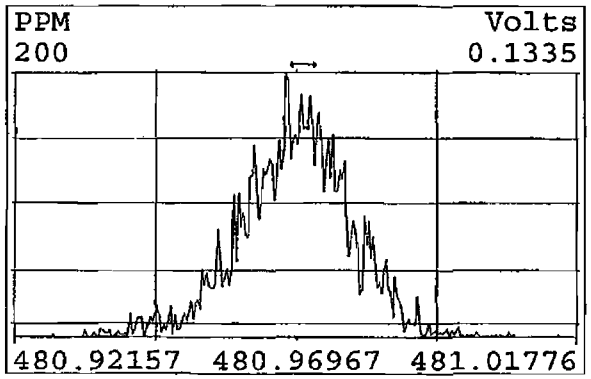




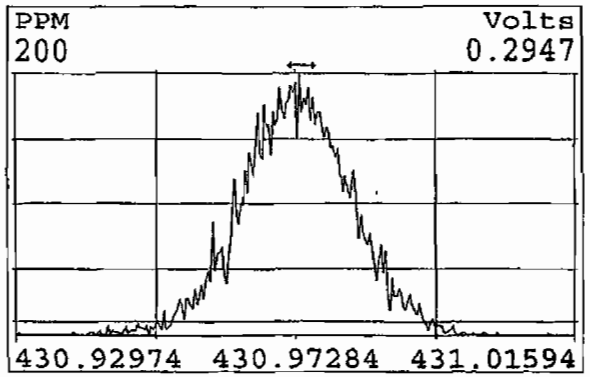


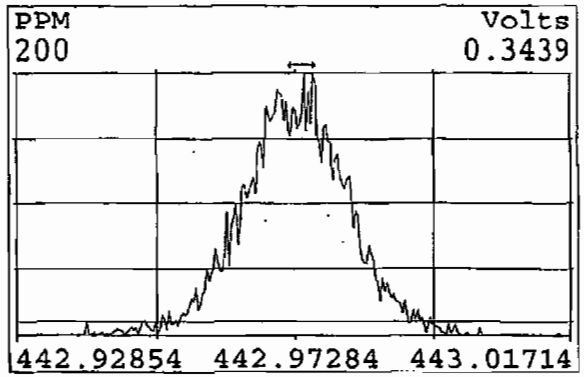


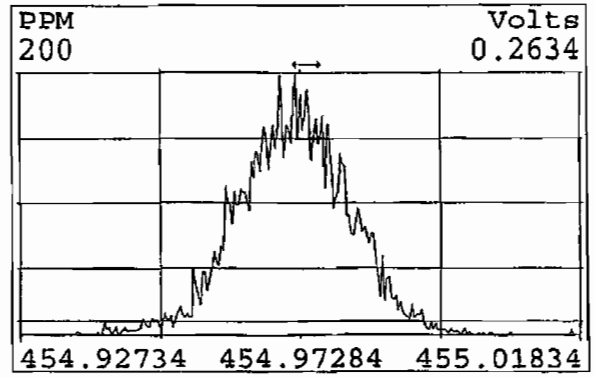


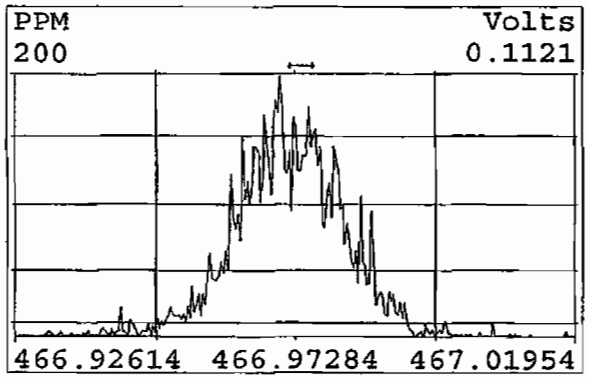


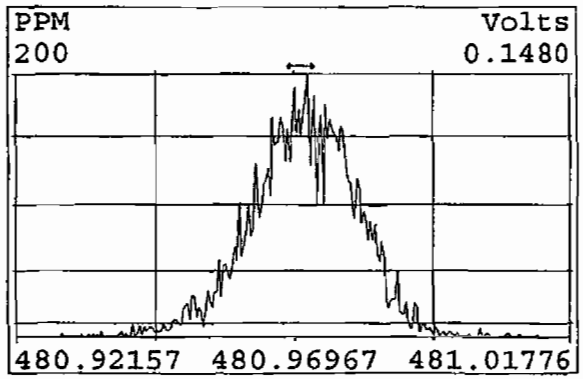
Peak Locate Examination: 8-FEB-2010:13:02 File:08FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

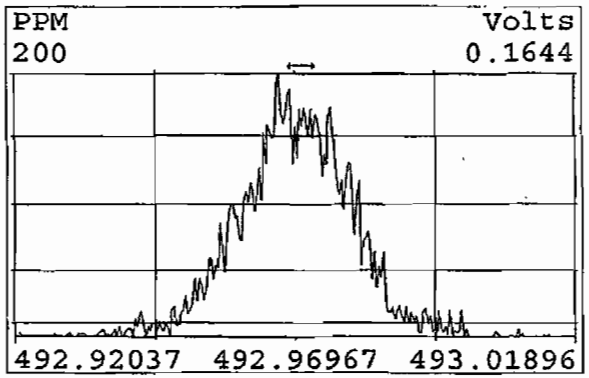


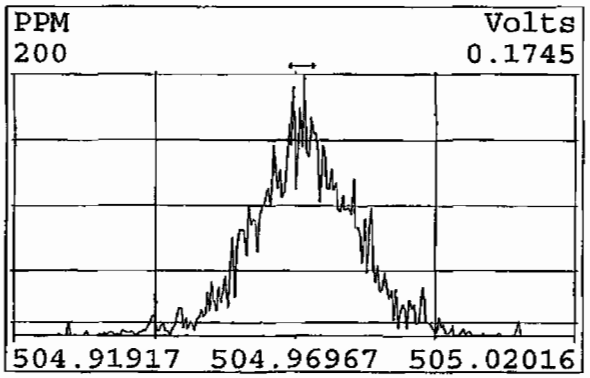


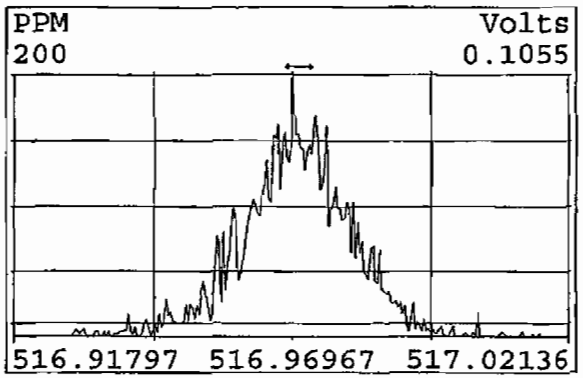




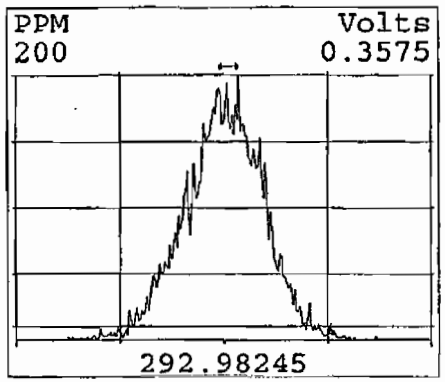


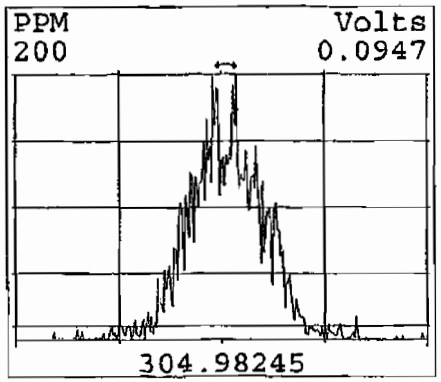


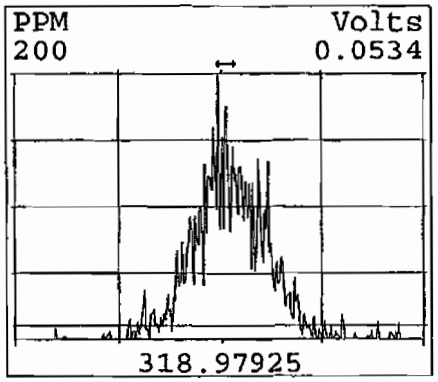


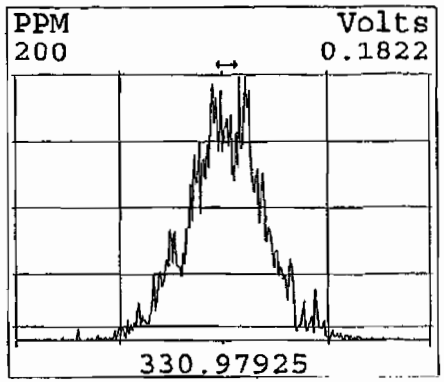


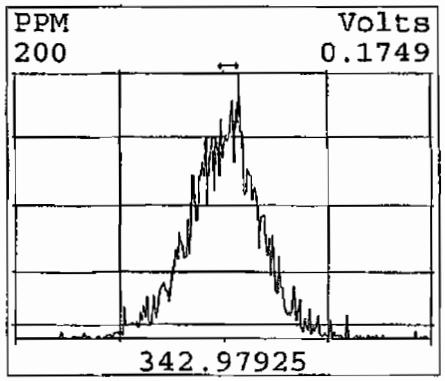
Peak Locate Examination:10-FEB-2010:14:17 File:ENDRES08FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

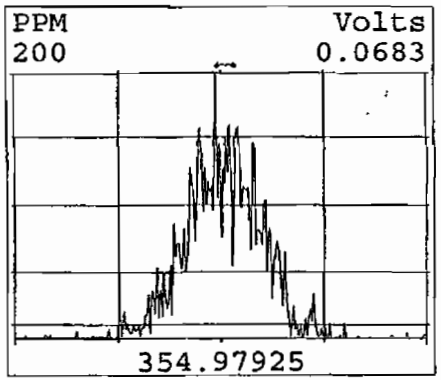


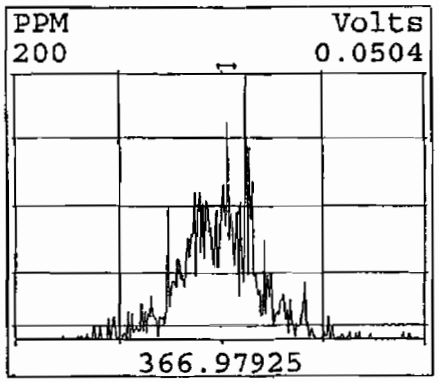


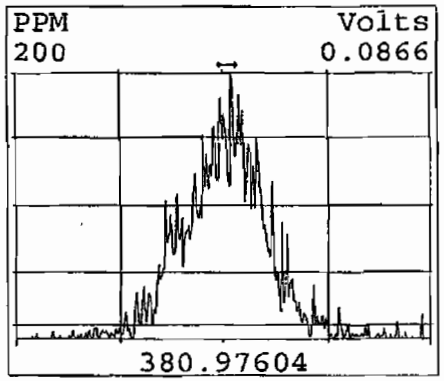


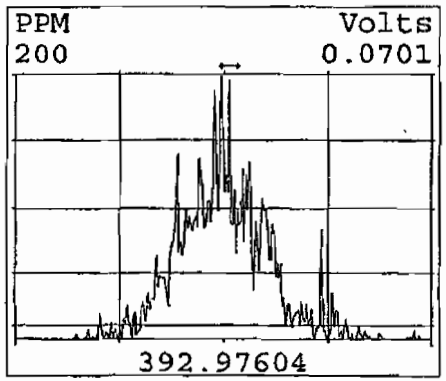


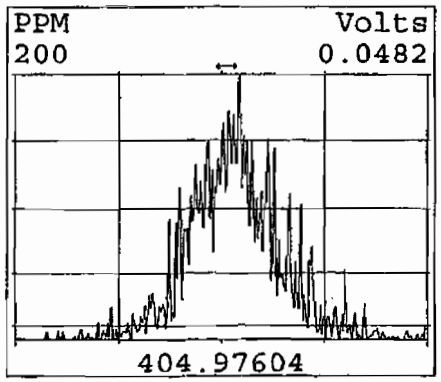


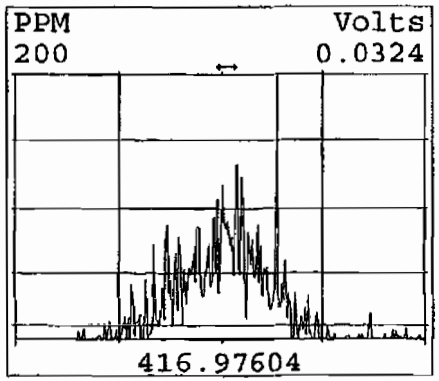




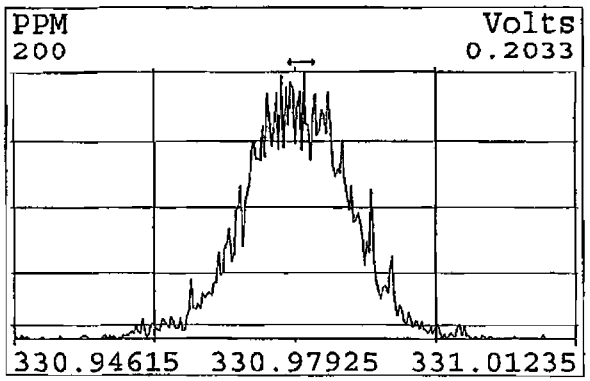


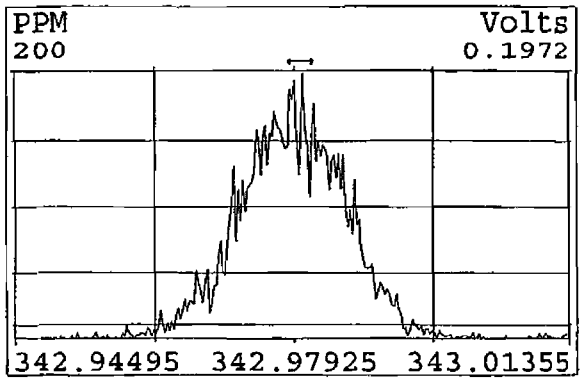


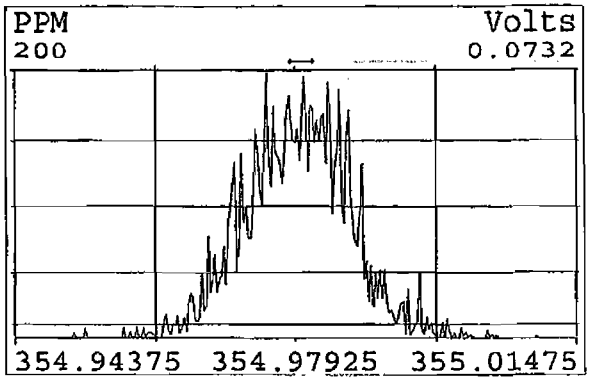


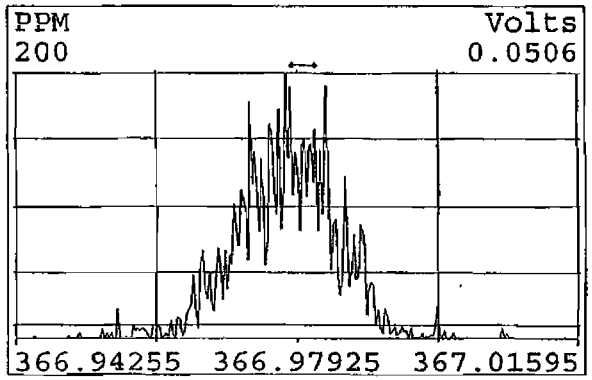


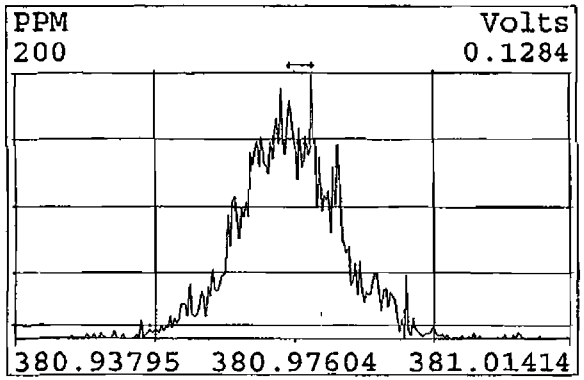
Peak Locate Examination:10-FEB-2010:14:17 File:ENDRES08FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

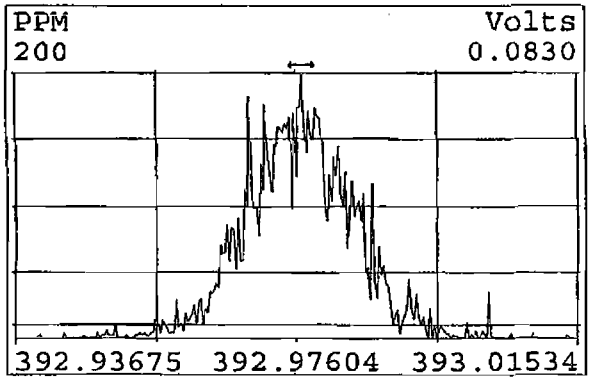


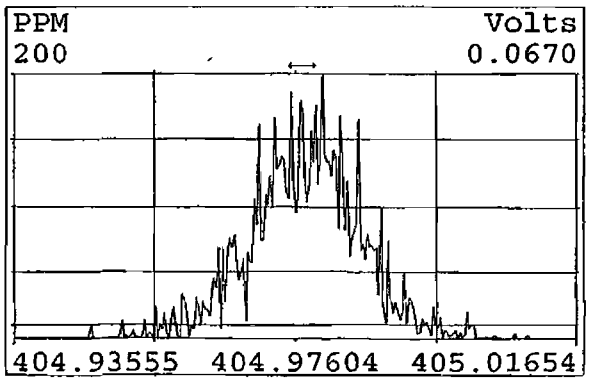


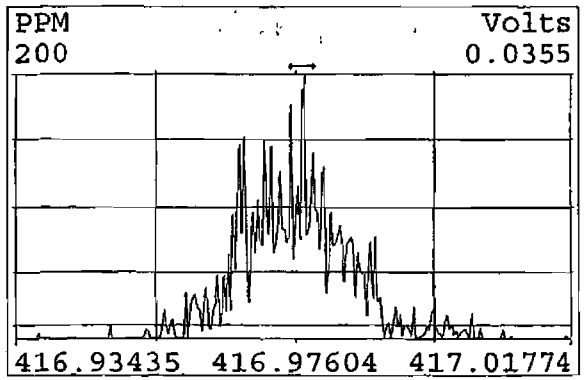




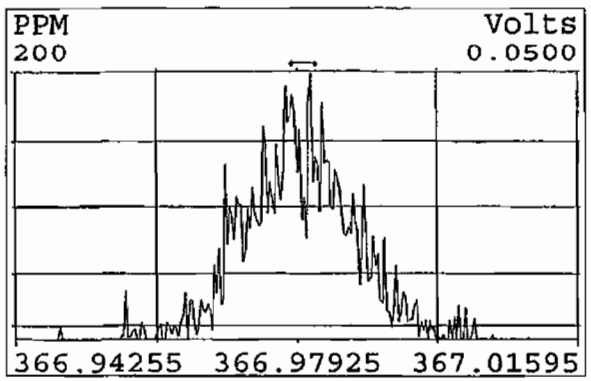


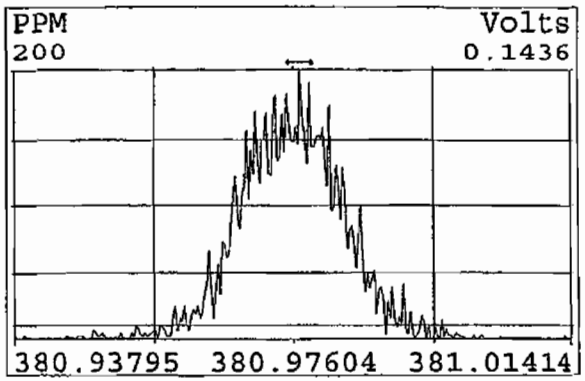


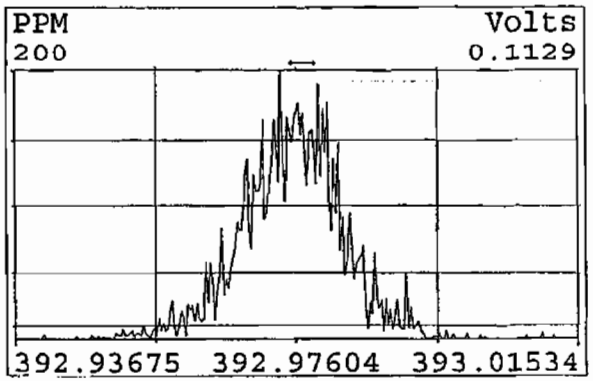


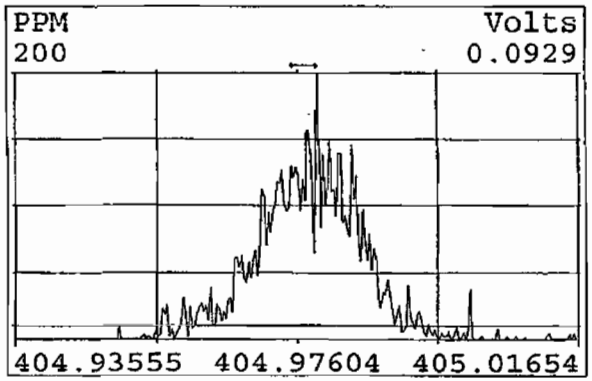


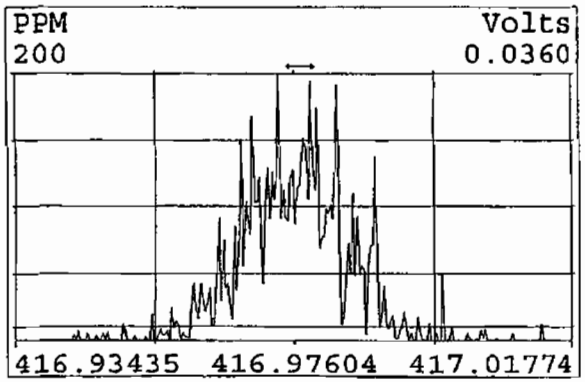
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

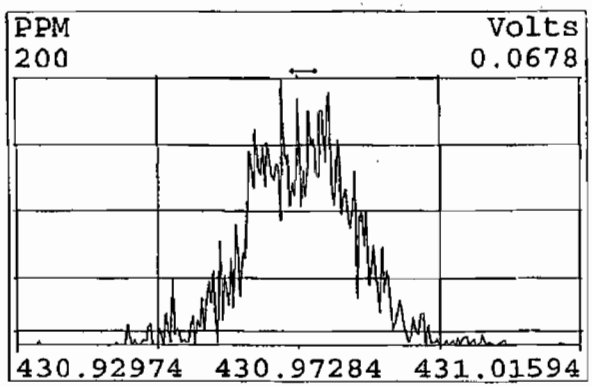


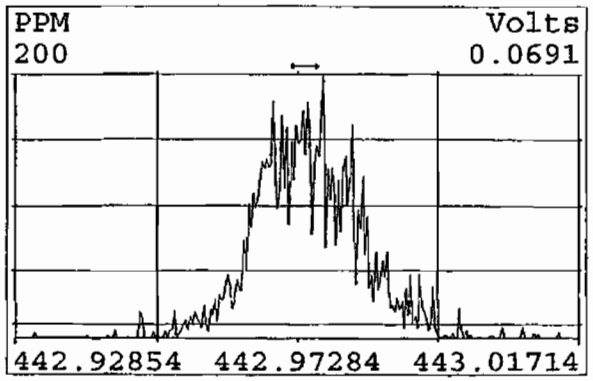


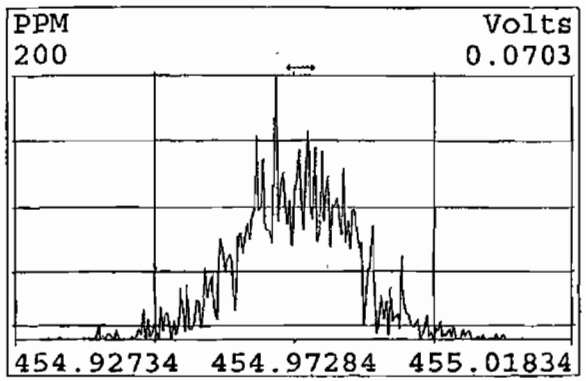




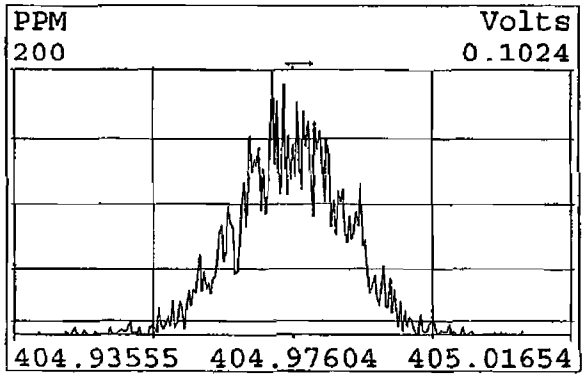


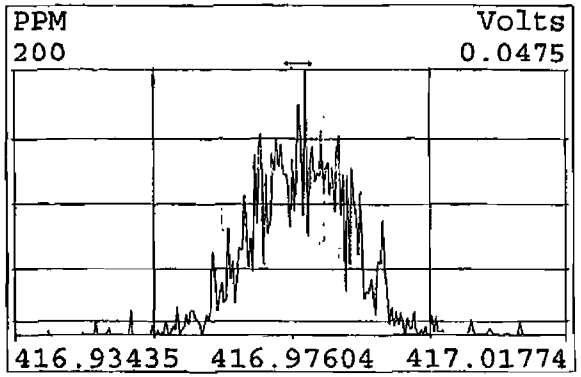


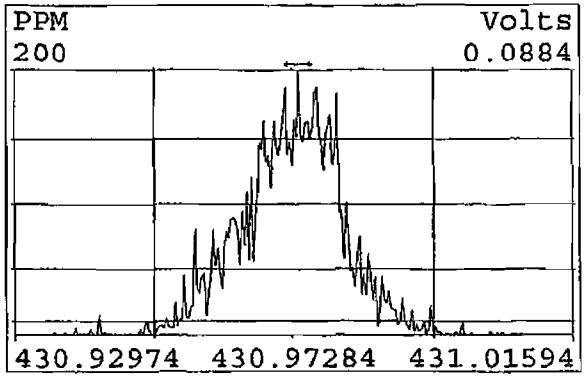


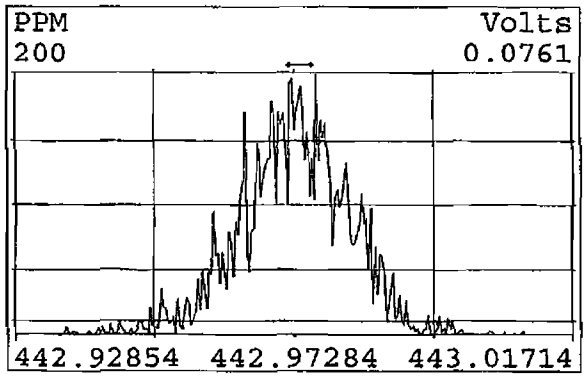


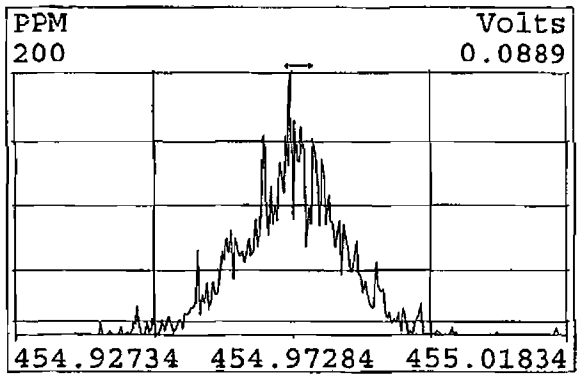
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

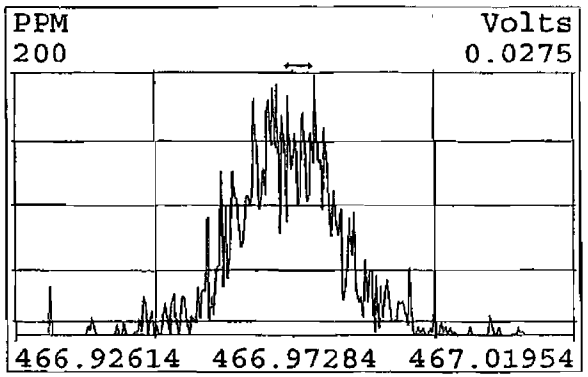


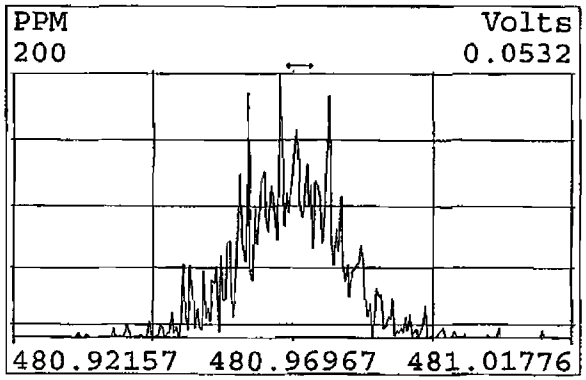




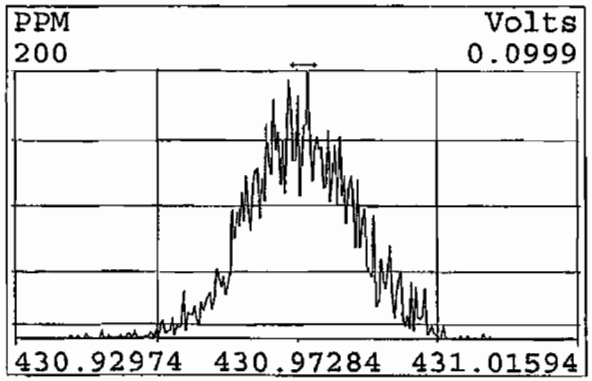


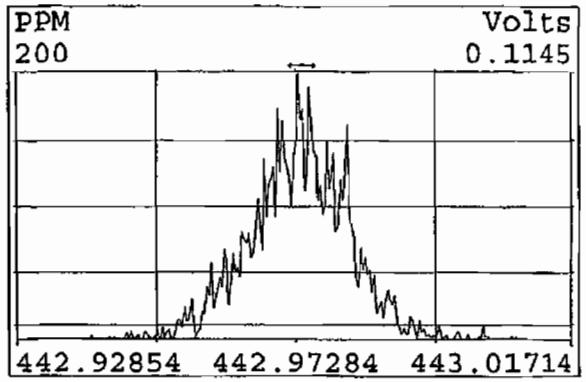


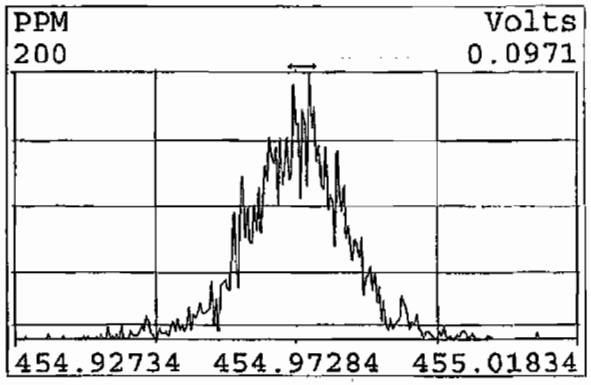


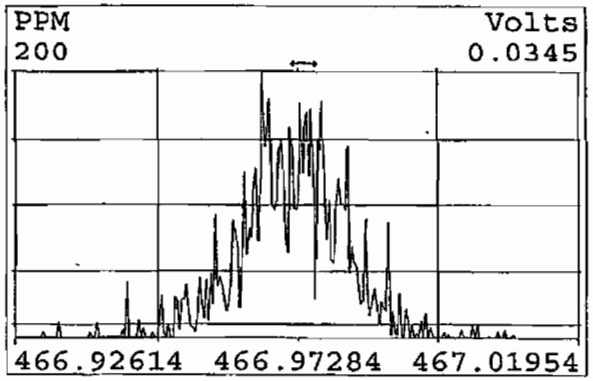


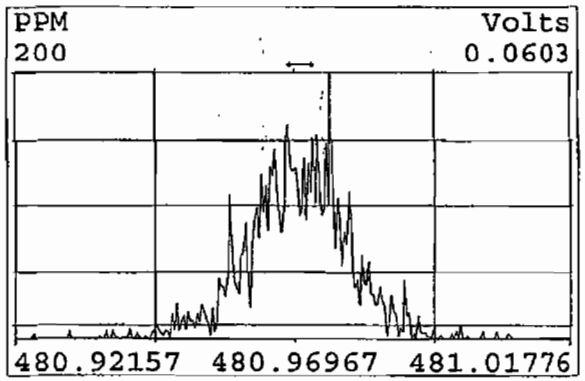
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

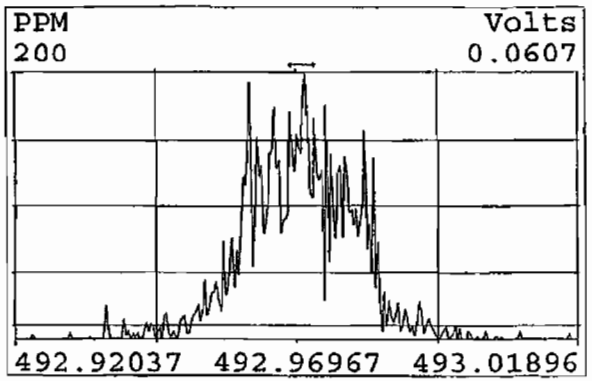


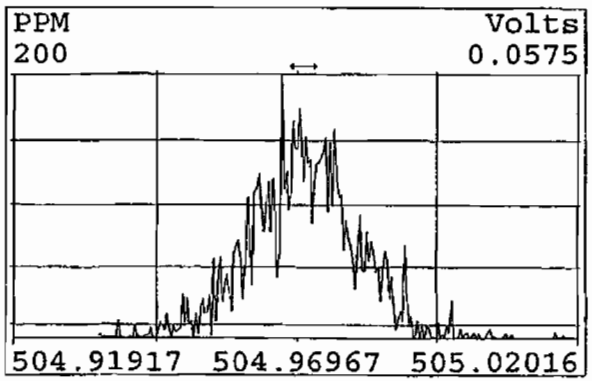


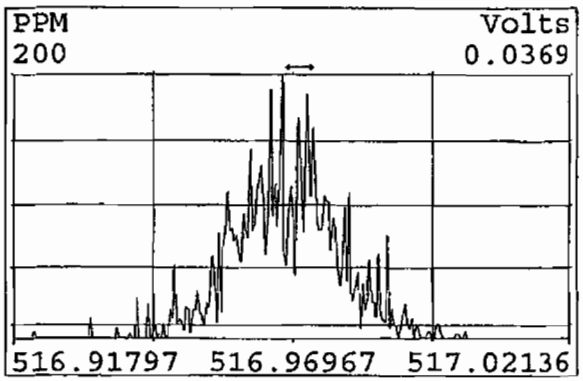












Run text: ST0208B File text: ST0208B :CS3 09DXN425
Run #13 Filename 08FE104D5 S: 13 I: 1
Acquired: 8-FEB-10 21:50:49 Processed: 9-FEB-10 11:30:26
Run: 08FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 08FE104D58290

Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	121498600	0.81 y	19:20	-	100.00	-	n
13C-2,3,7,8-TCDF	195840600	0.79 y	18:47	1.61	100.00	2.6	n
2,3,7,8-TCDF	20872580	0.84 y	18:48	1.07	10.00	1.3	n
Total TCDF	21181723	1.94 n	17:47	1.07	10.00	1.3	n
13C-2,3,7,8-TCDD	123064600	0.79 y	19:34	1.01	100.00	1.2	n
2,3,7,8-TCDD	12521540	0.82 y	19:35	1.02	10.00	-3.5	n
Total TCDD	12567387	0.82 y	19:35	1.02	10.00	-3.5	n
37Cl-2,3,7,8-TCDD	28754200	1.00 y	19:35	2.37	10.00	-2.0	n
13C-1,2,3,7,8-PeCDF	183268000	1.58 y	24:25	1.51	100.00	12.8	n
1,2,3,7,8-PeCDF	104891500	1.58 y	24:26	1.14	50.00	7.0	n
2,3,4,7,8-PeCDF	99841800	1.56 y	25:55	1.09	50.00	5.1	n
Total F2 PeCDF	205886532	1.58 y	24:26	1.12	100.00	6.1	n
Total F1 PeCDF	47209	0.02 n	14:16	1.12	100.00	6.1	n
13C-1,2,3,7,8-PeCDD	112627400	1.54 y	26:42	0.93	100.00	14.2	n
1,2,3,7,8-PeCDD	57943700	1.59 y	26:43	1.03	50.00	-0.9	n
Total PeCDD	58103300	1.59 y	26:43	1.03	50.00	-0.9	n
13C-1,2,3,7,8,9-HxCDD	115125900	1.28 y	33:02	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	124778600	0.52 y	31:52	1.08	100.00	6.8	n
1,2,3,4,7,8-HxCDF	83018400	1.24 y	31:53	1.33	50.00	7.4	n
1,2,3,6,7,8-HxCDF	99077600	1.27 y	32:00	1.59	50.00	6.6	n
2,3,4,6,7,8-HxCDF	86403100	1.23 y	32:34	1.38	50.00	3.4	n
1,2,3,7,8,9-HxCDF	76187700	1.25 y	33:13	1.22	50.00	0.1	n
Total HxCDF	344686800	1.24 y	31:53	1.38	200.00	4.5	n
13C-1,2,3,6,7,8-HxCDD	110646900	1.29 y	32:46	0.96	100.00	8.7	n
1,2,3,4,7,8-HxCDD	49608700	1.26 y	32:42	0.90	50.00	-0.7	n
1,2,3,6,7,8-HxCDD	65417700	1.29 y	32:46	1.18	50.00	-0.6	n
1,2,3,7,8,9-HxCDD	61956100	1.29 y	33:03	1.12	50.00	-3.3	n
Total HxCDD	176982500	1.26 y	32:42	1.07	150.00	-1.6	n
13C-1,2,3,4,6,7,8-HpCDF	111036900	0.45 y	34:34	0.96	100.00	2.1	n
1,2,3,4,6,7,8-HpCDF	75678900	0.99 y	34:34	1.36	50.00	4.9	n
1,2,3,4,7,8,9-HpCDF	60739800	0.97 y	35:41	1.09	50.00	-0.7	n
Total HpCDF	137335266	0.99 y	34:34	1.23	100.00	2.4	n
13C-1,2,3,4,6,7,8-HpCDD	90307300	1.07 y	35:21	0.78	100.00	-1.1	n
1,2,3,4,6,7,8-HpCDD	49559500	1.07 y	35:22	1.10	50.00	3.9	n
Total HpCDD	49894594	1.21 n	34:49	1.10	50.00	3.9	n
13C-OCDD	117327000	0.90 y	37:49	0.51	200.00	-12.4	n
OCDF	93673000	0.92 y	37:57	1.60	100.00	2.5	n
OCDD	72006200	0.91 y	37:50	1.23	100.00	2.9	n

Run text: ST0208C File text: ST0208C :CS3 09DXN425
Run #24 Filename 08FE104D5 S: 31 I: 1
Acquired: 9-FEB-10 11:03:34 Processed: 9-FEB-10 11:44:04
Run: 08FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 08FE104D58290

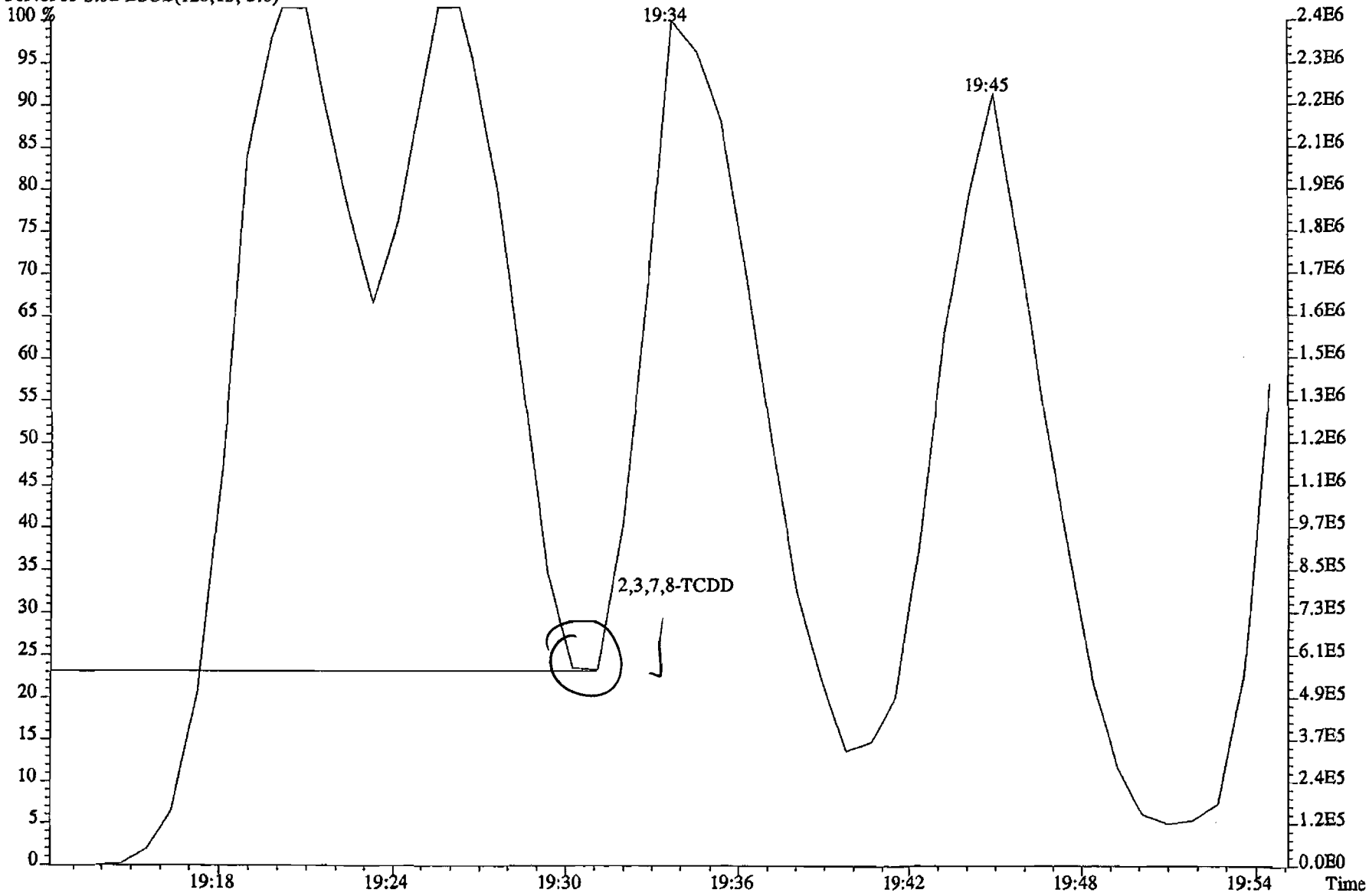
Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	111855700	0.81 y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	179444000	0.80 y	18:47	1.60	100.00	2.2	n
2,3,7,8-TCDF	18356040	0.81 y	18:48	1.02	10.00	-2.8	n
Total TCDF	18641550	1.20 n	17:00	1.02	10.00	-2.8	n
13C-2,3,7,8-TCDD	111085800	0.80 y	19:33	0.99	100.00	-0.8	n
2,3,7,8-TCDD	11432540	0.82 y	19:35	1.03	10.00	-2.4	n
Total TCDD	11580002	0.55 n	18:21	1.03	10.00	-2.4	n
37Cl-2,3,7,8-TCDD	25671400	1.00 y	19:35	2.30	10.00	-5.0	n
13C-1,2,3,7,8-PeCDF	152642600	1.57 y	24:24	1.36	100.00	2.1	n
1,2,3,7,8-PeCDF	87220500	1.61 y	24:25	1.14	50.00	6.9	n
2,3,4,7,8-PeCDF	87770000	1.57 y	25:54	1.15	50.00	11.0	n
Total F2 PeCDF	176546651	0.94 n	22:52	1.15	100.00	8.9	n
Total F1 PeCDF	119920	1.40 y	14:18	1.15	100.00	8.9	n
13C-1,2,3,7,8-PeCDD	106405400	1.54 y	26:41	0.95	100.00	17.1	n
1,2,3,7,8-PeCDD	54465800	1.60 y	26:42	1.02	50.00	-1.4	n
Total PeCDD	54465800	1.60 y	26:42	1.02	50.00	-1.4	n
13C-1,2,3,7,8,9-HxCDD	105531300	1.29 y	33:03	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	117366600	0.54 y	31:51	1.11	100.00	9.6	n
1,2,3,4,7,8-HxCDF	78711700	1.22 y	31:52	1.34	50.00	8.2	n
1,2,3,6,7,8-HxCDF	89202300	1.27 y	31:59	1.52	50.00	2.0	n
2,3,4,6,7,8-HxCDF	81049500	1.23 y	32:34	1.38	50.00	3.1	n
1,2,3,7,8,9-HxCDF	69154400	1.25 y	33:14	1.18	50.00	-3.4	n
Total HxCDF	318251965	1.70 n	30:43	1.36	200.00	2.5	n
13C-1,2,3,6,7,8-HxCDD	98128100	1.28 y	32:46	0.93	100.00	5.2	n
1,2,3,4,7,8-HxCDD	49540800	1.25 y	32:42	1.01	50.00	11.9	n
1,2,3,6,7,8-HxCDD	58122900	1.28 y	32:47	1.18	50.00	-0.5	n
1,2,3,7,8,9-HxCDD	56800900	1.27 y	33:04	1.16	50.00	0.0	n
Total HxCDD	164464600	1.25 y	32:42	1.12	150.00	3.1	n
13C-1,2,3,4,6,7,8-HpCDF	102192300	0.46 y	34:33	0.97	100.00	2.5	n
1,2,3,4,6,7,8-HpCDF	70387500	0.99 y	34:34	1.38	50.00	6.1	n
1,2,3,4,7,8,9-HpCDF	55049600	1.00 y	35:41	1.08	50.00	-2.2	n
Total HpCDF	126135782	0.99 y	34:34	1.23	100.00	2.3	n
13C-1,2,3,4,6,7,8-HpCDD	84427400	1.07 y	35:21	0.80	100.00	0.9	n
1,2,3,4,6,7,8-HpCDD	46278600	1.07 y	35:22	1.10	50.00	3.8	n
Total HpCDD	46618421	0.98 y	34:49	1.10	50.00	3.8	n
13C-OCDD	118029400	0.91 y	37:50	0.56	200.00	-3.9	n
OCDF	93391100	0.92 y	37:57	1.58	100.00	1.6	n
OCDD	70950400	0.91 y	37:50	1.20	100.00	0.8	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
08FE104D5	1	ST0208	CS3 10DXN049				1.00000	
08FE104D5	2	ST0208A	CS3 09DXN425				1.00000	
08FE104D5	3	CP0208	DB-5 CPSM 3732-04				1.00000	
08FE104D5	4	SB0208	Solvent Blank C-14				1.00000	
08FE104D5	5	LT331-1-AA	G0B020000-261B	20	1613B-Tetras/	3	1.00000	L
08FE104D5	6	LT331-1-AC	G0B020000-261C	20	1613B-Tetras/		1.00000	L
08FE104D5	7	LTRHF-1-AA	G0A260491-1	20	1613B-Tetras/		1.05510	L
08FE104D5	8	LT49F-1-AA	D0B030409-1	20	8290/SOLID	6	10.78000	g
08FE104D5	9	LT49G-1-AA	D0B030409-2	20	8290/SOLID		10.33000	g
08FE104D5	10	LT49H-1-AA	D0B030409-3	20	8290/SOLID		10.20000	g
08FE104D5	11	LT44M-1-AC	G0B020000-507C	20	8290/SOLID		10.00000	g
08FE104D5	12	LT44M-1-AA	G0B020000-507B	20	8290/SOLID		10.00000	g
08FE104D5	13	ST0208B	CS3 09DXN425				1.00000	
08FE104D5	14	CP0208A	DB-5 CPSM 3732-04				1.00000	
08FE104D5	15	SB0208A	Solvent Blank C-14				1.00000	
08FE104D5	16	LT5PC-1-AA	G0B030000-229B	20	1613B/WATER	5	1.00000	L
08FE104D5	17	LT5PC-1-AC	G0B030000-229C	20	1613B/WATER		1.00000	L
08FE104D5	18	LTRH1-1-AA	G0A260496-1	20	1613B/WATER		0.95750	L
08FE104D5	19	LTRJF-1-AA	G0A260496-2	20	1613B/WATER		0.94220	L
08FE104D5	20	LTXGG-1-AC	G0A280000-433C	20	8290/SOLID	3	10.00000	g
08FE104D5	21	LTXGG-1-AA	G0A280000-433B	20	8290/SOLID		10.00000	g
08FE104D5	22	LTMC5-1-AA	G0A220427-1	20	8290/SOLID		10.10000	g
8FE104D5	23	LTME5-1-AA	G0A220427-6	20	8290/SOLID		10.22000	g
FE104D5	24	LTMFD-1-AA	G0A220427-11	20	8290/SOLID		10.07000	g
08FE104D5	25	LTMFP-1-AA	G0A220427-16	20	8290/SOLID		10.14000	g
08FE104D5	26	LTMFQ-1-AA	G0A220427-17	20	8290/SOLID		10.60000	g
08FE104D5	27	LTMFQ-1-AC	G0A220427-17S	20	8290/SOLID		10.79000	g
08FE104D5	28	LTMFQ-1-AD	G0A220427-17D	20	8290/SOLID		10.70000	g
08FE104D5	29	SB0208B	Solvent Blank C-14				1.00000	
08FE104D5	30	SB0208C	Solvent Blank C-14				1.00000	
08FE104D5	31	ST0208C	CS3 09DXN425				1.00000	
08FE104D5	32	CP0208B	DB-5 CPSM 3732-04				1.00000	
08FE104D5	33	SB0208D	Solvent Blank C-14				1.00000	
08FE104D5	34	LTNAF-1-AF	G0A230442-4	20	8290/SOLID	100	10.00000	g
08FE104D5	35	LTNAG-1-AF	G0A230442-5	20	8290/SOLID		10.35500	g
08FE104D5	36	LTNAG-1-ANS	G0A230442-5S	20	8290/SOLID		10.00000	g
08FE104D5	37	LTNAG-1-APD	G0A230442-5D	20	8290/SOLID		10.27500	g
08FE104D5	38	LTNAH-1-AF	G0A230442-6	20	8290/SOLID		10.29000	g
08FE104D5	39	LTNAJ-1-AF	G0A230442-7	20	8290/SOLID		10.00500	g
08FE104D5	40	LTMFR-1-AA	G0A220427-18	20	8290/SOLID	3	10.15000	g
08FE104D5	41	LTMFT-1-AA	G0A220427-19	20	8290/SOLID		10.47000	g
08FE104D5	42	LTMFV-1-AA	G0A220427-20	20	8290/SOLID		10.14000	g
08FE104D5	43	LTMFW-1-AA	G0A220427-21	20	8290/SOLID		10.13000	g
08FE104D5	44	LTMFX-1-AA	G0A220427-22	20	8290/SOLID		10.76000	g
08FE104D5	45	LTMF0-1-AA	G0A220427-23	20	8290/SOLID		10.45000	g
08FE104D5	46	LTMF1-1-AA	G0A220427-24	20	8290/SOLID		10.00000	g
08FE104D5	47	LTMF2-1-AA	G0A220427-25	20	8290/SOLID		10.04000	g
08FE104D5	48	SB0208E	Solvent Blank C-14				1.00000	
FE104D5	49	ST0208D	CS3 09DXN425				1.00000	
08FE104D5	50	CP0208C	DB-5 CPSM 3732-05				1.00000	
08FE104D5	51	SB0208F	Solvent Blank C-14				1.00000	
08FE104D5	52	LTM7A-2-AA	G0A230431-1RX	20	8290/SOLID	6	2.00000	g
08FE104D5	53	LTMQ8-2-AC	G0A220628-1RX	20	1613B/SOLID		10.38000	g

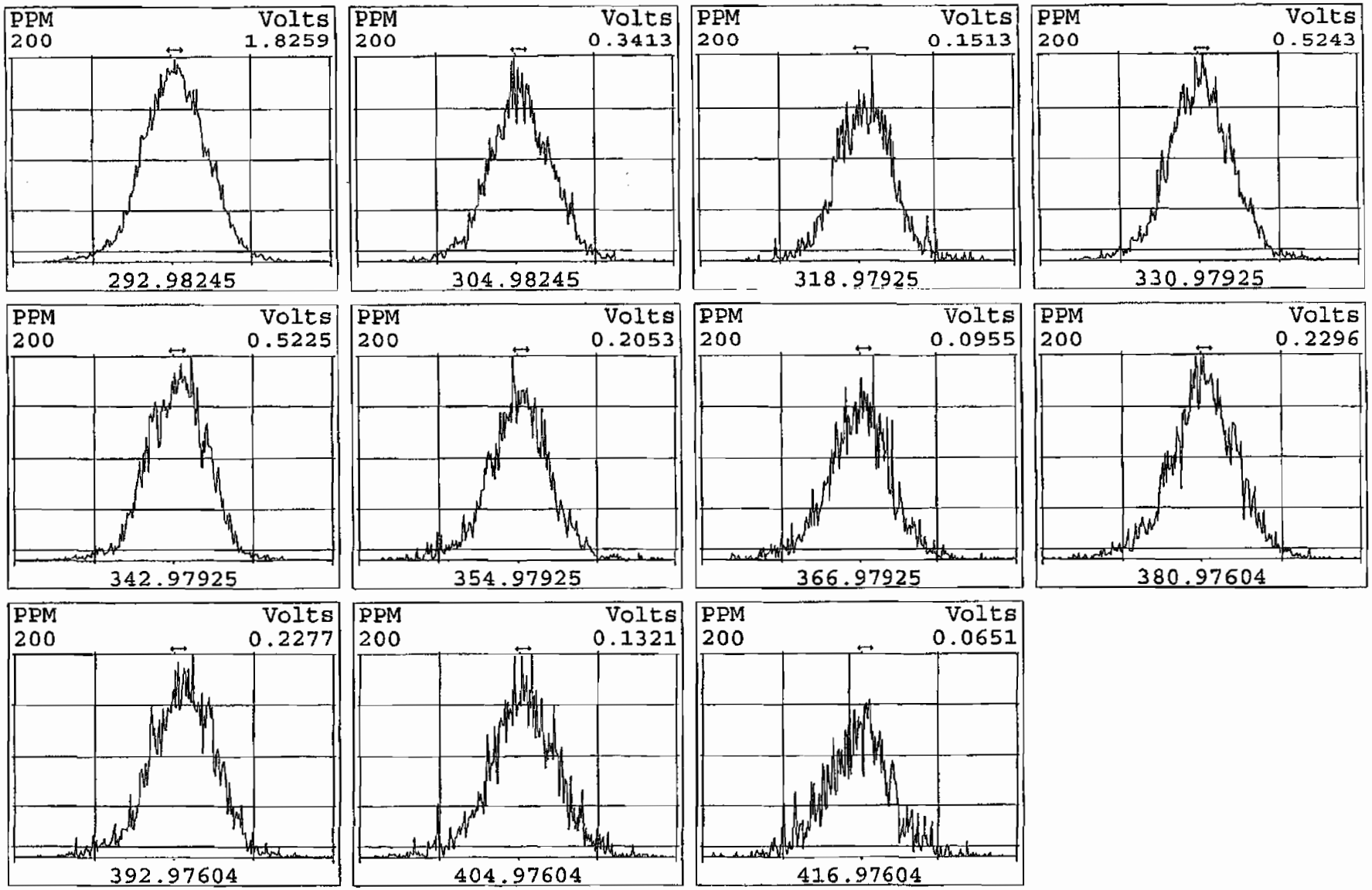
08FE104D5	54	LTRD0-1-AA	G0A260482-1	20	1613B/WATER		1.05750	L
08FE104D5	55	LTRE4-1-AA	G0A260482-2	20	1613B/WATER		1.06020	L
08FE104D5	56	LTRE7-1-AA	G0A260482-3	20	1613B/WATER		1.07650	L
08FE104D5	57	LT0QC-1-AA	G0A290502-1	20	1613B/WATER	5	0.99520	L
08FE104D5	58	LT0QF-1-AA	G0A290502-2	20	1613B/WATER		1.02980	L
08FE104D5	59	LT0QJ-1-AA	G0A290503-1	20	1613B/WATER		1.05130	L
08FE104D5	60	LT0QN-1-AA	G0A290503-2	20	1613B/WATER		1.03410	L
08FE104D5	61	LT9TH-1-AC	G0B050000-245 (245-1LCS)	20	1613B/WATER	7	1.00000	L
08FE104D5	62	LT9TH-1-AA	G0B050000-245 (245-1MB)	20	1613B/WATER		1.00000	L
08FE104D5	63	LTMAJ-1-AA	G0A220574-1	20	1613B/WATER	5	0.83720	L
08FE104D5	64	LTW3N-1-AA	G0A280510-1	20	1613B/WATER	7	1.03160	L
08FE104D5	65	LTW3P-1-AA	G0A280510-2	20	1613B/WATER		1.05650	L
08FE104D5	66	SB0208G	Solvent Blank C-14				1.00000	
08FE104D5	67	ST0208E	CS3 10DXN049				1.00000	
08FE104D5	68						1.00000	
08FE104D5	69						1.00000	
08FE104D5	70		KSS, AM 02-08-10				1.00000	
08FE104D5	71		KT, KSS 02-09-10				1.00000	
08FE104D5	72						1.00000	
08FE104D5	73						1.00000	
08FE104D5	74						1.00000	

LOGFILE √'d
2/10/10
KSS

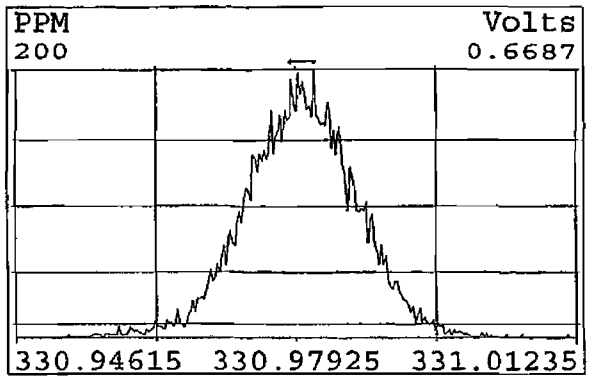
File:08FE104D5 #1-578 Acq: 9-FEB-2010 11:47:36 GC EI+ Voltage SIR Autospec-UltimaE
Sample#32 Text:CP0208B :DB-5 CPSM 3732-04 Exp:DIOXIN
319.8965 S:32 BSUB(128,15,-3.0)

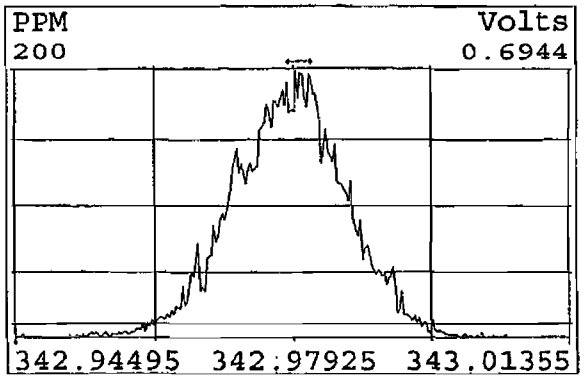


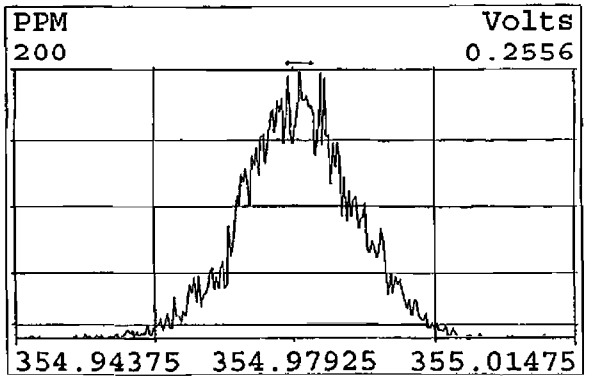
Peak Locate Examination: 8-FEB-2010:13:00 File:08FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

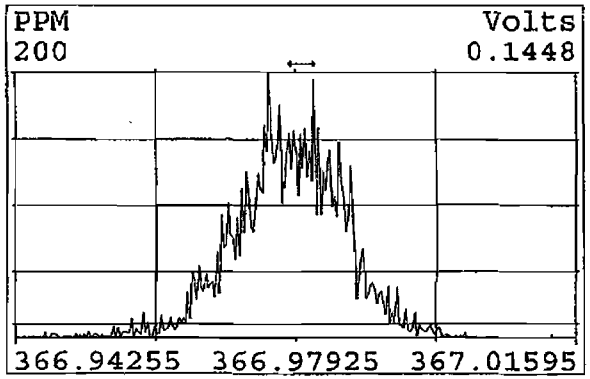


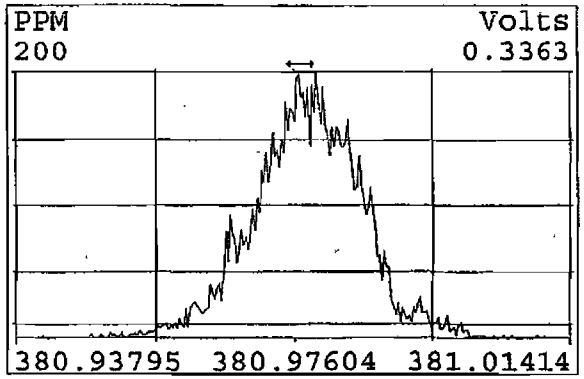
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

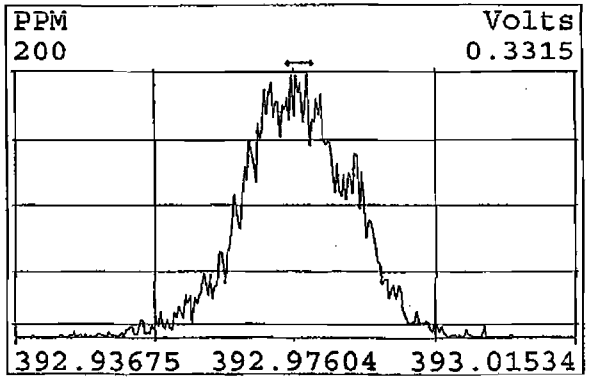


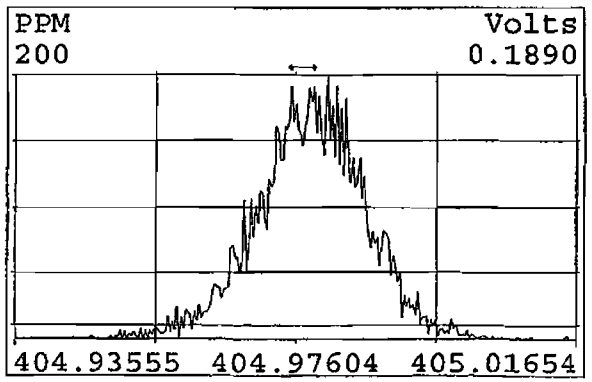


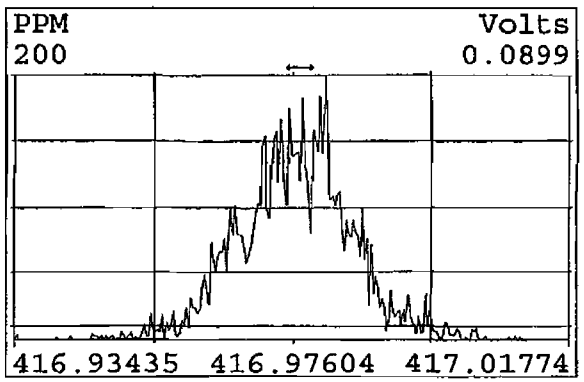




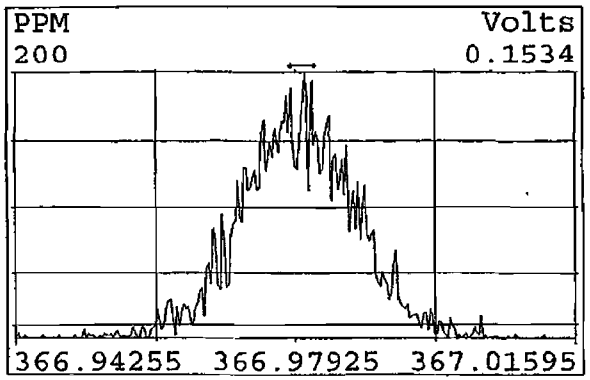


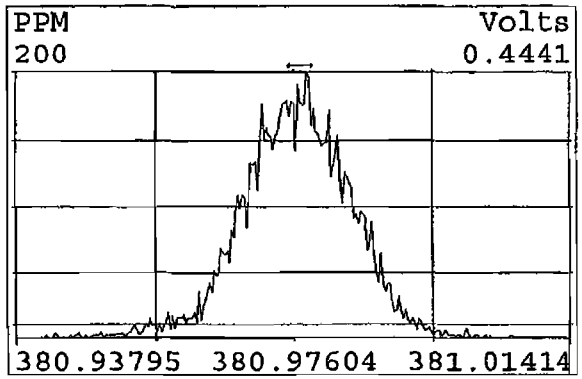


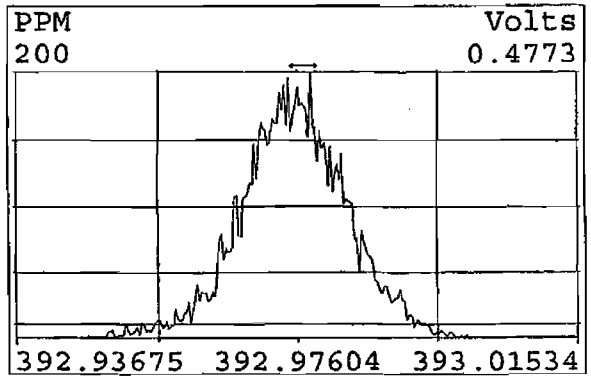


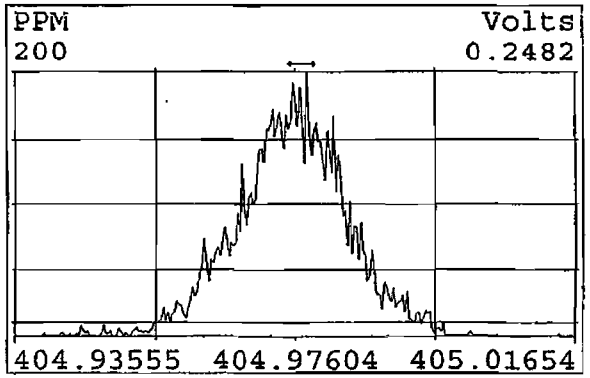


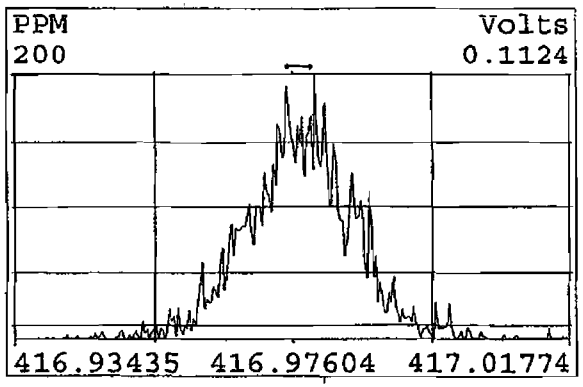
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

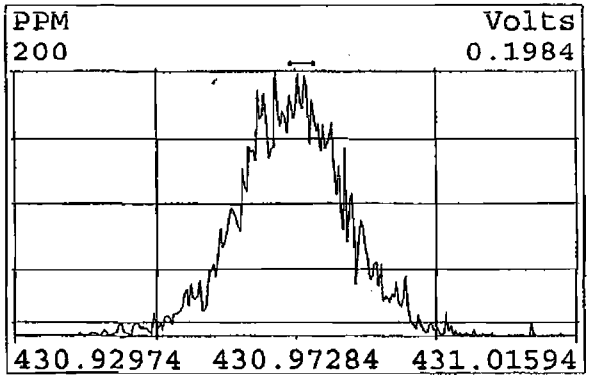


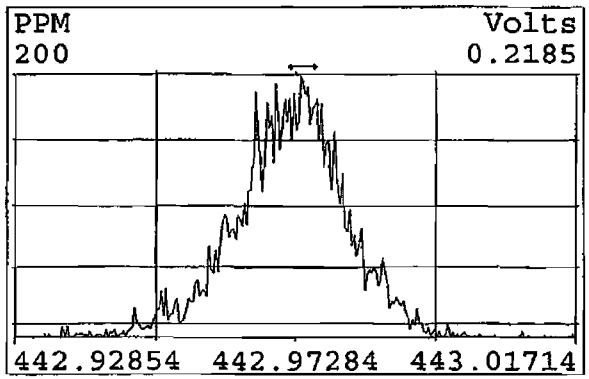


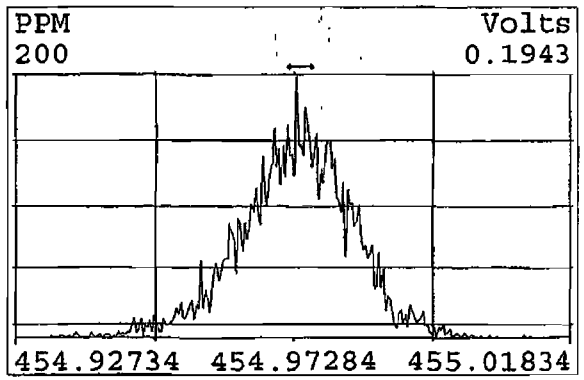




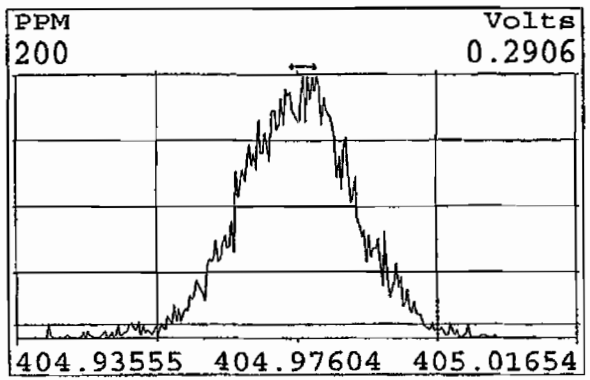


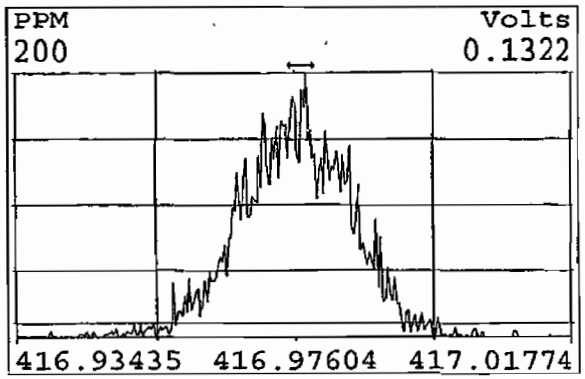


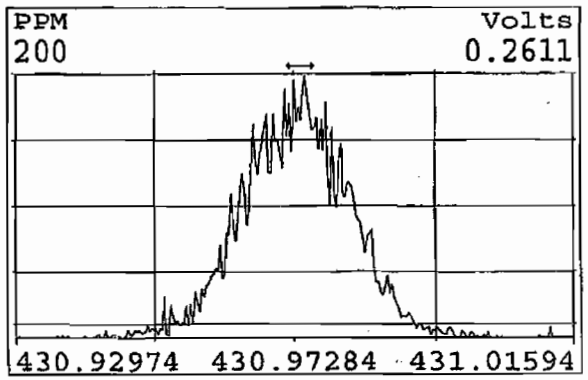


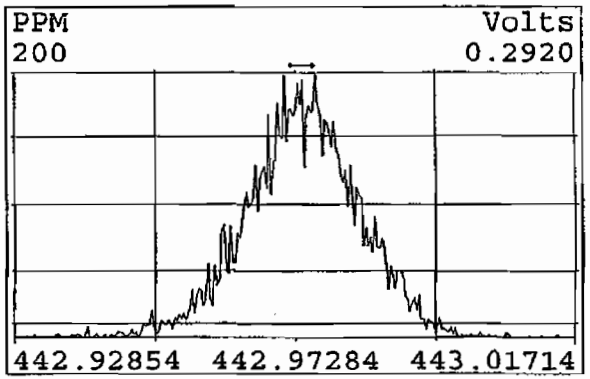


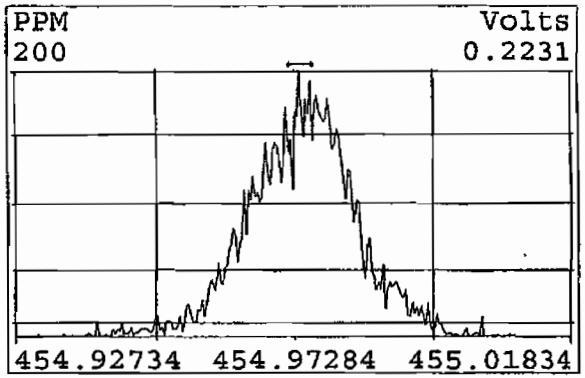
Peak Locate Examination: 8-FEB-2010:13:01 File:08FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

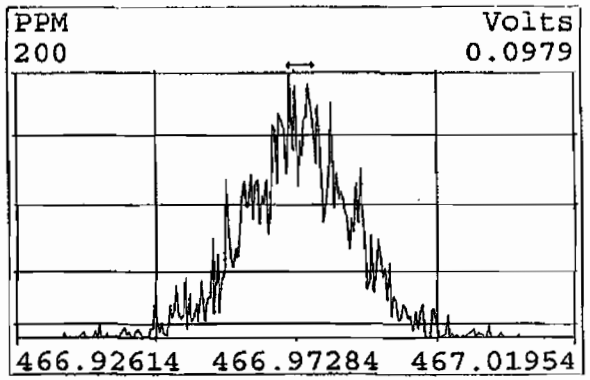


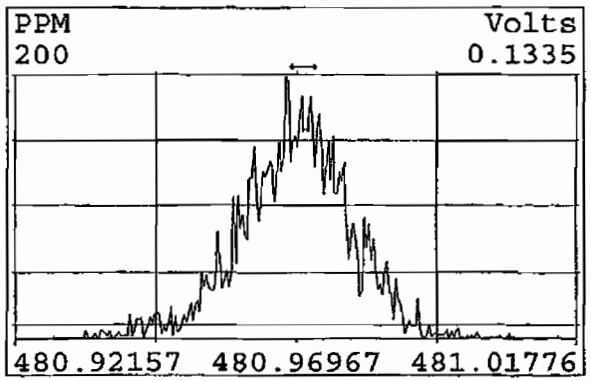




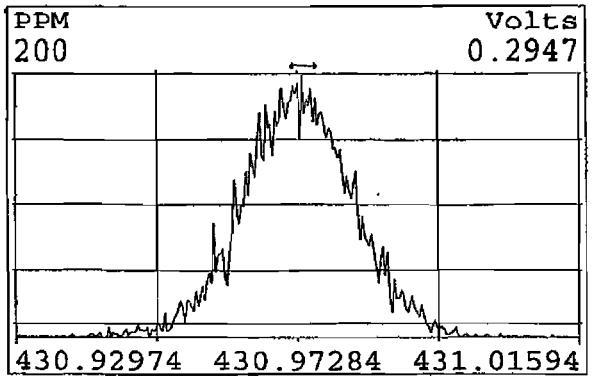


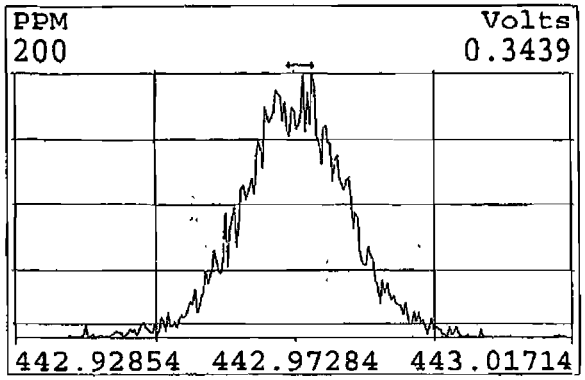


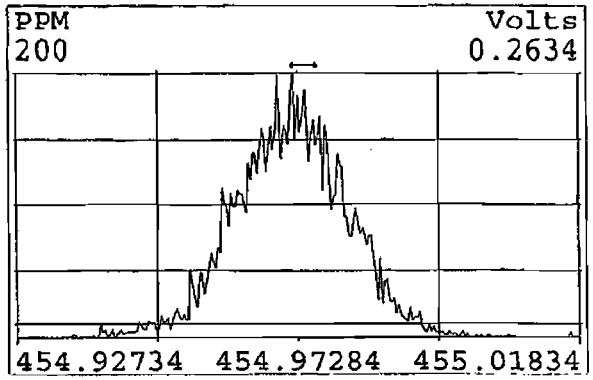


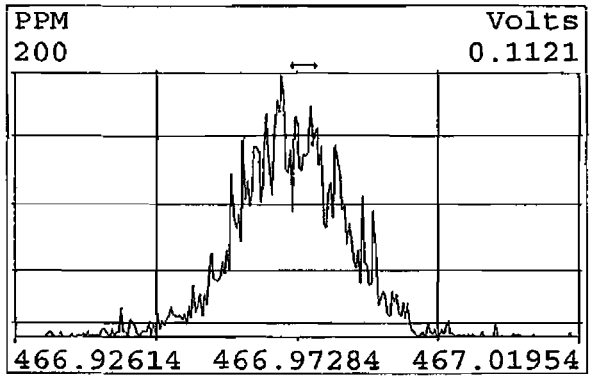


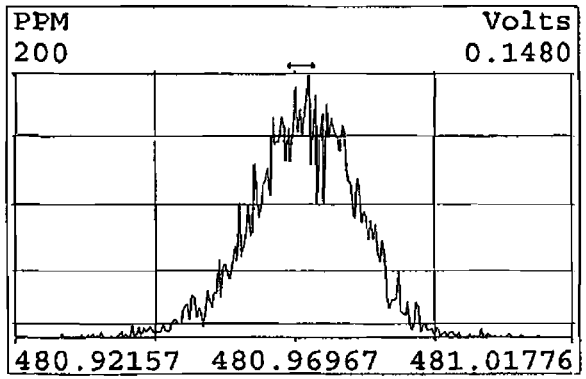
Peak Locate Examination: 8-FEB-2010:13:02 File:08FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

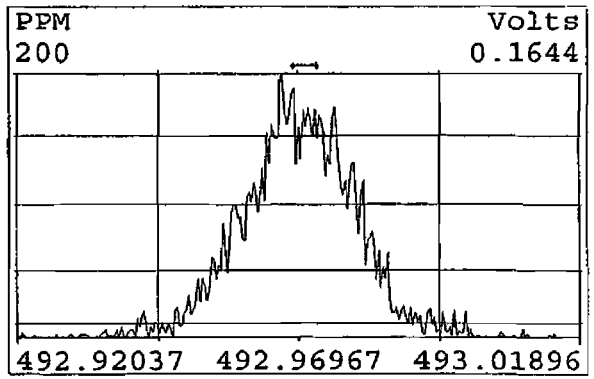


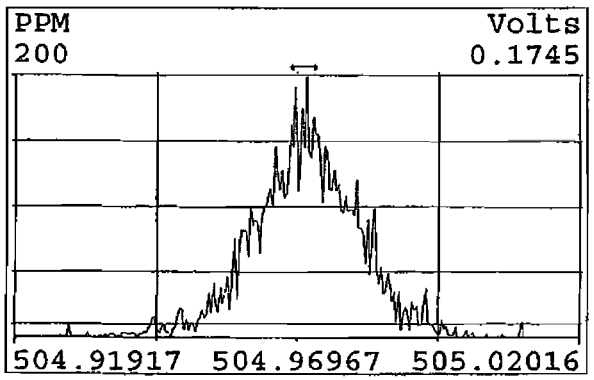


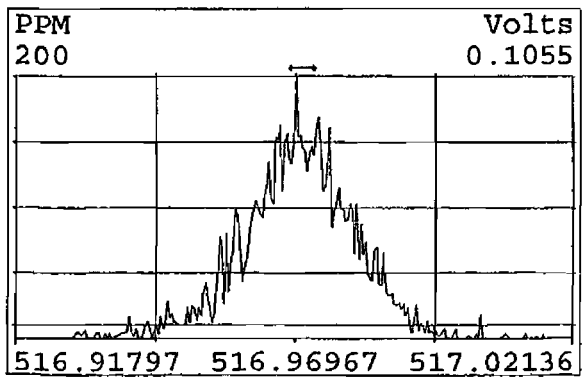




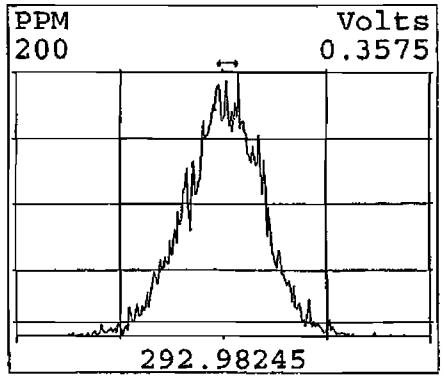


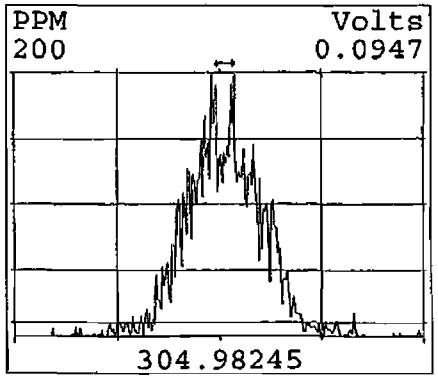


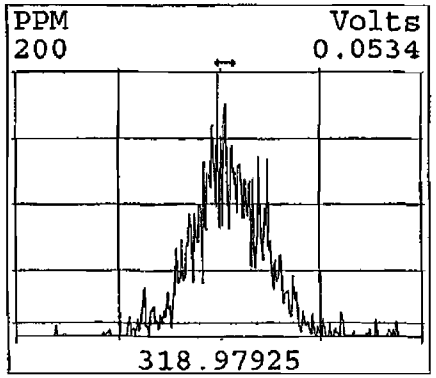


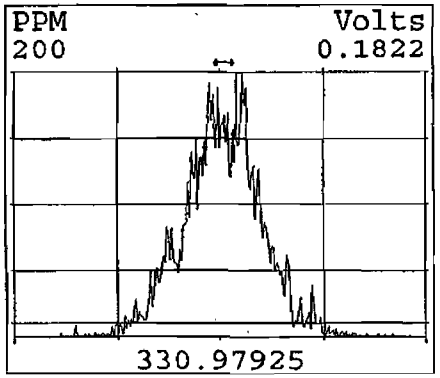


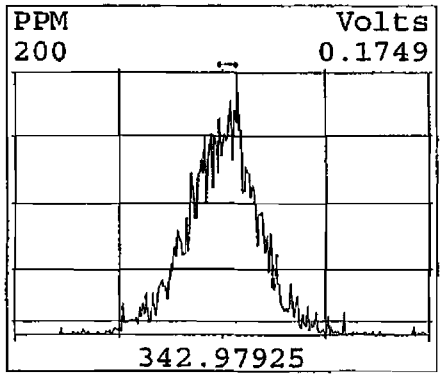
Peak Locate Examination:10-FEB-2010:14:17 File:ENDRES08FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

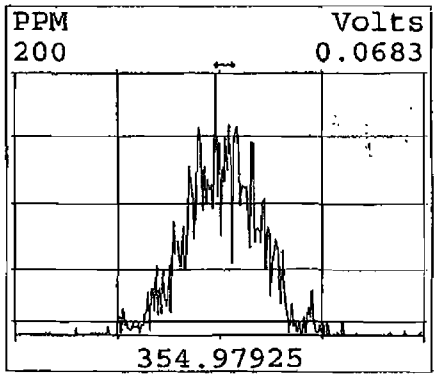


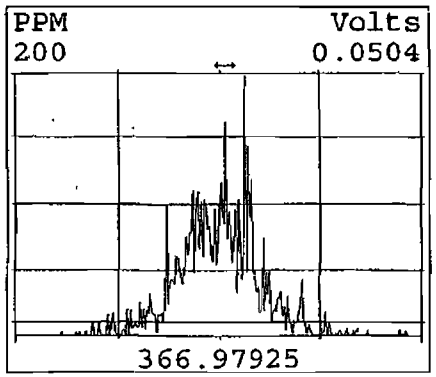


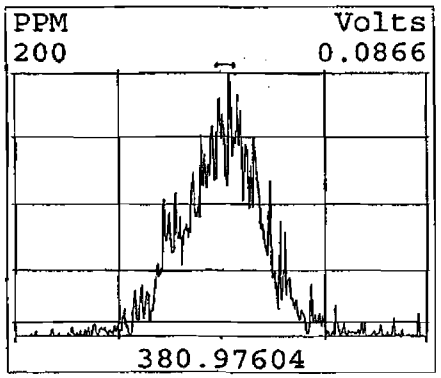


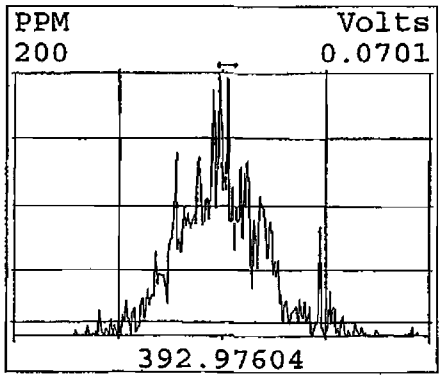


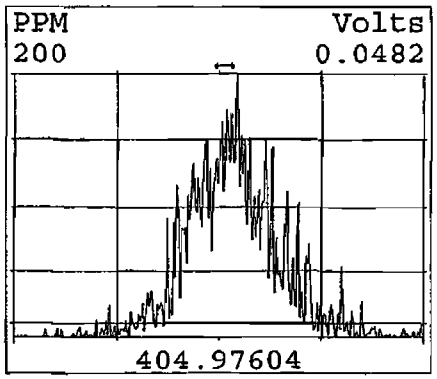


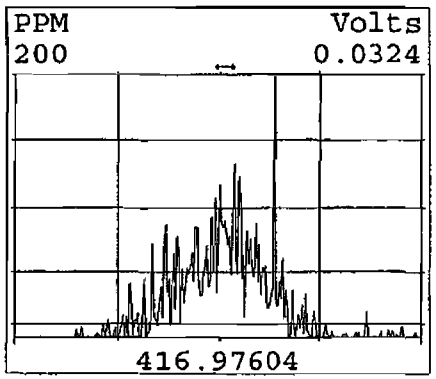




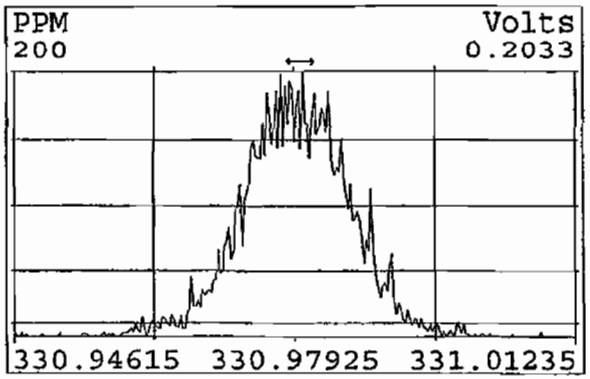


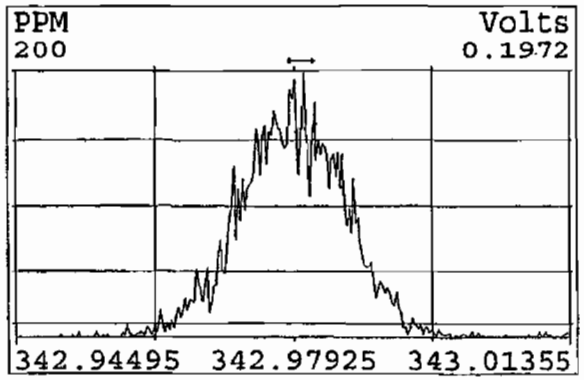


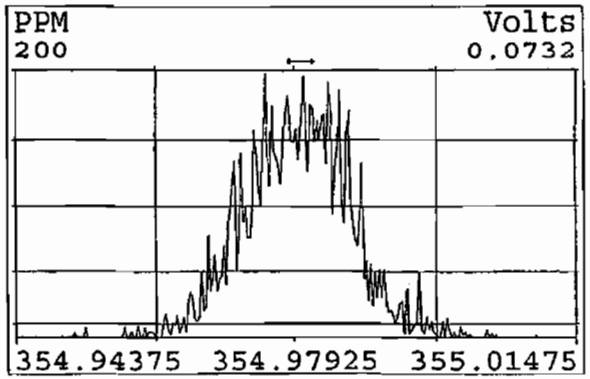


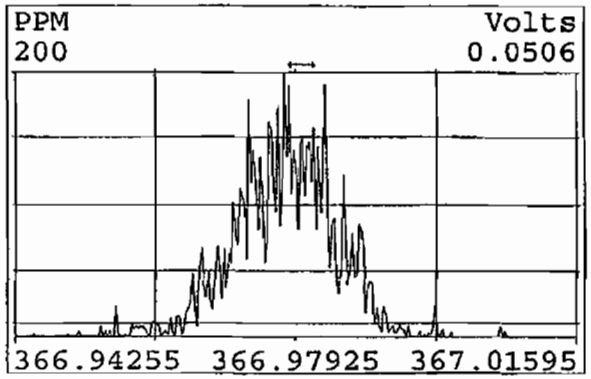


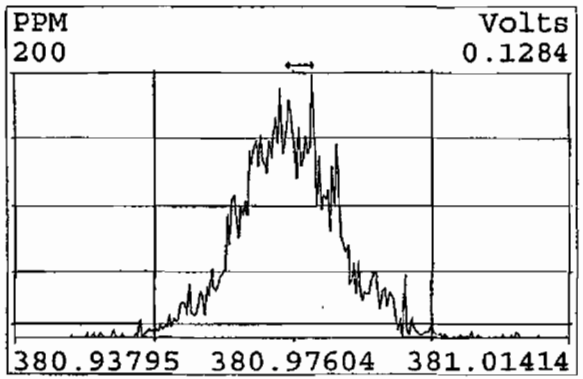
Peak Locate Examination:10-FEB-2010:14:17 File:ENDRES08FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

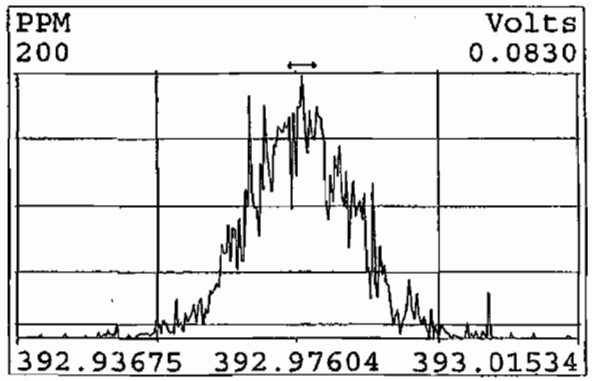


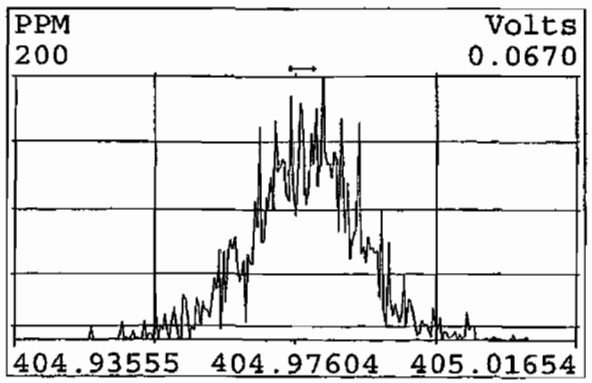


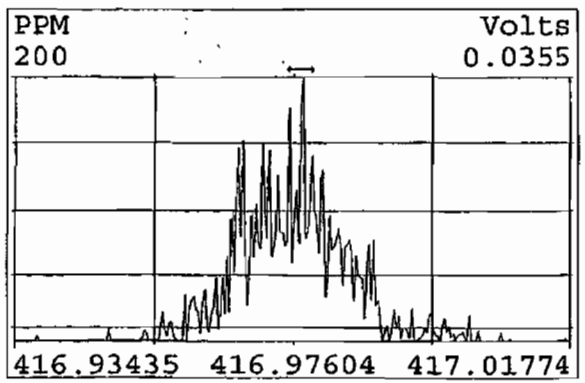




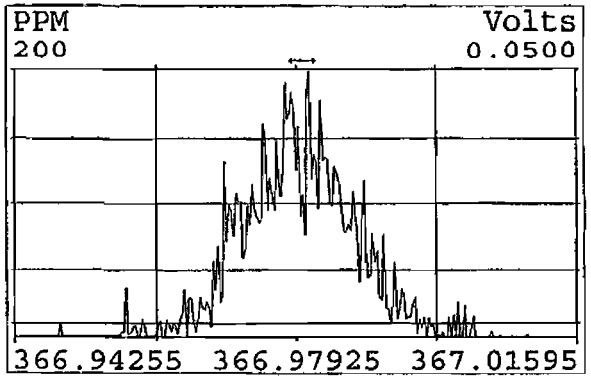


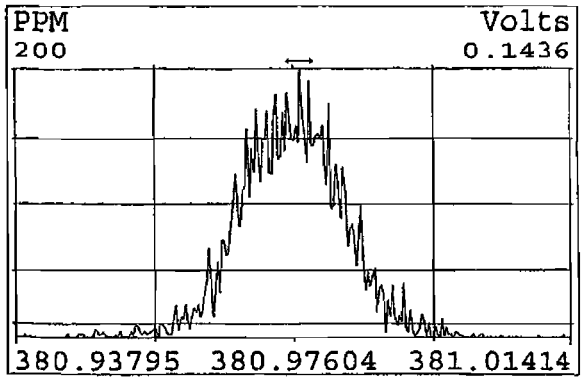


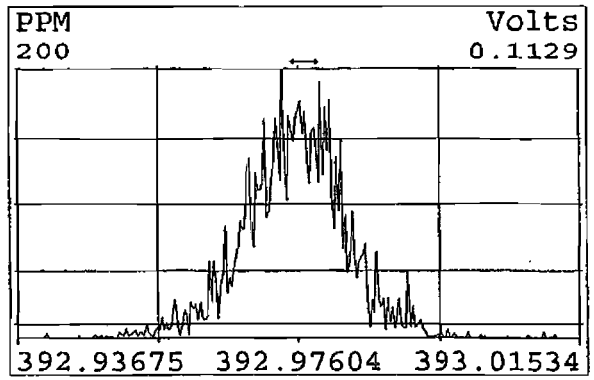


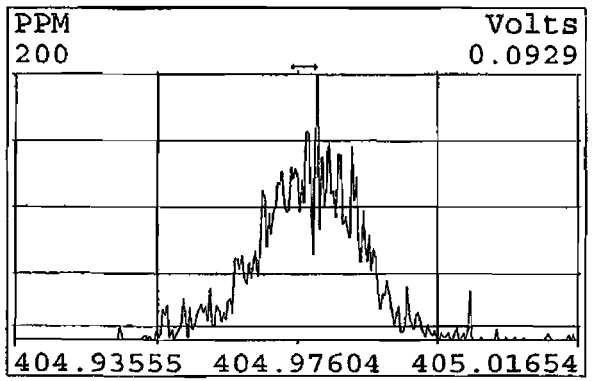


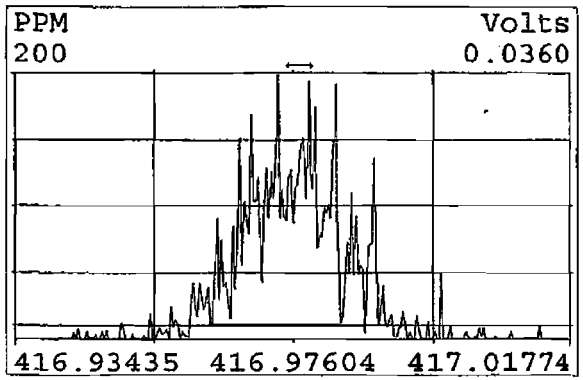
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

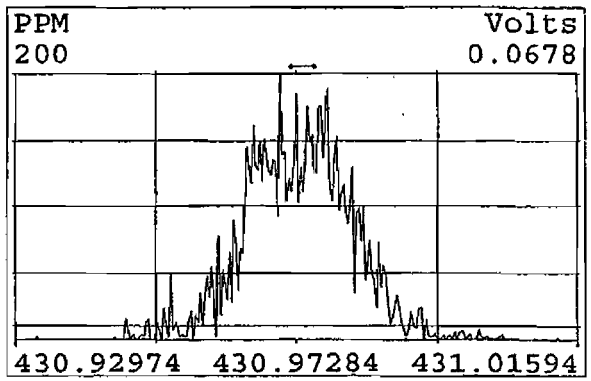


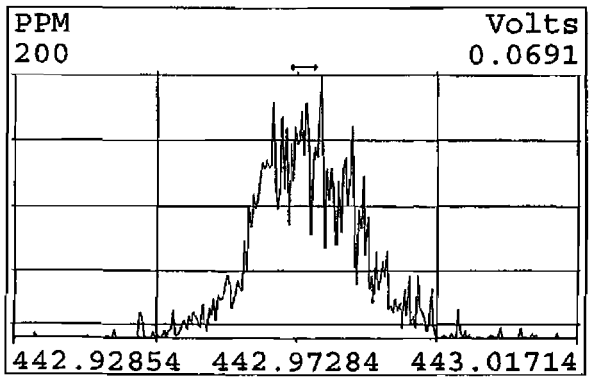


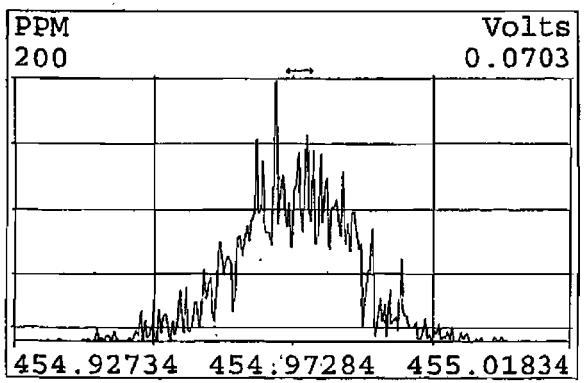




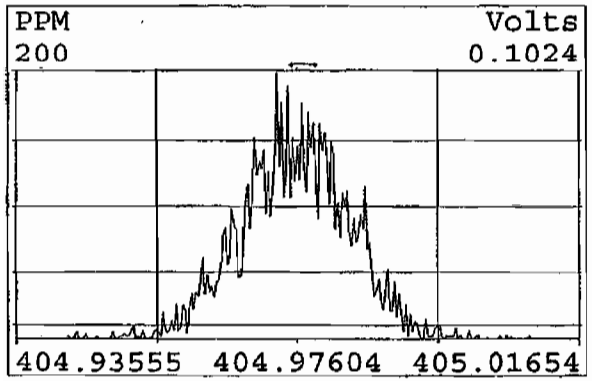


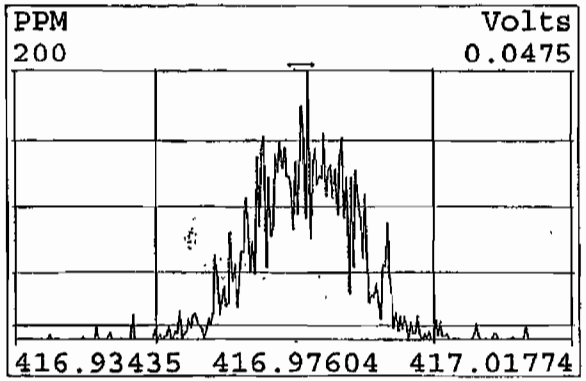


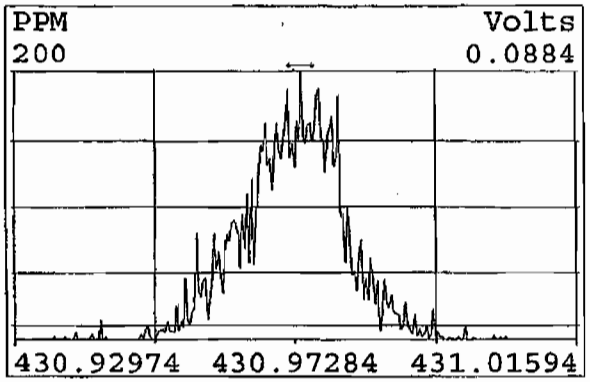


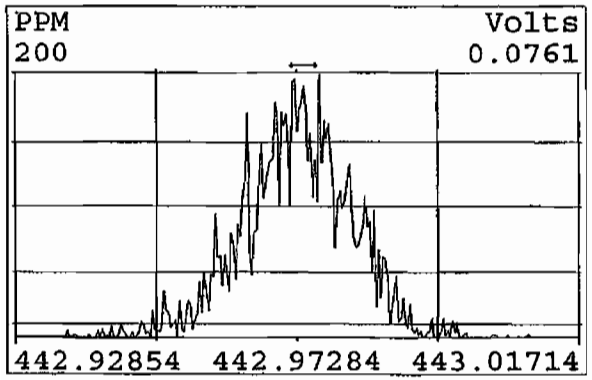


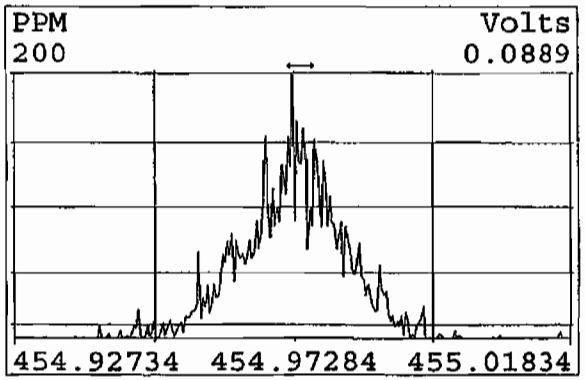
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

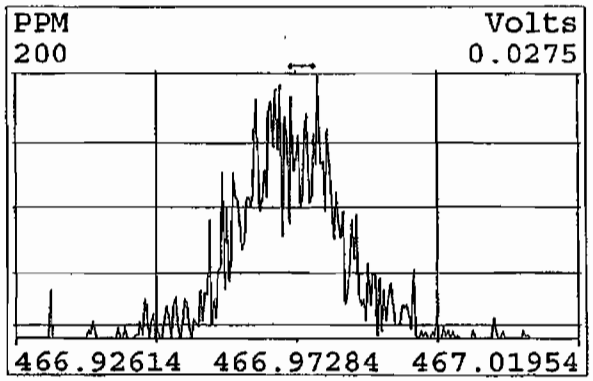


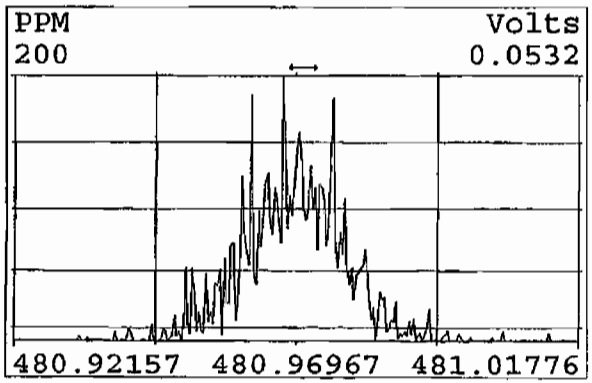




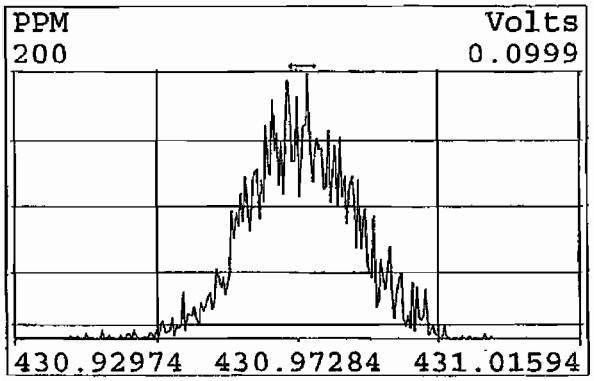


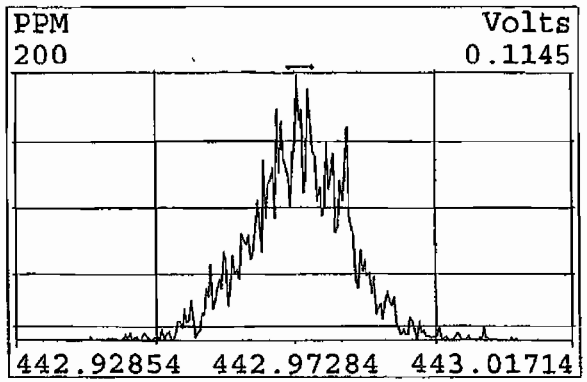


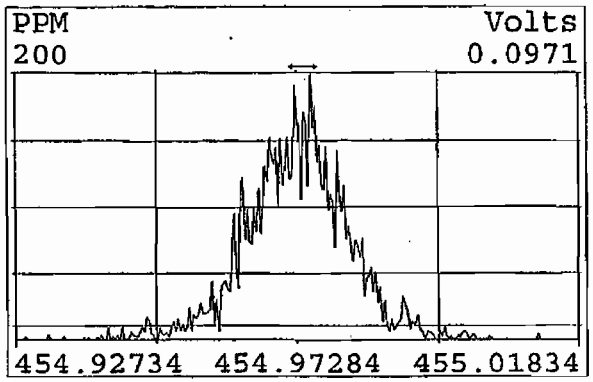


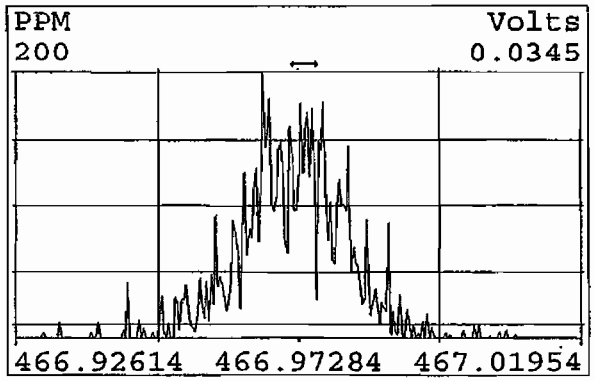


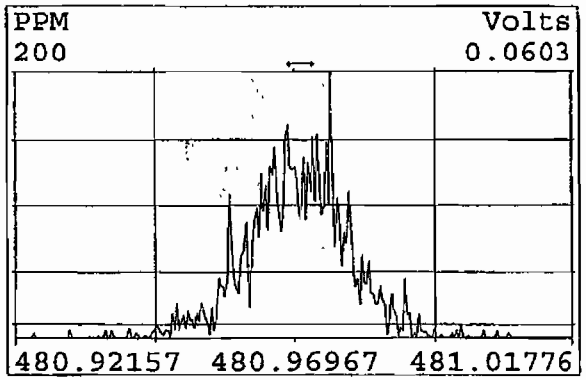
Peak Locate Examination:10-FEB-2010:14:18 File:ENDRES08FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

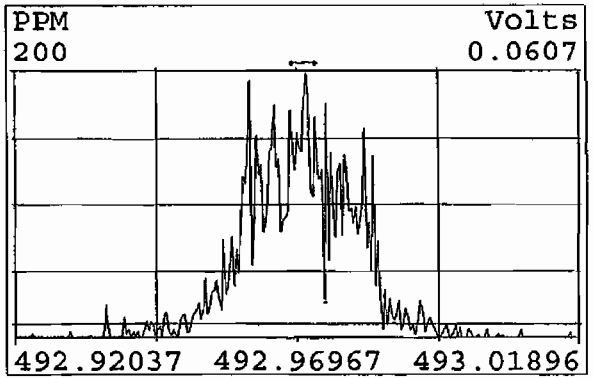


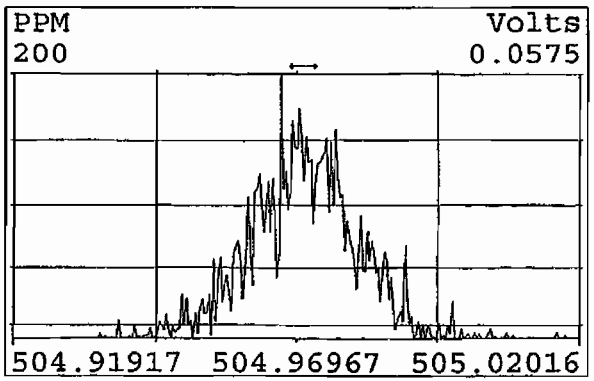


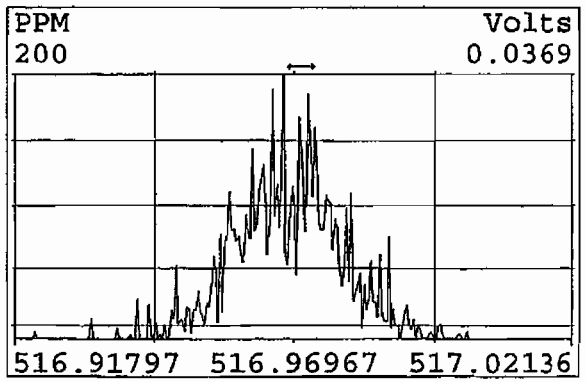












Run text: ST0208C File text: ST0208C :CS3 09DXN425
Run #24 Filename 08FE104D5 S: 31 I: 1
Acquired: 9-FEB-10 11:03:34 Processed: 9-FEB-10 11:44:04
Run: 08FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 08FE104D58290

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	111855700	0.81	y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	179444000	0.80	y	18:47	1.60	100.00	2.2	n
2,3,7,8-TCDF	18356040	0.81	y	18:48	1.02	10.00	-2.8	n
Total TCDF	18641550	1.20	n	17:00	1.02	10.00	-2.8	n
13C-2,3,7,8-TCDD	111085800	0.80	y	19:33	0.99	100.00	-0.8	n
2,3,7,8-TCDD	11432540	0.82	y	19:35	1.03	10.00	-2.4	n
Total TCDD	11580002	0.55	n	18:21	1.03	10.00	-2.4	n
37Cl-2,3,7,8-TCDD	25671400	1.00	y	19:35	2.30	10.00	-5.0	n
13C-1,2,3,7,8-PeCDF	152642600	1.57	y	24:24	1.36	100.00	2.1	n
1,2,3,7,8-PeCDF	87220500	1.61	y	24:25	1.14	50.00	6.9	n
2,3,4,7,8-PeCDF	87770000	1.57	y	25:54	1.15	50.00	11.0	n
Total F2 PeCDF	176546651	0.94	n	22:52	1.15	100.00	8.9	n
Total F1 PeCDF	119920	1.40	y	14:18	1.15	100.00	8.9	n
13C-1,2,3,7,8-PeCDD	106405400	1.54	y	26:41	0.95	100.00	17.1	n
1,2,3,7,8-PeCDD	54465800	1.60	y	26:42	1.02	50.00	-1.4	n
Total PeCDD	54465800	1.60	y	26:42	1.02	50.00	-1.4	n
13C-1,2,3,7,8,9-HxCDD	105531300	1.29	y	33:03	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	117366600	0.54	y	31:51	1.11	100.00	9.6	n
1,2,3,4,7,8-HxCDF	78711700	1.22	y	31:52	1.34	50.00	8.2	n
1,2,3,6,7,8-HxCDF	89202300	1.27	y	31:59	1.52	50.00	2.0	n
2,3,4,6,7,8-HxCDF	81049500	1.23	y	32:34	1.38	50.00	3.1	n
1,2,3,7,8,9-HxCDF	69154400	1.25	y	33:14	1.18	50.00	-3.4	n
Total HxCDF	318251965	1.70	n	30:43	1.36	200.00	2.5	n
13C-1,2,3,6,7,8-HxCDD	98128100	1.28	y	32:46	0.93	100.00	5.2	n
1,2,3,4,7,8-HxCDD	49540800	1.25	y	32:42	1.01	50.00	11.9	n
1,2,3,6,7,8-HxCDD	58122900	1.28	y	32:47	1.18	50.00	-0.5	n
1,2,3,7,8,9-HxCDD	56800900	1.27	y	33:04	1.16	50.00	0.0	n
Total HxCDD	164464600	1.25	y	32:42	1.12	150.00	3.1	n
13C-1,2,3,4,6,7,8-HpCDF	102192300	0.46	y	34:33	0.97	100.00	2.5	n
1,2,3,4,6,7,8-HpCDF	70387500	0.99	y	34:34	1.38	50.00	6.1	n
1,2,3,4,7,8,9-HpCDF	55049600	1.00	y	35:41	1.08	50.00	-2.2	n
Total HpCDF	126135782	0.99	y	34:34	1.23	100.00	2.3	n
13C-1,2,3,4,6,7,8-HpCDD	84427400	1.07	y	35:21	0.80	100.00	0.9	n
1,2,3,4,6,7,8-HpCDD	46278600	1.07	y	35:22	1.10	50.00	3.8	n
Total HpCDD	46618421	0.98	y	34:49	1.10	50.00	3.8	n
13C-OCDD	118029400	0.91	y	37:50	0.56	200.00	-3.9	n
OCDF	93391100	0.92	y	37:57	1.58	100.00	1.6	n
OCDD	70950400	0.91	y	37:50	1.20	100.00	0.8	n

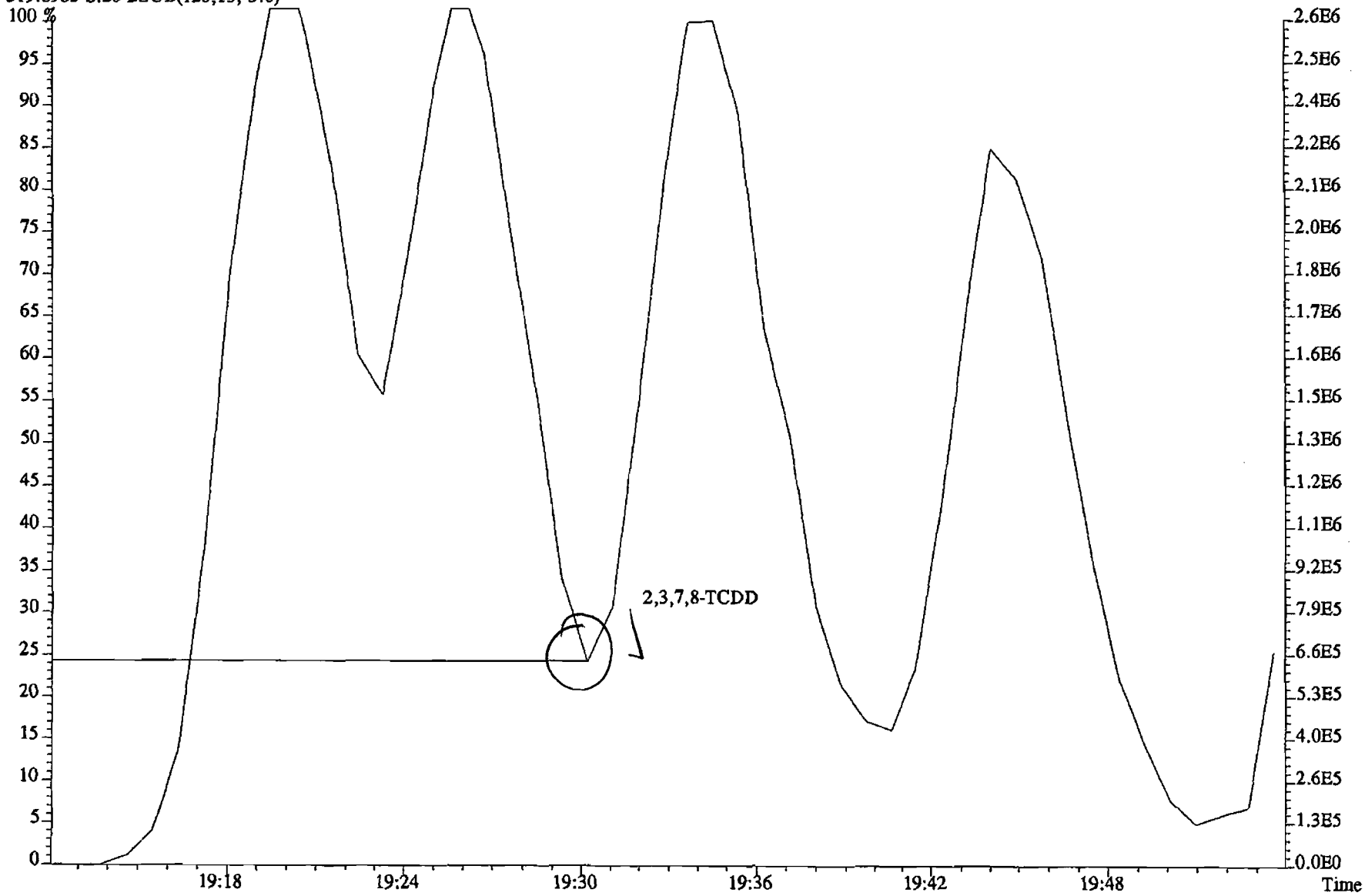
Run text: ST0208D File text: ST0208D :CS3 09DXN425
Run #40 Filename 08FE104D5 S: 49 I: 1
Acquired: 10-FEB-10 00:16:19 Processed: 10-FEB-10 08:12:29
Run: 08FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 08FE104D58290

Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	110718800	0.81 y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	172833400	0.80 y	18:46	1.56	100.00	-0.6	n
2,3,7,8-TCDF	18263920	0.79 y	18:48	1.06	10.00	0.4	n
Total TCDF	18509105	0.68 y	17:48	1.06	10.00	0.4	n
13C-2,3,7,8-TCDD	110379200	0.80 y	19:33	1.00	100.00	-0.4	n
2,3,7,8-TCDD	11436120	0.76 y	19:35	1.04	10.00	-1.7	n
Total TCDD	11631215	1.86 n	18:47	1.04	10.00	-1.7	n
37Cl-2,3,7,8-TCDD	25061400	1.00 y	19:35	2.26	10.00	-6.3	n
13C-1,2,3,7,8-PeCDF	142492400	1.58 y	24:24	1.29	100.00	-3.7	n
1,2,3,7,8-PeCDF	80885200	1.58 y	24:26	1.14	50.00	6.1	n
2,3,4,7,8-PeCDF	81137100	1.57 y	25:55	1.14	50.00	9.9	n
Total F2 PeCDF	163450003	1.52 y	22:56	1.14	100.00	8.0	n
Total F1 PeCDF	82414	1.11 n	14:14	1.14	100.00	8.0	n
13C-1,2,3,7,8-PeCDD	93990600	1.56 y	26:41	0.85	100.00	4.5	n
1,2,3,7,8-PeCDD	48208400	1.60 y	26:42	1.03	50.00	-1.2	n
Total PeCDD	48553918	1.60 y	26:42	1.03	50.00	-1.2	n
13C-1,2,3,7,8,9-HxCDD	101213500	1.27 y	33:02	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	117620100	0.52 y	31:51	1.16	100.00	14.5	n
1,2,3,4,7,8-HxCDF	76885600	1.25 y	31:52	1.31	50.00	5.5	n
1,2,3,6,7,8-HxCDF	87565500	1.25 y	31:59	1.49	50.00	-0.1	n
2,3,4,6,7,8-HxCDF	77926600	1.25 y	32:34	1.33	50.00	-1.1	n
1,2,3,7,8,9-HxCDF	65045000	1.24 y	33:13	1.11	50.00	-9.3	n
Total HxCDF	307579967	1.19 y	30:42	1.31	200.00	-1.2	n
13C-1,2,3,6,7,8-HxCDD	96080500	1.28 y	32:46	0.95	100.00	7.4	n
1,2,3,4,7,8-HxCDD	47045200	1.27 y	32:42	0.98	50.00	8.5	n
1,2,3,6,7,8-HxCDD	57433900	1.30 y	32:46	1.20	50.00	0.5	n
1,2,3,7,8,9-HxCDD	54972500	1.28 y	33:03	1.14	50.00	-1.2	n
Total HxCDD	159451600	1.27 y	32:42	1.11	150.00	2.1	n
13C-1,2,3,4,6,7,8-HpCDF	96503300	0.46 y	34:34	0.95	100.00	0.9	n
1,2,3,4,6,7,8-HpCDF	66678000	0.99 y	34:34	1.38	50.00	6.4	n
1,2,3,4,7,8,9-HpCDF	51103300	1.00 y	35:41	1.06	50.00	-3.9	n
Total HpCDF	118457580	0.99 y	34:34	1.22	100.00	1.7	n
13C-1,2,3,4,6,7,8-HpCDD	79447600	1.08 y	35:21	0.78	100.00	-1.0	n
1,2,3,4,6,7,8-HpCDD	42991300	1.05 y	35:22	1.08	50.00	2.5	n
Total HpCDD	43380188	1.22 n	34:49	1.08	50.00	2.5	n
13C-OCDD	107436800	0.89 y	37:50	0.53	200.00	-8.8	n
OCDF	83979900	0.93 y	37:57	1.56	100.00	0.4	n
OCDD	64616300	0.92 y	37:50	1.20	100.00	0.8	n

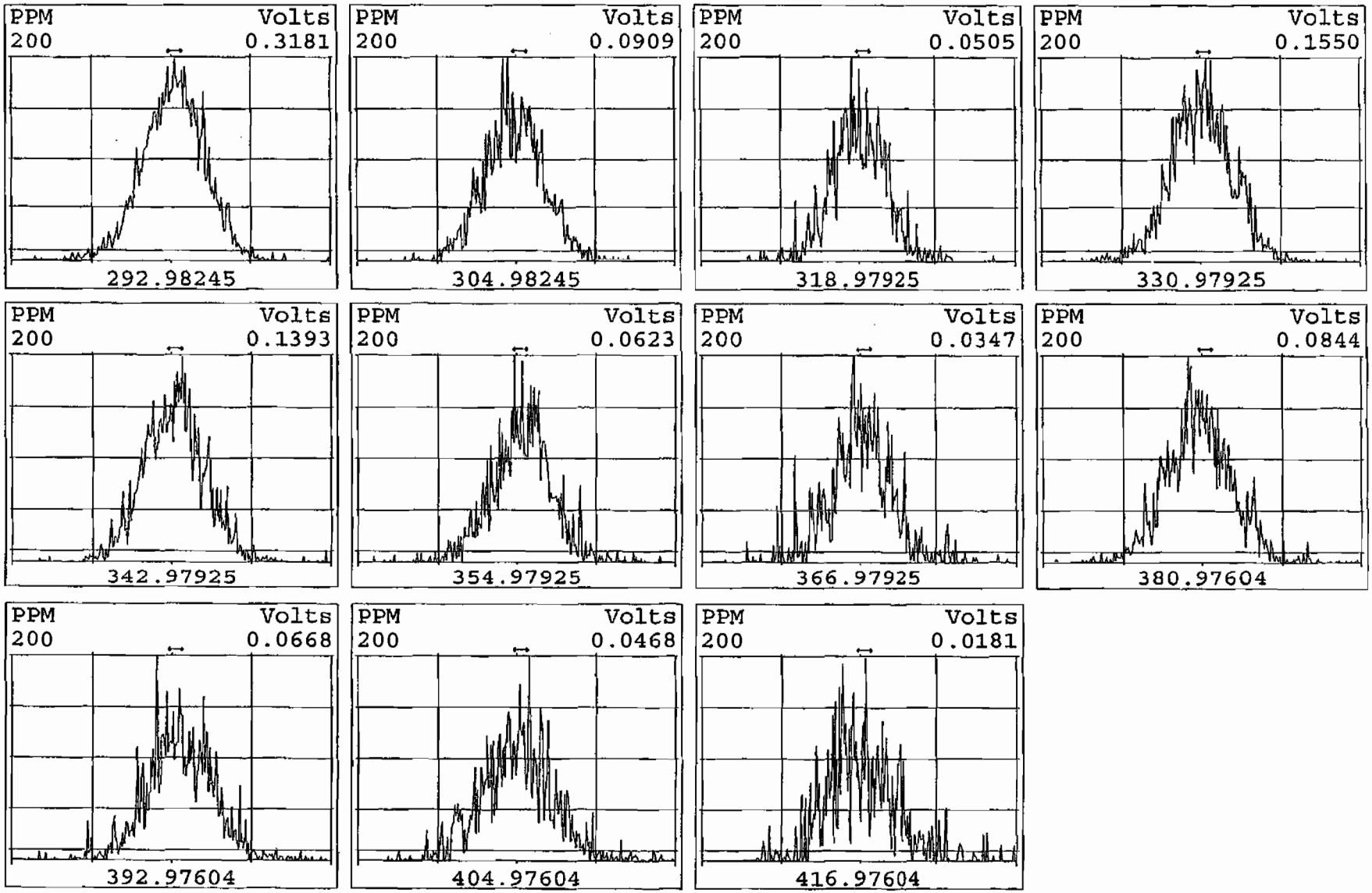
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
10FE104D5	1	ST0210	CS3 09DXN425				1.00000	
10FE104D5	2	CP0210	DB-5 CPSM 3732-05				1.00000	
10FE104D5	3	SB0210	Solvent Blank C-14				1.00000	
10FE104D5	4	LVEHJ-1-AAB	G0B080000-343B (548)	20	1613B/WATER	8	1.00000	L
10FE104D5	5	LVEHJ-1-ACC	G0B080000-343C (548)	20	1613B/WATER		1.00000	L
10FE104D5	6	LVEHJ-1-ADD	G0B080000-343D (548)	20	1613B/WATER		1.00000	L
10FE104D5	7	LTW3Q-1-AA	G0A280510-3	20	1613B/WATER	7	1.05790	L
10FE104D5	8	LT4G2-1-AA	G0B020514-1	20	1613B/WATER	8	1.03820	L
10FE104D5	9	LT4G9-1-AA	G0B020514-2	20	1613B/WATER		1.04790	L
10FE104D5	10	LT7X9-1-ACC	G0B040000-331C (507)	20	1613B/SOLID	8	10.00000	G
10FE104D5	11	LT7X9-1-AAB	G0B040000-331B (507)	20	1613B/SOLID		10.00000	G
10FE104D5	12	LTRL9-1-AA	G0A260507-1	20	1613B/SOLID		10.40000	G
10FE104D5	13	LTRMG-1-AA	G0A260507-2	20	1613B/SOLID		10.00000	G
10FE104D5	14	LTRMH-1-AA	G0A260507-3	20	1613B/SOLID		10.20500	G
10FE104D5	15	LTRML-1-AA	G0A260507-4	20	1613B/SOLID		10.48500	G
10FE104D5	16	LTRMP-1-AA	G0A260507-5	20	1613B/SOLID		10.41500	G
10FE104D5	17	LTRMQ-1-AA	G0A260507-6	20	1613B/SOLID		10.30000	G
10FE104D5	18	SB0210A	Solvent Blank C-14				1.00000	
10FE104D5	19	ST0210A	CS3 10DXN049				1.00000	
10FE104D5	20	CP0210A	DB-5 CPSM 3732-04				1.00000	
10FE104D5	21	SB0210B	Solvent Blank C-14				1.00000	
10FE104D5	22	LT76N-1-AA	G0B040516-1	20	1613B/WATER	8	0.88330	L
10FE104D5	23	LTME5-1-AA	G0A220427-6RI (10X)	20	8290/SOLID	3	10.22000	G
10FE104D5	24	LTMFD-1-AA	G0A220427-11RI (10X)	20	8290/SOLID		10.07000	G
10FE104D5	25	SB0210C	Solvent Blank C-14				1.00000	
10FE104D5	26	LTVE7-1-AA	G0A270511-1	20	1613B-T/WATER	7	1.05110	L
10FE104D5	27	LTVFC-1-AA	G0A270511-2	20	1613B-T/WATER		1.05340	L
10FE104D5	28	LT4WA-1-AA	G0B020570-1	20	1613B-T/WATER		1.02840	L
10FE104D5	29	LTVEJ-1-AA	G0A270506-1	20	1613B-T/WATER		0.92880	L
10FE104D5	30	LTVEM-1-AA	G0A270506-2	20	1613B-T/WATER		0.91610	L
10FE104D5	31	LTRGH-1-AA	G0A260482-4	20	1613B-T/SOLID	9	10.02000	G
10FE104D5	32	LT4RL-1-AA	G0B020556-1	20	1613B-T/WATER	8	1.03010	L
10FE104D5	33	LT4Q3-1-AC	G0B020548-1	20	1613B-T/WATER		1.03970	L
10FE104D5	34	LT79M-1-AA	G0B040539-1	20	1613B-T/WATER		0.95820	L
10FE104D5	35	LT6HG-1-AA	G0B030548-1	20	8290/WATER		1.05760	L
10FE104D5	36	SB0210D	Solvent Blank C-14				1.00000	
10FE104D5	37	ST0210B	CS3 09DXN425				1.00000	
10FE104D5	38	CP0210B	DB-5 CPSM 3732-04				1.00000	
10FE104D5	39	SB0210E	Solvent Blank C-14				1.00000	
10FE104D5	40	LVHGW-1-AAB	G0B040512-1MB	20	1613B/WATER	11	1.00000	L
10FE104D5	41	LVHGW-1-ACC	G0B040512-1LCS	20	1613B/WATER		1.00000	L
10FE104D5	42	LVEDR-1-AA	G0B080438-1	20	1613B/WATER		1.03590	L
10FE104D5	43	LVED1-1-AA	G0B080438-2	20	1613B/WATER		1.00620	L
10FE104D5	44	LTW8T-1-AA	G0A280535-2 RI	20	1613B/WATER	6	1.03720	L
10FE104D5	45	LVA3D-1-AA	G0B050606-1	20	1613B/WATER	11	0.95750	L
10FE104D5	46	LVA3G-1-AA	G0B050606-2	20	1613B/WATER		0.95930	L
10FE104D5	47	LVAVN-1-AA	G0B050584-2	20	1613B/WATER		1.02500	L
10FE104D5	48	LVAVT-1-AA	G0B050584-6	20	1613B/WATER		1.02750	L
10FE104D5	49	LVA9Q-1-AA	G0B050632-1	20	1613B/WATER		1.03650	L
10FE104D5	50	LT757-1-AA	G0B040512-1	20	1613B/WATER		0.95870	L
10FE104D5	51	SPEQC-SPIKE	MB-S	20	1613B/WATER	QC51	1.00000	L
10FE104D5	52	SPEQC-SPIKE	MB-T	20	1613B/WATER		1.00000	L
10FE104D5	53	SPEQC-SPIKE	LCS-S	20	1613B/WATER		1.00000	L

10FE104D5	54	SPEQC-SPIKE	LCS-T		20	1613B/WATER	1.00000	L
10FE104D5	55						1.00000	
10FE104D5	56						1.00000	
10FE104D5	57						1.00000	
10FE104D5	58						1.00000	
10FE104D5	59		KT,KSS 02-10-10	LOGFILE / id			1.00000	
10FE104D5	60		AM 02-11-10				1.00000	
10FE104D5	61			2-12-10 KSS			1.00000	
10FE104D5	62						1.00000	
10FE104D5	63						1.00000	

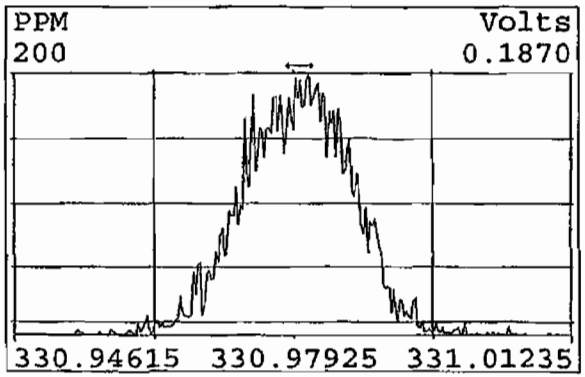
File:10FB104D5 #1-578 Acq:11-FEB-2010 04:18:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#20 Text:CP0210A :DB-5 CPSM 3732-04 Exp:DIOXIN
319.8965 S:20 BSUB(128,15,-3.0)

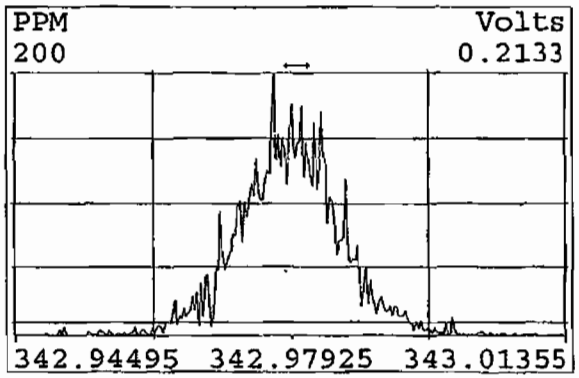


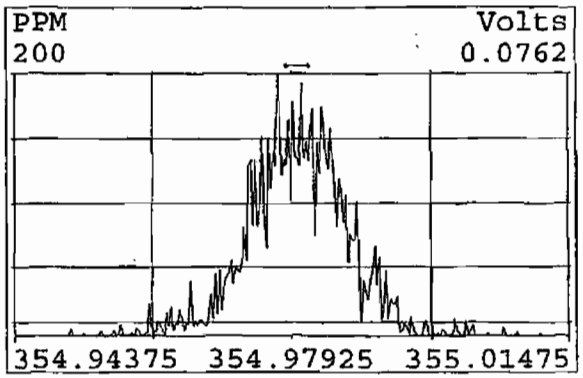
Peak Locate Examination:10-FEB-2010:14:19 File:10FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

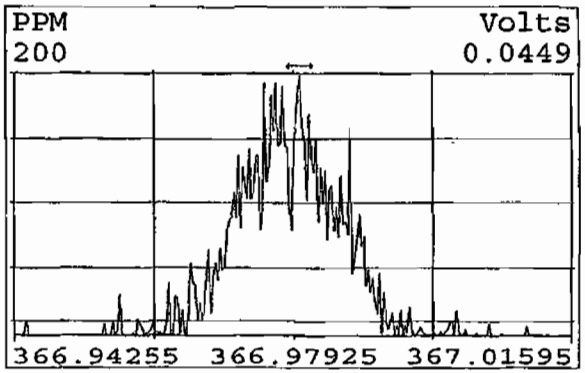


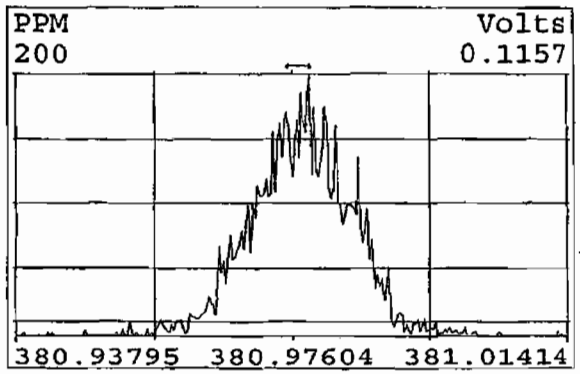
Peak Locate Examination:10-FEB-2010:14:20 File:10FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

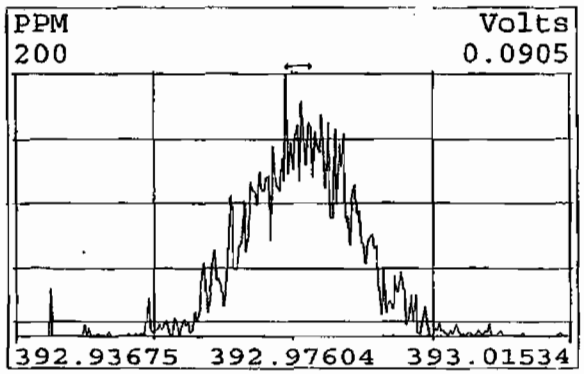


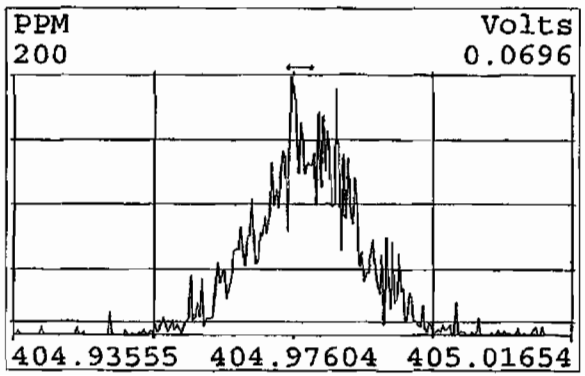


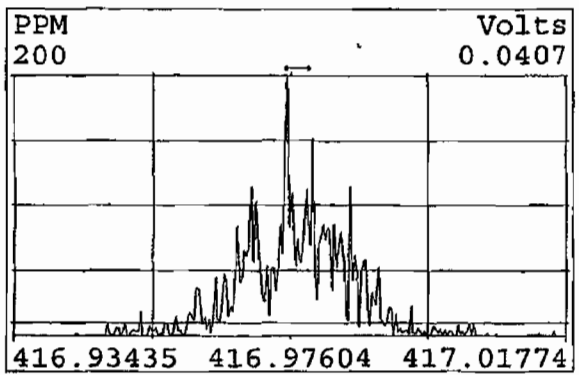




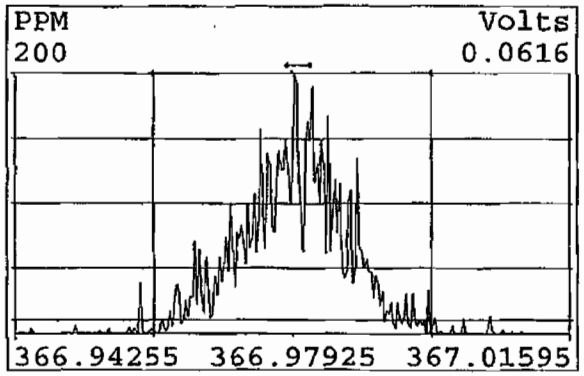


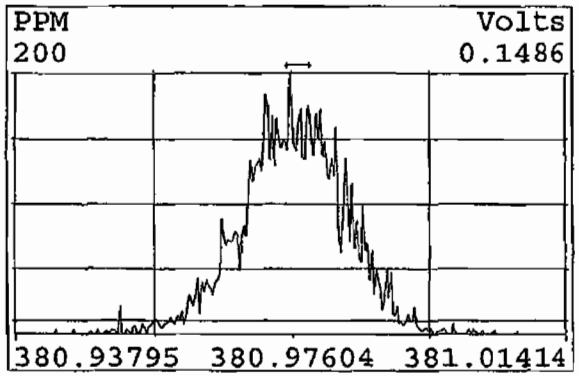


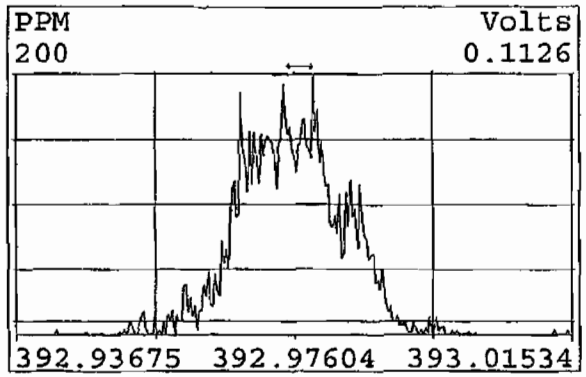


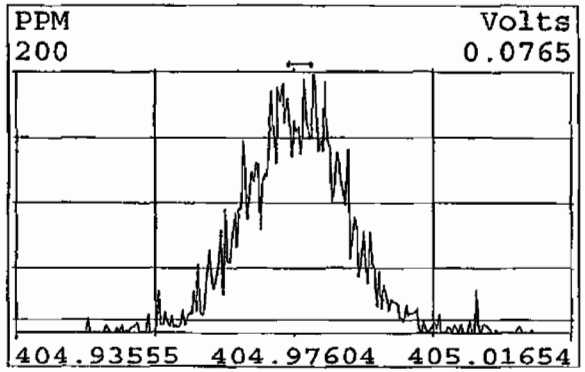


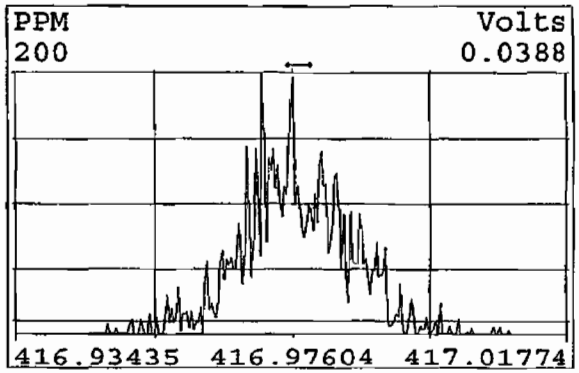
Peak Locate Examination:10-FEB-2010:14:20 File:10FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

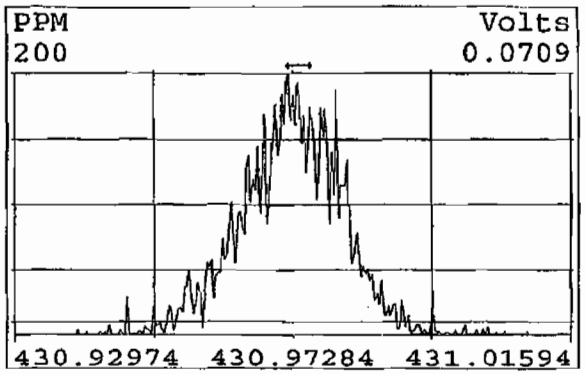


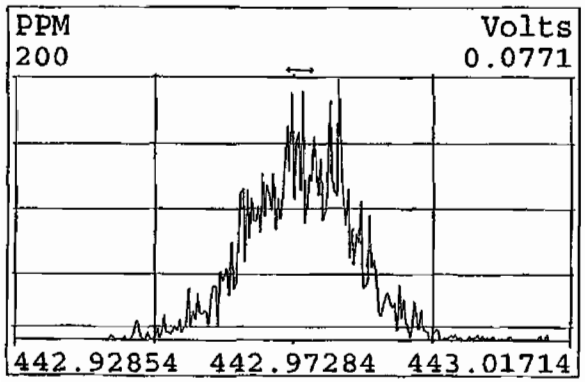


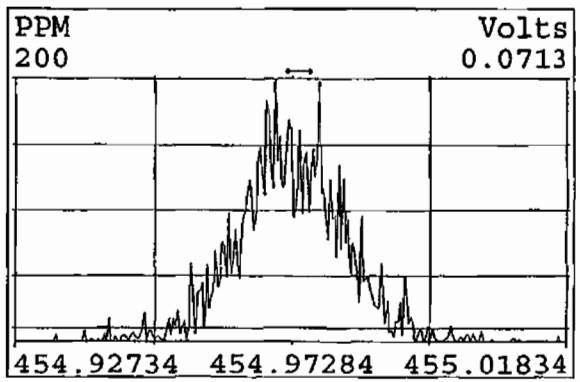




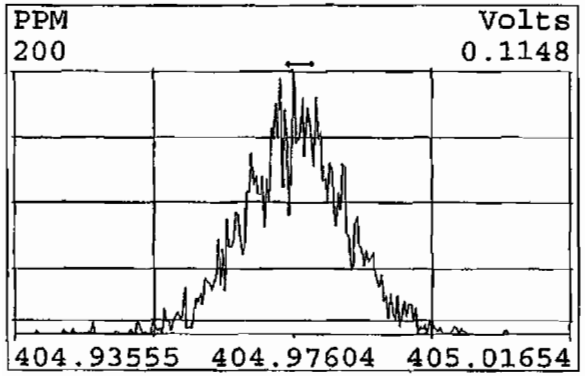


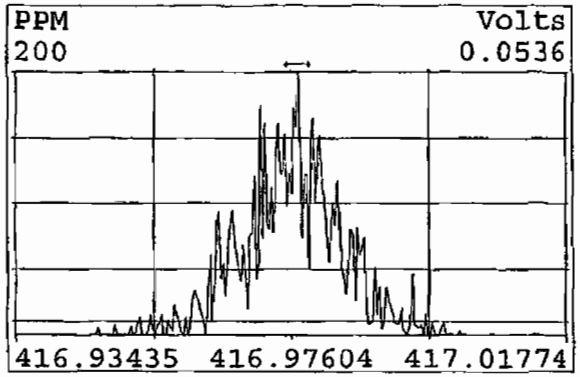


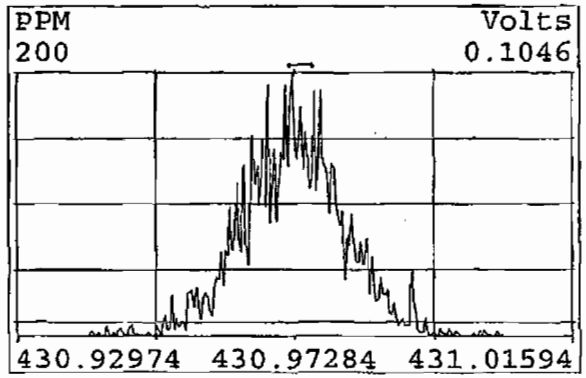


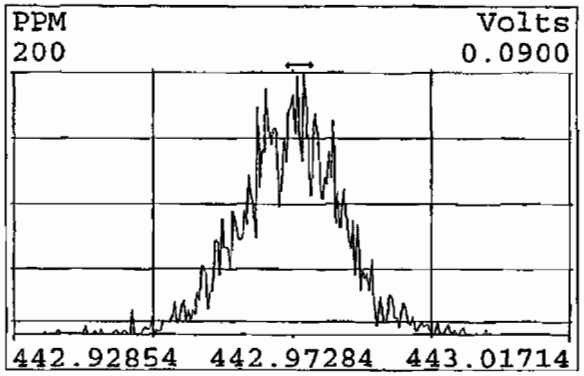


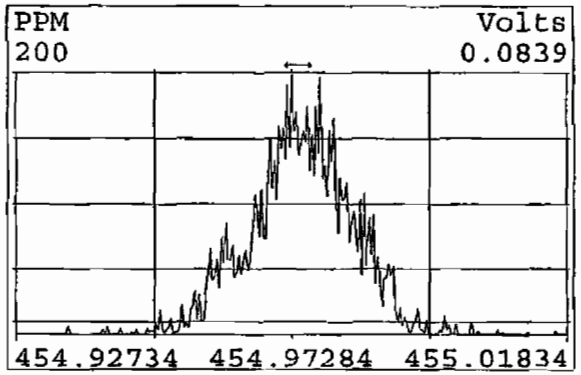
Peak Locate Examination:10-FEB-2010:14:20 File:10FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

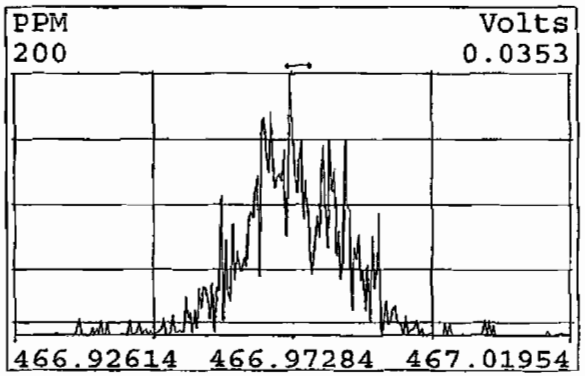


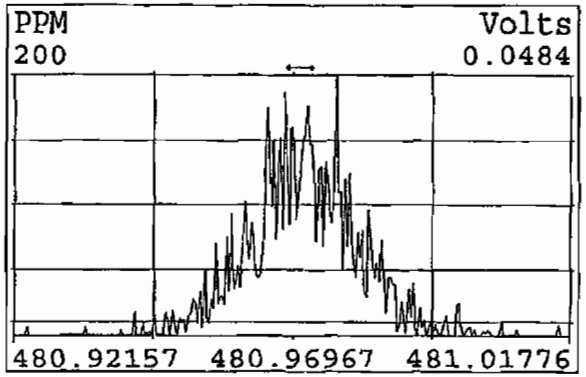




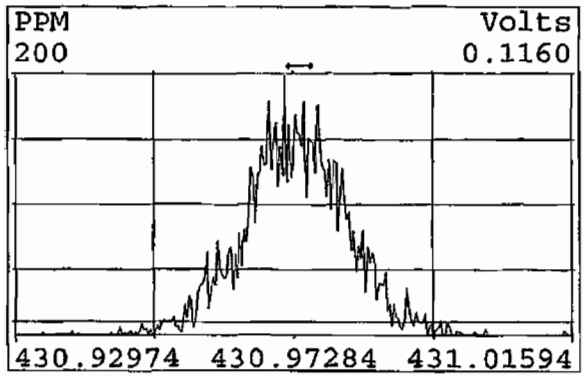


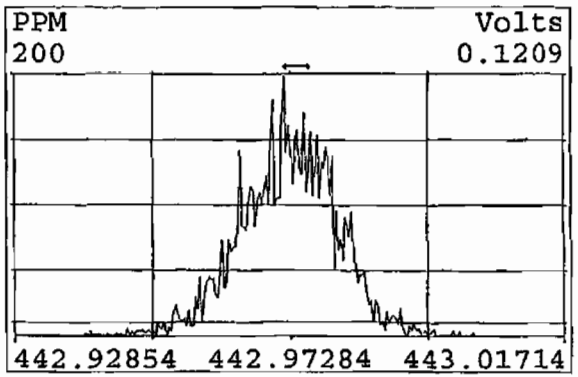


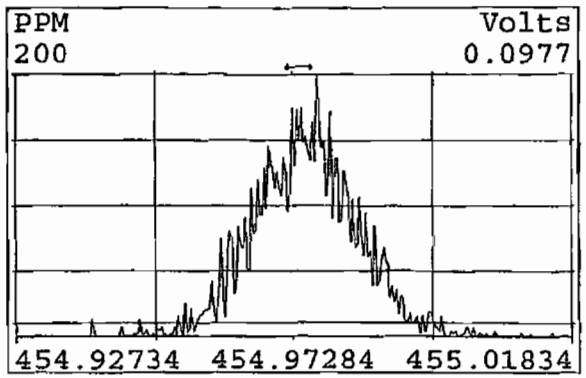


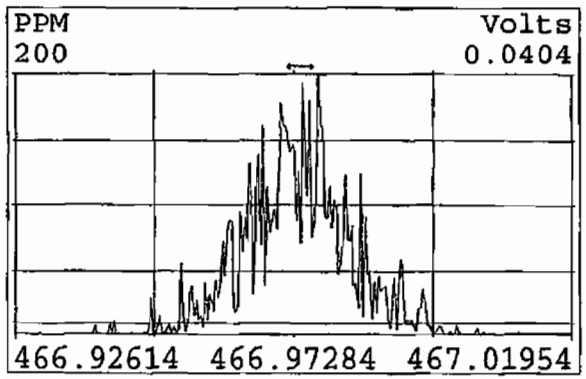


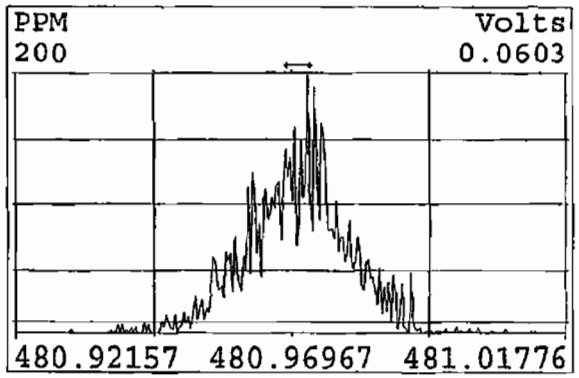
Peak Locate Examination:10-FEB-2010:14:21 File:10FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

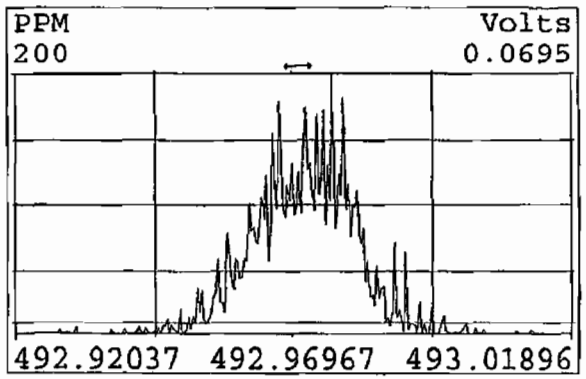


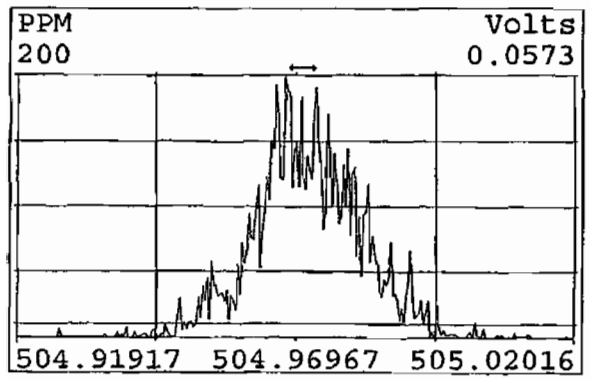


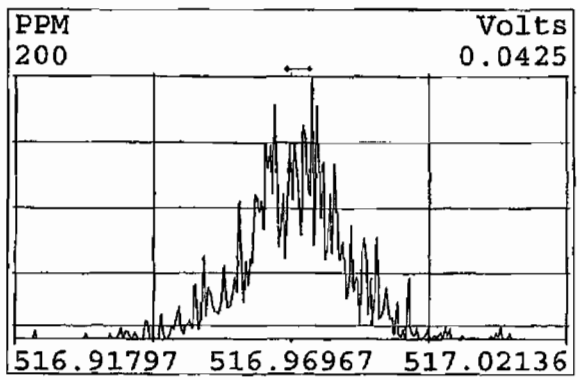




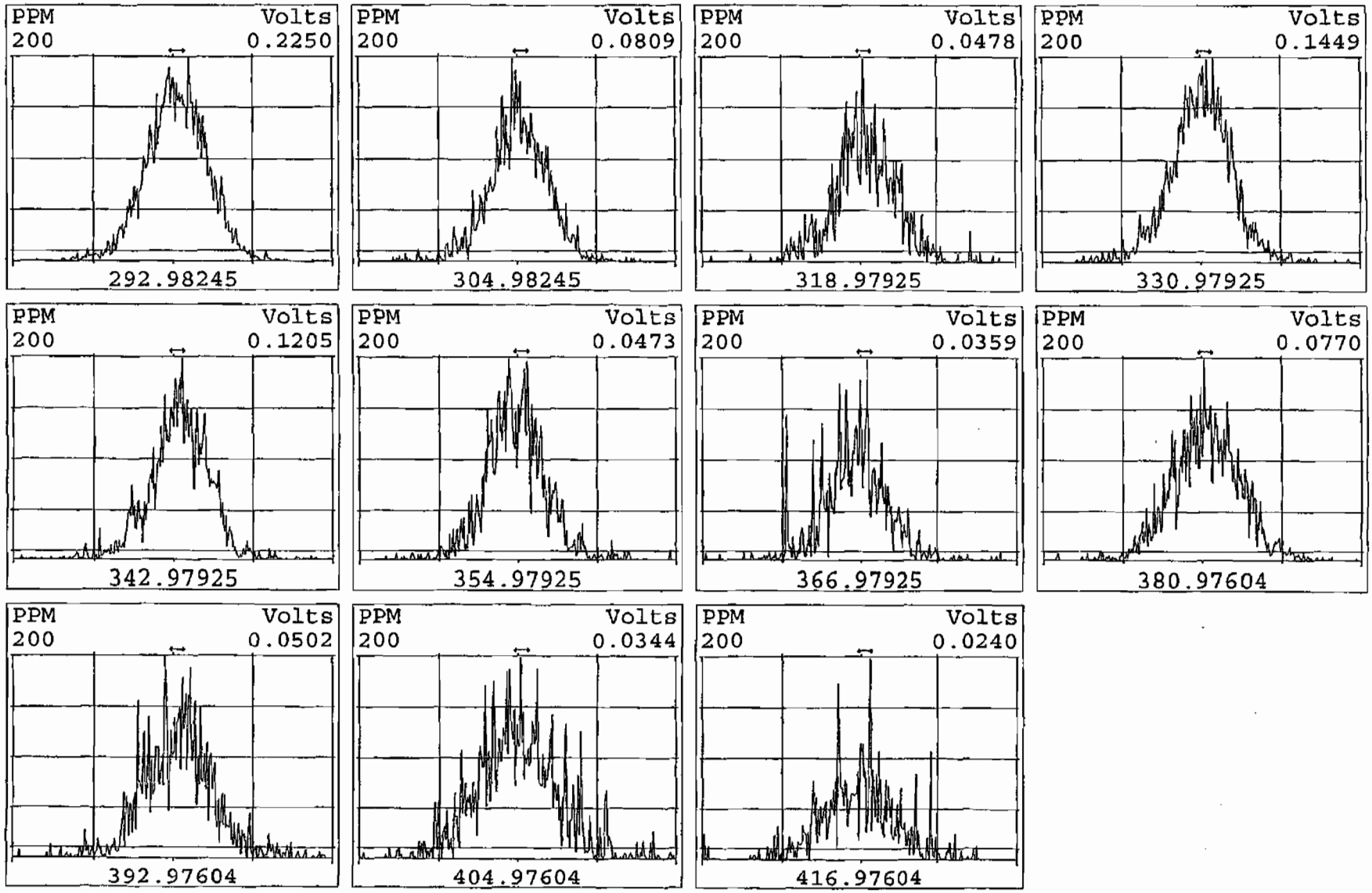




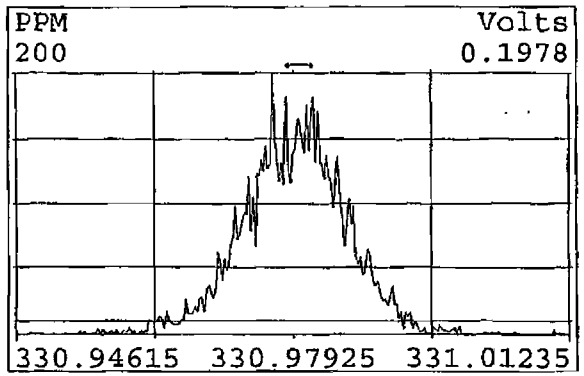


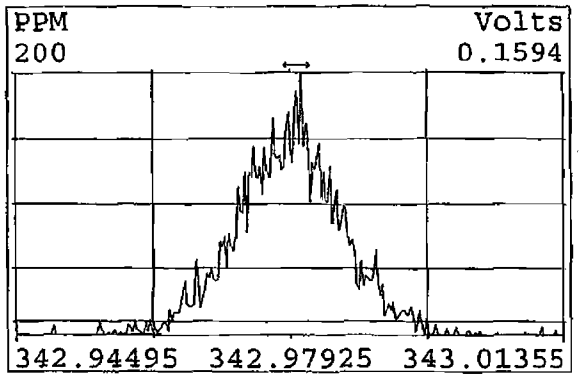


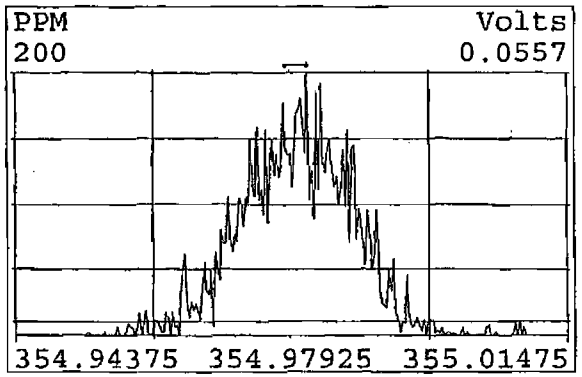
Peak Locate Examination:12-FEB-2010:08:51 File:ENDRES10FE104D5
Experiment:DIOXIN Function:1 Reference:PFK

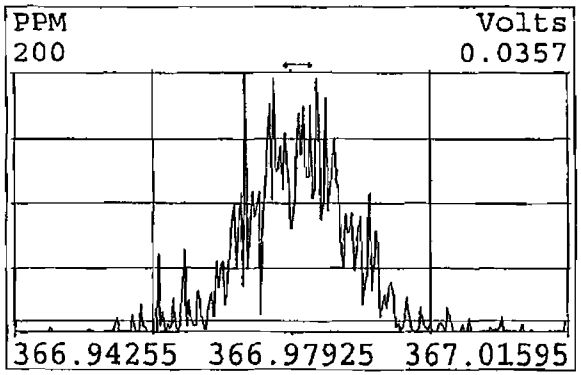


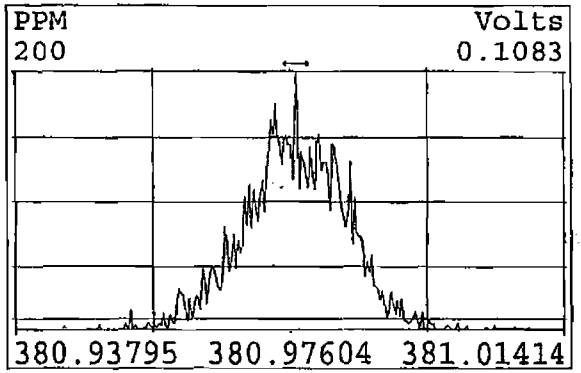
Peak Locate Examination:12-FEB-2010:08:52 File:ENDRES10FE104D5
Experiment:DIOXIN Function:2 Reference:PFK

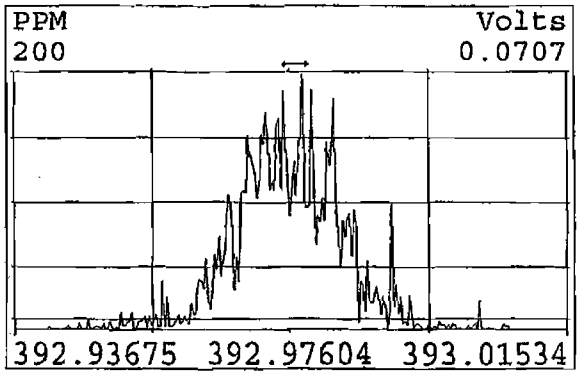


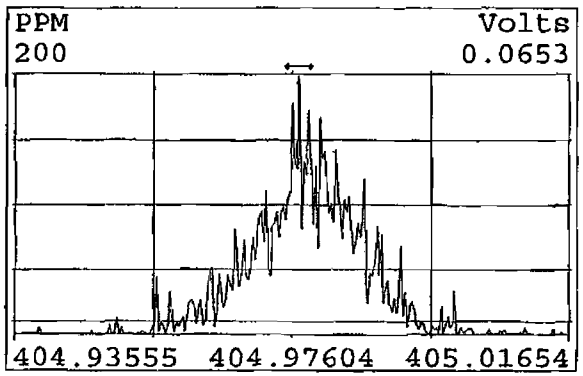


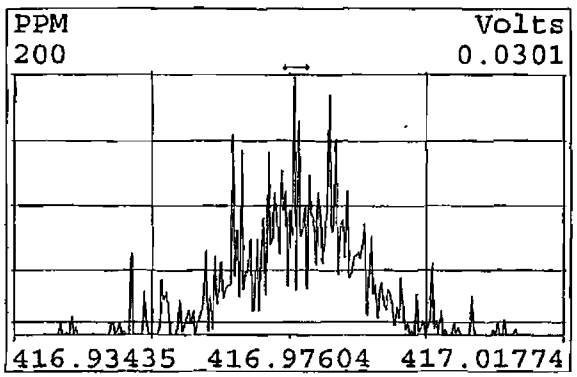




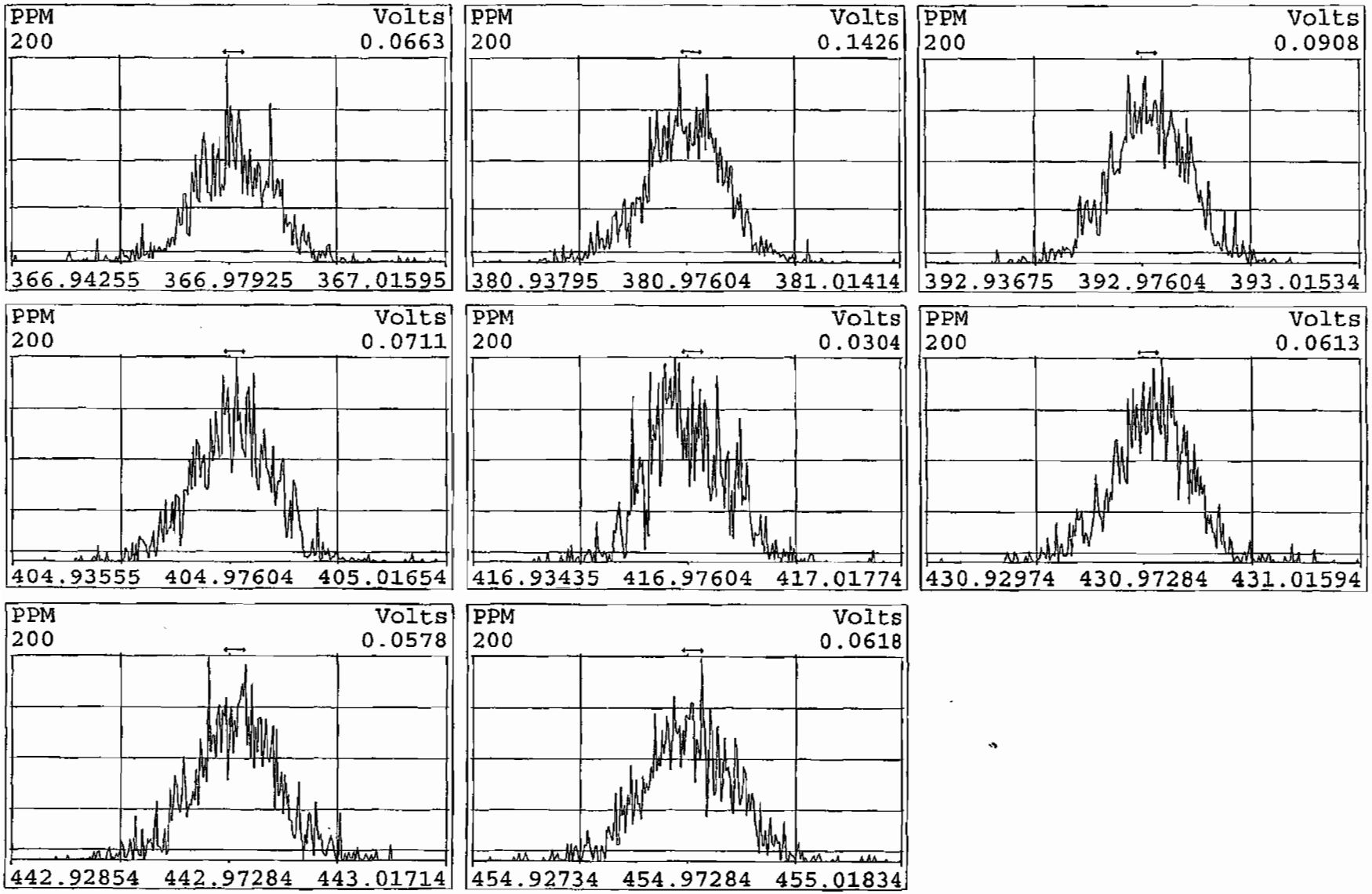




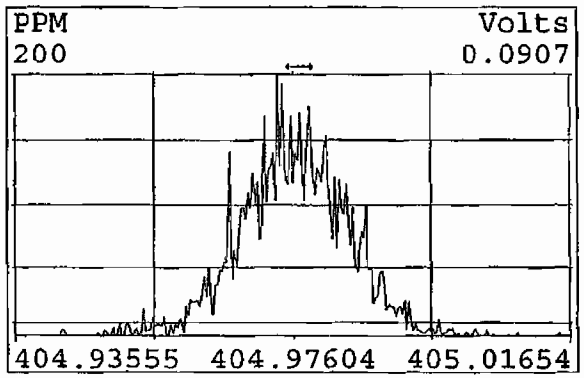


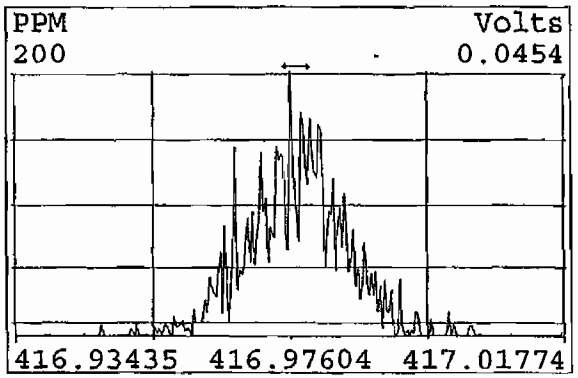


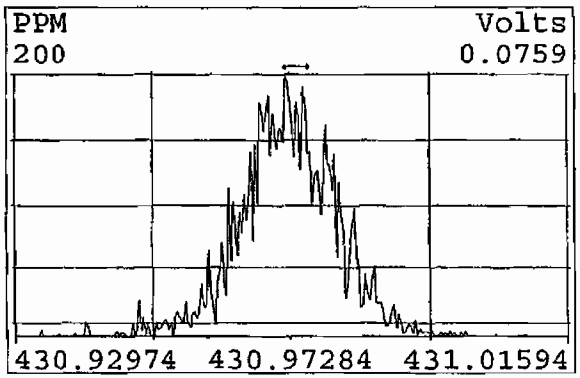
Peak Locate Examination:12-FEB-2010:08:52 File:ENDRES10FE104D5
Experiment:DIOXIN Function:3 Reference:PFK

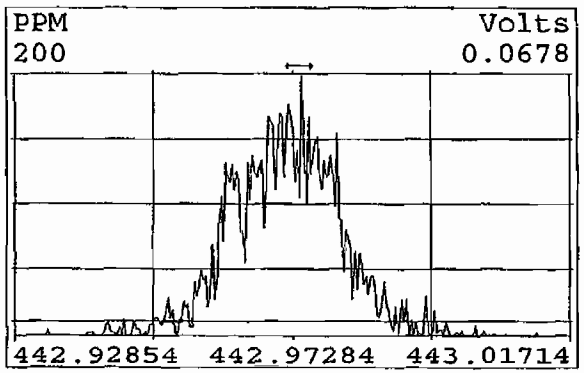


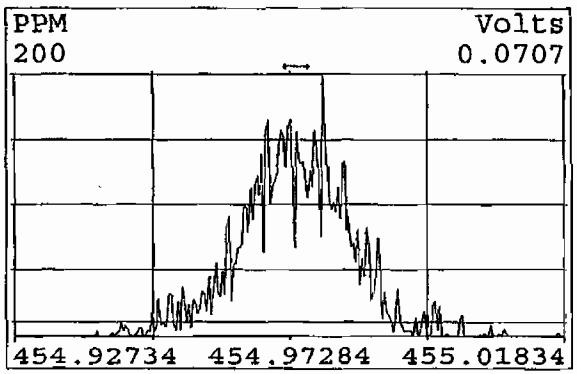
Peak Locate Examination:12-FEB-2010:08:53 File:ENDRES10FE104D5
Experiment:DIOXIN Function:4 Reference:PFK

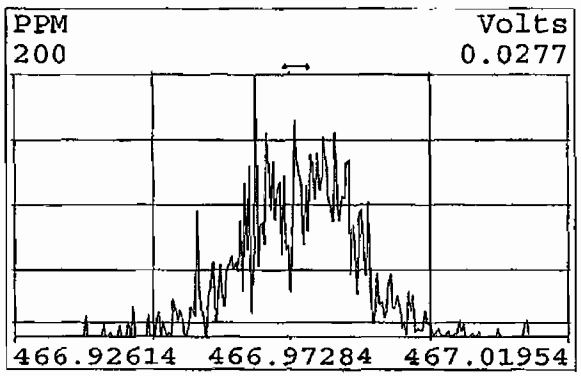


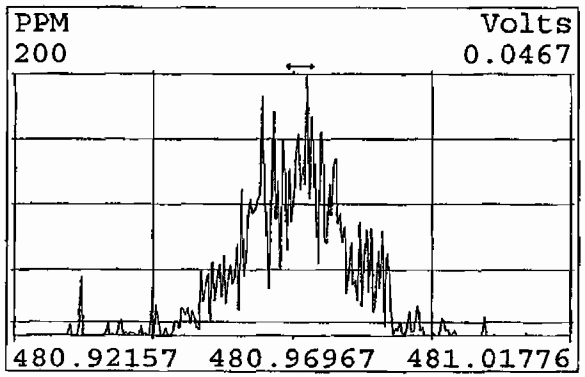




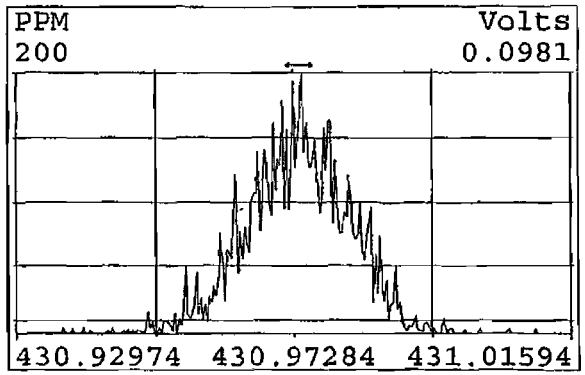


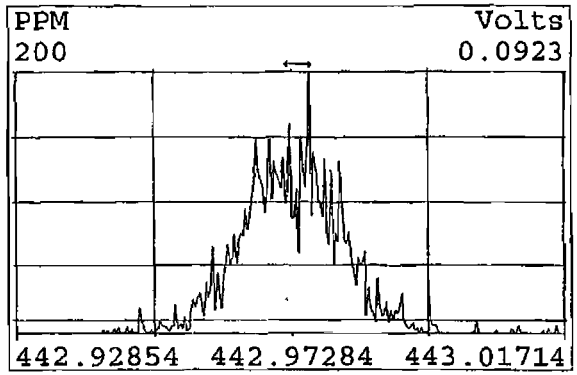


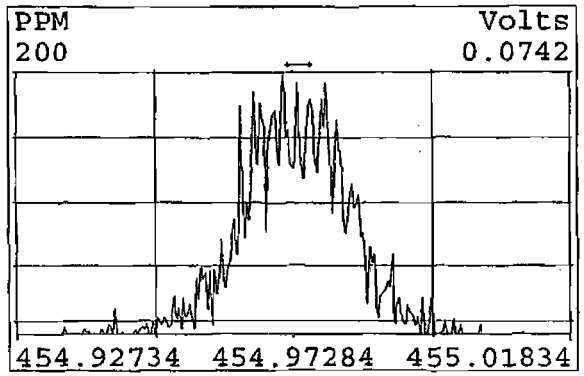


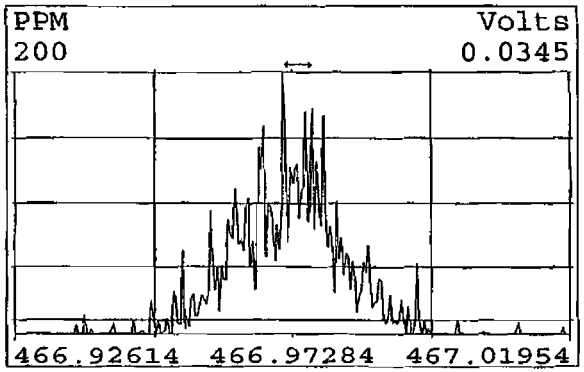


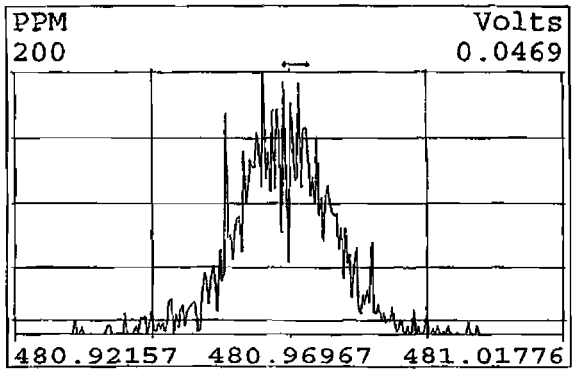
Peak Locate Examination:12-FEB-2010:08:53 File:ENDRES10FE104D5
Experiment:DIOXIN Function:5 Reference:PFK

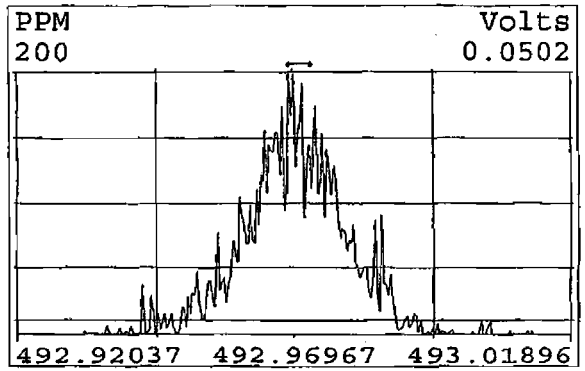


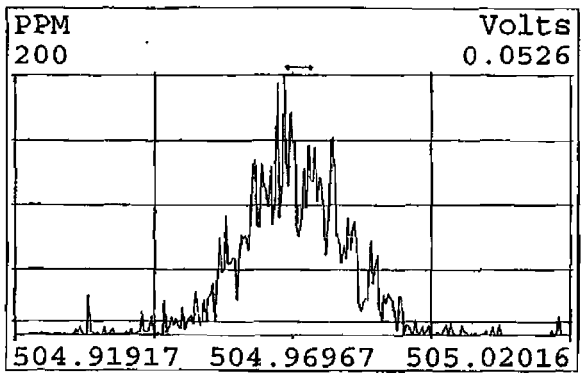


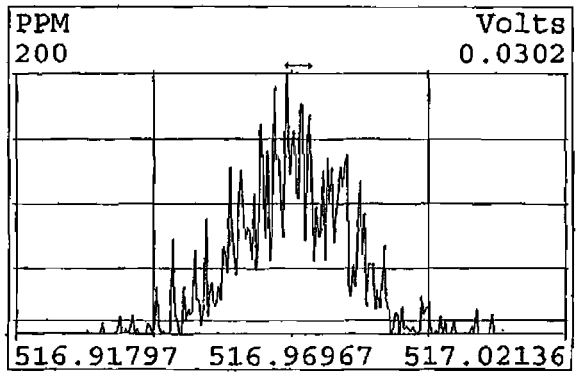












Run text: ST0210A File text: ST0210A :CS3 10DXN049
Run #8 Filename 10FE104D5 S: 19 I: 1
Acquired: 11-FEB-10 03:34:20 Processed: 11-FEB-10 10:35:21
Run: 04FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 10FE104D58290

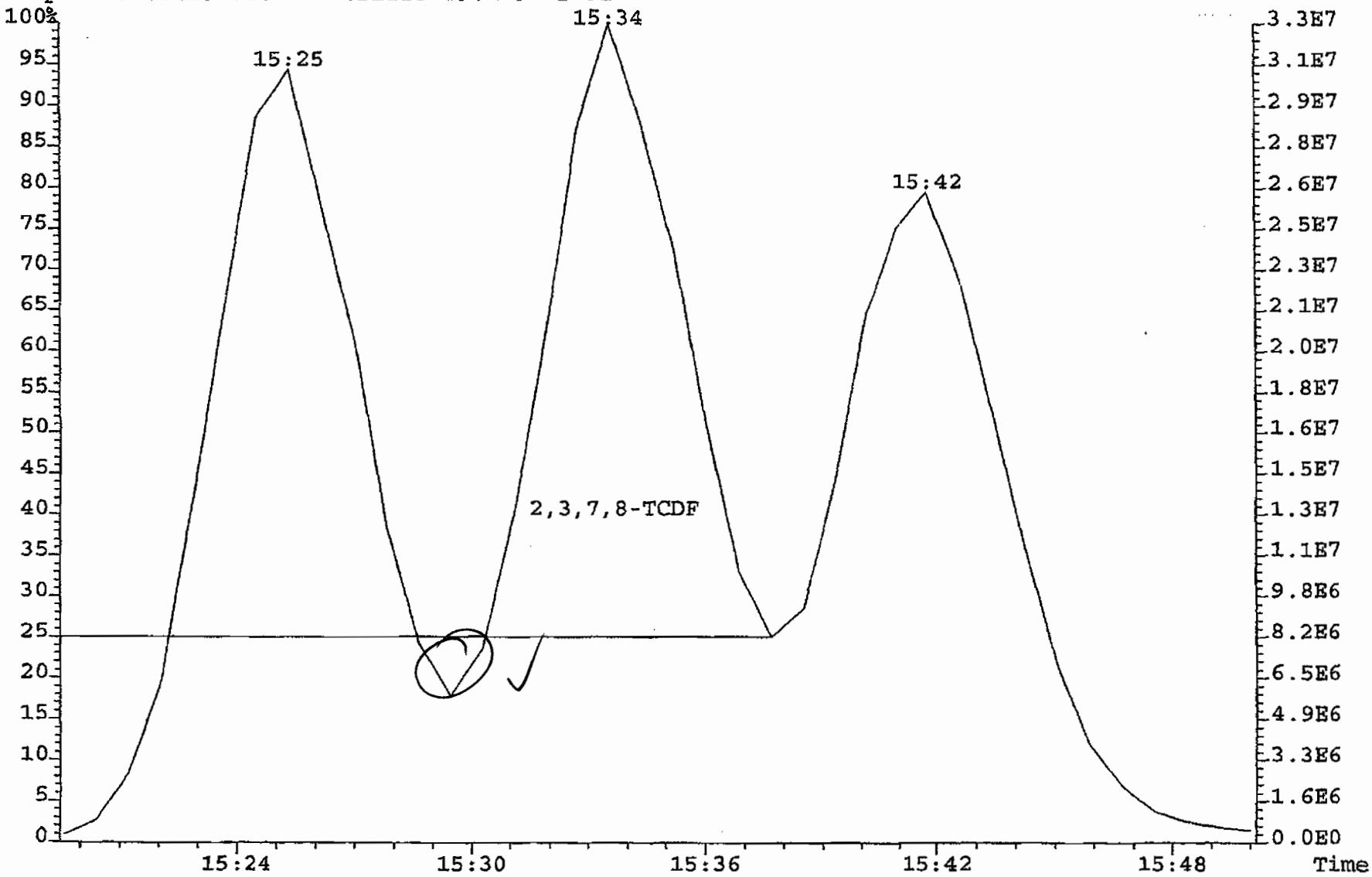
Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	97078772	0.81 y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	159704328	0.79 y	18:45	1.65	100.00	4.8	n
2,3,7,8-TCDF	17032837	0.79 y	18:47	1.07	10.00	1.3	n
Total TCDF	17181709	1.07 n	17:47	1.07	10.00	1.3	n
13C-2,3,7,8-TCDD	97511044	0.79 y	19:33	1.00	100.00	0.4	n
2,3,7,8-TCDD	10353513	0.81 y	19:34	1.06	10.00	0.7	n
Total TCDD	10367035	0.81 y	19:34	1.06	10.00	0.7	n
37Cl-2,3,7,8-TCDD	21891020	1.00 y	19:34	2.25	10.00	-6.7	n
13C-1,2,3,7,8-PeCDF	121466236	1.59 y	24:24	1.25	100.00	-6.4	n
1,2,3,7,8-PeCDF	70401172	1.57 y	24:26	1.16	50.00	8.4	n
2,3,4,7,8-PeCDF	67972478	1.59 y	25:55	1.12	50.00	8.0	n
Total F2 PeCDF	139898099	1.19 n	22:54	1.14	100.00	8.2	n
Total F1 PeCDF	59265	5.77 n	14:19	1.14	100.00	8.2	n
13C-1,2,3,7,8-PeCDD	79773262	1.62 y	26:41	0.82	100.00	1.2	n
1,2,3,7,8-PeCDD	41291197	1.59 y	26:43	1.04	50.00	-0.3	n
Total PeCDD	41406191	1.59 y	26:43	1.04	50.00	-0.3	n
13C-1,2,3,7,8,9-HxCDD	86015040	1.31 y	33:02	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	95532014	0.52 y	31:51	1.11	100.00	9.5	n
1,2,3,4,7,8-HxCDF	63234912	1.23 y	31:52	1.32	50.00	6.8	n
1,2,3,6,7,8-HxCDF	74807792	1.24 y	31:59	1.57	50.00	5.1	n
2,3,4,6,7,8-HxCDF	66546488	1.24 y	32:34	1.39	50.00	4.0	n
1,2,3,7,8,9-HxCDF	56899518	1.26 y	33:13	1.19	50.00	-2.4	n
Total HxCDF	261488710	1.23 y	31:52	1.37	200.00	3.5	n
13C-1,2,3,6,7,8-HxCDD	79713416	1.30 y	32:46	0.93	100.00	4.9	n
1,2,3,4,7,8-HxCDD	40694774	1.24 y	32:42	1.02	50.00	13.1	n
1,2,3,6,7,8-HxCDD	49689538	1.26 y	32:46	1.25	50.00	4.8	n
1,2,3,7,8,9-HxCDD	47980342	1.26 y	33:03	1.20	50.00	4.0	n
Total HxCDD	138610718	1.24 y	32:42	1.16	150.00	6.8	n
13C-1,2,3,4,6,7,8-HpCDF	85465150	0.46 y	34:33	0.99	100.00	5.2	n
1,2,3,4,6,7,8-HpCDF	60415414	0.99 y	34:34	1.41	50.00	8.8	n
1,2,3,4,7,8,9-HpCDF	46477730	0.98 y	35:40	1.09	50.00	-1.3	n
Total HpCDF	107560800	0.99 y	34:34	1.25	100.00	4.2	n
13C-1,2,3,4,6,7,8-HpCDD	69922724	1.09 y	35:21	0.81	100.00	2.5	n
1,2,3,4,6,7,8-HpCDD	38574704	1.05 y	35:22	1.10	50.00	4.5	n
Total HpCDD	38781374	1.32 n	34:49	1.10	50.00	4.5	n
13C-OCDD	90464500	0.90 y	37:49	0.53	200.00	-9.6	n
OCDF	71402384	0.92 y	37:56	1.58	100.00	1.3	n
OCDD	56051694	0.90 y	37:50	1.24	100.00	3.9	n

Run text: ST0210B File text: ST0210B :CS3 09DXN425
Run #13 Filename 10FE104D5 S: 37 I: 1
Acquired: 11-FEB-10 16:47:06 Processed: 11-FEB-10 21:17:02
Run: 10FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 10FE104D58290

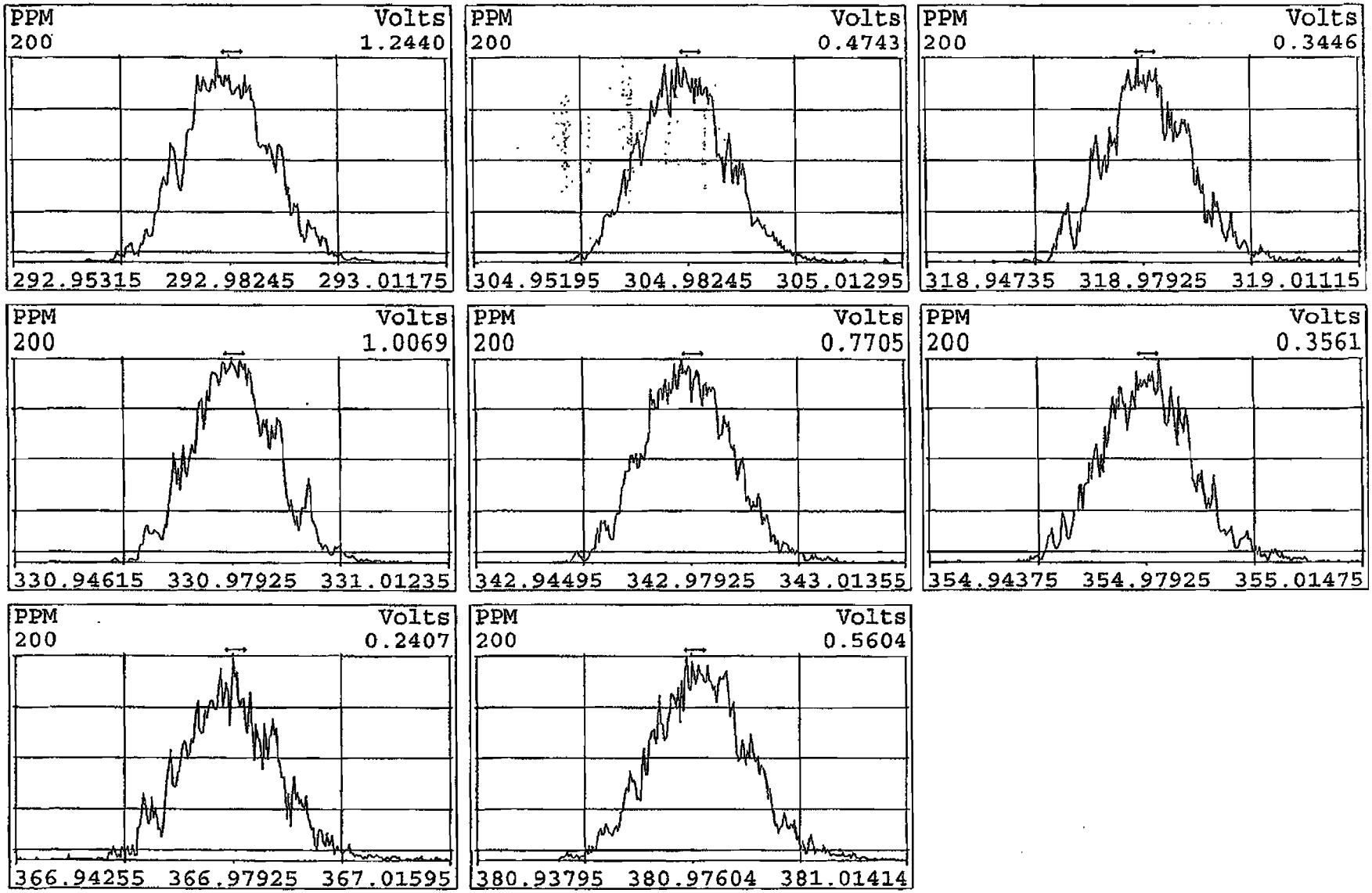
Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	132051300	0.80 y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	210983200	0.79 y	18:46	1.60	100.00	1.7	n
2,3,7,8-TCDF	21844570	0.77 y	18:47	1.04	10.00	-1.6	n
Total TCDF	22038596	0.91 n	17:49	1.04	10.00	-1.6	n
13C-2,3,7,8-TCDD	131051600	0.81 y	19:33	0.99	100.00	-0.8	n
2,3,7,8-TCDD	13735220	0.80 y	19:34	1.05	10.00	-0.6	n
Total TCDD	13761685	2.29 n	18:21	1.05	10.00	-0.6	n
37Cl-2,3,7,8-TCDD	30698200	1.00 y	19:34	2.32	10.00	-3.8	n
13C-1,2,3,7,8-PeCDF	168847500	1.55 y	24:23	1.28	100.00	-4.3	n
1,2,3,7,8-PeCDF	94736100	1.57 y	24:25	1.12	50.00	4.9	n
2,3,4,7,8-PeCDF	92347800	1.58 y	25:54	1.09	50.00	5.5	n
Total F2 PeCDF	191033814	0.78 n	22:55	1.11	100.00	5.2	n
Total F1 PeCDF	72595	1.25 n	14:09	1.11	100.00	5.2	n
13C-1,2,3,7,8-PeCDD	113454200	1.59 y	26:40	0.86	100.00	5.8	n
1,2,3,7,8-PeCDD	56803400	1.58 y	26:42	1.00	50.00	-3.5	n
Total PeCDD	56972665	1.58 y	26:42	1.00	50.00	-3.5	n
13C-1,2,3,7,8,9-HxCDD	128823700	1.27 y	33:02	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	144063400	0.51 y	31:51	1.12	100.00	10.2	n
1,2,3,4,7,8-HxCDF	93765400	1.23 y	31:52	1.30	50.00	5.0	n
1,2,3,6,7,8-HxCDF	104626100	1.25 y	31:59	1.45	50.00	-2.5	n
2,3,4,6,7,8-HxCDF	98201500	1.26 y	32:34	1.36	50.00	1.8	n
1,2,3,7,8,9-HxCDF	82732300	1.26 y	33:13	1.15	50.00	-5.9	n
Total HxCDF	379325300	1.23 y	31:52	1.32	200.00	-0.4	n
13C-1,2,3,6,7,8-HxCDD	119429200	1.29 y	32:46	0.93	100.00	4.9	n
1,2,3,4,7,8-HxCDD	60632900	1.26 y	32:42	1.02	50.00	12.5	n
1,2,3,6,7,8-HxCDD	71873200	1.30 y	32:46	1.20	50.00	1.1	n
1,2,3,7,8,9-HxCDD	69566800	1.29 y	33:03	1.16	50.00	0.6	n
Total HxCDD	202072900	1.26 y	32:42	1.13	150.00	4.1	n
13C-1,2,3,4,6,7,8-HpCDF	123225500	0.46 y	34:33	0.96	100.00	1.2	n
1,2,3,4,6,7,8-HpCDF	84486500	0.98 y	34:33	1.37	50.00	5.6	n
1,2,3,4,7,8,9-HpCDF	66600000	0.99 y	35:40	1.08	50.00	-1.9	n
Total HpCDF	151846975	0.98 y	34:33	1.23	100.00	2.2	n
13C-1,2,3,4,6,7,8-HpCDD	103280600	1.08 y	35:21	0.80	100.00	1.1	n
1,2,3,4,6,7,8-HpCDD	56000700	1.06 y	35:22	1.08	50.00	2.7	n
Total HpCDD	56271490	1.01 y	34:49	1.08	50.00	2.7	n
13C-OCDD	141616900	0.89 y	37:49	0.55	200.00	-5.5	n
OCDF	109820800	0.91 y	37:56	1.55	100.00	-0.4	n
OCDD	86920100	0.89 y	37:50	1.23	100.00	2.9	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
04JA10B5D2	1	CP0104B	DB225 CPSM 3732-01				1.000	
04JA10B5D2	2	CP0104C	DB225 CPSM 3732-01				1.000	
04JA10B5D2	3	ST0104D	CS-1 09DXN422				1.000	
04JA10B5D2	4	ST0104E	CS-2 09DXN423				1.000	
04JA10B5D2	5	ST0104F	CS-3 09DXN425				1.000	
04JA10B5D2	6	ST0104G	CS-5 09DXN456				1.000	
04JA10B5D2	7	ST0104H	CS-4 09DXN426				1.000	
04JA10B5D2	8	ST0104I	2nd Source 09DXN449				1.000	
04JA10B5D2	9						1.000	
04JA10B5D2	10						1.000	
04JA10B5D2	11						1.000	
04JA10B5D2	12						1.000	
04JA10B5D2	13						1.000	
04JA10B5D2	14		AM 01-04-10				1.000	
04JA10B5D2	15						1.000	

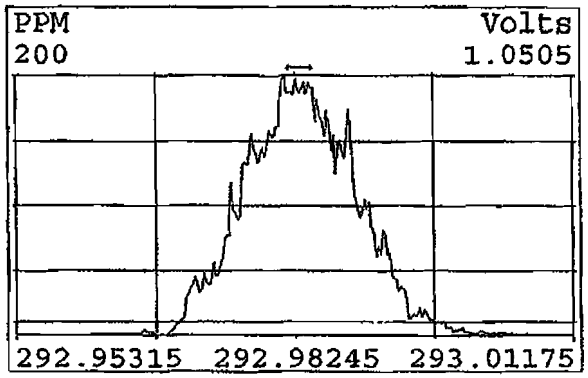
File:04JA10B5D2 #1-1242 Acq: 4-JAN-2010 22:17:05 GC EI+ Voltage SIR 70SE
303.9016 S:2 BSUB(128,15,-3.0) Exp:DB225 Noise:3300
Sample Text:CP0104C :DB225 CPSM 3732-01

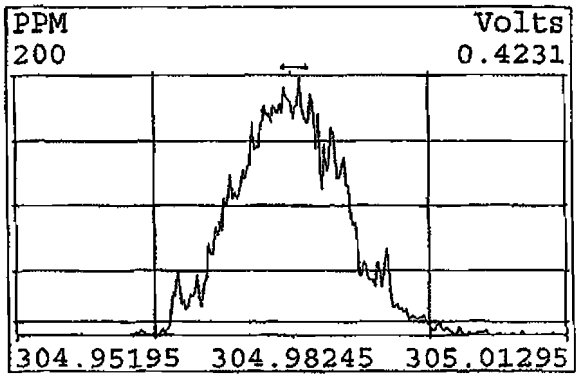


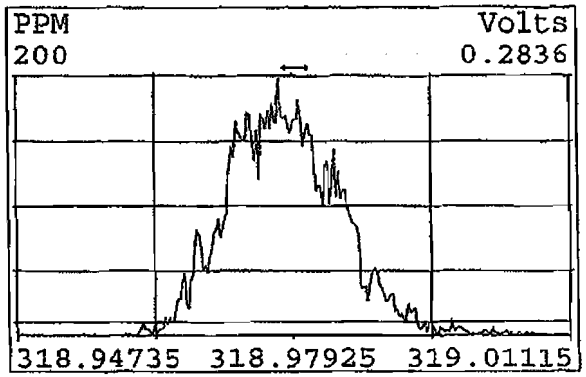
Peak Locate Examination: 4-JAN-2010:21:33 File:04JA10B5D2
Experiment:DB225 Function:1 Reference:PFK

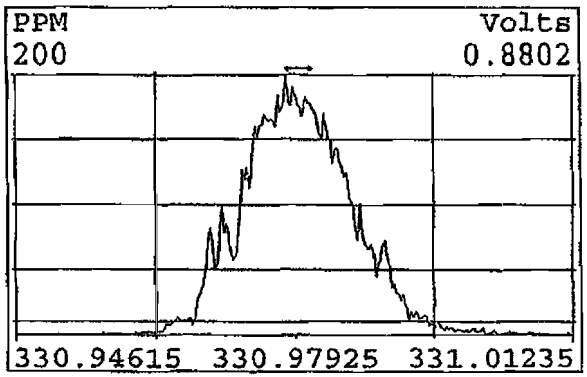


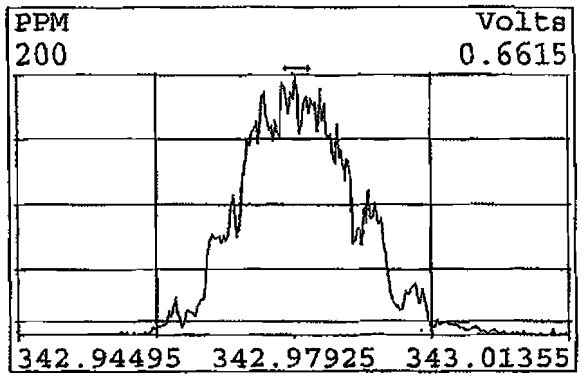
Peak Locate Examination: 5-JAN-2010:07:37 File:ENDRES04JA10B5D2
Experiment:DB225 Function:1 Reference:PFK

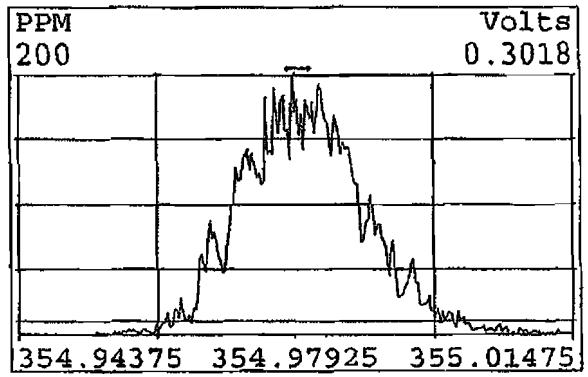


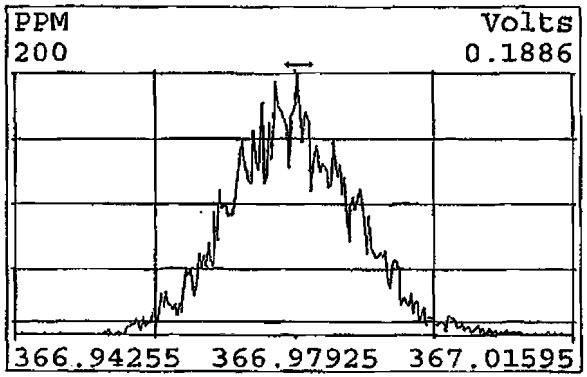


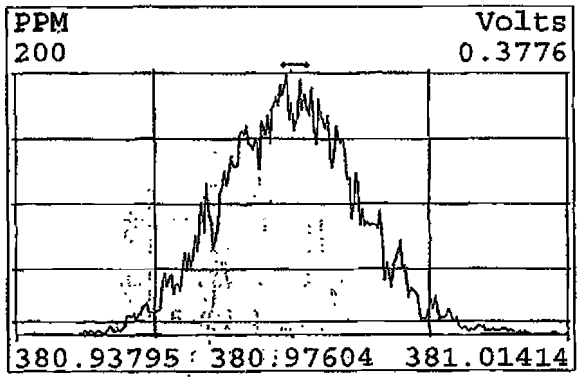












Run: 04JA10A5D2 Analyte: DB225 Cal: DB2250104105D2

ST0104D :CS-1 09DXN422 ST0104E :CS-2 09DXN423 ST0104F :CS-3 09DXN425
ST0104G :CS-5 09DXN456 ST0104H :CS-4 09DXN426

				04JA10B5D2	04JA10B5D2	04JA10B5D2	04JA10B5D2	04JA10B5D2
				S3	S4	S5	S6	S7
Name	Mean	S. D.	%RSD	RRF1	RRF2	RRF3	RRF4	RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.664	0.062	3.75 %	1.65	1.58	1.73	1.72	1.64
2,3,7,8-TCDF	1.014	0.078	7.69 %	1.14	0.94	0.97	1.01	1.00
13C-2,3,7,8-TCDD	0.951	0.045	4.78 %	0.98	0.90	0.99	0.98	0.91
2,3,7,8-TCDD	1.183	0.038	3.23 %	1.19	1.21	1.12	1.18	1.22
37Cl-2,3,7,8-TCDD	2.068	0.541	26.2 %	2.60	2.20	1.15	2.23	2.16

Run text: ST0104I Sample text: ST0104I ;2nd Source 09DXN449
Run #6 Filename: 04JA10B5D2 S: 8 I: 1 Results: 04JA10B5D2DB225
Acquired: 5-JAN-10 01:59:23 Processed: 5-JAN-10 07:32:10
Run: 04JA10B5D2 Analyte: DB225 Cal: DB2250104105D2
Factor 1: 400.000 Factor 2: 20.000 Sample size: 1.000000

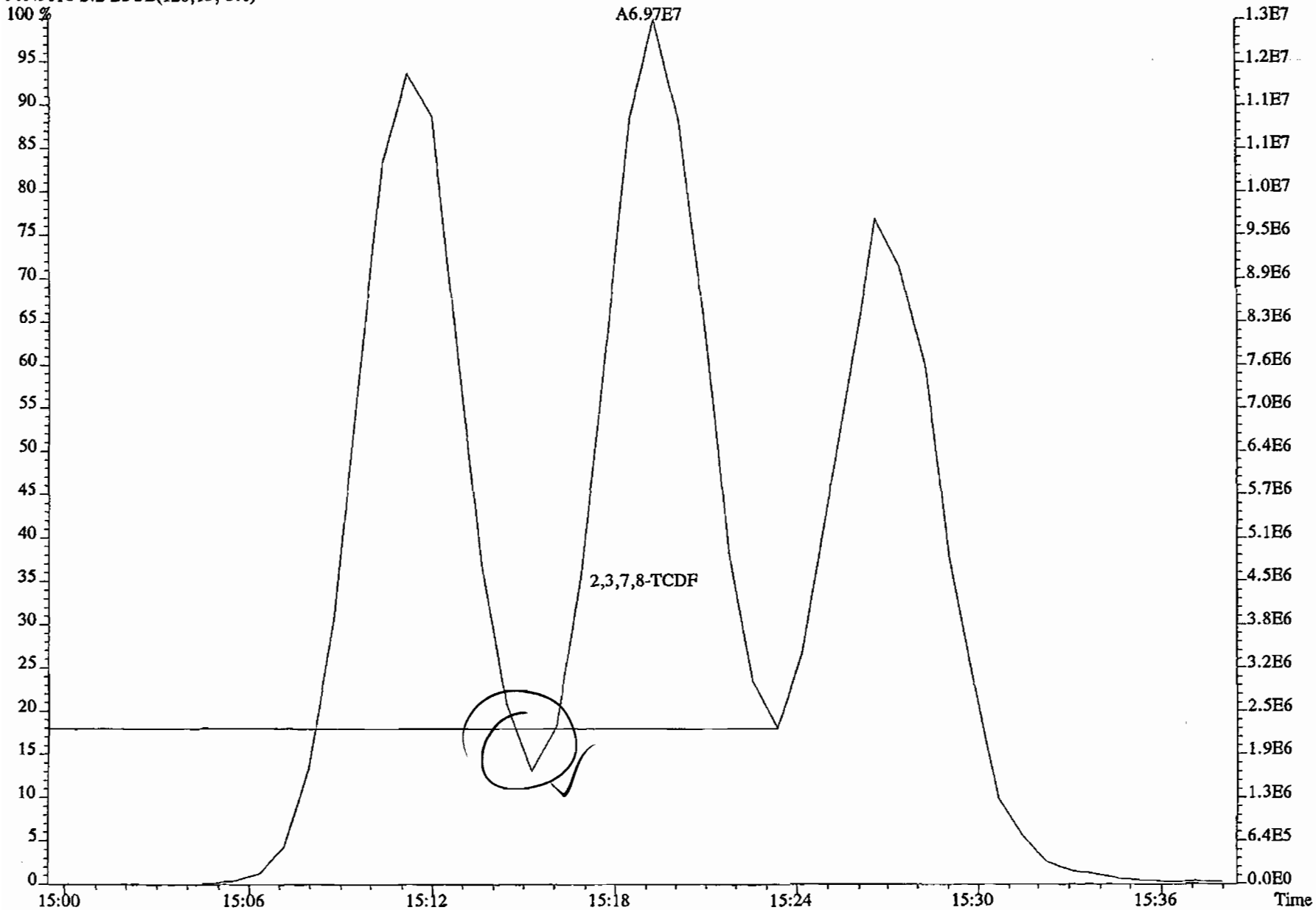
Name	Resp	RA		RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	231493400	0.75	y	14:21	-	107.01	-	-	n
13C-2,3,7,8-TCDF	411344000	0.79	y	15:29	1.66	2136.22	5.10	106.8	n
2,3,7,8-TCDF	39223200	0.79	y	15:30	1.01	188.17	2.13	-	n
13C-2,3,7,8-TCDD	223989400	0.75	y	14:08	0.95	2034.51	6.92	101.7	n
2,3,7,8-TCDD	26173300	0.82	y	14:09	1.18	197.63	2.54	-	n
37Cl-2,3,7,8-TCDD	54459400	1.00	y	14:09	2.07	227.53	1.20	113.8	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
11FE105D2	1	ST0211	CS3 09DXN425				1.000	
11FE105D2	2	CP0211	DB-225 CPSM 3732-01				1.000	
11FE105D2	3	SB0211	Solvent Blank C-14				1.000	
11FE105D2	4	LTMF0-1-AA	G0A220427-23	20	8290/SOLID	3	10.450	g
11FE105D2	5	LTMFX-1-AA	G0A220427-22	20	8290/SOLID		10.760	g
11FE105D2	6	LTMFT-1-AA	G0A220427-19	20	8290/SOLID		10.470	g
11FE105D2	7	LTMFW-1-AA	G0A220427-21	20	8290/SOLID		10.130	g
11FE105D2	8	LTMF2-1-AA	G0A220427-25	20	8290/SOLID		10.040	g
11FE105D2	9	LTMFP-1-AA	G0A220427-16	20	8290/SOLID		10.140	g
11FE105D2	10	LTMFQ-1-AA	G0A220427-17	20	8290/SOLID		10.600	g
11FE105D2	11	LTMFQ-1-ACS	G0A220427-17S	20	8290/SOLID		10.790	g
11FE105D2	12	LTMFQ-1-ADD	G0A220427-17D	20	8290/SOLID		10.700	g
11FE105D2	13	LTMFR-1-AA	G0A220427-18	20	8290/SOLID		10.150	g
11FE105D2	14	LTMC5-1-AA	G0A220427-1	20	8290/SOLID		10.100	g
11FE105D2	15	LTME5-1-AA	G0A220427-6 (10X)	20	8290/SOLID		10.220	g
11FE105D2	16	LTMFD-1-AA	G0A220427-11 (10X)	20	8290/SOLID		10.220	g
11FE105D2	17	SB0211A	Solvent Blank C-14				1.000	
11FE105D2	18	ST0211A	CS3 09DXN425				1.000	
11FE105D2	19	CP0211A	DB-225 CPSM 3732-01				1.000	
11FE105D2	20	SB0211B	Solvent Blank C-14				1.000	
11FE105D2	21	LTRE4-1-AA	G0A260482-2	20	1613B/WATER	6	1.060	L
11FE105D2	22	LT1MV-1-AF	F0A300427-1	20	8290/SOLID	7	10.360	g
11FE105D2	23	LT1MW-1-AF	F0A300427-2	20	8290/SOLID		10.220	g
11FE105D2	24	LT1MX-1-AF	F0A300427-3	20	8290/SOLID		10.350	g
11FE105D2	25	LT1M0-1-AF	F0A300427-4	20	8290/SOLID		10.215	g
11FE105D2	26	LT1M0-1-ANS	F0A300427-4S	20	8290/SOLID		10.150	g
11FE105D2	27	LT1M0-1-APD	F0A300427-4D	20	8290/SOLID		10.110	g
11FE105D2	28	LT1M2-1-AF	F0A300427-6	20	8290/SOLID		10.360	g
11FE105D2	29	LT05T-1-AA	F0A290479-17	20	8290/SOLID	6	10.200	g
11FE105D2	30	LT05V-1-AA	F0A290479-18	20	8290/SOLID		10.680	g
11FE105D2	31	LT4G5-1-AF	F0B020513-3	20	8290/SOLID	7	10.090	g
11FE105D2	32	LT4G5-1-ANS	F0B020513-3S	20	8290/SOLID		10.485	g
11FE105D2	33	LT4G5-1-APD	F0B020513-3D	20	8290/SOLID		10.000	g
11FE105D2	34	LT05P-1-AA	F0A290479-16	20	8290/SOLID	6	10.790	g
11FE105D2	35	LT1M1-1-AF	F0A300427-5	20	8290/SOLID	7	10.280	g
11FE105D2	36	SB0211C	Solvent Blank C-14				1.000	
11FE105D2	37	ST0211B	CS3 09DXN425				1.000	
11FE105D2	38	CP0211B	DB-225 CPSM 3732-01				1.000	
11FE105D2	39	SB0211D	Solvent Blank C-14				1.000	
11FE105D2	40	LT4HC-1-AF	F0B020513-5	20	8290/SOLID	7	10.220	g
11FE105D2	41	LT4G8-1-AF	F0B020513-4	20	8290/SOLID		10.280	g
11FE105D2	42	LT4G3-1-AF	F0B020513-2	20	8290/SOLID		10.440	g
11FE105D2	43	LT4GV-1-AF	F0B020513-1	20	8290/SOLID		10.385	g
11FE105D2	44	LTT89-1-AF	F0A270484-8	20	8290/SOLID	2	10.490	g
11FE105D2	45	LTT9E-1-AF	F0A270484-9	20	8290/SOLID		10.025	g
11FE105D2	46	LTT9E-1-ANS	F0A270484-9S	20	8290/SOLID		10.070	g
11FE105D2	47	LTT9E-1-APD	F0A270484-9D	20	8290/SOLID		10.065	g
11FE105D2	48	LTT9G-1-AF	F0A270484-10	20	8290/SOLID		10.255	g
11FE105D2	49	LTT9J-1-AF	F0A270484-11	20	8290/SOLID		10.070	g
11FE105D2	50	LTT9L-1-AF	F0A270484-12	20	8290/SOLID		10.175	g
11FE105D2	51	LT0FK-2-AF	F0A290475-2RX	20	8290/SOLID	11	10.045	g
11FE105D2	52	LTRMQ-1-AA	G0A260507-6	20	1613B/BIOLOGIC	8	10.300	g
11FE105D2	53	LT4G2-1-AA	G0B020514-1	20	1613B/WATER		1.000	

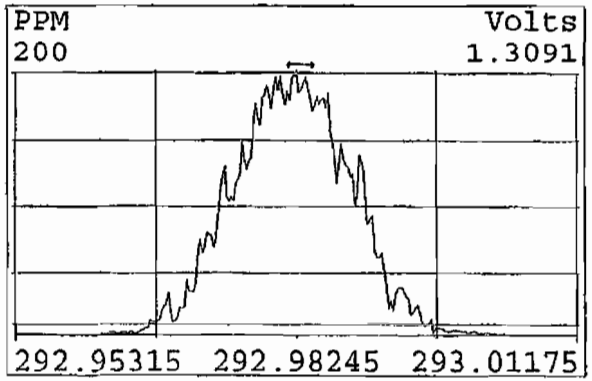
11FE105D2	54	LVEJC-1-AAB	G0B080000-354 (548-1MB)	20	1613B/WATER		1.000	L
11FE105D2	55	SB0211E	Solvent Blank C-14				1.000	
11FE105D2	56	ST0211C	CS3 09DXN425				1.000	
FE105D2	57	CP0211C	DB-225 CPSM 3732-01				1.000	
11FE105D2	58	SB0211F	Solvent Blank C-14				1.000	
11FE105D2	59	LT4G9-1-AA	G0B020514-2	20	1613B/WATER	8	1.048	L
11FE105D2	60	LTRGH-1-AA	G0A260482-4	20	1613B/SOLID	9	10.020	g
11FE105D2	61	LT0JE-2-AF	F0A290479-13RX	20	8290/SOLID	11	10.125	g
11FE105D2	62	LT0HA-2-AF	F0A290479-4RX	20	8290/SOLID		10.075	g
11FE105D2	63	LT0H5-2-AF	F0A290479-10RX	20	8290/SOLID		10.125	g
11FE105D2	64	LT0GL-2-AF	F0A290479-2RX	20	8290/SOLID		10.155	g
11FE105D2	65	LT0HL-2-AF	F0A290479-7RX	20	8290/SOLID		10.045	g
11FE105D2	66	LT0GF-2-AF	F0A290479-1RX	20	8290/SOLID		10.160	g
11FE105D2	67	LT0H9-2-AF	F0A290479-12RX	20	8290/SOLID		10.320	g
11FE105D2	68	LT0H7-2-AF	F0A290479-11RX	20	8290/SOLID		10.060	g
11FE105D2	69	LT0H0-2-AF	F0A290479-8RX	20	8290/SOLID		10.055	g
11FE105D2	70	LT0GM-2-AF	F0A290479-3RX	20	8290/SOLID		10.100	g
11FE105D2	71	LT0HD-2-AF	F0A290479-5RX (20X)	20	8290/SOLID		10.075	g
11FE105D2	72	LT0HD-2-ANS	F0A290479-5MSRX (20X)	20	8290/SOLID		10.110	g
11FE105D2	73	LT0HD-2-APD	F0A290479-5SDRX (20X)	20	8290/SOLID		10.035	g
11FE105D2	74	SB0211E	Solvent Blank C-14				1.000	
11FE105D2	75	ST0211~~C~~D 2/11/10 KSS	CS3 09DXN425				1.000	
11FE105D2	76	CP0211C	DB-225 CPSM 3732-01				1.000	
11FE105D2	77	SB0211E	Solvent Blank C-14				1.000	
11FE105D2	78	LT0H2-2-AF	F0A290479-9RX	20	8290/SOLID	11	10.075	g
11FE105D2	79	LT0HE-2-AF	F0A290479-6RX	20	8290/SOLID		10.095	g
11FE105D2	80	LT0HE-2-ANS	F0A290479-6MSRX	20	8290/SOLID		10.040	g
11FE105D2	81	LT0HE-2-APD	F0A290479-6SDRX	20	8290/SOLID		10.030	g
FE105D2	82	SB0211E	Solvent Blank C-14				1.000	
FE105D2	83	ST0211~~D~~E	CS3 09DXN425				1.000	
11FE105D2	84	2/11/10 KSS					1.000	
11FE105D2	85						1.000	
11FE105D2	86						1.000	
11FE105D2	87		KSS 02-11-10				1.000	
11FE105D2	88		AM 02-12-10				1.000	

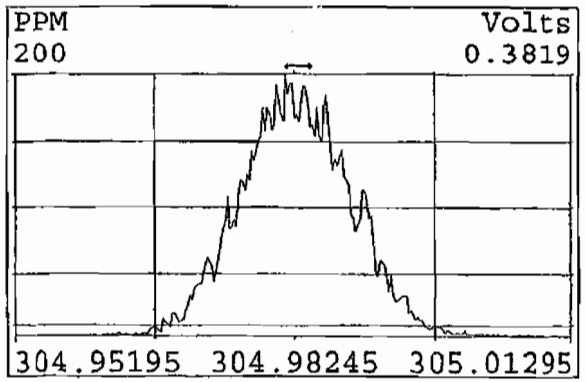
LOGFILE ✓ 2-14-10 KSS

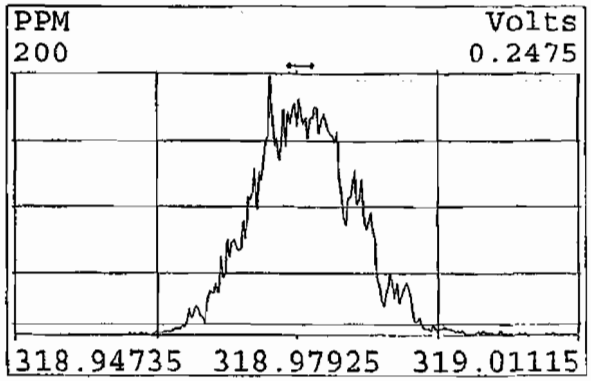
File:11FE105D2 #1-591 Acq:11-FEB-2010 09:51:40 GC EI+ Voltage SIR 70SE
Sample#2 Text:CP0211 :DB-225 CPSM 3732-01 Exp:DB225
303.9016 S:2 BSUB(128,15,-3.0)

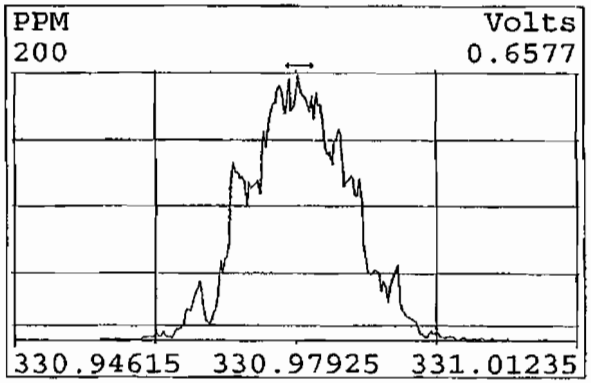


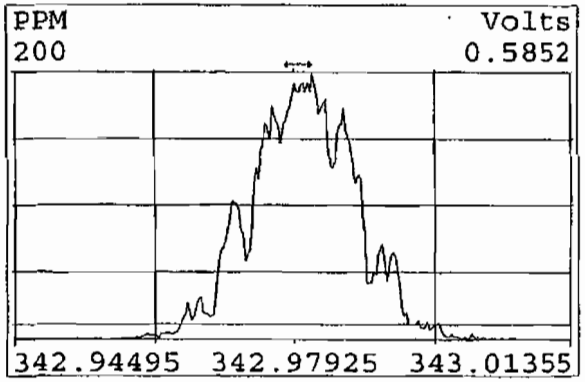
Peak Locate Examination:11-FEB-2010:09:14 File:11FE105D2
Experiment:DB225 Function:1 Reference:PFK

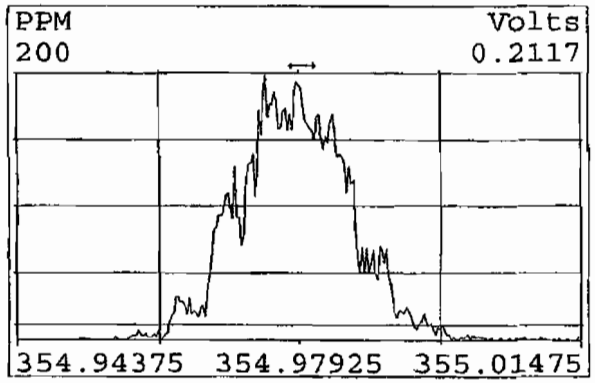


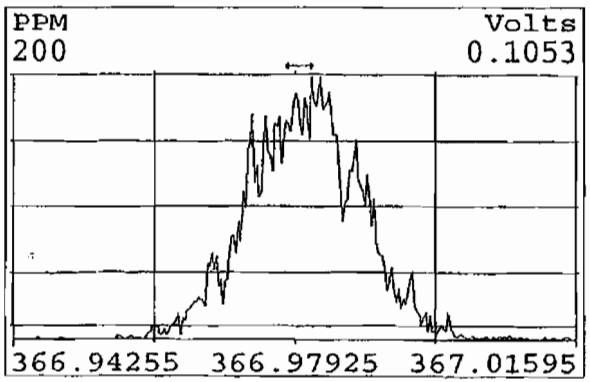


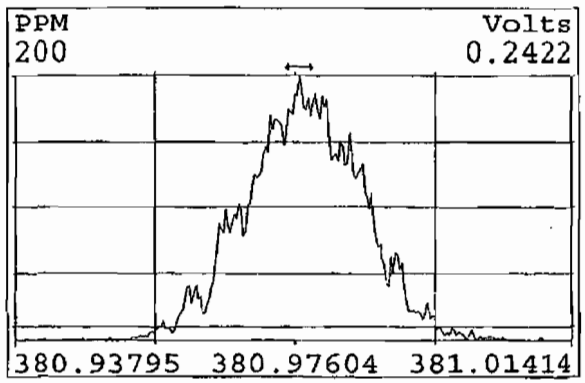




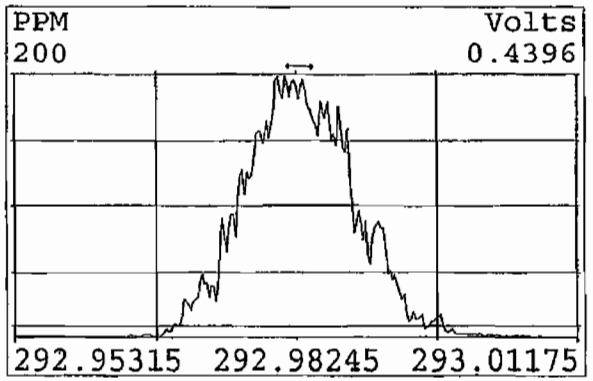


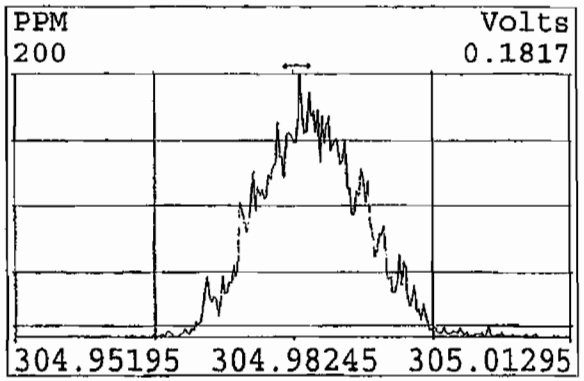


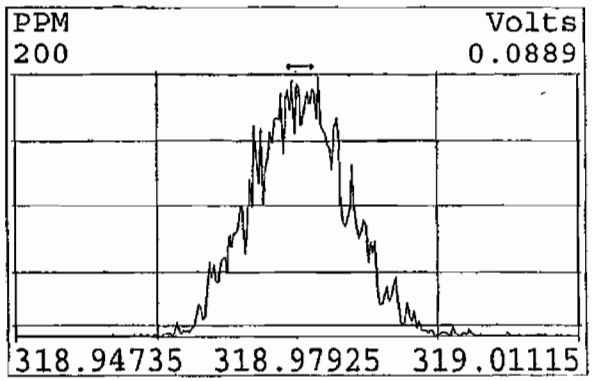


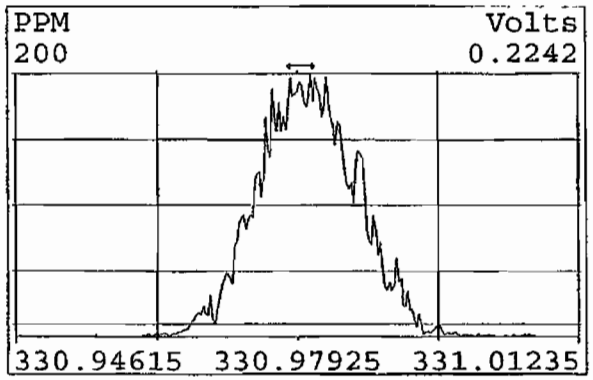


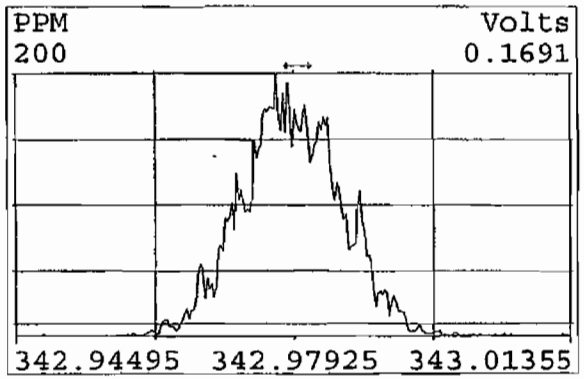
Peak Locate Examination:13-FEB-2010:13:03 File:11FE105D2ENDRES
Experiment:DB225 Function:1 Reference:PFK

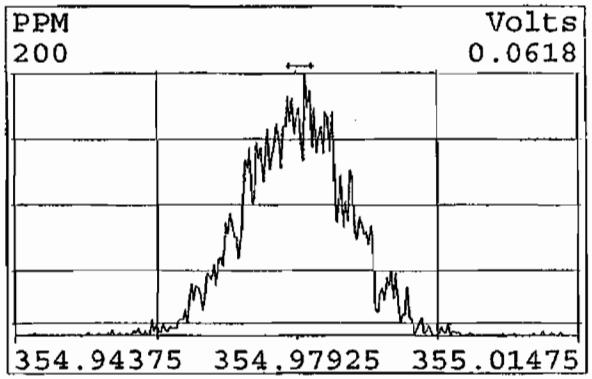


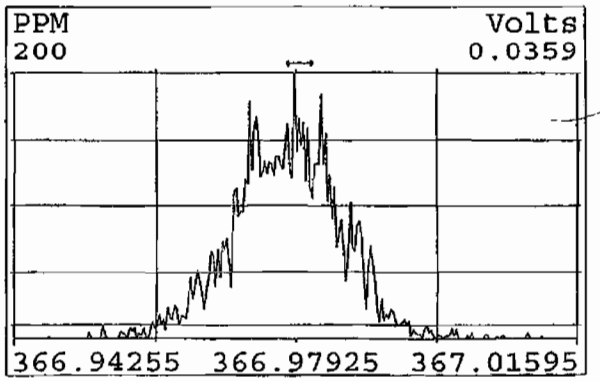


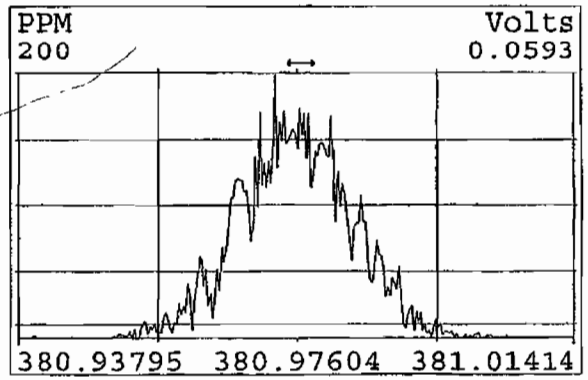












Run text: ST0211 File text: ST0211 :CS3 09DXN425
Run #6 Filename 11FE105D2 S: 1 I: 1
Acquired: 11-FEB-10 09:14:37 Processed: 11-FEB-10 13:20:16
Run: 11FE105D2 Analyte: DB225 Cal: DB2250104105D2 Results: 11FE105D2DB225

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	69037600	0.79	y	14:11	-	100.00	-	n
13C-2,3,7,8-TCDF	124516700	0.83	y	15:17	1.80	100.00	8.4	n
2,3,7,8-TCDF	12738560	0.80	y	15:18	1.02	10.00	0.9	n
13C-2,3,7,8-TCDD	70680000	0.78	y	13:56	1.02	100.00	7.6	n
2,3,7,8-TCDD	8169130	0.87	y	13:58	1.16	10.00	-2.3	n
37Cl-2,3,7,8-TCDD	15133960	1.00	y	13:58	2.19	10.00	6.0	n

Run text: ST0211A File text: ST0211A :CS3 09DXN425
Run #21 Filename 11FE105D2 S: 18 I: 1
Acquired: 11-FEB-10 19:44:30 Processed: 11-FEB-10 20:06:27
Run: 11FE105D2 Analyte: DB225 Cal: DB2250104105D2 Results: 11FE105D2DB225

Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	77603800	0.77 y	14:12	-	100.00	-	n
13C-2,3,7,8-TCDF	143891100	0.82 y	15:18	1.85	100.00	11.5	n
2,3,7,8-TCDF	14715370	0.80 y	15:19	1.02	10.00	0.9	n
13C-2,3,7,8-TCDD	77253300	0.79 y	13:58	1.00	100.00	4.7	n
2,3,7,8-TCDD	9265040	0.87 y	13:59	1.20	10.00	1.4	n
37Cl-2,3,7,8-TCDD	16507960	1.00 y	13:59	2.13	10.00	2.9	n

TestAmerica West Sacramento
High Resolution Prep Log
Dioxin/Furan AQ Extraction

Box # 100

Shared QC Batch: Same

Shares QC With: NA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Internal COC:	
Delivered to Inst.:	1/29/10
Inst Receipt:	

Batch: 0028223

MS Run #:

Prep Date: 1/28/2010

Method: IN 8290

Matrix: I WATER

Extraction: 09 LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

QC: 01 STANDARD TEST SET

SAC: IN - I - 09 - 01

Prep Reagents

Reagent	Supplier	Lot #
DCM	Baker	H36500
Hexane	Baker	H58E04
H2SO4	Baker	NA
20% DCM:Hexane	NA	3030-47A
65% DCM:Hexane	NA	3030-47E
1:1 DCM:Cyclohexane	NA	NA
75:20:5 DCM:Hexane:Benzene	NA	NA
Silica Gel	[illegible]	22-22
Acid Alumina	MPBio	18
5% Carbon:Silica Gel	NA	NA

Extraction Table

Sample ID	Suff	Work Order	Extraction Hold Time Expires	Sample size * 1000mL nom.	Final Volume 20uL	Final Volume Other	Analysis Hold Time Expires	Initial weight	Final weight
G0A200539 - 2		LTFH11AA	2/18/2010	1028.0	—		3/14/2010	1523.2	495.2
G0A200539 - 3		LTFJN1AH	2/18/2010	995.3	—		3/14/2010	1487.6	491.7
G0A200539 - 4		LTFJT1AH	2/17/2010	1059.7	—		3/14/2010	1555.4	495.7
G0A200539 - 4	S	LTFJT1CW	2/17/2010	1013.9	—		3/14/2010	1505.1	491.2
G0A200539 - 4	D	LTFJT1CX	2/17/2010	1034.1	—		3/14/2010	1530.9	496.8
G0A200539 - 5		LTFKA1AG	2/17/2010	999.9	—		3/14/2010	1490.8	491.9
G0A200539 - 6		LTFKE1AG	2/17/2010	895.3	—		3/14/2010	1390.7	495.4
G0A200539 - 7		LTFKG1AG	2/17/2010	1005.1	—		3/14/2010	1500.8	495.7
G0A200539 - 8		LTFKN1AG	2/18/2010	1040.4	—		3/14/2010	1536.1	495.7
G0A200539 - 9		LTFKR1AG	2/18/2010	1029.2	—		3/14/2010	1524.9	495.7
G0A200539 - 10		LTFKT1AG	2/18/2010	982.0	—		3/14/2010	1477.5	495.5
G0A210537 - 1		LTH771AA	2/17/2010	910.2	—	1/29/10	3/14/2010	1406.7	496.5
G0A220427 - 31		LTMGF1AA	2/20/2010	1038.0	—		3/14/2010	1535.5	497.5
G0A220495 - 1		LTLTL1AA	2/19/2010	968.8	—		3/14/2010	1464.1	495.3
G0A220497 - 1		LTLT11AA	2/19/2010	1037.3	—		3/14/2010	1532.6	495.3
G0A220501 - 1		LTLT81AA	2/19/2010	1041.6	—		3/14/2010	1537.1	495.5
G0A280000 - 223	B	LTWME1AA	2/18/2010	1000.0	—		3/14/2010	NA	NA
G0A280000 - 223	C	LTWME1AC	2/18/2010	1000.0	—		3/14/2010		

* See attached sheet for sample volumes recorded from scale

Comments/NCMs:

	ID	Spike Exp Date:	Spiked By:	Witnessed By:	Date:
Internal Standard All Samples	1ml 100XN045	10/31/10	BG	[illegible]	1/28/10
Spike Mix LCS/LCSD/MS/MS	50ul 100XN055	1/11/11	BG	[illegible]	1/28/10
Cleanup Standard All Samples	1.0ml 100XN047	1/27/11	MC	[illegible]	1/29/10
Recovery Standard All Samples	20ul 09DXN388	11/19/10	—	T.L	1/29/10
Liq Liq Extraction Analyst/Date	BG 1/28/10				

Split/Archive Analyst/Date	Option C Analyst/Date	IFB Analyst/Date	D2 Analyst/Date
—	—	MC 1/29/10	—

TestAmerica West Sacramento

Data Checklist
HRGCMS/LRGCMS Analyses

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Batch #: 0028223 Method ID: 8290

	DB-5	DB-225
Data Analyst:	VP	NA
Date initiated:	2.2.10	
Reviewer:	MAW	
Date reviewed:	1/9/10	

QA/QC verification:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Daily standard package(s) present?	✓	✓	NA	
-Method Blank present?	✓	✓		
-LCS/DCS copy present and meets native recovery criteria?	✓	✓		
-Internal standard recoveries within limits?*	✓	✓		
-Ion ratios within + 15% of theoretical values?	NA	NA		
-Other QC (Dup,MS,SD) within specs?**	NA	NA		

Sample Analysis:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Correct sample aliquot used?	✓	✓		
-All raw data present?	✓	✓		
-Standard target DL's used? If RL's are used specify:	✓	✓		
-DL's below TDL / LCL (please circle)?	✓	✓		
-All positives reported at levels greater than method blank DL's?	✓	✓		
-Correct RRF's used for method?	✓	✓		
-Internal standard amounts correct for method?	✓	✓		
-Target analytes are not saturated?	✓	✓		
-Dilution/splitting of extract taken into account?	NA	NA		
-Have dilution calculations been verified?	NA	NA		
-Has a manual calculation for the sequence(s) been verified?	✓	✓		
-Are retention times (RT) correct?	✓	✓		
-Manual integrations checked?	NA	NA		

Comments: (Use other side if necessary)
① See NCM

* Recovery limits:		**RPD limits:
NCASI 551:	40-120%***	50%
Method 8290:	40-135%***	20%
Method 1613:	25-150%***	50%
Method 23:	40-130%***(Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr.)	50%
PCBs:	25-150%***	50%
Method 8280:	40-120%***	
DFLM01.0:	25-150%***	
Method 1614	25-150%***	

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

QA-371 07/99 MAF

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 1/29/10
Time: 12:28:18

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
_	_	MS/MSD	Y	_	Vial contains correct volume
			Y	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: 403613 Brent Ginn

Concentrationist: 006625 Elizabeth Nguyen

QC BATCH: 0028223

PREP DATE: 1/28/10 11:00
COMP DATE: 1/29/10 17:00

Reviewer/Date: NGUYENE / 1/29/10

Dioxins/Furans, HRGC/HRMS (8290)
LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJT	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/18/10	2/08/10	G0A200539-002 **LTFH1-1-AA**	D	09	IN	WATER	**1028.0mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/18/10	2/08/10	G0A200539-003 **LTFJN-1-AH**	D	09	IN	WATER	**995.3mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A200539-004 **LTFJT-1-AH**	D	09	IN	WATER	**1059.7mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A200539-004 **LTFJT-1-CWS**	D	09	IN	WATER	**1013.9mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	50UL NS10DXN005 1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A200539-004 **LTFJT-1-CXD**	D	09	IN	WATER	**1034.1mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	50UL NS10DXN005 1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A200539-005 **LTFKA-1-AG**	D	09	IN	WATER	**999.4mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A200539-006 **LTFKE-1-AG**	D	09	IN	WATER	**895.3mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 1/29/10
Time: 12:28:18

QC BATCH: 0028223

PREP DATE: 1/28/10 11:00
COMP DATE: 1/29/10 17:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/17/10	2/08/10	G0A200539-007 **LTFKG-1-AG**	D	09	IN	WATER	**1005.1mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/18/10	2/08/10	G0A200539-008 **LTFKN-1-AG**	D	09	IN	WATER	**1040.4mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/18/10	2/08/10	G0A200539-009 **LTFKR-1-AG**	D	09	IN	WATER	**1029.2mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/18/10	2/08/10	G0A200539-010 **LTFKT-1-AG**	D	09	IN	WATER	**982.0mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/17/10	2/08/10	G0A210537-001 **LTH77-1-AA**		09	IN	WATER	**910.2mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/19/10	2/10/10	G0A220495-001 **LTLTL-1-AA**		09	IN	WATER	**968.8mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/19/10	2/10/10	G0A220497-001 **LTLT1-1-AA**		09	IN	WATER	**1037.3mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/19/10	2/10/10	G0A220501-001 **LTLT8-1-AA**		09	IN	WATER	**1041.6mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-031 **LTMGF-1-AA**	D	09	IN	WATER	**1038.0mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															
2/18/10	0/00/00	G0A280000-223 **LTWME-1-AAB**		09	IN	WATER	**1000.0mL** 20.00uL	NA	NA	NA	DCM	300.0	C-14	20.0	1.0ML IS10DXN045
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 1/29/10
Time: 12:28:18

QC BATCH: 0028223

PREP DATE: 1/28/10 11:00
COMP DATE: 1/29/10 17:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
		G0A280000-223													
2/18/10	0/00/00	**LTWME-1-ACC**		09	IN	WATER		NA	NA	NA	DCM	300.0	C-14	20.0	50UL NS10DXN005
COMMENTS:							20.00uL								1.0ML IS10DXN045

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
‡

NUMBER OF WORK ORDERS IN BATCH: 18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 0028223 Test: 8290

Prep Date: 1/28/10 Holding Times: 2/17/10 2/19/10 NCM: Y N

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate	✓	✓
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	✓
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	✓
5. Spiking volumes are correctly documented	✓	✓
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	✓
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	✓
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	✓
2. Balance upload or raw data for weights is included	NA	✓
3. Weights and volumes have been transcribed correctly to LIMS.	NA	✓
4. Weights are not targeted to meet exact weights.	NA	✓
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	✓
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	✓
2. Are dates and analysts for cleanups recorded?	NA	✓
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	✓
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	✓
2. QuantIMs entry correct, including dates and times.	NA	✓
3. Are all fields completed?	NA	✓

Spike witness: [illegible] Date: 1-28-10

2nd Level Reviewer: [illegible] Date: 2/8/10

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 **Associated ICAL** 8290123109ID5

Column ID DB5 **Instrument ID** ID5

STD ID STD129, STD129A **STD Solution** 09DX,N425

Analyzed by M.G. **Date Analyzed** 1/29/10, 1/30/10

Std. Pkg. By M.G. **Date Std. Pkg. Assembled** 2/1/10

Std. Pkg. Reviewed By [illegible] **Date Std. Pkg. Reviewed** 2/1/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	~~NA~~ ✓ ML 2/1/10	✓
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (for 1613B only)	NA	NA

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.

Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria:** 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet

Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

TestAmerica West Sacramento

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THE LEADER IN ENVIRONMENTAL TESTING

Data Checklist
HRGCMS/LRGCMS Analyses

Batch #: 0028433 Method ID: 8290

	DB-5	DB-225
Data Analyst:	8290	8290
Date initiated:	02/16/10	02/16/10
Reviewer:	[illegible]	[illegible]
Date reviewed:	2/16 to 2/17/10	2/16 to 2/17/10

QA/QC verification:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Daily standard package(s) present?	✓	✓	✓	✓
-Method Blank present?	✓	✓	NA	NA
-LCS/DCS copy present and meets native recovery criteria?	✓	✓	NA	NA
-Internal standard recoveries within limits?*	✓	✓	✓	✓
-Ion ratios within + 15% of theoretical values?	✓	✓	✓	✓
-Other QC (Dup,MS,SD) within specs?**	(2)	✓	(3)	✓

Sample Analysis:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Correct sample aliquot used?	✓	✓	✓	✓
-All raw data present?	✓	✓	✓	✓
-Standard target DL's used? If RL's are used specify:_____	✓	✓	✓	✓
-DL's below TDL / LCL (please circle)?	(4)	✓	✓	✓
-All positives reported at levels greater than method blank DL's?	✓	✓	✓	✓
-Correct RRF's used for method?	✓	✓	✓	✓
-Internal standard amounts correct for method?	✓	✓	✓	✓
-Target analytes are not saturated?	✓	✓	✓	✓
-Dilution/splitting of extract taken into account?	✓	✓	✓	✓
-Have dilution calculations been verified?	✓	✓	✓	✓
-Has a manual calculation for the sequence(s) been verified?	✓	✓	✓	✓
-Are retention times (RT) correct?	✓	✓	✓	✓
-Manual integrations checked?	✓	✓	NA	NA

Comments: (Use other side if necessary)

* Recovery limits:		**RPD limits:
NCASI 551:	40-120%***	50%
Method 8290:	40-135%***	20%
Method 1613:	25-150%***	50%
Method 23:	40-130%***(Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr.)	50%
PCBs:	25-150%***	50%
Method 8280:	40-120%***	
DFLM01.0:	25-150%***	
Method 1614	25-150%***	

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

QA-371 07/99 MAF

TestAmerica West Sacramento
High Resolution Prep Log
Dioxin/Furan Solid Analysis

Box # 3

Shared QC Batch: 2/1/10 ~~0026416~~ Same

Shares QC With: LN

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Internal COC:	
Delivered to Inst.:	L 2/3/10
Inst Receipt:	

Batch: 0028433

MS Run #:

Prep Date: 1/28/2010

Method: IN 8290

Matrix: A SOLID

Extraction: 4W SOXHLET (NOMINAL)

QC: 01 STANDARD TEST SET

SAC: IN - A - 4W - 01

Soxhlet time on: 2045 Soxhlet time off: 1245

Prep Reagents

Reagent	Supplier	Lot #
Toluene	Baker	H37N53
Hexane	Baker	H33E04
H2SO4	Baker	NA
20% DCM:Hexane	NA	3630-47A
65% DCM:Hexane	NA	3630-47E
1:1 DCM:Cyclohexane	NA	NA
75:20:5 DCM:Hexane:Benzene	NA	NA
Silica Gel	Whatman	22-22
Acid Alumina	MP Bio	18
5% Carbon:Silica Gel	NA	NA

Extraction Table

Sample ID	Suff	Work Order	Extraction Hold Time Expires	Sample size * 10g nom.	Final Volume 20uL	Final Volume Other	Analysis Hold Time Expires
G0A220427 - 1		LTMC51AA	2/20/2010	10.10			3/14/2010
G0A220427 - 6		LTME51AA	2/20/2010	10.22			3/14/2010
G0A220427 - 11		LTMFD1AA	2/20/2010	10.07			3/14/2010
G0A220427 - 16		LTMFP1AA	2/20/2010	10.14			3/14/2010
G0A220427 - 17		LTMFQ1AA	2/20/2010	10.00			3/14/2010
G0A220427 - 17	S	LTMFQ1AC	2/20/2010	10.10			3/14/2010
G0A220427 - 17	D	LTMFQ1AD	2/20/2010	10.10			3/14/2010
G0A220427 - 18		LTMFR1AA	2/20/2010	10.15			3/14/2010
G0A220427 - 19		LTMFT1AA	2/20/2010	10.47			3/14/2010
G0A220427 - 20		LTMFV1AA	2/20/2010	10.14		L	3/14/2010
G0A220427 - 21		LTMFW1AA	2/20/2010	10.13		2/3/10	3/14/2010
G0A220427 - 22		LTMFX1AA	2/20/2010	10.10			3/14/2010
G0A220427 - 23		LTMF01AA	2/20/2010	10.45			3/14/2010
G0A220427 - 24		LTMF11AA	2/20/2010	10.00			3/14/2010
G0A220427 - 25		LTMF21AA	2/20/2010	10.54			3/14/2010
* G0A280000 - 433	B	LTXGG1AA	2/20/2010	10.10			3/14/2010
* G0A280000 - 433	C	LTXGG1AC	2/20/2010	10.10			3/14/2010

* See attached sheet for sample volumes recorded from scale

Comments/NCMs: * MB + LCS got split for 1/2. 2/1/10.

	ID	Spike Exp Date:	Spiked By:	Witnessed By:	Date:
Internal Standard All Samples	1.0mL 10DXN045	10.31.10	OC	VJ	1.28.10
Spike Mix LCS/LCSD/MS/MS	50.0mL 10DXN045	1.11.11	OC	VJ	1.28.10
Cleanup Standard All Samples	1.0mL 10DXN047	01/27/2011	L	T.L	02/03/10
Recovery Standard All Samples	20.0ul 09DXN388	11/19/10	L	[illegible]	2/5/10
Soxhlet Extraction Analyst/Date	OC/1.28.10	SCREENING ~~Split/Archive~~ Analyst/Date	Option C Analyst/Date	IFB Analyst/Date	D2 Analyst/Date
		10mL MB/LCS 5mL			
		JW 1/29/10	—	T.L 02/03/10	—

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/03/10
Time: 14:32:30

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
Y	_	MS/MSD	Y	_	Vial contains correct volume
			Y	_	Labels, greenbars, worksheets
				_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: 002084 Ceasar Cortez

Concentrationist: 006625 Elizabeth Nguyen

QC BATCH: 0028433

PREP DATE: 1/28/10 20:45
COMP DATE: 2/03/10 12:45

Reviewer/Date: NGUYENE / 2/03/10

Dioxins/Furans, HRGC/HRMS (8290)
SOXHLET (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJT	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/20/10	2/10/10	G0A220427-001 **LTMC5-1-AA**	D	4W	IN	SOLID	**10.10g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-006 **LTME5-1-AA**	D	4W	IN	SOLID	**10.22g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-011 **LTMFD-1-AA**	D	4W	IN	SOLID	**10.07g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-016 **LTMFP-1-AA**	D	4W	IN	SOLID	**10.14g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-017 **LTMFQ-1-AA**	D	4W	IN	SOLID	**10.60g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-017 **LTMFQ-1-ACS**	D	4W	IN	SOLID	**10.79g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	50.0UL NS 10DXN005 1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-017 **LTMFQ-1-ADD**	D	4W	IN	SOLID	**10.70g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	50.0UL NS 10DXN005 1.0ML IS 10DXN045
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/03/10
Time: 14:32:30

QC BATCH: 0028433

PREP DATE: 1/28/10 20:45
COMP DATE: 2/03/10 12:45

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/20/10	2/10/10	G0A220427-018 **LTMFR-1-AA**	D	4W	IN	SOLID	**10.15g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-019 **LTMFT-1-AA**	D	4W	IN	SOLID	**10.47g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-020 **LTMFV-1-AA**	D	4W	IN	SOLID	**10.14g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-021 **LTMFW-1-AA**	D	4W	IN	SOLID	**10.13g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-022 **LTMFX-1-AA**	D	4W	IN	SOLID	**10.76g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-023 **LTMF0-1-AA**	D	4W	IN	SOLID	**10.45g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-024 **LTMF1-1-AA**	D	4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	2/10/10	G0A220427-025 **LTMF2-1-AA**	D	4W	IN	SOLID	**10.04g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	0/00/00	G0A280000-433 **LTXGG-1-AAB**		4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN045
COMMENTS:															
2/20/10	0/00/00	G0A280000-433 **LTXGG-1-ACC**		4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	50.0UL NS 10DXN005 1.0ML IS 10DXN045
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
‡

NUMBER OF WORK ORDERS IN BATCH: 17

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 0020B433 **Test:** BETMS

Prep Date: 1-28-10 **Holding Times:** 2.20.10 **NCM:** Y (N)

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate		
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	
5. Spiking volumes are correctly documented	✓	
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	
2. Balance upload or raw data for weights is included	NA	
3. Weights and volumes have been transcribed correctly to LIMS.	NA	
4. Weights are not targeted to meet exact weights.	NA	
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	
2. Are dates and analysts for cleanups recorded?	NA	
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	
2. QuantIMs entry correct, including dates and times.	NA	
3. Are all fields completed?	NA	

Spike witness: [signature] Date: 1-28-10

2nd Level Reviewer: [signature] Date: 2/3/10

Comments:

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THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Sample Dilution Record

Method ID 8290 **Lot #** G0A220427

Analyst (Print Name) Kyle Stephens **Analyst Initials** KSS

Date 2/10/10

Sample#	Original F.V. (uL)	Aliquot (uL)	Dilution F.V. (uL)	Dilution Factor
-6	20	2.0	20	10x
-11	20	2.0	20	10x

Comments:

matrix

Test America – West Sacramento

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (8290, 1613, T09, 23, 0023A, TETRAS) 123109ID5

Method ID 8290, 1613B, T09, 23, 0023A

Date Scanned 01/11/10

Column ID DB5

Instrument ID ID5

STD ID's ST1231(B,C,D,E,F)

STD Solution 09DXN(422, 423, 425, 426, 456)

GC Program OCDD

Multiplier Setting 270

Analyzed By A.M.

Date Analyzed 12/31/09, ~~1/1~~ 1/1/10 AM 1/4/10

Prepared By M.G.

Date Prepared 1/4/10

Reviewed By JRB

Date Reviewed 1/4/10

ANALYSIS DATA CHECKLIST	INITIATED	REVIEWED
Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓	✓
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS: CS2 Retention Times: 13C-1,2,3,4-TCDD 18:40
13C-1,2,3,7,8,9-HxCDD 32:49

*Method 8290/TO9/M0023A: %RSD ≤20% for natives, ≤30% for labeled compounds; S/N≥10
Method 1613B: %RSD≤ 20% natives, ≤30% labeled compounds; S/N ≥10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 **Associated ICAL** 829002041 04 D5

Column ID DB 5 **Instrument ID** 4 D5

STD ID ST0208C, ST0208D **STD Solution** 09 OXN425

Analyzed by AM, KSS, KT **Date Analyzed** ~~2-8-10~~ JRB 2/10/10 2-9-10, 2-10-10

Std. Pkg. By SH **Date Std. Pkg. Assembled** 2-10-10

Std. Pkg. Reviewed By JRB **Date Std. Pkg. Reviewed** 2/10/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.
Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.
Method 23: See Method 23 Daily Standard Criteria, Table 5.
Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet
Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 **Associated ICAL** 829002041005

Column ID DB5 **Instrument ID** 405

STD ID ST0210A, ST0210B **STD Solution** 10DXN049

Analyzed by AM, KSS, KT **Date Analyzed** 2-11-10

Std. Pkg. By SH **Date Std. Pkg. Assembled** 2-12-10

Std. Pkg. Reviewed By KSS **Date Std. Pkg. Reviewed** 2/12/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS: ICAL CS3 abs. RT 19:24

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.

Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria.

** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet

Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING	Test America – West Sacramento Daily Calibration Checklist Dioxin Methods

Method ID 8290 **Associated ICAL** 829002041 04 D5

Column ID DB 5 **Instrument ID** 4D5

STD ID ST0208B, ST0208C **STD Solution** 09DXN425

Analyzed by AM, KSS, KT **Date Analyzed** 2-8-10, 2-9-10

Std. Pkg. By SH **Date Std. Pkg. Assembled** 2-10-10

Std. Pkg. Reviewed By JRB **Date Std. Pkg. Reviewed** 2/10/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	2/10/10 KSS ~~NA~~ ✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.

Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria:** 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet

Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 **Associated ICAL** DB225010410502

Column ID DB225 **Instrument ID** 502

STD ID STO211, STO211A **STD Solution** CS3 09DXM425

Analyzed by KSS, AM **Date Analyzed** 2/11/10

Std. Pkg. By KSS **Date Std. Pkg. Assembled** 2/14/10

Std. Pkg. Reviewed By Sh **Date Std. Pkg. Reviewed** 2/15/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	na
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	na

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤30% from curve RRFs for labeled compounds.

Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet

Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

Test America – West Sacramento

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THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (8290,1613,Tetras,T09,23,0023A) 0204104D5

Method ID 8290,1613B,Tetras,T09,M23,0023A Date Scanned _____

Column ID DB5 Instrument ID 4D5

STD ID's STO204, STO204A → D STD Solution (09DXN) - 422,423,425,426,456

GC Program OCDD Multiplier Setting 410 kV

Analyzed By KSS Date Analyzed 02-04-10

Prepared By KSS Date Prepared 02-04-10

Reviewed By M.G. Date Reviewed 2/5/10

ANALYSIS CHECKLIST	INITIALED	REVIEWED
Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓	✓
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS:

ICAL Abs CS3 RS RT's = 19:24, 33:05

*Method 8290/TO9/M0023A: %RSD ≤20% for natives, ≤30% for labeled compounds; S/N≥10
Method 1613B: %RSD≤ 20% natives, ≤30% labeled compounds; S/N ≥10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

Test America – West Sacramento

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (DB225, DB225AIR) D104105D2

Method ID 8290, 1613B, 23, 0023A, TO9 | Date Scanned

Column ID DB225 | Instrument ID 502

STD ID's STD104(D,E,F,H,G) | STD Solution 09DXN(422, 423, 425, 426, 456)

GC Program DB225 | Multiplier Setting 820

Analyzed By A.M. | Date Analyzed 1/4/10

Prepared By M.G. | Date Prepared 1/5/10

Reviewed By MG | Date Reviewed 1/5/10

ANALYSIS CHECKLIST	INITIALED	REVIEWED
Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓ (1)	(1)
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS: (1) CRS failed (26.2%) + (26.9%) ∴ use for TCDF confirmation only. Do not report CRS using this ICV.
ICAL CS3 BC 1,2,3,4-TCDD RT: 14:31

*Method 8290/TO9/M0023A: %RSD ≤20% for natives, ≤30% for labeled compounds; S/N≥10
Method 1613B: %RSD≤ 20% natives, ≤30% labeled compounds; S/N ≥10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

% Moisture/Solid Worksheet

QCBATCH: 0036433

Analyzed by: FRANCISF Report created: 2/6/10 8:12:37 AM

Lot ID	WorkOrder	Pan Tare	Sample Wet Wt	Sample Dry Wt	Wt Diff (Water)	Percent Water	Percent Solid	Reporting Limit	Foot Note	Date Time
30A220427-21	LTMFW1AC	1.29	8.11	6.77	1.34	19.65	80.35	0.1		2/6/10 8:10:03 AM
30A220427-21	LTMFW1AD	1.29	8.34	6.90	1.44	20.43	79.57	0.1		2/6/10 8:10:09 AM
30A220427-22	LTMFX1AC	1.29	9.28	6.37	2.91	36.42	63.58	0.1		2/6/10 8:10:16 AM
30A270505-1	LTVEC1AC	1.30	6.26	4.77	1.49	30.04	69.96	0.1		2/6/10 8:10:22 AM
30A270505-2	LTVEE1AC	1.30	8.01	6.53	1.48	22.06	77.94	0.1		2/6/10 8:10:28 AM
30A270505-3	LTVEF1AC	1.30	8.11	7.14	0.97	14.24	85.76	0.1		2/6/10 8:10:35 AM
30A270542-1	LTVMG1AC	1.30	6.52	6.12	0.40	7.66	92.34	0.1		2/6/10 8:10:41 AM
30A270542-2	LTVMJ1AC	1.30	10.74	9.25	1.49	15.78	84.22	0.1		2/6/10 8:10:47 AM
30A270545-1	LTVND1AC	1.30	9.30	8.42	0.88	11.00	89.00	0.1		2/6/10 8:10:53 AM
30A270545-2	LTVNE1AC	1.30	11.14	9.64	1.50	15.24	84.76	0.1		2/6/10 8:11:04 AM
30B050490-1	LT9901AA	1.30	11.25	9.83	1.42	14.27	85.73	~~0.01~~ 0.1		2/6/10 8:11:16 AM
30B050490-2	LT9921AA	1.30	14.74	13.17	1.57	11.68	88.32	0.10		2/6/10 8:11:23 AM
30B050490-3	LT9931AA	1.30	11.26	9.94	1.32	13.25	86.75	0.10		2/6/10 8:11:29 AM
30B050490-4	LT9941AA	1.30	12.50	11.29	1.21	10.80	89.20	0.10		2/6/10 8:11:34 AM
30B050490-5	LT9951AA	1.30	14.15	12.32	1.83	14.24	85.76	0.10		2/6/10 8:11:42 AM
30B050490-6	LT9961AA	1.30	12.60	11.14	1.46	12.92	87.08	0.10		2/6/10 8:11:48 AM
30B050490-7	LT9971AA	1.30	10.66	9.23	1.43	15.28	84.72	0.10		2/6/10 8:11:54 AM
30B050490-8	LT9981AA	1.30	10.13	9.05	1.08	12.23	87.77	0.10		2/6/10 8:12:01 AM
30B050490-9	LT9991AA	1.30	14.64	12.73	1.91	14.32	85.68	0.10		2/6/10 8:12:07 AM
30B050490-10	LVAAA1AA	1.30	10.96	9.95	1.01	10.46	89.54	0.10		2/6/10 8:12:13 AM

All weights are in grams.
Sample weights (wet & dry) include the weight (tare) of the sample pan.
Wt. Diff. = sample wet weight (+ tare) - sample dry weight (+ tare).
% Water = (Wt. Diff/(sample wet weight - pan tare))*100
% Solid = 100 - percent Water

% Moisture/Solid Worksheet

QCBATCH: 0037055

Analyzed by: FRANCISF Report created: 2/9/10 8:28:31 AM

Lot ID	WorkOrder	Pan Tare	Sample Wet Wt	Sample Dry Wt	Wt Diff (Water)	Percent Water	Percent Solid	Reporting Limit	Foot Note	Date Time
G0A220427-1	LTMC51AC	1.33	9.68	7.92	1.76	21.08	78.92	0.1		2/9/10 8:26:31 AM
G0A220427-6	LTME51AC	1.33	8.99	7.80	1.19	15.54	84.46	0.1		2/9/10 8:26:39 AM
G0A220427-11	LTMFD1AC	1.33	9.43	8.27	1.16	14.32	85.68	0.1		2/9/10 8:26:47 AM
G0A220427-16	LTMFP1AC	1.33	6.54	5.66	0.88	16.89	83.11	0.1		2/9/10 8:26:54 AM
G0A220427-17	LTMFQ1AE	1.33	6.58	5.26	1.32	25.14	74.86	0.1		2/9/10 8:27:03 AM
G0A220427-17	LTMFQ1AF	1.33	6.57	5.26	1.31	25.00	75.00	0.1		2/9/10 8:27:11 AM
G0A220427-18	LTMFR1AC	1.32	7.95	7.10	0.85	12.82	87.18	0.1		2/9/10 8:27:21 AM
G0A220427-19	LTMFT1AC	1.32	11.82	9.71	2.11	20.10	79.90	0.1		2/9/10 8:27:28 AM
G0A220427-20	LTMFV1AC	1.33	8.93	7.07	1.86	24.47	75.53	0.1		2/9/10 8:27:36 AM
G0A220427-23	LTMF01AC	1.33	9.02	6.41	2.61	33.94	66.06	0.1		2/9/10 8:27:46 AM
G0A220427-24	LTMF11AC	1.33	8.95	7.06	1.89	24.80	75.20	0.1		2/9/10 8:27:55 AM
G0A220427-25	LTMF21AC	1.33	8.52	7.75	0.77	10.71	89.29	0.1		2/9/10 8:28:02 AM
G0A280578-1	LTXN81AA	1.33	5.60	3.79	1.81	42.39	57.61	0.1		2/9/10 8:28:11 AM
G0A280578-2	LTXN91AA	1.33	6.44	4.96	1.48	28.96	71.04	0.1		2/9/10 8:28:19 AM
G0A280578-3	LTXPA1AA	1.33	8.38	6.49	1.89	26.81	73.19	0.1		2/9/10 8:28:27 AM

All weights are in grams.
Sample weights (wet & dry) include the weight (tare) of the sample pan.
Wt. Diff. = sample wet weight (+ tare) - sample dry weight (+ tare).
% Water = (Wt. Diff/(sample wet weight - pan tare))*100
% Solid = 100 - percent Water

LCL

(*) Extracted 33 34 days after sample collection; 3 days beyond holding time; flag "J" results for 14 compounds.

TestAmerica Portland

Sample ID: PTA0583-03

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 001	**Work Order #....:**	LV1K81AA	**Matrix....:**	SOLID
Date Sampled....:	~~01/21/10~~	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	28
Prep Batch # ....:	0055365	**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		1.4	0.17	pg/g
Total TCDD	**0.24**		**1.4**	**0.17**	**pg/g**
1,2,3,7,8-PeCDD	ND		7.0	0.37	pg/g
Total PeCDD	**0.88**		**7.0**	**0.37**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		7.0	0.22	pg/g
1,2,3,6,7,8-HxCDD	**0.32**	**J**	**7.0**	**0.20**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.38**	**J Q**	**7.0**	**0.17**	**pg/g**
Total HxCDD	**3.4**		**7.0**	**0.19**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**3.9**	**J B**	**7.0**	**0.43**	**pg/g**
Total HpCDD	**9.4**		**7.0**	**0.43**	**pg/g**
OCDD	**30**	**B**	**14**	**0.56**	**pg/g**
Total TCDF	**61**		**1.4**	**0.11**	**pg/g**
1,2,3,7,8-PeCDF	**31**		**7.0**	**0.18**	**pg/g**
2,3,4,7,8-PeCDF	**9.1**		**7.0**	**0.20**	**pg/g**
Total PeCDF	**72**		**7.0**	**0.19**	**pg/g**
1,2,3,4,7,8-HxCDF	**36**		**7.0**	**0.19**	**pg/g**
1,2,3,6,7,8-HxCDF	**10**	**B**	**7.0**	**0.16**	**pg/g**
2,3,4,6,7,8-HxCDF	**1.5**	**J**	**7.0**	**0.18**	**pg/g**
1,2,3,7,8,9-HxCDF	**0.86**	**J**	**7.0**	**0.17**	**pg/g**
Total HxCDF	**65**		**7.0**	**0.17**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**15**		**7.0**	**0.29**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**12**		**7.0**	**0.33**	**pg/g**
Total HpCDF	**37**		**7.0**	**0.31**	**pg/g**
OCDF	**15**		**14**	**0.46**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	40 - 135
13C-1,2,3,7,8-PeCDD	57	40 - 135
13C-1,2,3,6,7,8-HxCDD	79	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	92	40 - 135
13C-OCDD	83	40 - 135
13C-2,3,7,8-TCDF	73	40 - 135
13C-1,2,3,7,8-PeCDF	73	40 - 135
13C-1,2,3,4,7,8-HxCDF	86	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	89	40 - 135

TestAmerica Portland

Sample ID: PTA0583-03

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 001	**Work Order #....:**	LV1K81AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	28
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Sonia Ouni		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-03

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 001	**Work Order #....:**	LV1K82AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	03/02/10	**Percent Moisture:**	28
Prep Batch # ....:	0055365	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	26	1.4	0.39	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	78	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-05

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 002	**Work Order #....:**	LV1K91AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.91
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	22
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.89 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.2	0.089	pg/g
Total TCDD	ND		1.2	0.089	pg/g
1,2,3,7,8-PeCDD	ND		5.9	0.23	pg/g
Total PeCDD	**0.42**		**5.9**	**0.23**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		5.9	0.21	pg/g
1,2,3,6,7,8-HxCDD	ND		5.9	0.20	pg/g
1,2,3,7,8,9-HxCDD	ND		5.9	0.16	pg/g
Total HxCDD	**0.69**		**5.9**	**0.19**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**1.5**	**J B**	**5.9**	**0.28**	**pg/g**
Total HpCDD	**3.5**		**5.9**	**0.28**	**pg/g**
OCDD	**14**		**12**	**0.32**	**pg/g**
2,3,7,8-TCDF	**0.99**	**Q J**	**1.2**	**0.077**	**pg/g**
Total TCDF	**2.0**		**1.2**	**0.077**	**pg/g**
1,2,3,7,8-PeCDF	**1.0**	**J Q**	**5.9**	**0.17**	**pg/g**
2,3,4,7,8-PeCDF	**0.55**	**J**	**5.9**	**0.18**	**pg/g**
Total PeCDF	**3.1**		**5.9**	**0.18**	**pg/g**
1,2,3,4,7,8-HxCDF	**1.5**	**J**	**5.9**	**0.15**	**pg/g**
1,2,3,6,7,8-HxCDF	**0.51**	**J Q B**	**5.9**	**0.13**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		5.9	0.14	pg/g
1,2,3,7,8,9-HxCDF	ND		5.9	0.13	pg/g
Total HxCDF	**2.8**		**5.9**	**0.14**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**1.3**	**J**	**5.9**	**0.25**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1.3**	**J Q**	**5.9**	**0.28**	**pg/g**
Total HpCDF	**3.7**		**5.9**	**0.26**	**pg/g**
OCDF	**2.7**	**J**	**12**	**0.34**	**pg/g**

TestAmerica Portland

Sample ID: PTA0583-05

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 002	**Work Order #....:**	LV1K91AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.91
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	22
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.89 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	73	40 - 135
13C-1,2,3,7,8-PeCDD	63	40 - 135
13C-1,2,3,6,7,8-HxCDD	88	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	100	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	76	40 - 135
13C-1,2,3,7,8-PeCDF	70	40 - 135
13C-1,2,3,4,7,8-HxCDF	90	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	96	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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)

TestAmerica Portland

Sample ID: PTA0583-08

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 003	**Work Order #....:**	LV1LA1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	27
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.06 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.4	0.17	pg/g
Total TCDD	**0.26**		**1.4**	**0.17**	**pg/g**
1,2,3,7,8-PeCDD	ND		6.8	0.52	pg/g
Total PeCDD	**0.75**		**6.8**	**0.52**	**pg/g**
1,2,3,4,7,8-HxCDD	**0.19**	**J**	**6.8**	**0.17**	**pg/g**
1,2,3,6,7,8-HxCDD	**0.30**	**J Q**	**6.8**	**0.16**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.57**	**J**	**6.8**	**0.13**	**pg/g**
Total HxCDD	**4.5**		**6.8**	**0.15**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**4.9**	**J B**	**6.8**	**0.28**	**pg/g**
Total HpCDD	**12**		**6.8**	**0.28**	**pg/g**
OCDD	**36**	**B**	**14**	**0.44**	**pg/g**
Total TCDF	**700**		**1.4**	**0.21**	**pg/g**
1,2,3,7,8-PeCDF	**290**		**6.8**	**0.28**	**pg/g**
2,3,4,7,8-PeCDF	**75**		**6.8**	**0.30**	**pg/g**
Total PeCDF	**630**		**6.8**	**0.29**	**pg/g**
1,2,3,4,7,8-HxCDF	**260**		**6.8**	**0.35**	**pg/g**
1,2,3,6,7,8-HxCDF	**64**	**B**	**6.8**	**0.30**	**pg/g**
2,3,4,6,7,8-HxCDF	**11**		**6.8**	**0.33**	**pg/g**
1,2,3,7,8,9-HxCDF	**6.1**	**J**	**6.8**	**0.31**	**pg/g**
Total HxCDF	**450**		**6.8**	**0.32**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**68**		**6.8**	**0.39**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**29**		**6.8**	**0.45**	**pg/g**
Total HpCDF	**120**		**6.8**	**0.42**	**pg/g**
OCDF	**76**		**14**	**0.49**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	64	40 - 135
13C-1,2,3,7,8-PeCDD	54	40 - 135
13C-1,2,3,6,7,8-HxCDD	74	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	86	40 - 135
13C-OCDD	80	40 - 135
13C-2,3,7,8-TCDF	70	40 - 135
13C-1,2,3,7,8-PeCDF	77	40 - 135
13C-1,2,3,4,7,8-HxCDF	81	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	82	40 - 135

TestAmerica Portland

Sample ID: PTA0583-08

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 003	**Work Order #....:**	LV1LA1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	27
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.06 g	**Analyst ID....:**	Sonia Ouni		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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).

TestAmerica Portland

Sample ID: PTA0583-08

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 003	**Work Order #....:**	LV1LA2AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	03/02/10	**Percent Moisture:**	27
Prep Batch # ....:	0055365	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.06 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	260	1.4	1.0	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	70	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-10

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 004	**Work Order #....:**	LV1LC1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	29
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.09 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.4	0.19	pg/g
Total TCDD	ND		1 4	0.19	pg/g
1,2,3,7,8-PeCDD	ND		6.9	0.34	pg/g
Total PeCDD	**0.50**		**6.9**	**0.34**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		6.9	0.26	pg/g
1,2,3,6,7,8-HxCDD	ND		6.9	0.23	pg/g
1,2,3,7,8,9-HxCDD	**0.21**	**J Q**	**6.9**	**0.19**	**pg/g**
Total HxCDD	**1.7**		**6.9**	**0.23**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**3.0**	**J B**	**6.9**	**0.32**	**pg/g**
Total HpCDD	**6.6**		**6.9**	**0.32**	**pg/g**
OCDD	**23**	**B**	**14**	**0.67**	**pg/g**
2,3,7,8-TCDF	**0.94**	**J**	**1.4**	**0.11**	**pg/g**
Total TCDF	**2.1**		**1.4**	**0.11**	**pg/g**
1,2,3,7,8-PeCDF	**1.2**	**J**	**6.9**	**0.25**	**pg/g**
2,3,4,7,8-PeCDF	**0.40**	**J Q**	**6.9**	**0.27**	**pg/g**
Total PeCDF	**2.5**		**6.9**	**0.26**	**pg/g**
1,2,3,4,7,8-HxCDF	**1.1**	**J Q**	**6.9**	**0.16**	**pg/g**
1,2,3,6,7,8-HxCDF	**0.50**	**J B**	**6.9**	**0.14**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		6.9	0.15	pg/g
1,2,3,7,8,9-HxCDF	ND		6.9	0.14	pg/g
Total HxCDF	**2.2**		**6.9**	**0.15**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**1.1**	**J**	**6.9**	**0.27**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**0.35**	**J Q**	**6.9**	**0.31**	**pg/g**
Total HpCDF	**2.3**		**6.9**	**0.29**	**pg/g**
OCDF	**1.6**	**J Q**	**14**	**0.43**	**pg/g**

TestAmerica Portland

Sample ID: PTA0583-10

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 004	**Work Order #....:**	LV1LC1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.99
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	29
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.09 g	**Analyst ID....:**	Sonia Ouni		

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	80	40 - 135
13C-1,2,3,7,8-PeCDD	63	40 - 135
13C-1,2,3,6,7,8-HxCDD	97	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	99	40 - 135
13C-OCDD	89	40 - 135
13C-2,3,7,8-TCDF	80	40 - 135
13C-1,2,3,7,8-PeCDF	77	40 - 135
13C-1,2,3,4,7,8-HxCDF	91	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	93	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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)

TestAmerica Portland

Sample ID: PTA0583-13

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 005	**Work Order #....:**	LV1LD1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	31
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.5 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.4	0.12	pg/g
Total TCDD	**0.57**		**1.4**	**0.12**	**pg/g**
1,2,3,7,8-PeCDD	ND		6.9	0.50	pg/g
Total PeCDD	**0.74**		**6.9**	**0.50**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		6.9	0.28	pg/g
1,2,3,6,7,8-HxCDD	ND		6.9	0.26	pg/g
1,2,3,7,8,9-HxCDD	**0.32**	**J Q**	**6.9**	**0.21**	**pg/g**
Total HxCDD	**1.6**		**6.9**	**0.25**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**2.2**	**J B**	**6.9**	**0.27**	**pg/g**
Total HpCDD	**5.1**		**6.9**	**0.27**	**pg/g**
OCDD	**15**	**B**	**14**	**0.50**	**pg/g**
Total TCDF	**29**		**1.4**	**0.11**	**pg/g**
1,2,3,7,8-PeCDF	**30**		**6.9**	**0.21**	**pg/g**
2,3,4,7,8-PeCDF	**9.7**		**6.9**	**0.22**	**pg/g**
Total PeCDF	**67**		**6.9**	**0.21**	**pg/g**
1,2,3,4,7,8-HxCDF	**51**		**6.9**	**0.21**	**pg/g**
1,2,3,6,7,8-HxCDF	**10**	**B**	**6.9**	**0.18**	**pg/g**
2,3,4,6,7,8-HxCDF	**1.7**	**J**	**6.9**	**0.20**	**pg/g**
1,2,3,7,8,9-HxCDF	**1.1**	**J**	**6.9**	**0.19**	**pg/g**
Total HxCDF	**84**		**6.9**	**0.19**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**12**		**6.9**	**0.28**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**5.8**	**J**	**6.9**	**0.32**	**pg/g**
Total HpCDF	**23**		**6.9**	**0.30**	**pg/g**
OCDF	**11**	**J**	**14**	**0.36**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	74	40 - 135
13C-1,2,3,7,8-PeCDD	53	40 - 135
13C-1,2,3,6,7,8-HxCDD	97	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	103	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	77	40 - 135
13C-1,2,3,7,8-PeCDF	71	40 - 135
13C-1,2,3,4,7,8-HxCDF	94	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	94	40 - 135

TestAmerica Portland

Sample ID: PTA0583-13

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 005	**Work Order #....:**	LV1LD1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	31
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.5 g	**Analyst ID....:**	Sonia Ouni		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

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)

TestAmerica Portland

Sample ID: PTA0583-13

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 005	**Work Order #....:**	LV1LD2AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	02/24/10	**Analysis Date....:**	03/02/10	**Percent Moisture:**	31
Prep Batch # ....:	0055365	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.5 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	12	1.4	0.39	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	80	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

TestAmerica Portland

Sample ID: PTA0583-15

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 006	**Work Order #....:**	LV1LE1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	32
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT		REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.4	0.21	pg/g
Total TCDD	**0.44**		**1.4**	**0.21**	**pg/g**
1,2,3,7,8-PeCDD	ND		7.0	0.33	pg/g
Total PeCDD	**0.85**		**7.0**	**0.33**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		7.0	0.18	pg/g
1,2,3,6,7,8-HxCDD	**0.27**	**J**	**7.0**	**0.16**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.50**	**J**	**7.0**	**0.14**	**pg/g**
Total HxCDD	**3.6**		**7.0**	**0.16**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**4.2**	**J B**	**7.0**	**0.25**	**pg/g**
Total HpCDD	**10**		**7.0**	**0.25**	**pg/g**
OCDD	**33**	**B**	**14**	**0.32**	**pg/g**
Total TCDF	**7.0**		**1.4**	**0.078**	**pg/g**
1,2,3,7,8-PeCDF	**3.7**	**J**	**7.0**	**0.26**	**pg/g**
2,3,4,7,8-PeCDF	**1.6**	**J**	**7.0**	**0.27**	**pg/g**
Total PeCDF	**9.9**		**7.0**	**0.26**	**pg/g**
1,2,3,4,7,8-HxCDF	**5.2**	**J**	**7.0**	**0.19**	**pg/g**
1,2,3,6,7,8-HxCDF	**1.4**	**J B**	**7.0**	**0.16**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		7.0	0.18	pg/g
1,2,3,7,8,9-HxCDF	ND		7.0	0.17	pg/g
Total HxCDF	**9.7**		**7.0**	**0.17**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**1.9**	**J**	**7.0**	**0.27**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**1.0**	**J**	**7.0**	**0.30**	**pg/g**
Total HpCDF	**4.0**		**7.0**	**0.28**	**pg/g**
OCDF	**3.1**	**J**	**14**	**0.36**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	77	40 - 135
13C-1,2,3,7,8-PeCDD	56	40 - 135
13C-1,2,3,6,7,8-HxCDD	90	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	93	40 - 135
13C-OCDD	84	40 - 135
13C-2,3,7,8-TCDF	81	40 - 135
13C-1,2,3,7,8-PeCDF	74	40 - 135
13C-1,2,3,4,7,8-HxCDF	95	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	94	40 - 135

TestAmerica Portland

Sample ID: PTA0583-15

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 006	**Work Order #....:**	LV1LE1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	0.95
Prep Date....:	02/24/10	**Analysis Date....:**	03/01/10	**Percent Moisture:**	32
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Sonia Ouni		

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

J Estimated Result.

TestAmerica Portland

Sample ID: PTA0583-15

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B230553 - 006	**Work Order #....:**	LV1LE2AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	03/02/10	**Percent Moisture:**	32
Prep Batch # ....:	0055365	**Instrument ID....:**	5D2		
Initial Wgt/Vol :	10.47 g	**Analyst ID....:**	Sonia Ouni		

PARAMETER	RESULT	REPORTING LIMIT	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDF	2.8	1.4	0.44	pg/g

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDF	83	40 - 135

QUALIFIERS

Results and reporting limits have been adjusted for dry weight.

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	G0B230553	**Work Order # ...:**	LV2VL1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	G0B240000 - 365				
Prep Date .....:	02/24/10	**Analysis Date ..:**	02/26/10		
Prep Batch # ...:	0055365				
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**	**20.0**	**pg/g**	**100**	**(77 - 130)**
1,2,3,7,8-PeCDD	**100**	**101**	**pg/g**	**101**	**(79 - 134)**
1,2,3,4,7,8-HxCDD	**100**	**112**	**pg/g**	**112**	**(65 - 144)**
1,2,3,6,7,8-HxCDD	**100**	**103**	**pg/g**	**103**	**(73 - 147)**
1,2,3,7,8,9-HxCDD	**100**	**96.2**	**pg/g**	**96**	**(80 - 143)**
1,2,3,4,6,7,8-HpCDD	**100**	**103**	**pg/g**	**103**	**(86 - 134)**
OCDD	**200**	**199**	**pg/g**	**100**	**(80 - 137)**
2,3,7,8-TCDF	**20.0**	**18.9**	**pg/g**	**95**	**(79 - 137)**
1,2,3,7,8-PeCDF	**100**	**106**	**pg/g**	**106**	**(81 - 134)**
2,3,4,7,8-PeCDF	**100**	**112**	**pg/g**	**112**	**(76 - 132)**
1,2,3,4,7,8-HxCDF	**100**	**108**	**pg/g**	**108**	**(72 - 140)**
1,2,3,6,7,8-HxCDF	**100**	**108**	**pg/g**	**108**	**(63 - 152)**
2,3,4,6,7,8-HxCDF	**100**	**109**	**pg/g**	**109**	**(72 - 151)**
1,2,3,7,8,9-HxCDF	**100**	**102**	**pg/g**	**102**	**(72 - 152)**
1,2,3,4,6,7,8-HpCDF	**100**	**104**	**pg/g**	**104**	**(81 - 137)**
1,2,3,4,7,8,9-HpCDF	**100**	**95.4**	**pg/g**	**95**	**(79 - 139)**
OCDF	**200**	**196**	**pg/g**	**98**	**(75 - 141)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	76	(40 - 135)
13C-1,2,3,7,8-PeCDD	79	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	86	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	96	(40 - 135)
13C-OCDD	93	(40 - 135)
13C-2,3,7,8-TCDF	76	(40 - 135)
13C-1,2,3,7,8-PeCDF	82	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	86	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	97	(40 - 135)

Notes:

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

Bold print denotes control parameters

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B240000 - 365B	**Work Order #....:**	LV2VL1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	02/26/10	**Percent Moisture:**	0.0
Prep Batch # ....:	0055365	**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	0 097	pg/g
Total TCDD	**0.11**		**1.0**	**0.097**	**pg/g**
1,2,3,7,8-PeCDD	ND		5.0	0 16	pg/g
Total PeCDD	**0.58**		**5.0**	**0.16**	**pg/g**
1,2,3,4,7,8-HxCDD	ND		5.0	0.14	pg/g
1,2,3,6,7,8-HxCDD	ND		5.0	0.13	pg/g
1,2,3,7,8,9-HxCDD	ND		5.0	0.11	pg/g
Total HxCDD	**0.27**		**5.0**	**0.12**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**0.61**	**J Q**	**5.0**	**0.18**	**pg/g**
Total HpCDD	**1.2**		**5.0**	**0.18**	**pg/g**
OCDD	**1.1**	**J**	**10**	**0.30**	**pg/g**
2,3,7,8-TCDF	ND		1.0	0.083	pg/g
Total TCDF	ND		1.0	0.083	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	**0.28**		**5.0**	**0.13**	**pg/g**
1,2,3,4,7,8-HxCDF	ND		5.0	0.12	pg/g
1,2,3,6,7,8-HxCDF	**0.12**	**J Q**	**5.0**	**0.10**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		5.0	0.12	pg/g
1,2,3,7,8,9-HxCDF	ND		5.0	0.11	pg/g
Total HxCDF	**0.12**		**5.0**	**0.11**	**pg/g**
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.19	pg/g
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.21	pg/g
Total HpCDF	ND		5.0	0.21	pg/g
OCDF	ND		10	0.29	pg/g

Method Blank Report

Trace Level Organic Compounds

SW846 8290

Lot - Sample #....:	G0B240000 - 365B	**Work Order #....:**	LV2VL1AA	**Matrix....:**	SOLID
Date Sampled....:	01/21/10	**Date Received....:**	01/22/10	**Dilution Factor:**	1
Prep Date....:	02/24/10	**Analysis Date....:**	02/26/10	**Percent Moisture:**	0.0
Prep Batch # ....:	0055365	**Instrument ID....:**	1D5		
Initial Wgt/Vol :	10 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	75	40 - 135
13C-1,2,3,6,7,8-HxCDD	91	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	100	40 - 135
13C-OCDD	91	40 - 135
13C-2,3,7,8-TCDF	75	40 - 135
13C-1,2,3,7,8-PeCDF	79	40 - 135
13C-1,2,3,4,7,8-HxCDF	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	98	40 - 135

QUALIFIERS

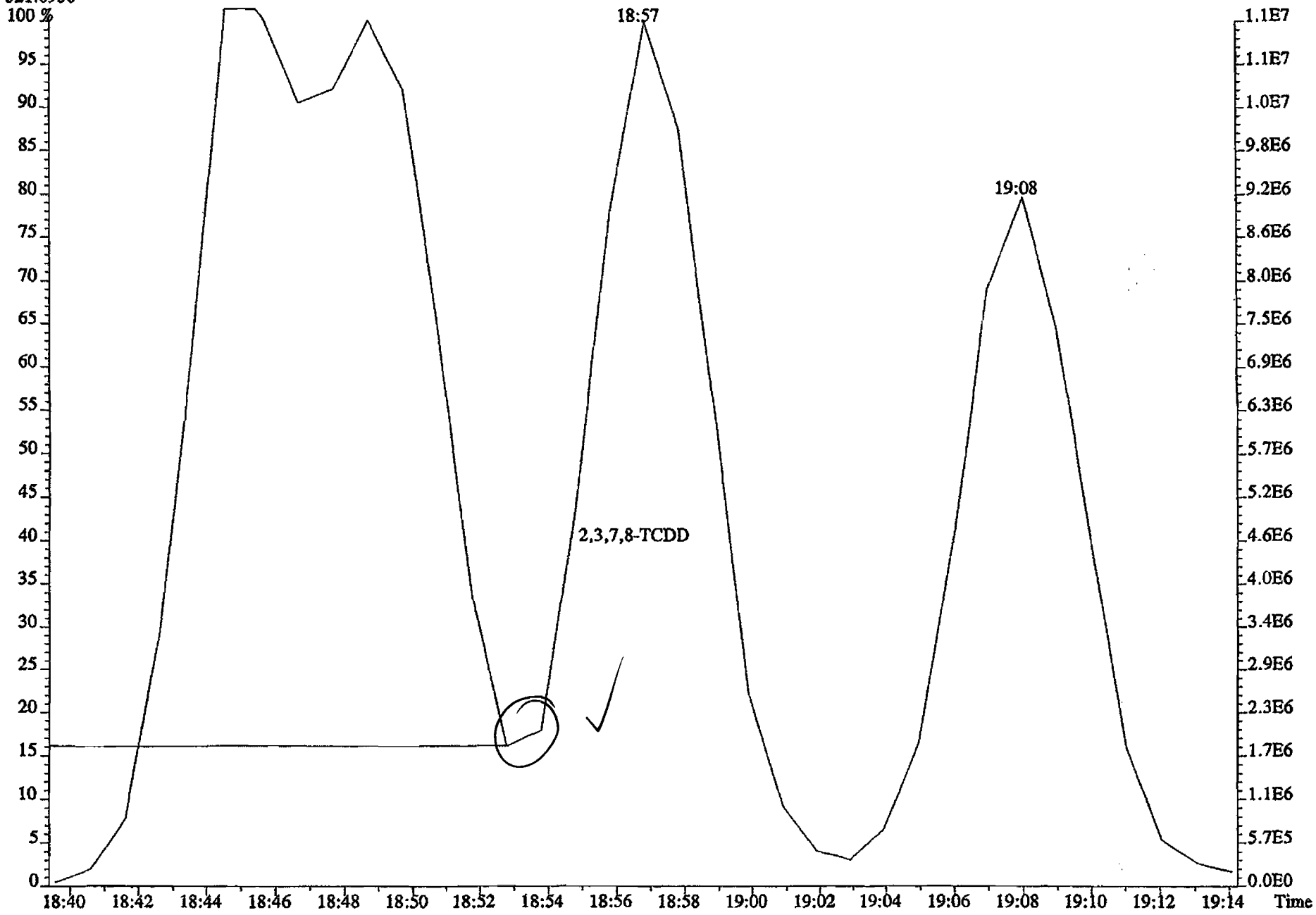
Results and reporting limits have been adjusted for dry weight.

J Estimated Result.

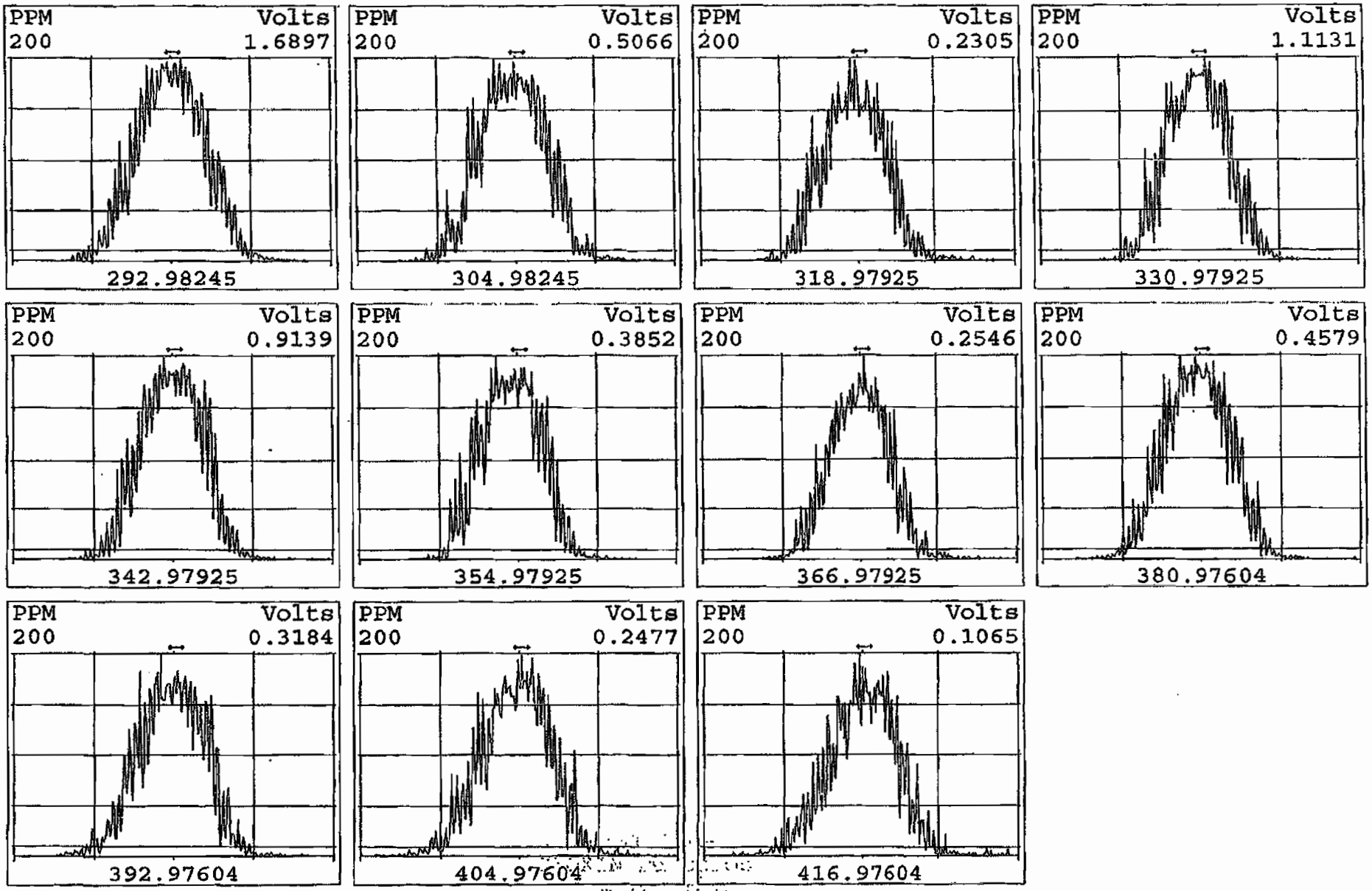
Q Estimated maximum possible concentration (EMPC).

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
31DE09A1D5	1	CP1231A	DB-5 CPSM 3732-04				1.000	
31DE09A1D5	2	ST1231B	CS-1 09DXN422				1.000	
31DE09A1D5	3	ST1231C	CS-2 09DXN423				1.000	
31DE09A1D5	4	ST1231D	CS-3 09DXN425				1.000	
31DE09A1D5	5	ST1231E	CS-4 09DXN426				1.000	
31DE09A1D5	6	ST1231F	CS-5 09DXN456				1.000	
31DE09A1D5	7	SB1231C	Solvent Blank C-14				1.000	
31DE09A1D5	8	ST1231G	2nd Source 09DXN449	500	1613B/8290		1.000	
31DE09A1D5	9						1.000	
31DE09A1D5	10						1.000	
31DE09A1D5	11						1.000	
31DE09A1D5	12						1.000	
31DE09A1D5	13						1.000	
31DE09A1D5	14						1.000	
31DE09A1D5	15		AM 12-31-09				1.000	
31DE09A1D5	16						1.000	

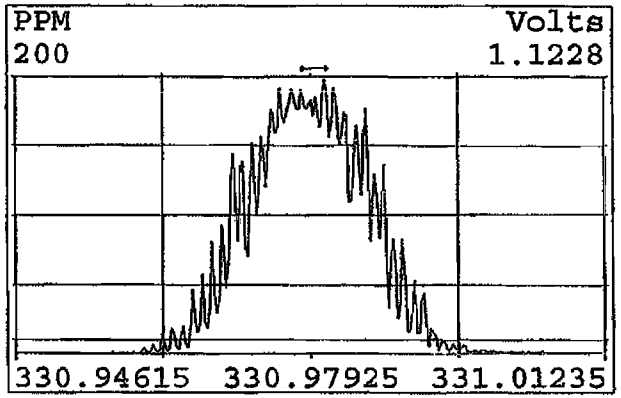
File:31DE09A1D5 #1-410 Acq:31-DEC-2009 23:25:43 GC EI+ Voltage SIR 70SE
Sample#1 Text:CP1231A :DB-5 CPSM 3732-04 Exp:DIOXIN
321.8936

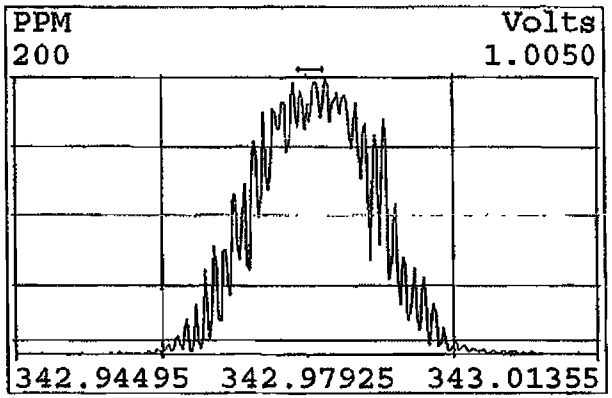


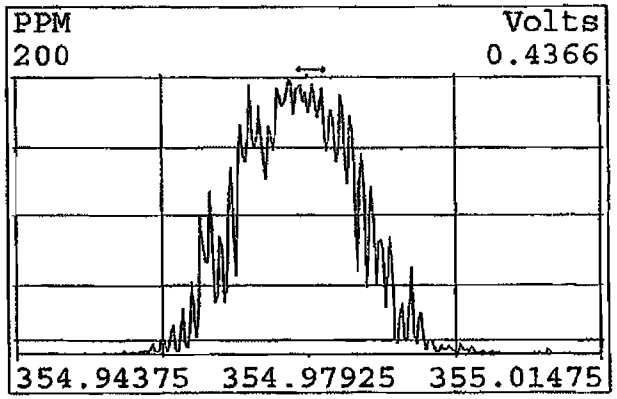
Peak Locate Examination:31-DEC-2009:23:19 File:31DE09A1D5
Experiment:DIOXIN Function:1 Reference:PFK

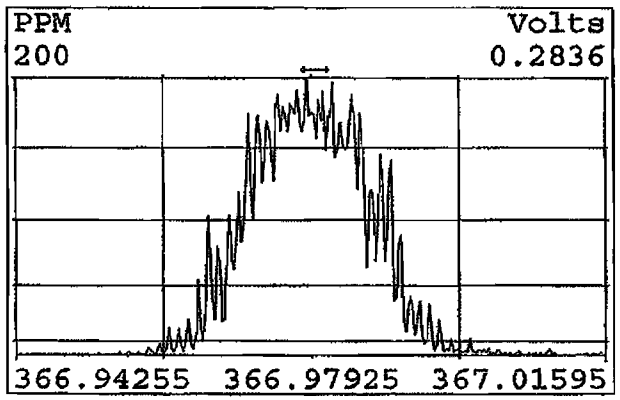


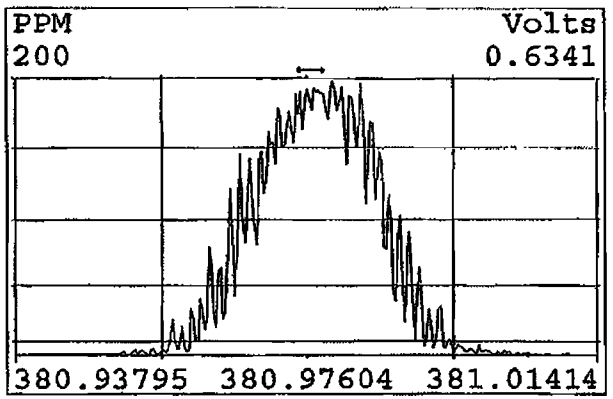
Peak Locate Examination:31-DEC-2009:23:20 File:31DE09A1D5
Experiment:DIOXIN Function:2 Reference:PFK

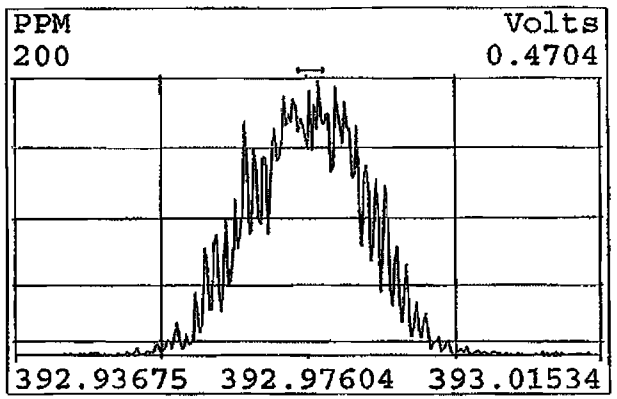


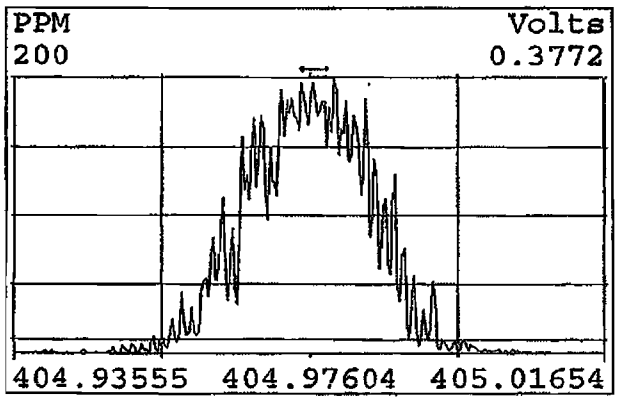


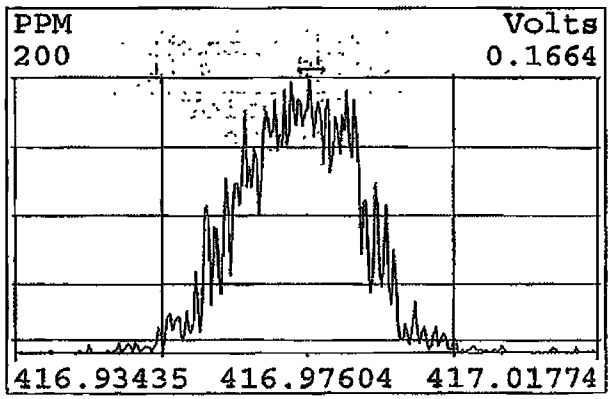




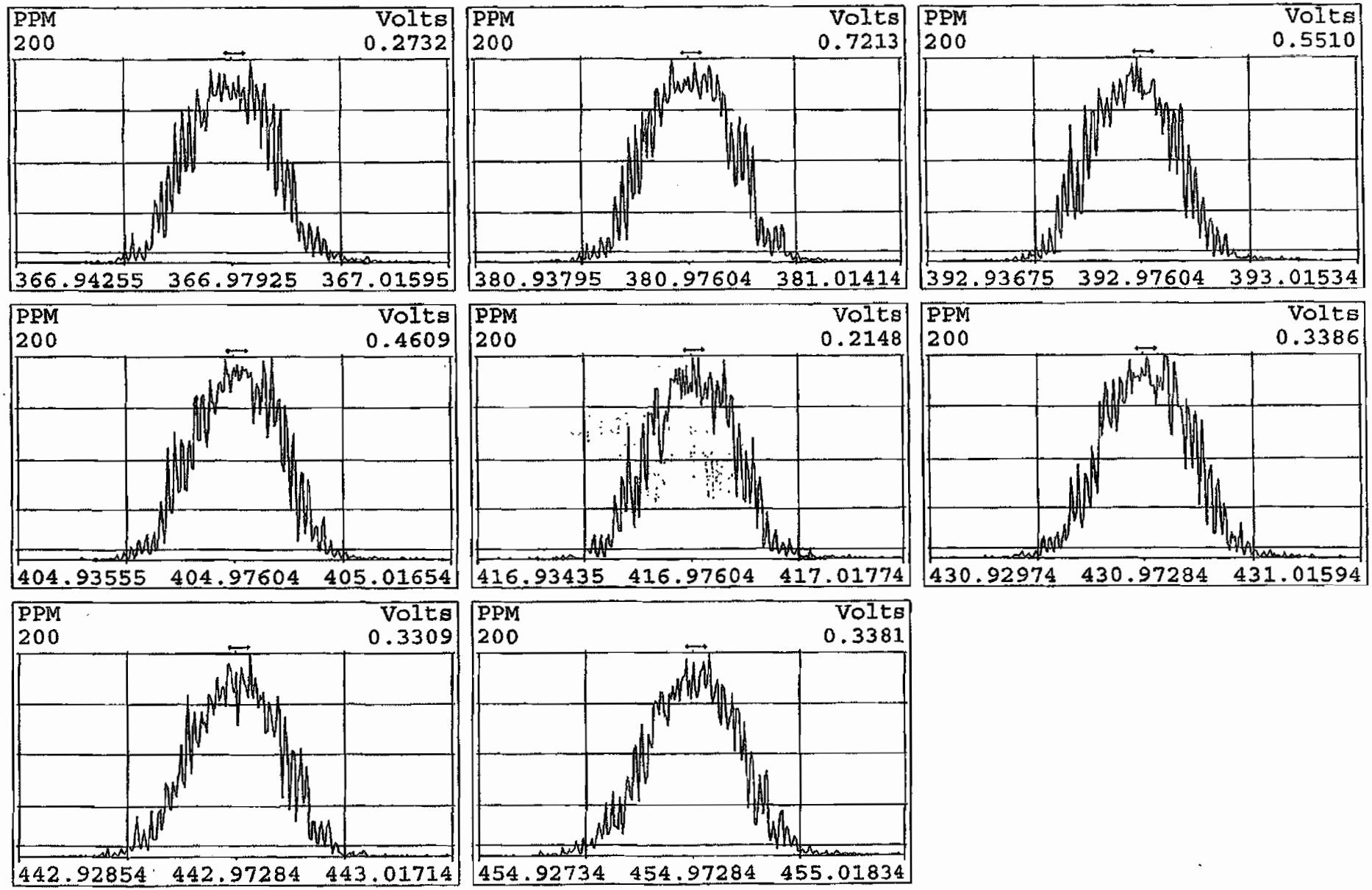




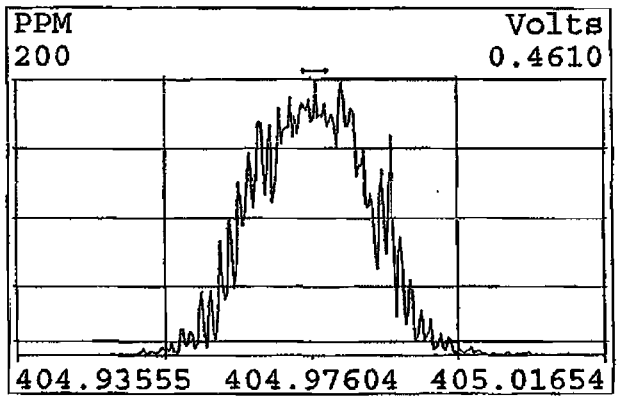


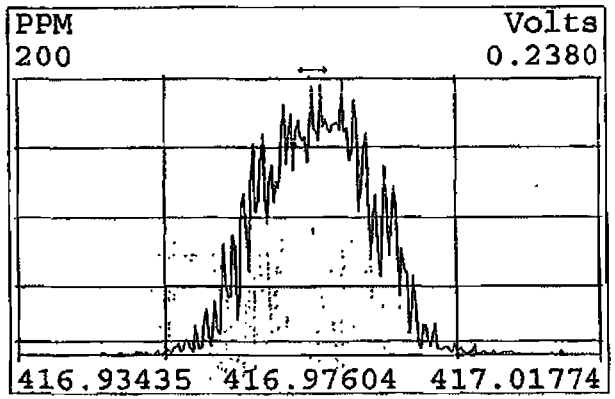


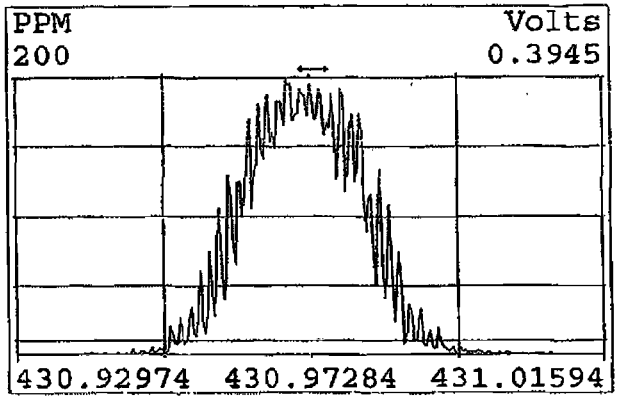
Peak Locate Examination:31-DEC-2009:23:21 File:31DE09A1D5
Experiment:DIOXIN Function:3 Reference:PFK

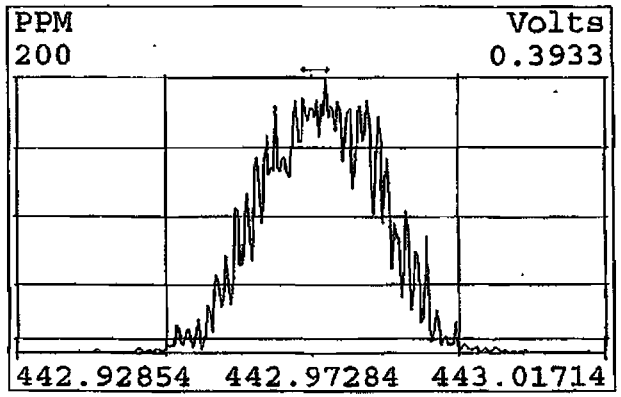


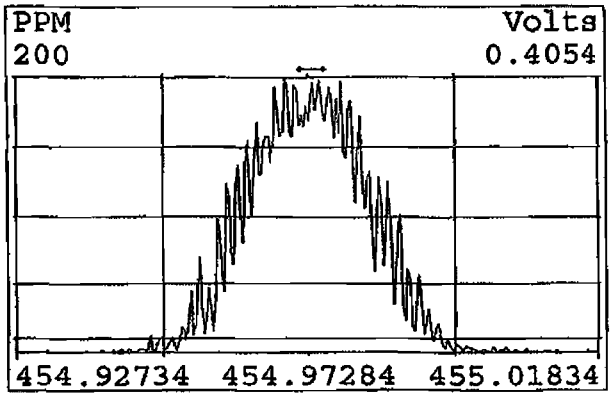
Peak Locate Examination:31-DEC-2009:23:22 File:31DE09A1D5
Experiment:DIOXIN Function:4 Reference:PFK

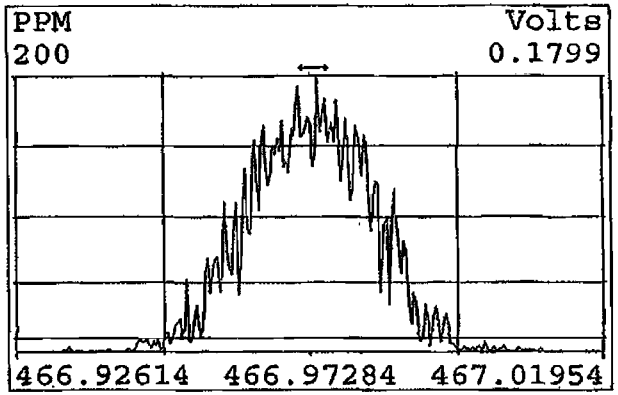


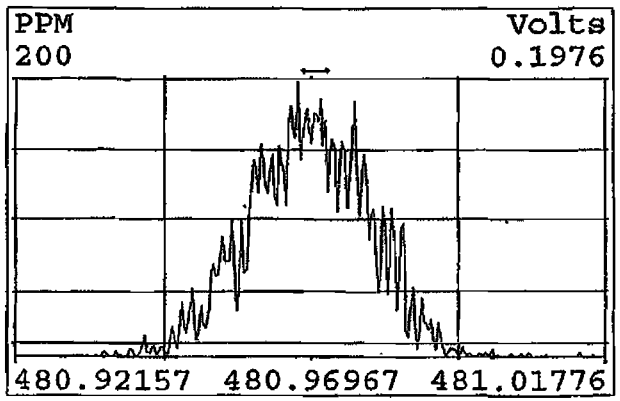




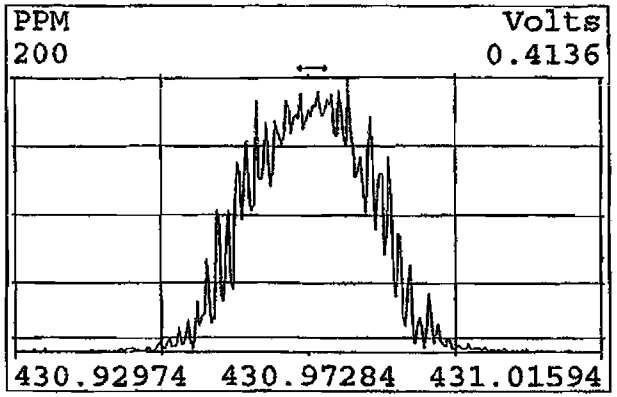


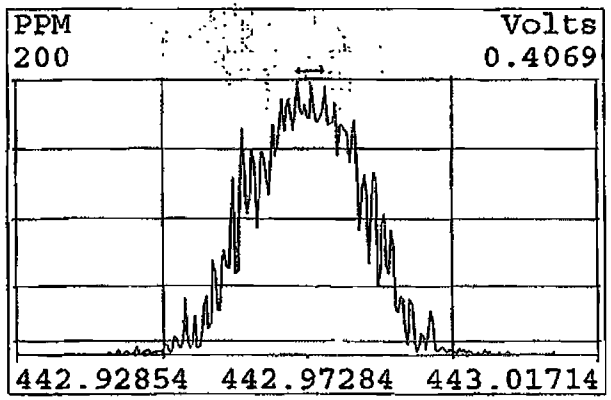


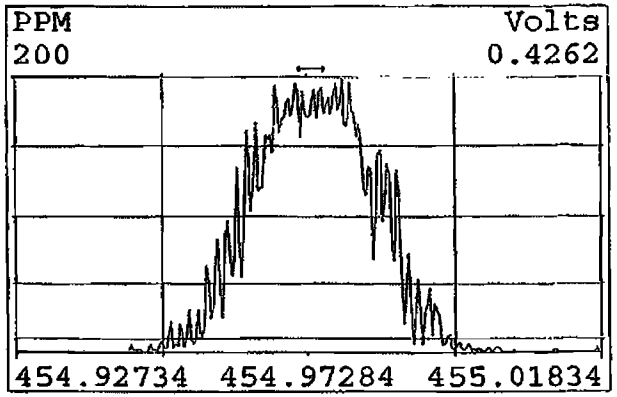


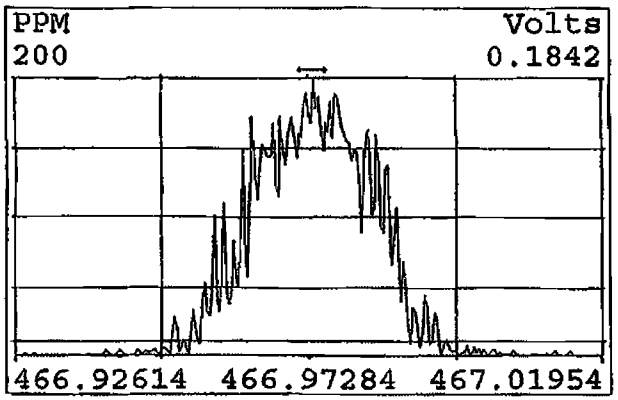


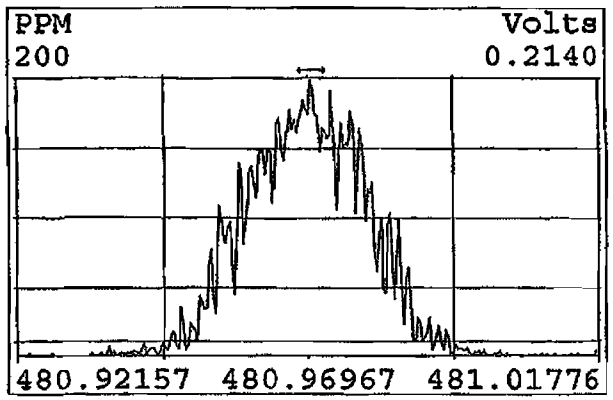
Peak Locate Examination:31-DEC-2009:23:24 File:31DE09A1D5
Experiment:DIOXIN Function:5 Reference:PFK

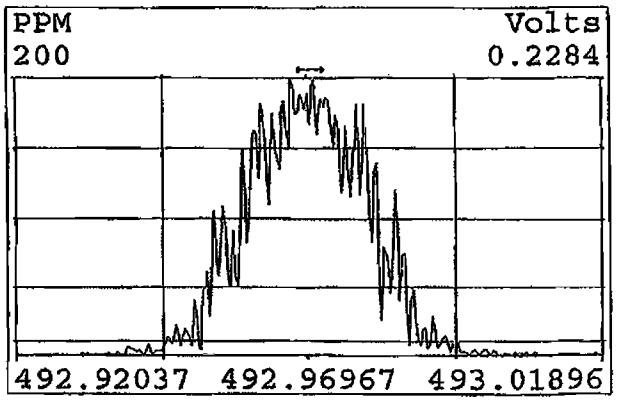


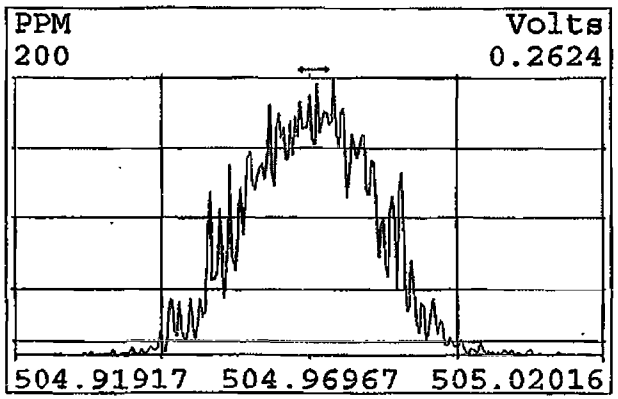


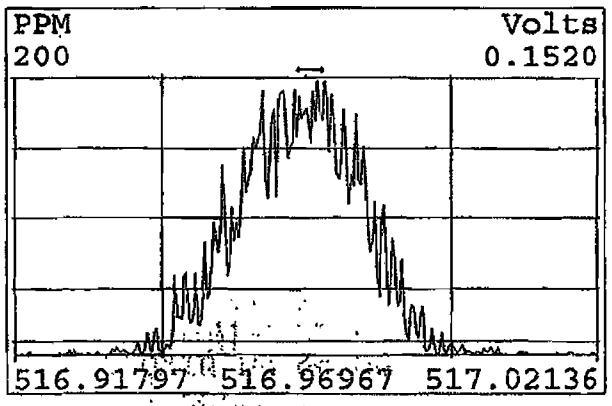




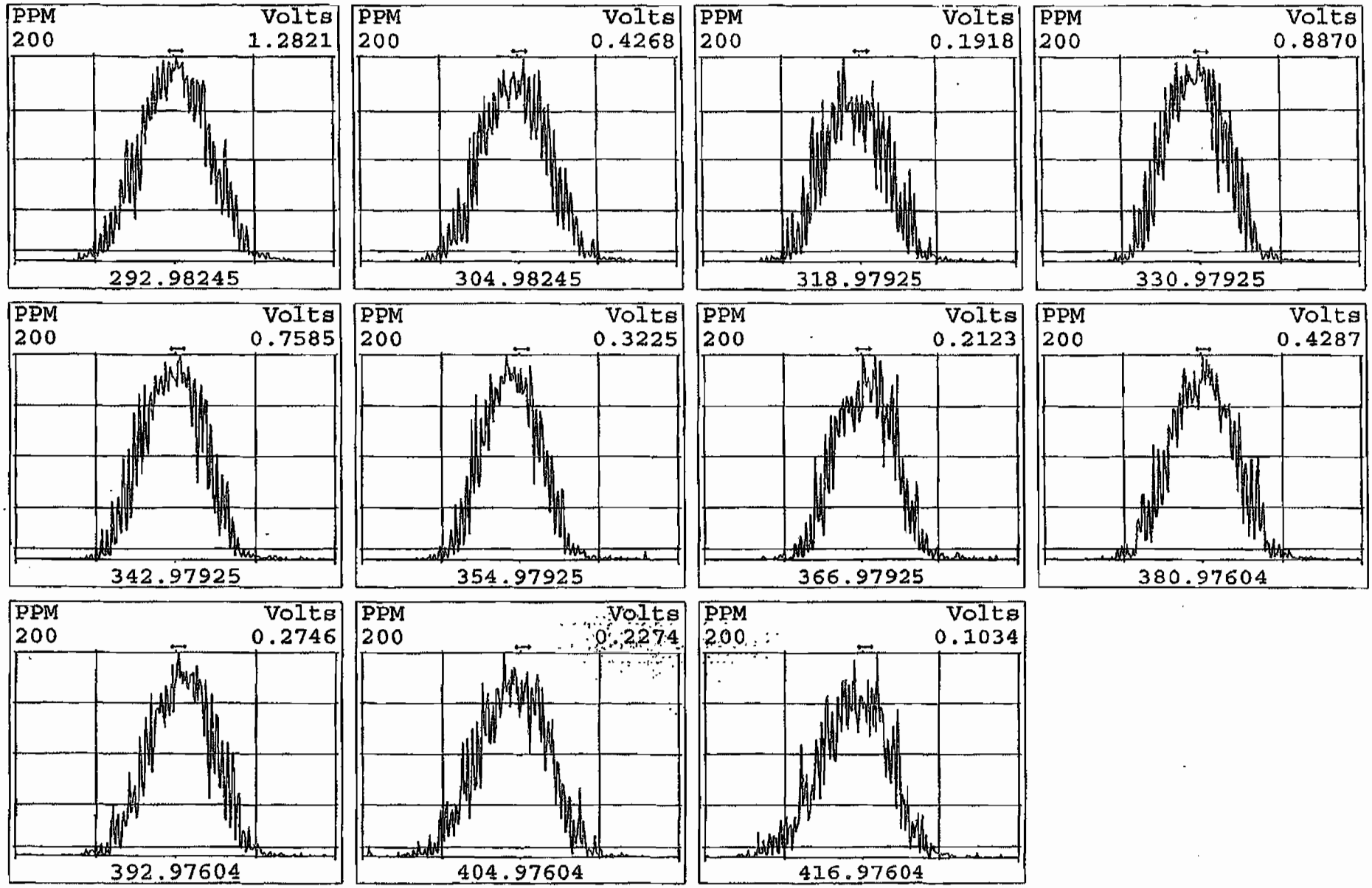




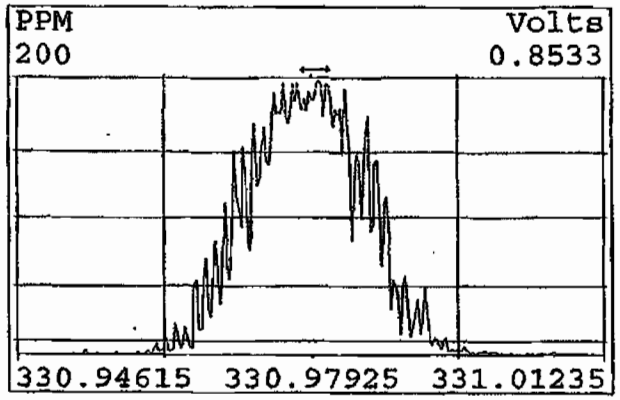


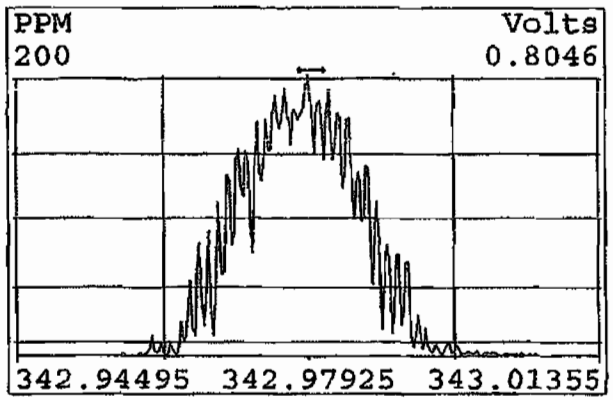


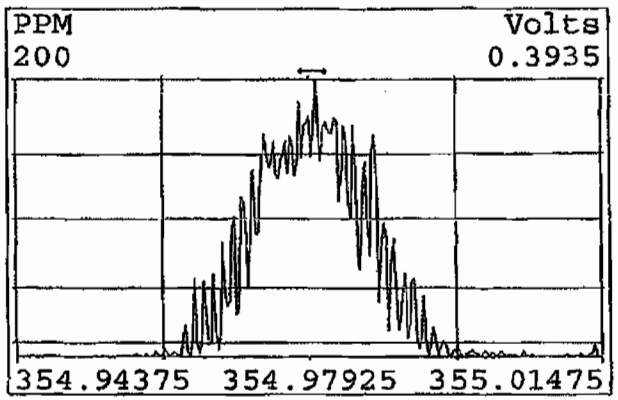
Peak Locate Examination: 1-JAN-2010:07:36 File:RESCHECK1D5
Experiment:DIOXIN Function:1 Reference:PFK

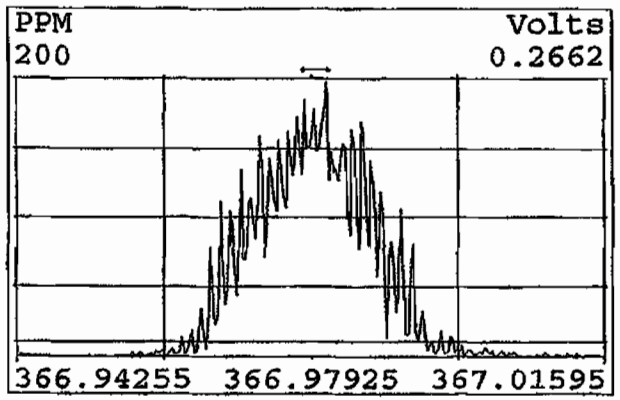


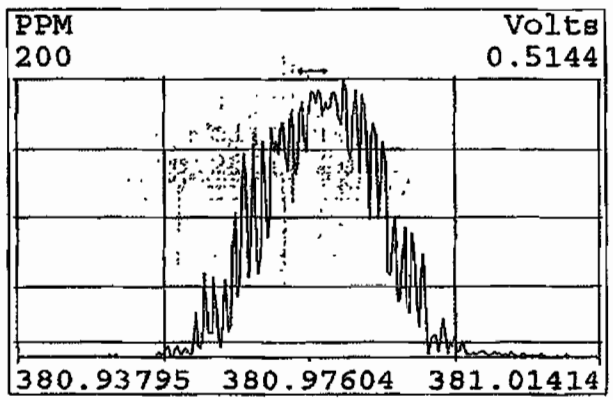
Peak Locate Examination: 1-JAN-2010:07:37 File:RESCHECK1D5
Experiment:DIOXIN Function:2 Reference:PFK

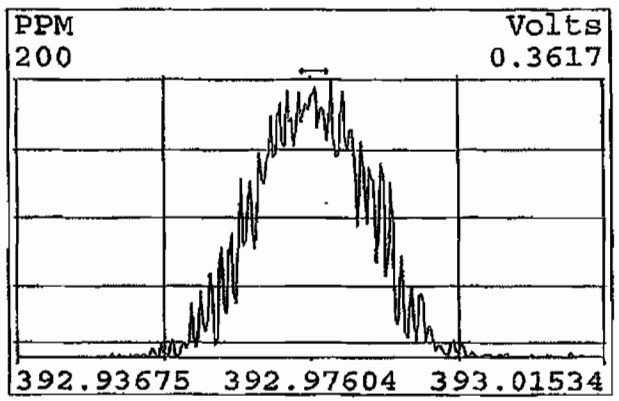


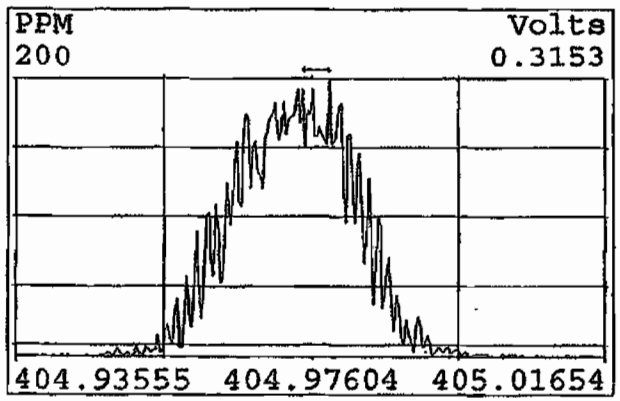


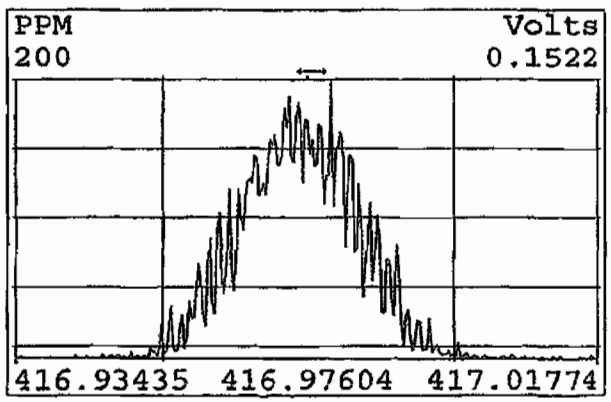




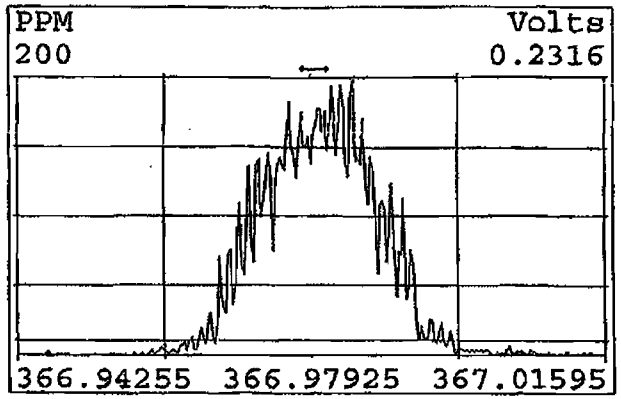


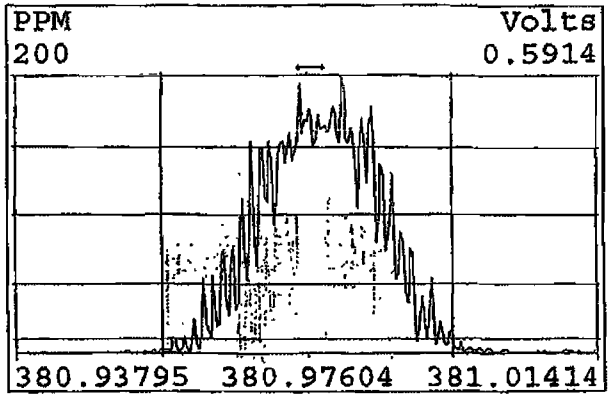


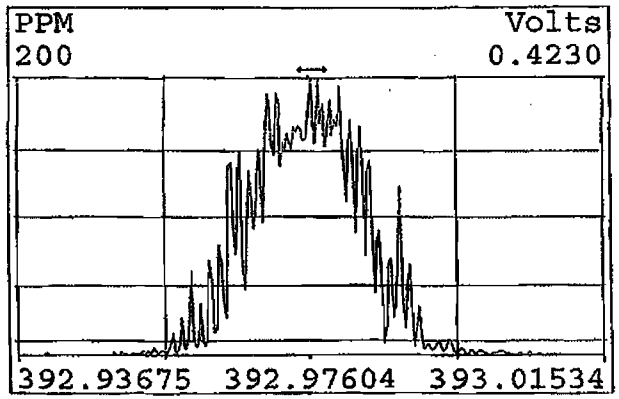


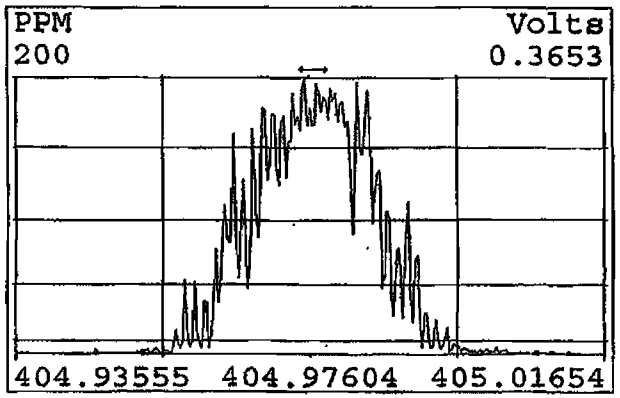


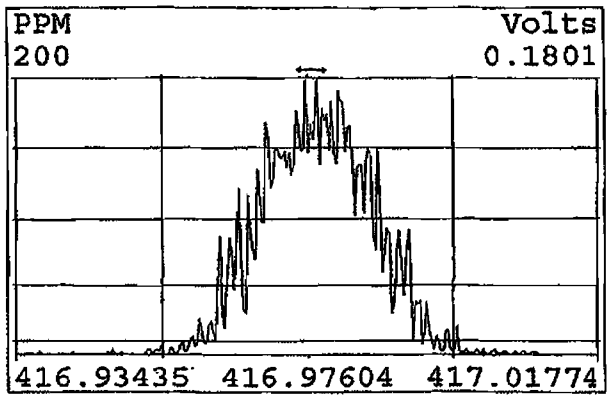
Peak Locate Examination: 1-JAN-2010:07:38 File:RESCHECK1D5
Experiment:DIOXIN Function:3 Reference:PFK

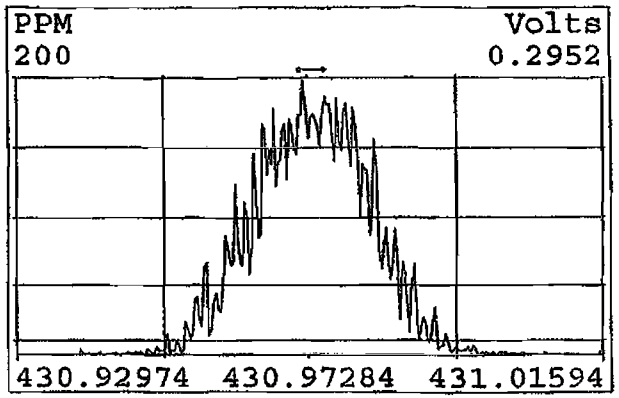


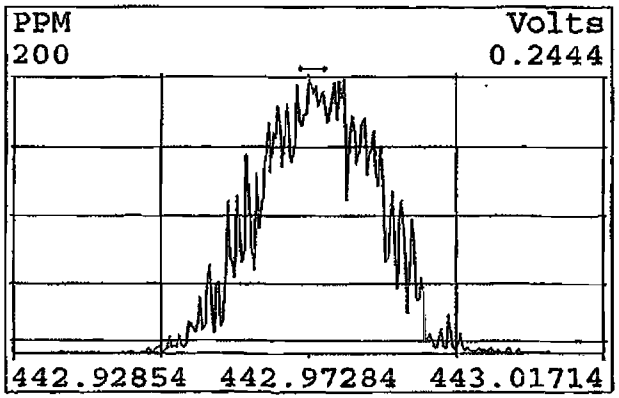


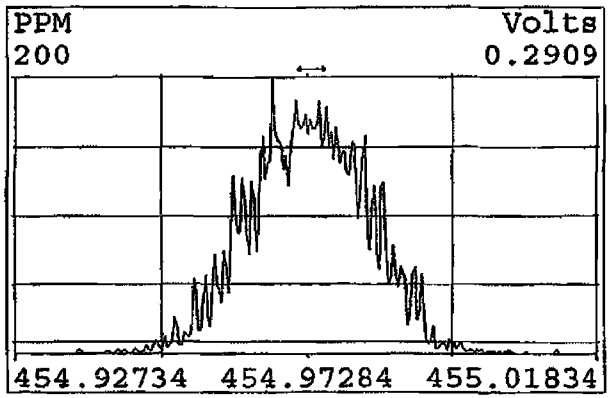




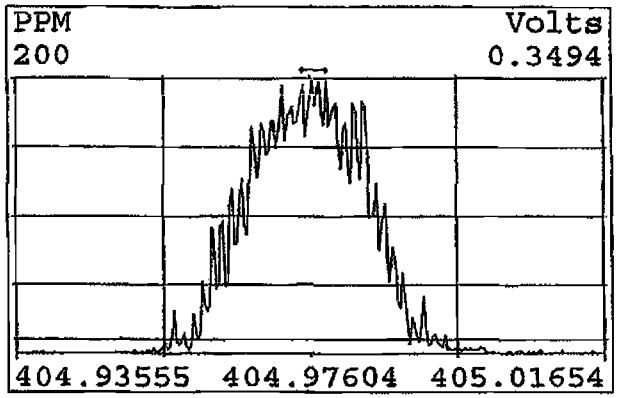


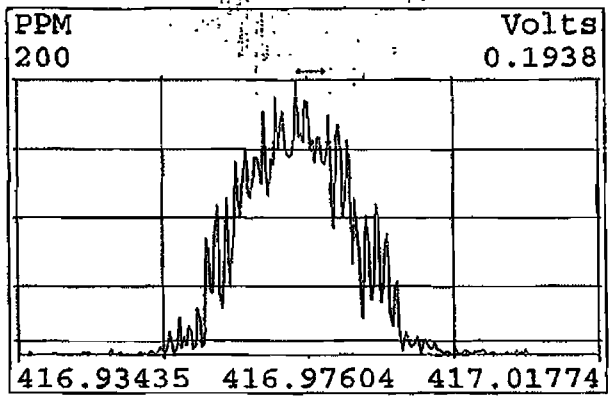


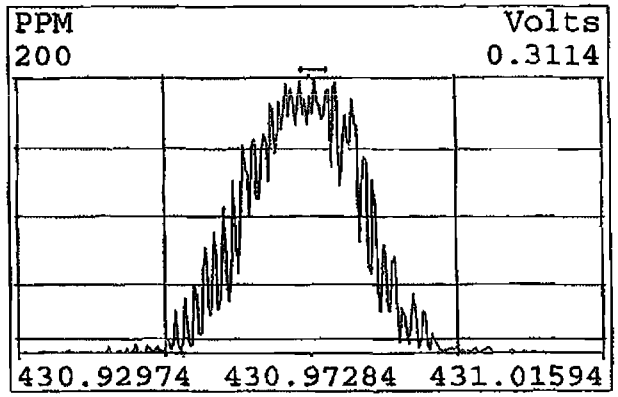


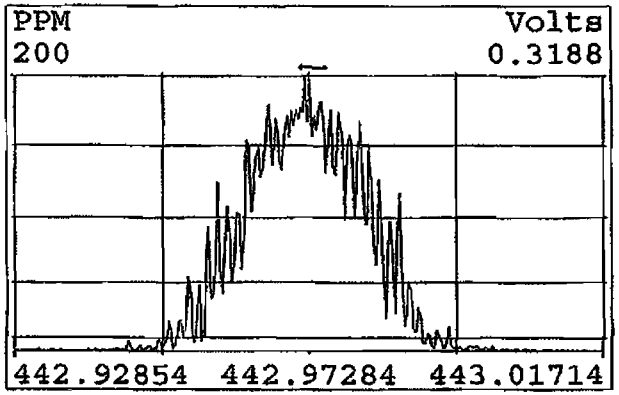


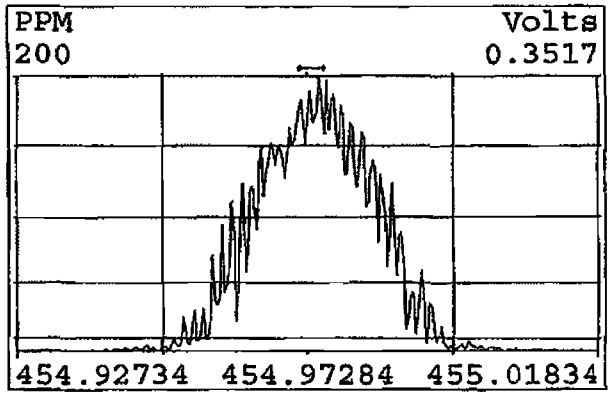
Peak Locate Examination: 1-JAN-2010:07:39 File:RESCHECK1D5
Experiment:DIOXIN Function:4 Reference:PFK

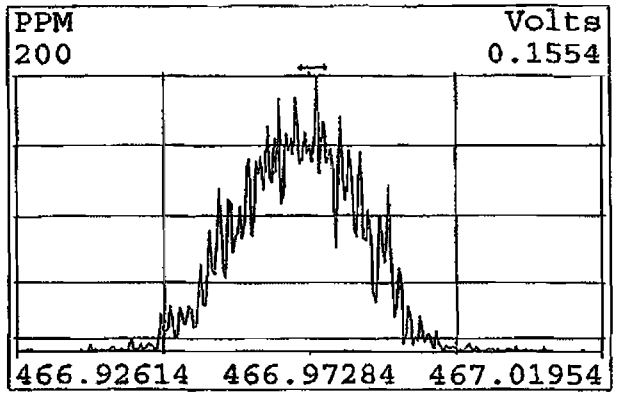


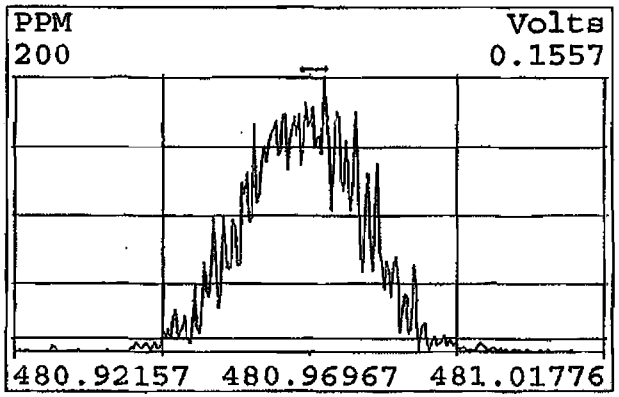




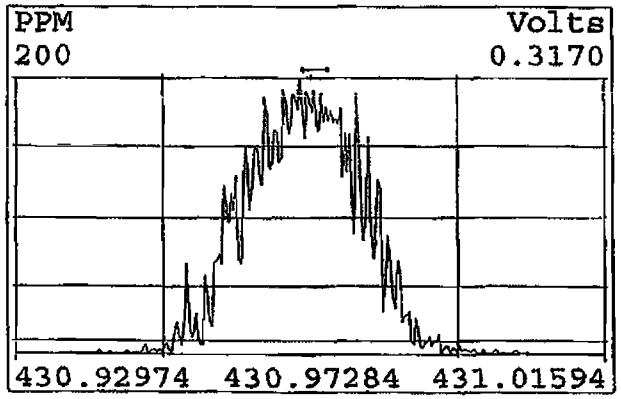


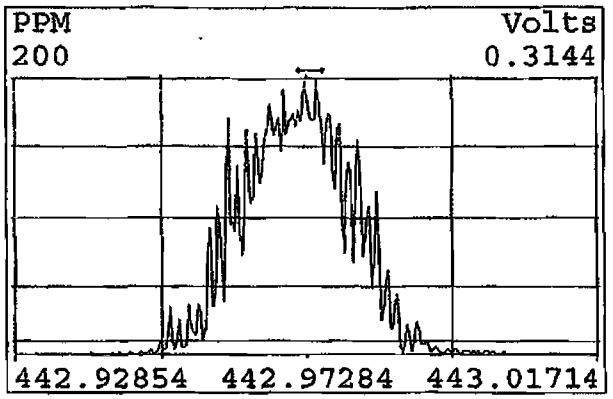


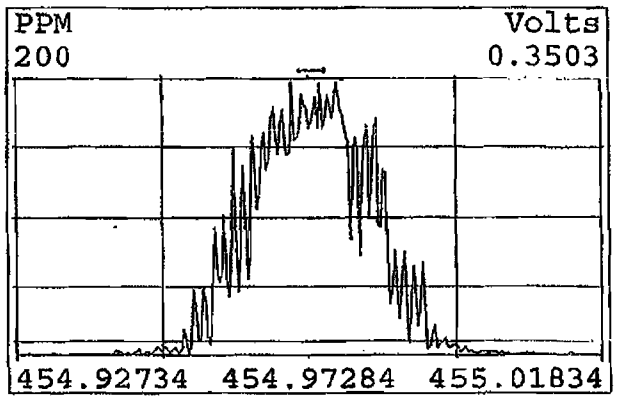


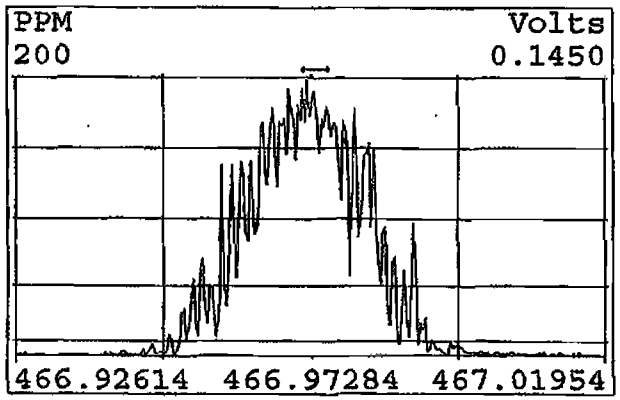


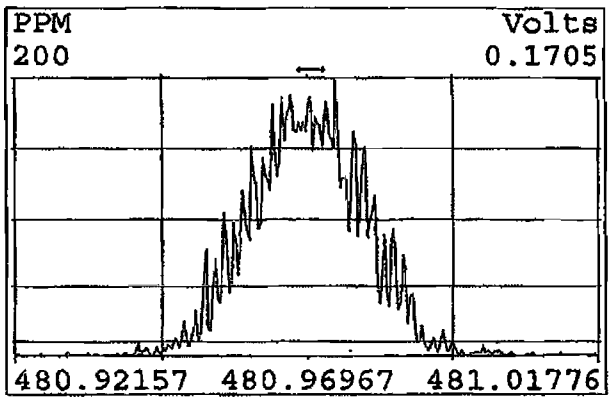
Peak Locate Examination: 1-JAN-2010:07:40 File:RESCHECK1D5
Experiment:DIOXIN Function:5 Reference:PFK

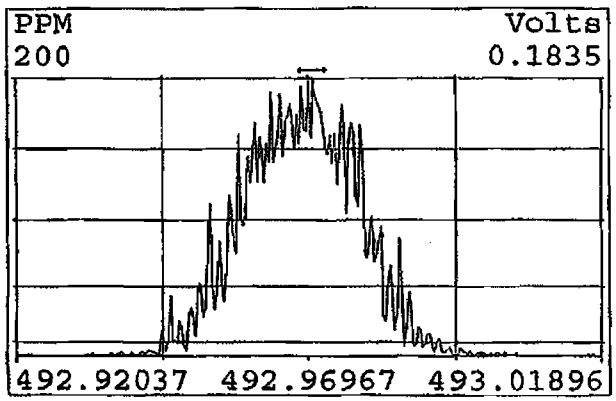


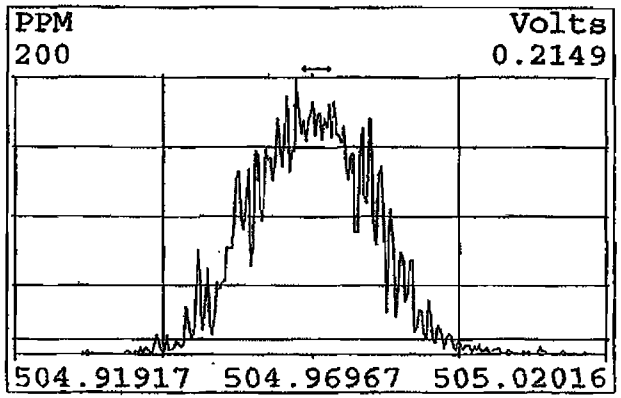


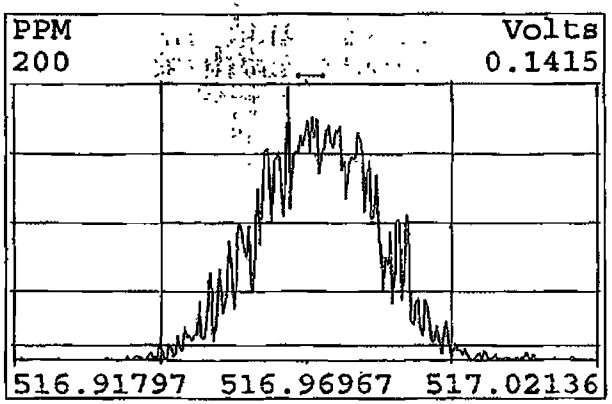












Run: 15SE098D2 Analyte: 8290 Cal: 82901231091D5

ST1231B :CS-1 09DXN422 ST1231C :CS-2 09DXN423 ST1231D :CS-3 09DXN425
ST1231E :CS-4 09DXN426 ST1231F :CS-5 09DXN456

				31DE09A1D5	31DE09A1D5	31DE09A1D5	31DE09A1D5	31DE09A1D5
				S2	S3	S4	S5	S6
Name	Mean	S. D.	%RSD	RRF1	RRF2	RRF3	RRF4	RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.566	0.079	5.03 %	1.52	1.48	1.64	1.53	1.66
2,3,7,8-TCDF	0.860	0.090	10.4 %	0.77	0.77	0.87	0.91	0.98
Total TCDF	0.860	0.090	10.4 %	0.77	0.77	0.87	0.91	0.98
13C-2,3,7,8-TCDD	0.993	0.079	7.91 %	0.93	0.93	1.01	0.97	1.12
2,3,7,8-TCDD	0.934	0.120	12.9 %	0.86	0.77	0.95	1.01	1.07
Total TCDD	0.934	0.120	12.9 %	0.86	0.77	0.95	1.01	1.07
37Cl-2,3,7,8-TCDD	2.218	0.347	15.7 %	2.02	1.82	2.18	2.33	2.74
13C-1,2,3,7,8-PeCDF	1.073	0.114	10.6 %	1.00	0.98	1.09	1.03	1.26
1,2,3,7,8-PeCDF	1.000	0.119	11.9 %	0.85	0.90	1.04	1.10	1.11
2,3,4,7,8-PeCDF	0.939	0.122	13.0 %	0.79	0.84	0.97	1.05	1.05
Total F2 PeCDF	0.969	0.120	12.4 %	0.82	0.87	1.01	1.08	1.08
Total F1 PeCDF	0.969	0.120	12.4 %	0.82	0.87	1.01	1.08	1.08
13C-1,2,3,7,8-PeCDD	0.666	0.081	12.1 %	0.61	0.59	0.67	0.67	0.80
1,2,3,7,8-PeCDD	0.929	0.127	13.7 %	0.79	0.81	0.94	1.04	1.06
Total PeCDD	0.929	0.127	13.7 %	0.79	0.81	0.94	1.04	1.06
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-
13C-1,2,3,4,7,8-HxCDF	0.893	0.084	9.37 %	0.98	0.88	0.90	0.76	0.94
1,2,3,4,7,8-HxCDF	1.199	0.171	14.2 %	0.96	1.08	1.31	1.33	1.32
1,2,3,6,7,8-HxCDF	1.371	0.160	11.7 %	1.12	1.30	1.48	1.51	1.45
2,3,4,6,7,8-HxCDF	1.242	0.152	12.3 %	1.02	1.15	1.32	1.36	1.36
1,2,3,7,8,9-HxCDF	1.326	0.218	16.4 %	1.02	1.19	1.44	1.57	1.42
Total HxCDF	1.285	0.174	13.5 %	1.03	1.18	1.39	1.44	1.38
13C-1,2,3,6,7,8-HxCDD	0.732	0.084	11.4 %	0.83	0.69	0.75	0.61	0.78
1,2,3,4,7,8-HxCDD	0.970	0.170	17.5 %	0.74	0.88	0.98	1.15	1.11

1,2,3,6,7,8-HxCDD	1.058	0.118	11.2 %	0.88	1.01	1.09	1.16	1.15
1,2,3,7,8,9-HxCDD	1.275	0.243	19.0 %	0.92	1.19	1.33	1.57	1.37
Total HxCDD	1.101	0.175	15.9 %	0.84	1.02	1.14	1.30	1.21
13C-1,2,3,4,6,7,8-HpCDF	0.860	0.055	6.38 %	0.92	0.85	0.88	0.78	0.88
1,2,3,4,6,7,8-HpCDF	1.287	0.138	10.8 %	1.10	1.18	1.34	1.41	1.40
1,2,3,4,7,8,9-HpCDF	1.135	0.151	13.3 %	0.95	1.00	1.19	1.27	1.27
Total HpCDF	1.211	0.145	11.9 %	1.02	1.09	1.27	1.34	1.33
13C-1,2,3,4,6,7,8-HpCDD	0.752	0.046	6.08 %	0.80	0.74	0.75	0.68	0.79
1,2,3,4,6,7,8-HpCDD	0.998	0.122	12.2 %	0.85	0.88	1.05	1.10	1.10
Total HpCDD	0.998	0.122	12.2 %	0.85	0.88	1.05	1.10	1.10
13C-OCDD	0.564	0.039	6.86 %	0.58	0.54	0.57	0.51	0.61
OCDF	1.437	0.202	14.1 %	1.16	1.30	1.52	1.63	1.59
OCDD	1.110	0.128	11.5 %	0.96	0.98	1.16	1.23	1.22

Run text: ST1231G Sample text: ST1231G :2nd Source 09DXN449
Run #6 Filename: 31DE09A1D5 S: 8 I: 1 Results: 31DE09A1D51613
Acquired: 1-JAN-10 04:19:56 Processed: 4-JAN-10 08:47:22
Run: 31DE09A1D5 Analyte: 1613 Cal: 16131231091D5
Factor 1: 400.000 Factor 2: 20.000 Sample size: 1.000000

Name	Resp	RA		RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	233268000	0.81	y	18:42	-	74.89	-	3.7	n
13C-2,3,7,8-TCDF	353417000	0.79	y	18:09	1.57	1934.92	1.89	96.7	n
2,3,7,8-TCDF	29473900	0.75	y	18:10	0.86	193.98	1.19	-	n
Total TCDF	29878342	0.71	y	17:44	0.86	196.64	1.19	-	n
13C-2,3,7,8-TCDD	237599000	0.79	y	18:54	0.99	2050.84	3.63	102.5	n
2,3,7,8-TCDD	20517060	0.77	y	18:55	0.93	184.95	1.19	-	n
Total TCDD	20584547	4.35	n	18:08	0.93	185.56	1.19	-	n
37Cl-2,3,7,8-TCDD	54584600	1.00	y	18:55	2.22	210.99	0.58	105.5	n
13C-1,2,3,7,8-PeCDF	258286200	1.61	y	23:34	1.07	2064.12	1.55	103.2	n
1,2,3,7,8-PeCDF	61444300	1.63	y	23:35	1.00	475.75	1.74	-	n
13C-2,3,4,7,8-PeCDF	243753700	1.62	y	24:59	1.03	2025.63	1.61	101.3	n
2,3,4,7,8-PeCDF	55918300	1.65	y	25:01	0.98	469.60	2.00	-	n
Total F2 PeCDF	119226673	0.82	n	22:06	0.99	960.37	1.86	-	n
Total F1 PeCDF	218994	0.56	n	16:04	0.99	1.76	1.60	-	n
13C-1,2,3,7,8-PeCDD	156506400	1.64	y	25:46	0.67	2013.73	1.54	100.7	n
1,2,3,7,8-PeCDD	33662100	1.63	y	25:48	0.93	462.96	2.68	-	n
Total PeCDD	33824671	3.66	n	25:27	0.93	465.20	2.68	-	n
13C-1,2,3,7,8,9-HxCDD	177940200	1.25	y	32:51	-	64.87	-	-	n
13C-1,2,3,4,7,8-HxCDF	184934800	0.51	y	31:27	0.89	2328.15	4.47	116.4	n
1,2,3,4,7,8-HxCDF	53136200	1.31	y	31:28	1.20	479.25	2.45	-	n
13C-1,2,3,6,7,8-HxCDF	244860900	0.52	y	31:36	1.14	2407.44	3.49	120.4	n
1,2,3,6,7,8-HxCDF	62674400	1.23	y	31:37	1.07	477.98	2.04	-	n
13C-2,3,4,6,7,8-HxCDF	206484200	0.51	y	32:17	0.99	2340.79	4.03	117.0	n
2,3,4,6,7,8-HxCDF	51999200	1.28	y	32:18	1.12	450.75	2.09	-	n
13C-1,2,3,7,8,9-HxCDF	200333300	0.51	y	33:03	1.07	2099.56	3.72	105.0	n
1,2,3,7,8,9-HxCDF	52210900	1.25	y	33:04	1.09	476.28	2.26	-	n
Total HxCDF	220020700	1.31	y	31:28	1.12	1884.27	2.20	-	n
13C-1,2,3,4,7,8-HxCDD	148948400	1.25	y	32:27	0.73	2291.14	1.29	114.6	n
1,2,3,4,7,8-HxCDD	35533800	1.25	y	32:28	0.97	493.76	1.44	-	n
13C-1,2,3,6,7,8-HxCDD	152466700	1.30	y	32:33	0.73	2340.82	1.29	117.0	n
1,2,3,6,7,8-HxCDD	38830200	1.26	y	32:34	1.06	481.27	1.47	-	n
1,2,3,7,8,9-HxCDD	40200100	1.26	y	32:52	1.27	419.65	1.16	-	n
Total HxCDD	114605618	3.00	n	32:17	1.10	1395.19	1.34	-	n
13C-1,2,3,4,6,7,8-HpCDF	173164700	0.43	y	34:36	0.86	2262.83	6.25	113.1	n
1,2,3,4,6,7,8-HpCDF	54083400	1.05	y	34:37	1.29	485.50	1.92	-	n
13C-1,2,3,4,7,8,9-HpCDF	152527600	0.42	y	35:53	0.77	2233.57	7.00	111.7	n
1,2,3,4,7,8,9-HpCDF	44615700	1.05	y	35:54	1.27	459.77	2.42	-	n
Total HpCDF	98699100	1.05	y	34:37	1.28	945.27	2.15	-	n

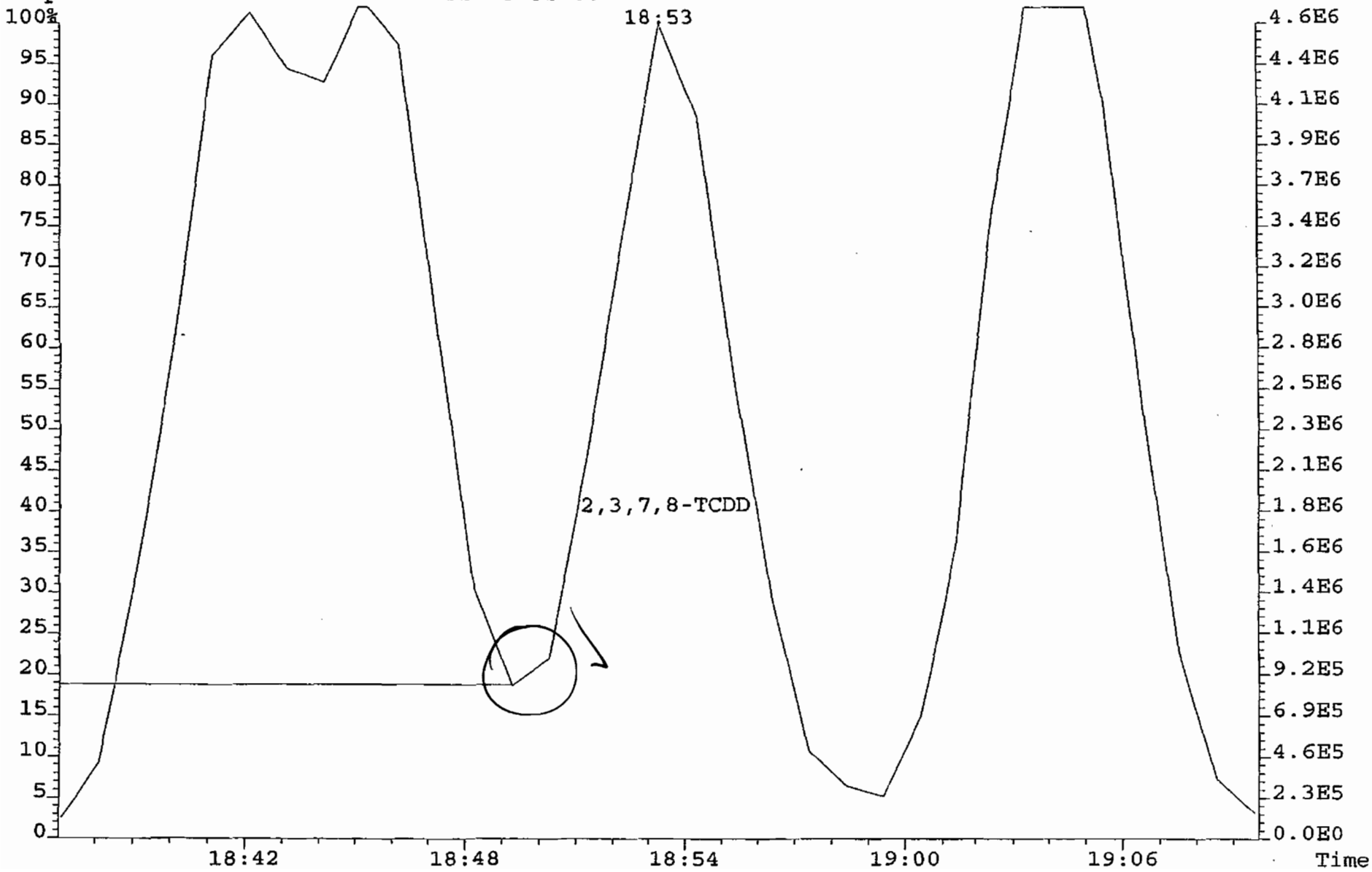
sample to 120.

13C-1,2,3,4,6,7,8-HpCDD	150261100	1.06	y	35:32	0.75	2245.36	4.02	112.3	n
1,2,3,4,6,7,8-HpCDD	35301400	1.05	y	35:33	1.00	470.89	2.29	-	n
Total HpCDD	35553500	0.78	n	34:54	1.00	474.25	2.29	-	n
13C-OCDD	214408000	0.91	y	38:20	0.56	4269.63	4.55	106.7	n
OCDF	71179900	0.89	y	38:28	1.44	923.89	2.51	-	n
OCDD	55918600	0.88	y	38:20	1.11	940.23	2.77	-	n

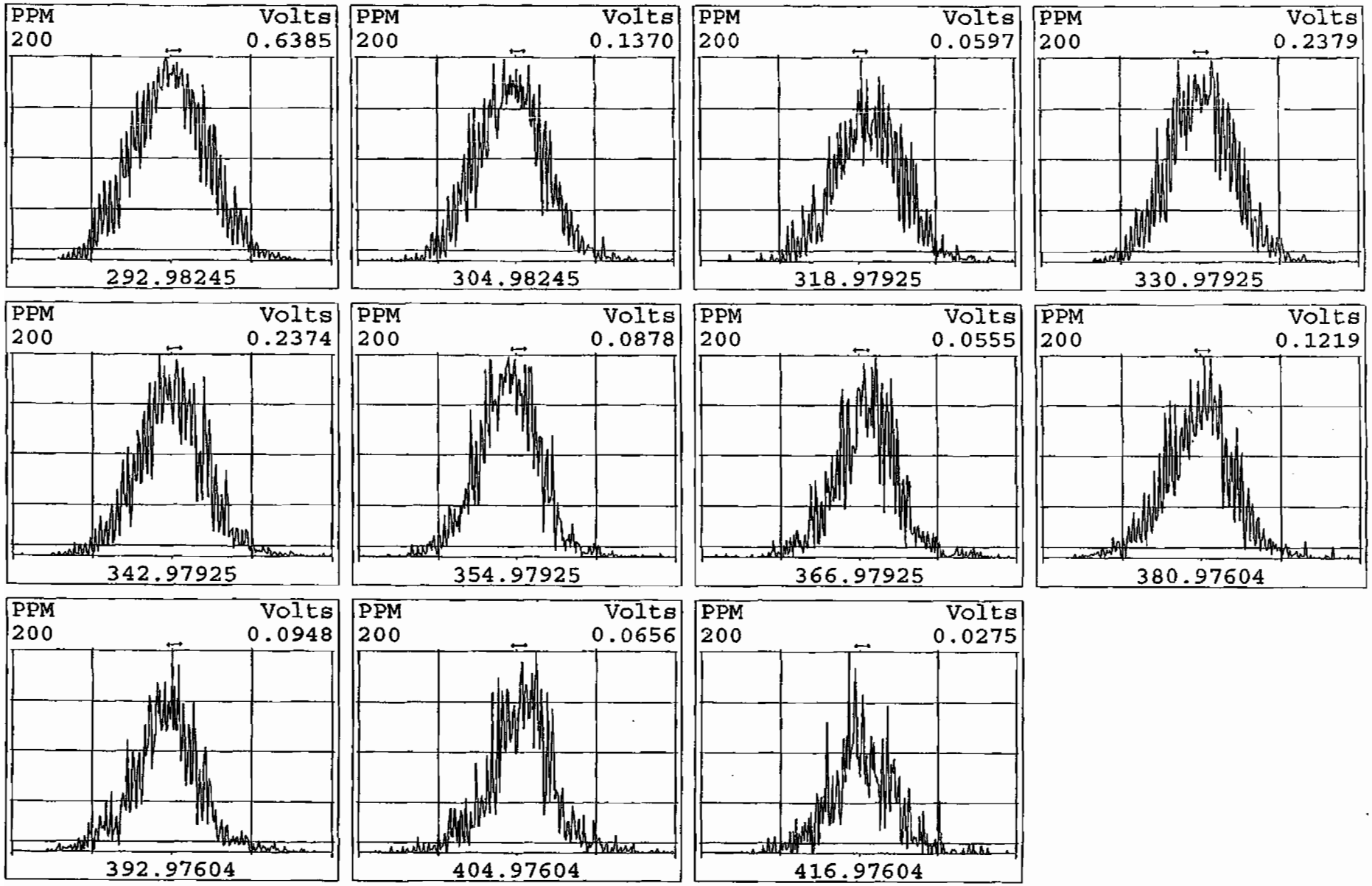
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
25FE101D5	1	ST0225	CS3 10DXN049				1.000	
25FE101D5	2	10DXN081	DAILY CRS	20	1613		1.000	L
25FE101D5	3	ST0225A	CS3 10DXN049				1.000	
25FE101D5	4	CP0225	DB-5 CPSM 3732-05				1.000	
25FE101D5	5	SB0225	Solvent Blank C-14				1.000	
25FE101D5	6	LV159-1-AA	F0B170439-1MB	20	8290/WATER	25	1.000	L
25FE101D5	7	LV159-1-AC	F0B170439-1LCS	20	8290/WATER		1.000	L
25FE101D5	8	LVRGC-1-AE	F0B170439-1	20	8290/WATER		1.047	L
25FE101D5	9	LVTAR-1-AA	G0B170512-1	20	8290/WATER		1.056	L
25FE101D5	10	LVTAW-1-AA	G0B170512-2	20	8290/WATER		0.973	L
25FE101D5	11	LVTAX-1-AA	G0B170512-3	20	8290/WATER		1.060	L
25FE101D5	12	LVTA0-1-AA	G0B170512-4	20	8290/WATER		0.975	L
25FE101D5	13	LVWP5-1-AA	G0B170512-5	20	8290/WATER		1.060	L
25FE101D5	14	LVV1Q-1-AA	G0B190423-1	20	8290T/WATER		1.062	L
25FE101D5	15	LVV1Q-1-AA	G0B190424-1	20	8290T/WATER		1.064	L
25FE101D5	16	LV2VM-1-AC	G0B230483-1LCS	20	82901613B/SOLI		10.000	g
25FE101D5	17	LV2VM-1-AA	G0B230483-1MB	20	8290/1613/SOLI		10.000	g
25FE101D5	18	LV06V-1-AC	G0B230483-3	20	1613B/SOLID		10.210	g
25FE101D5	19	LV06W-1-AC	G0B230483-4	20	1613B/SOLID		10.780	g
25FE101D5	20	SB0225A	Solvent Blank C-14				1.000	
25FE101D5	21	ST0225B	CS3 10DXN049				1.000	
25FE101D5	22	CP0225A	DB-5 CPSM 3732-05				1.000	
25FE101D5	23	SB0225B	Solvent Blank C-14				1.000	
25FE101D5	24	LVV15-1-AA	G0B190426-1	20	8290T/WATER	25	1.066	L
25FE101D5	25	LVV2F-1-AA	G0B190429-1	20	8290T/WATER		1.060	L
25FE101D5	26	LVXHR-1-AA	G0B200451-2	20	8290/WATER		1.036	L
25FE101D5	27	LVXHT-1-AA	G0B200453-1	20	8290/WATER		1.053	L
25FE101D5	28	LVXHV-1-AA	G0B200453-2	20	8290/WATER		1.033	L
25FE101D5	29	LVXH0-1-AA	G0B200454-3	20	8290/WATER		0.998	L
25FE101D5	30	LVXH6-1-AA	G0B200456-4	20	8290/WATER		1.072	L
25FE101D5	31	LVVKF-1-AA	C0B180543-1	20	8290/WATER		0.976	L
25FE101D5	32	LVXH8-1-AC	G0B200458-1	20	8290/SOLID		10.160	g
25FE101D5	33	LVXH9-1-AC	G0B200458-2	20	8290/SOLID		10.590	g
25FE101D5	34	LV1KN-1-AC	G0B230551-1	20	8290/SOLID		10.300	g
25FE101D5	35	LV1KP-1-AC	G0B230551-2	20	8290/SOLID		10.010	g
25FE101D5	36	LV1KQ-1-AC	G0B230551-3	20	8290/SOLID		10.130	g
25FE101D5	37	LV1KR-1-AC	G0B230551-4	20	8290/SOLID		10.760	g
25FE101D5	38	LV1KT-1-AC	G0B230551-5	20	8290/SOLID		10.440	g
25FE101D5	39	SB0225C	Solvent Blank C-14				1.000	
25FE101D5	40	ST0225C	CS3 10DXN049 — filament bleed				1.000	
25FE101D5	41						1.000	
25FE101D5	42						1.000	
25FE101D5	43						1.000	
25FE101D5	44		JRB 02-25-10				1.000	

Logbk checked
02-26-10
SMA

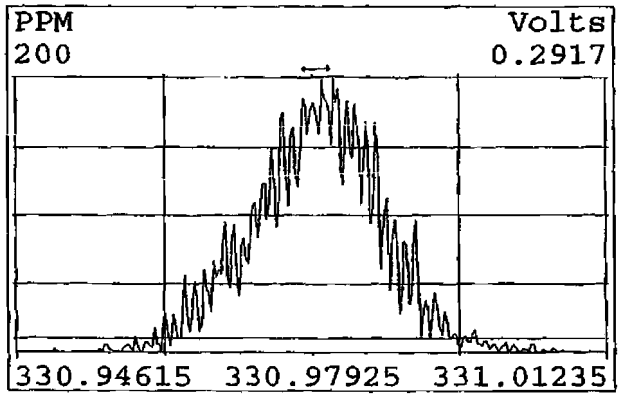
File:25FE101D5 #1-434 Acq:25-FEB-2010 16:05:35 GC EI+ Voltage SIR 70SE
321.8936 S:4 Exp:DIOXIN
Sample Text:CP0225 :DB-5 CPSM 3732-05

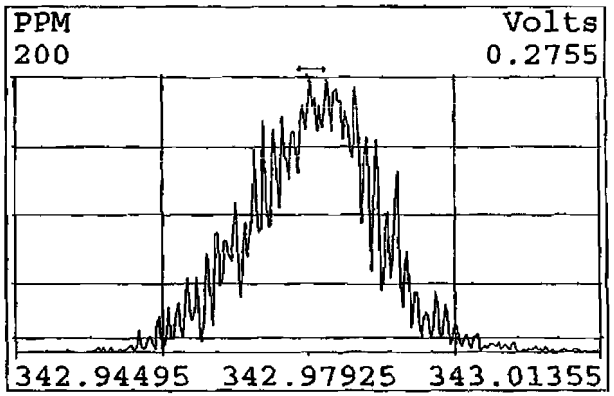


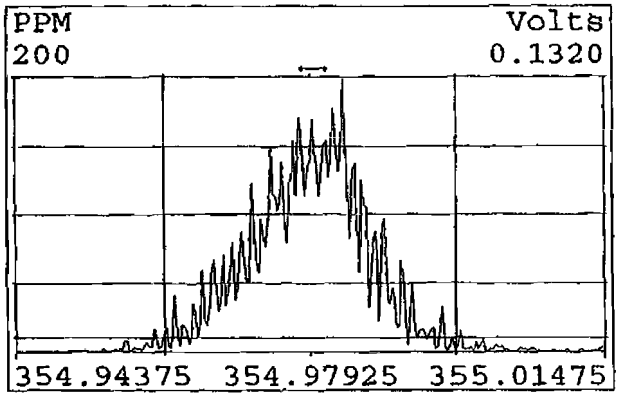
Peak Locate Examination:25-FEB-2010:13:47 File:25FE101D5
Experiment:DIOXIN Function:1 Reference:PFK

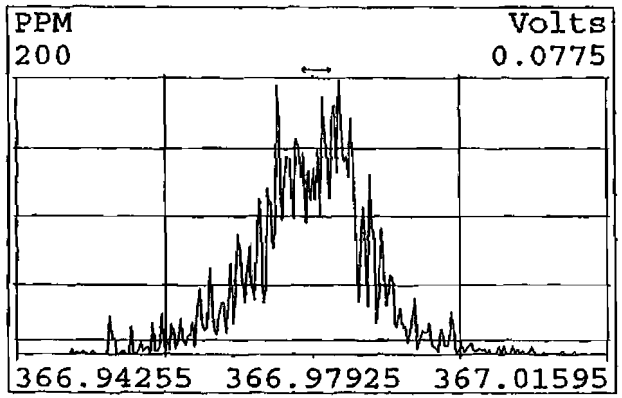


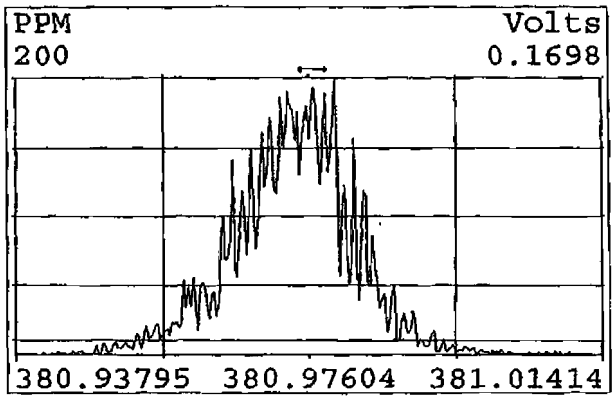
Peak Locate Examination:25-FEB-2010:13:48 File:25FE101D5
Experiment:DIOXIN Function:2 Reference:PFK

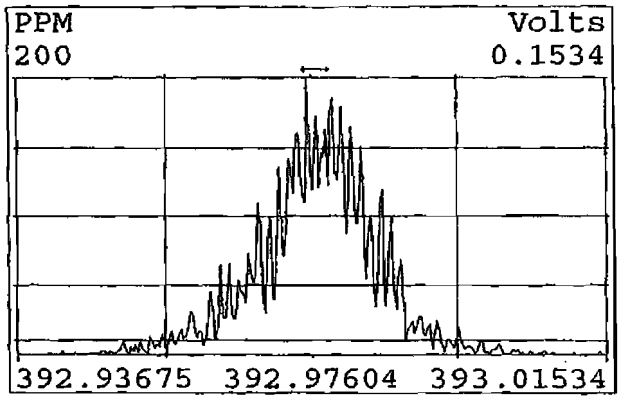


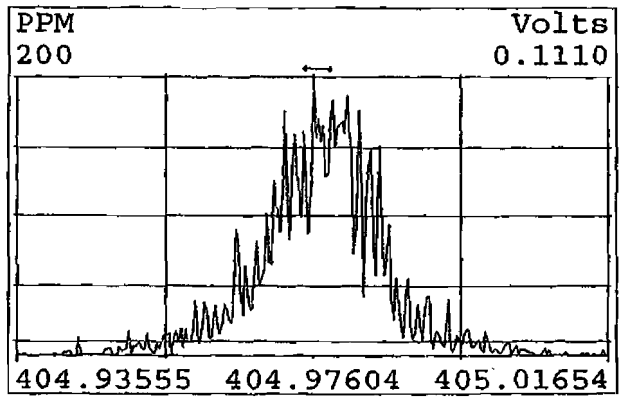


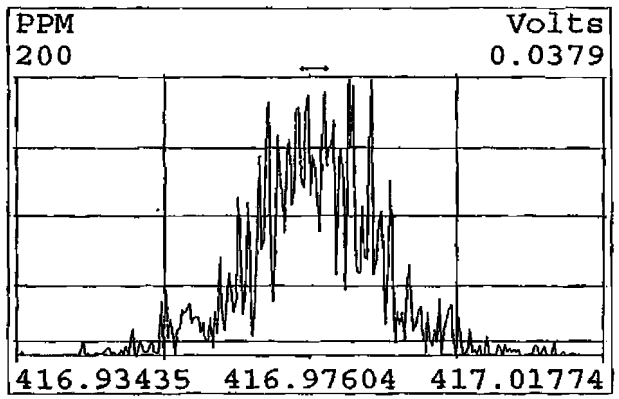




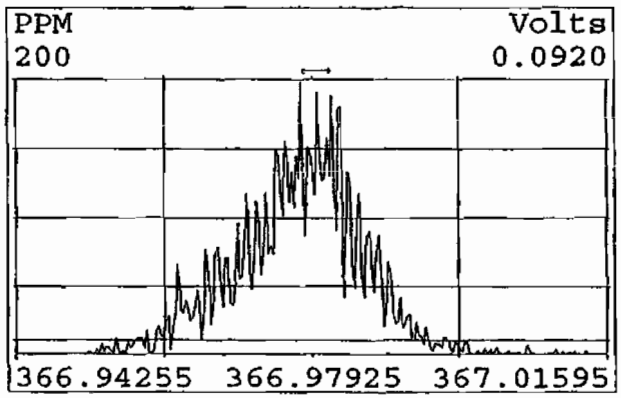


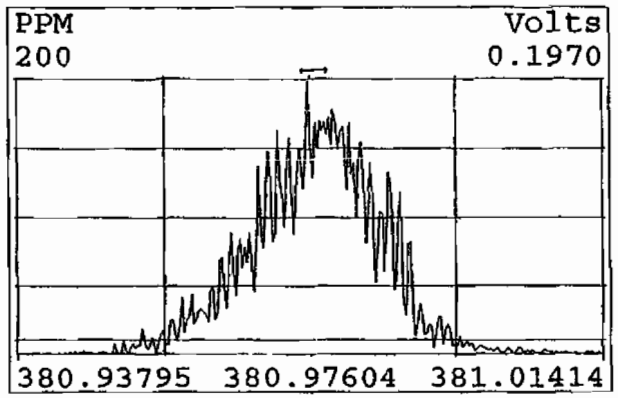


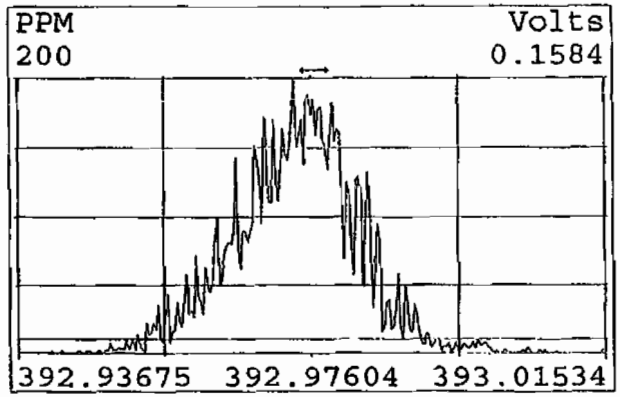


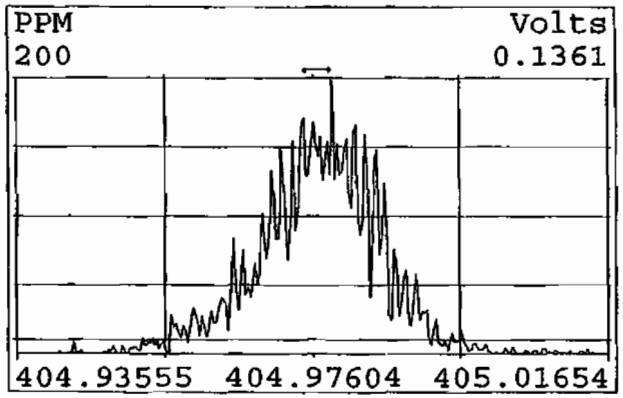


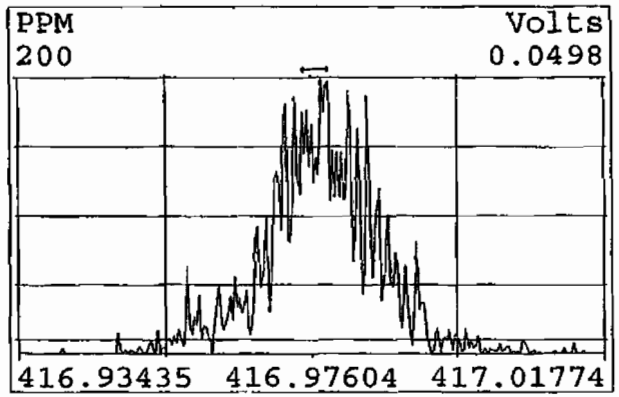
Peak Locate Examination:25-FEB-2010:13:49 File:25FE101D5
Experiment:DIOXIN Function:3 Reference:PFK

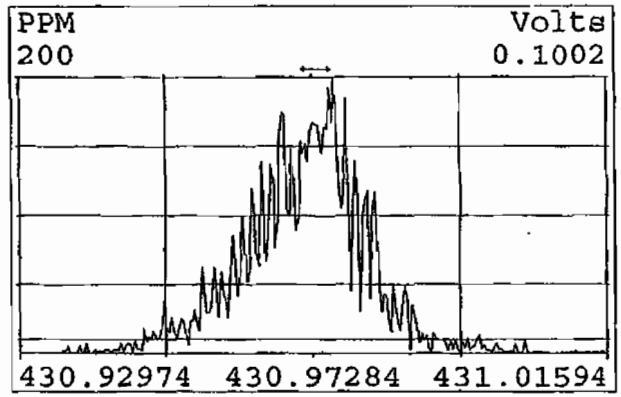


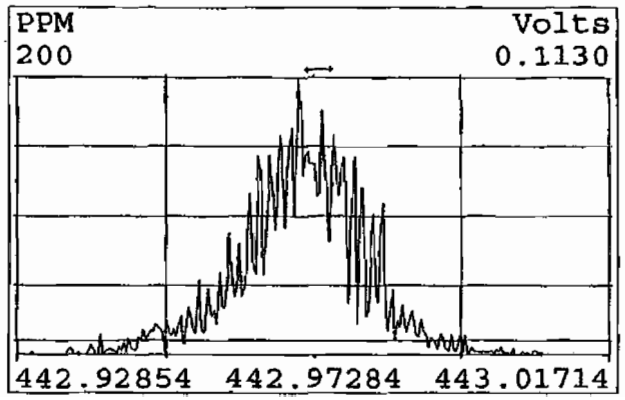


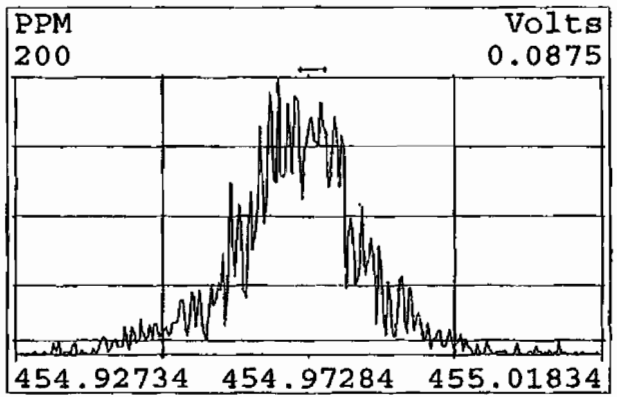




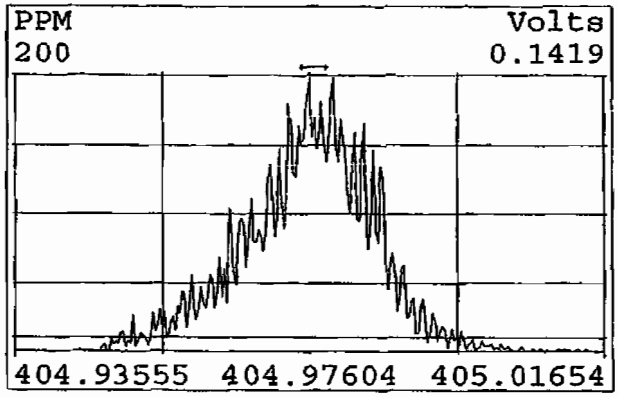


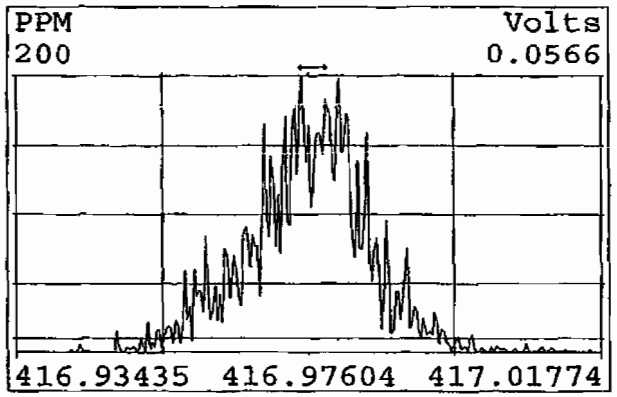


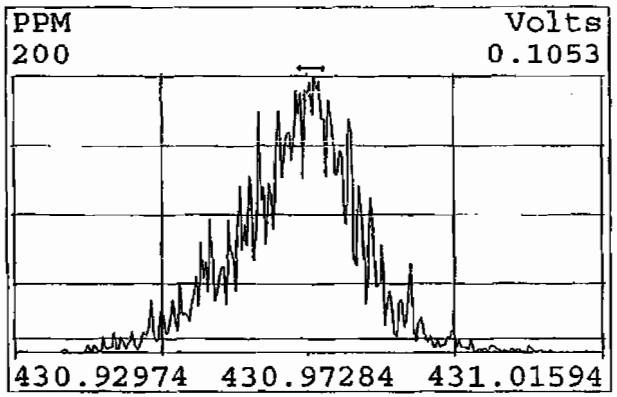


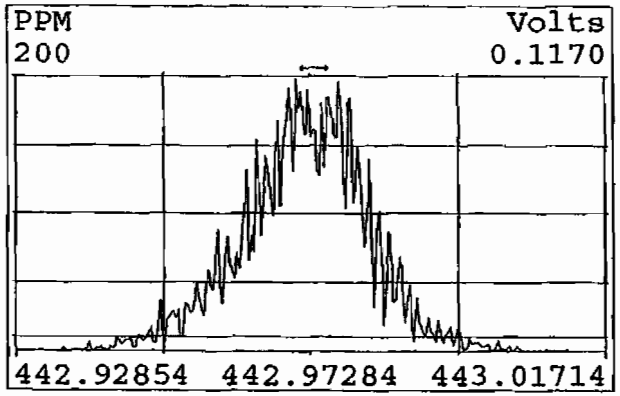


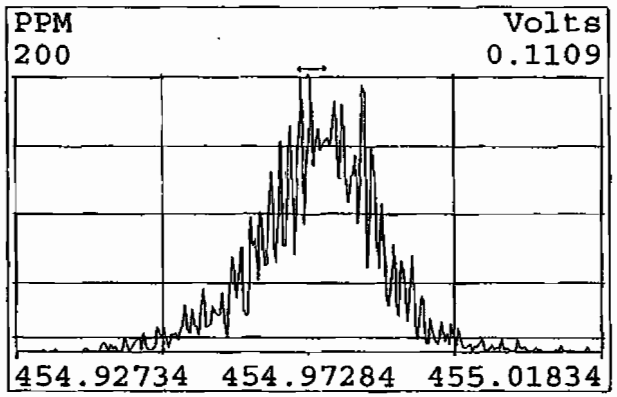
Peak Locate Examination:25-FEB-2010:13:49 File:25FE101D5
Experiment:DIOXIN Function:4 Reference:PFK

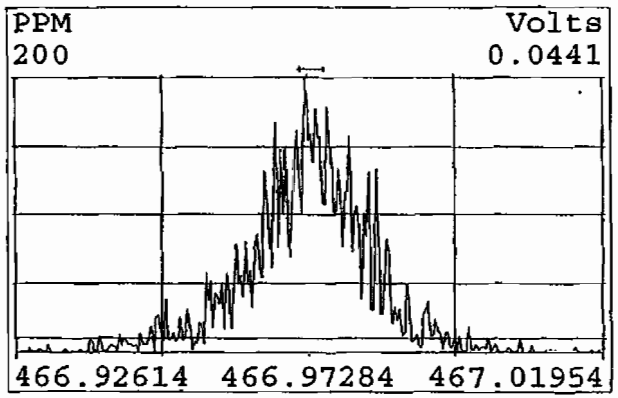


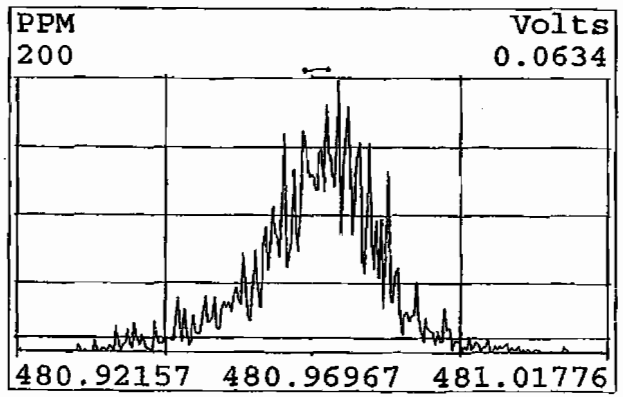




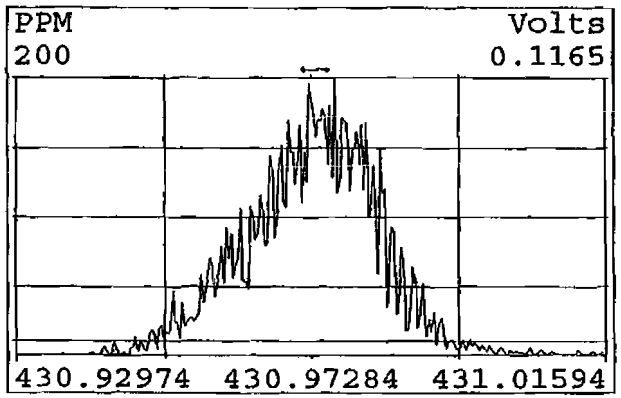


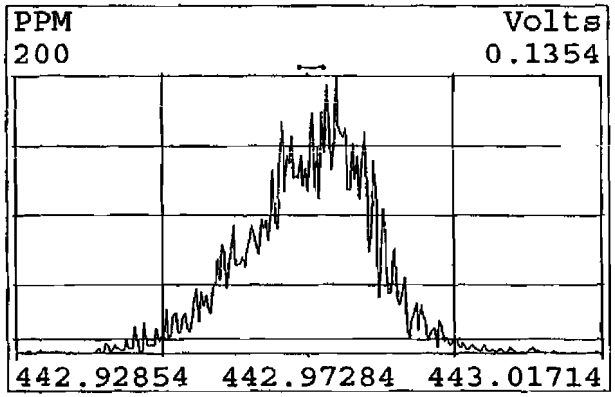


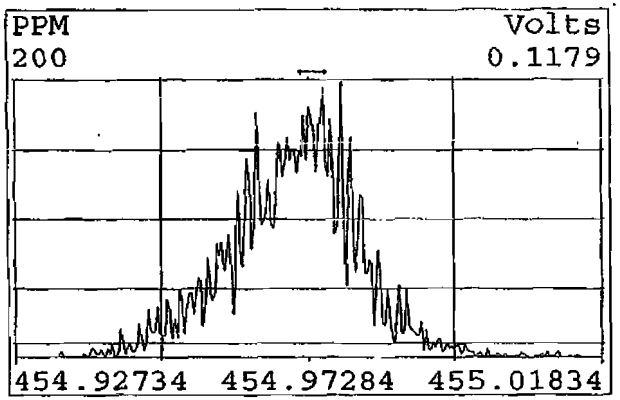


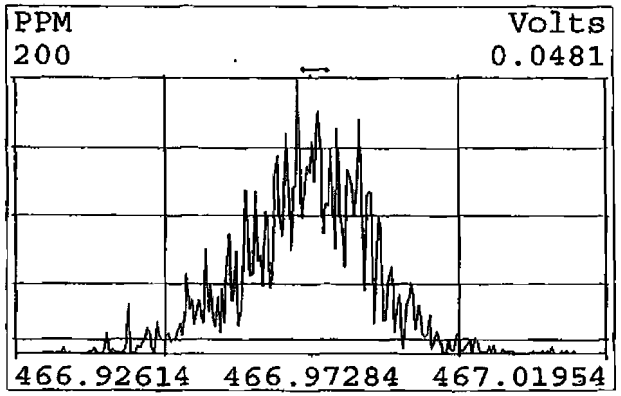


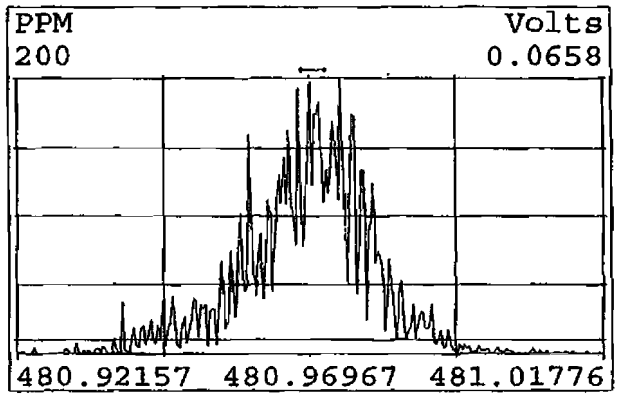
Peak Locate Examination:25-FEB-2010:13:50 File:25FE101D5
Experiment:DIOXIN Function:5 Reference:PFK

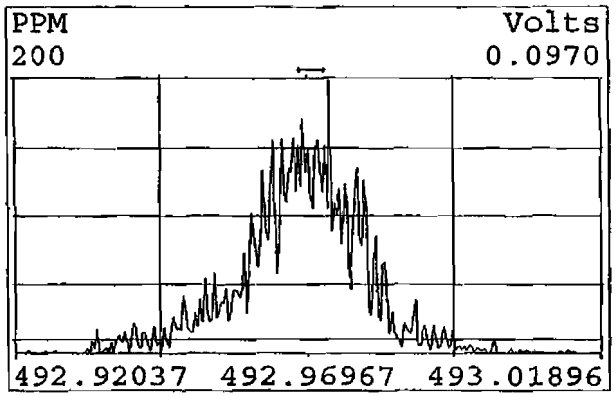


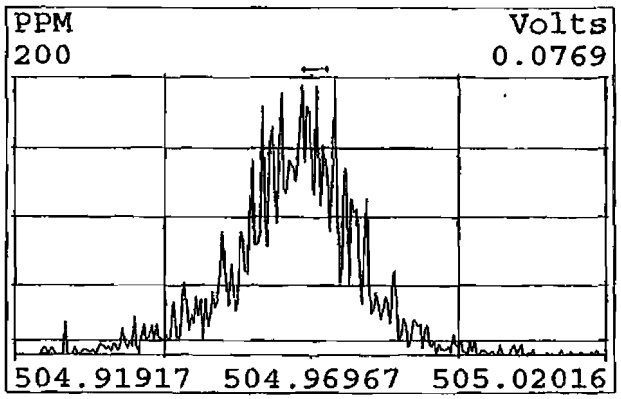


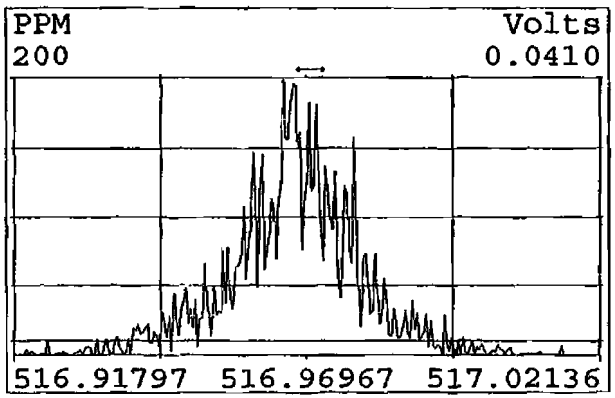




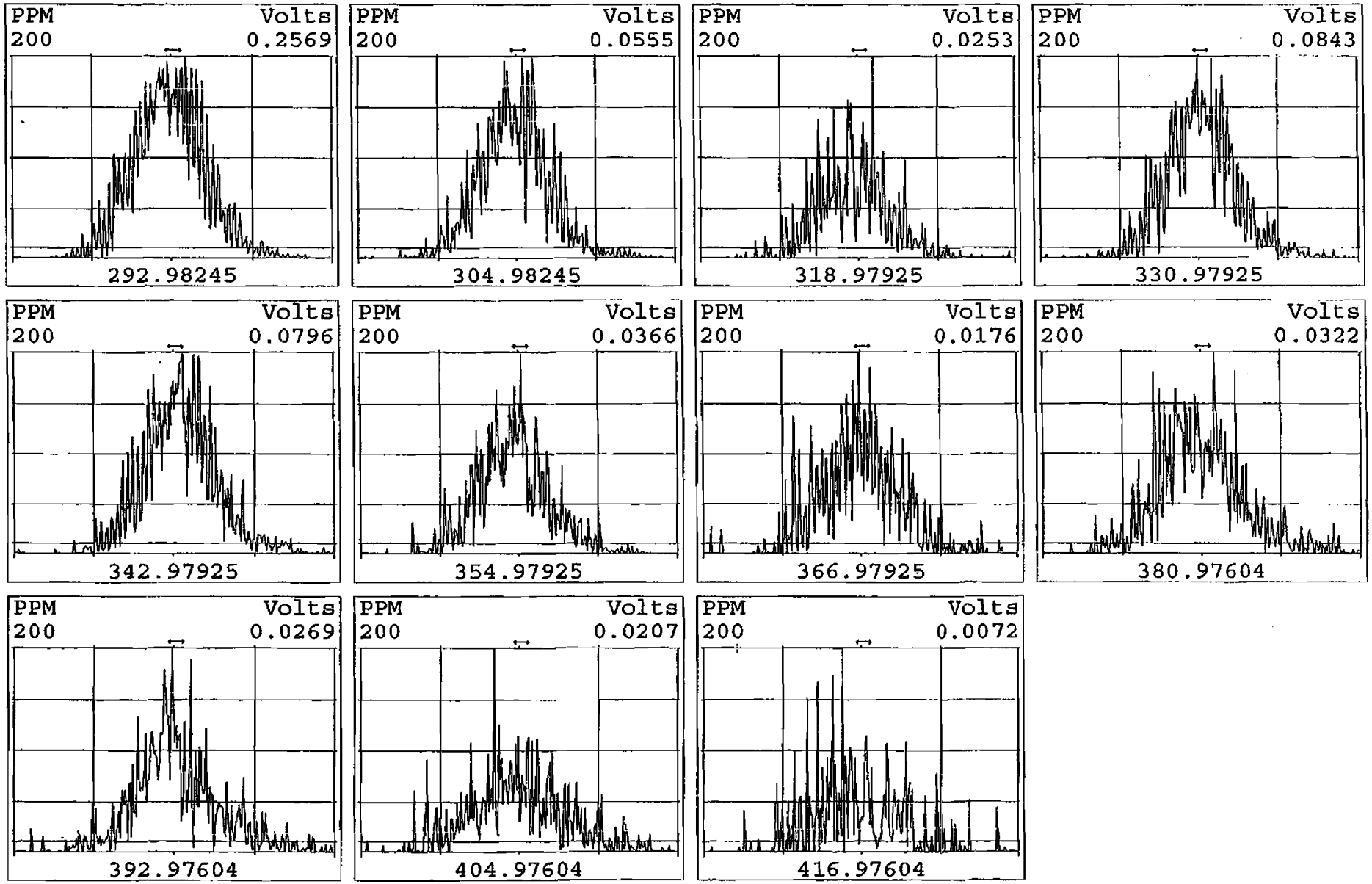




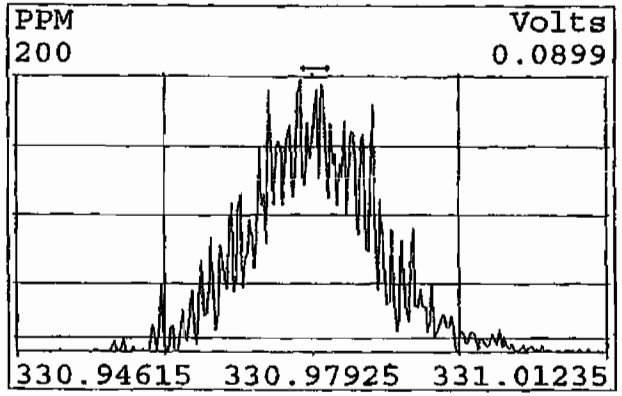


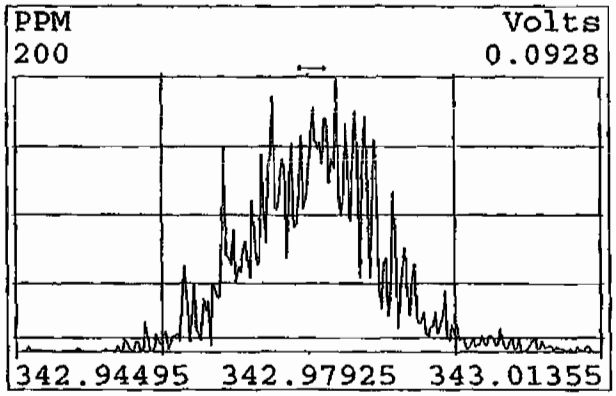


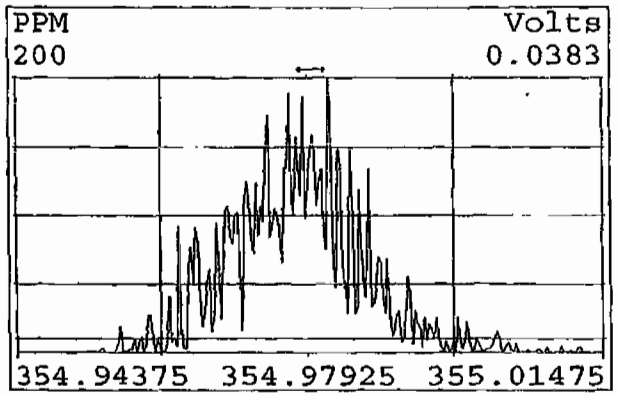
Peak Locate Examination:26-FEB-2010:19:03 File:25FE101D5ENDRSCK
Experiment:DIOXIN Function:1 Reference:PFK

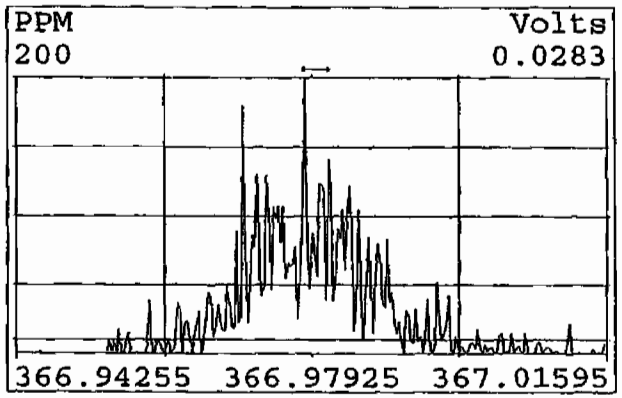


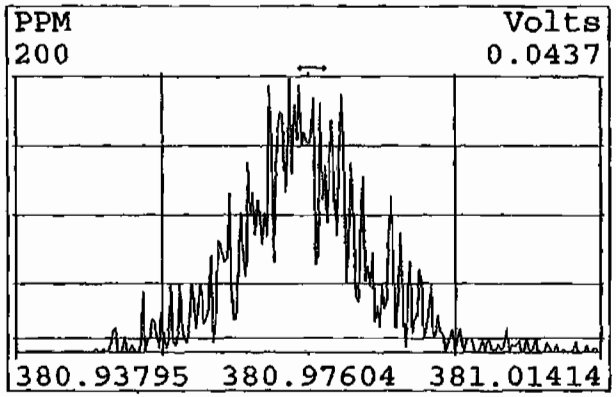
Peak Locate Examination:26-FEB-2010:19:03 File:25FE101D5ENDRSCK
Experiment:DIOXIN Function:2 Reference:PFK

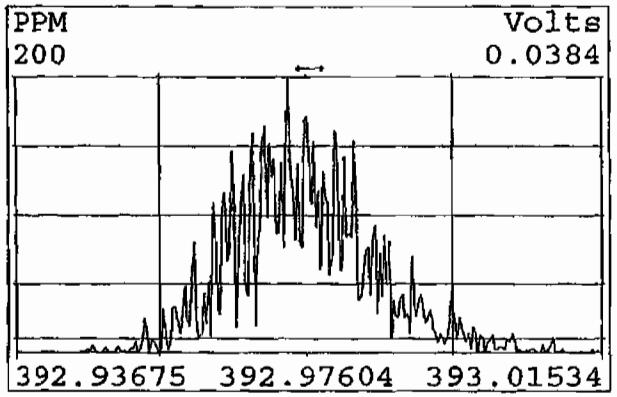


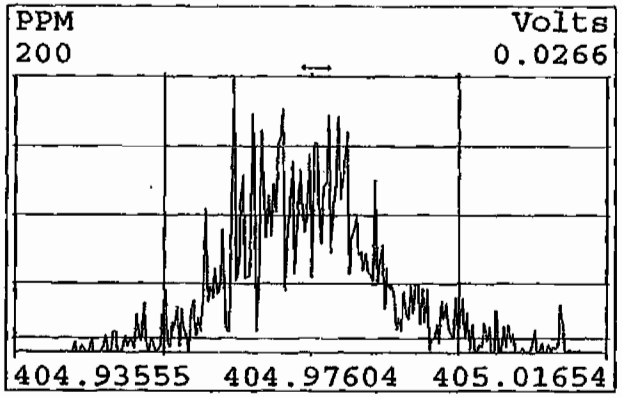


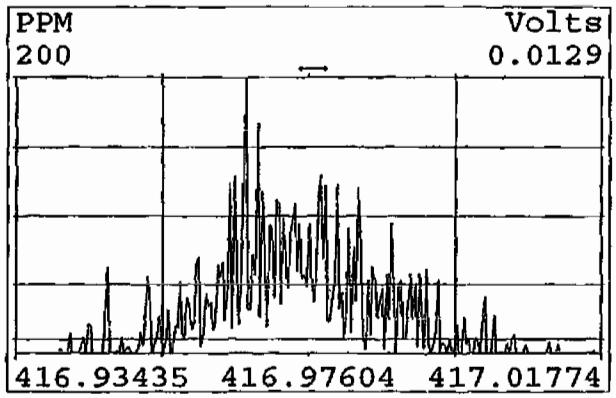




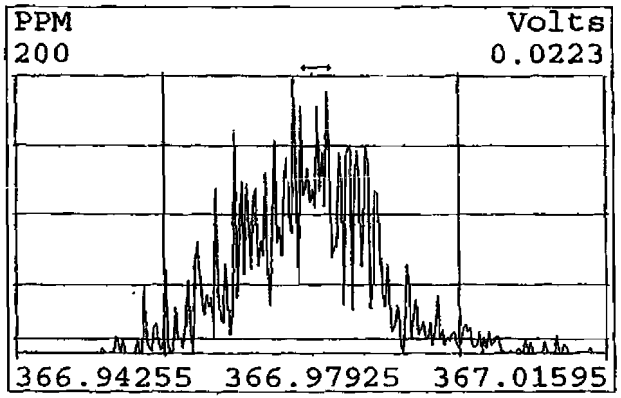


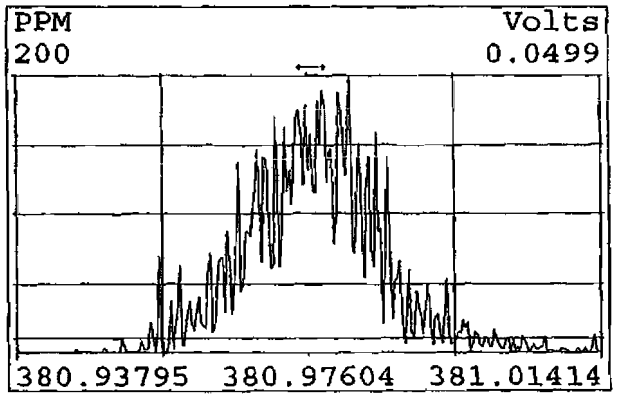


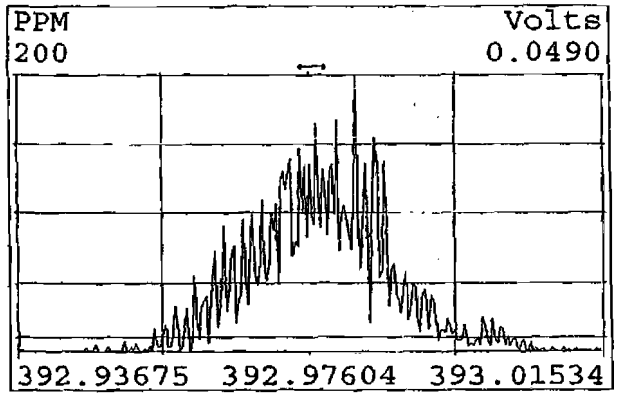


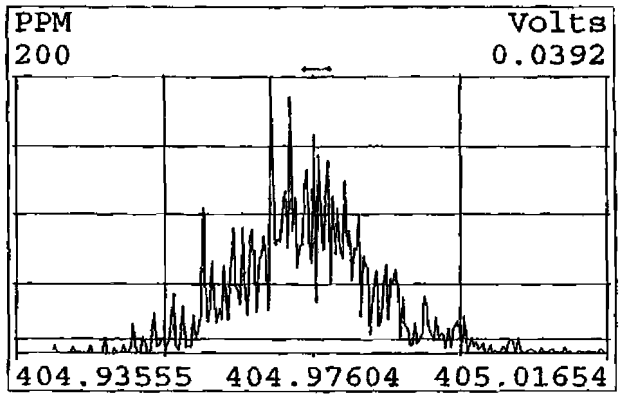


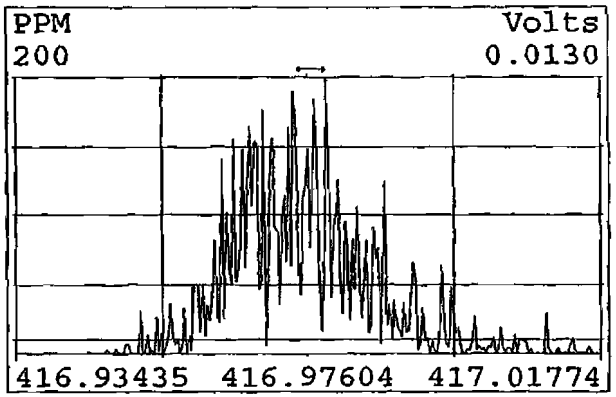
Peak Locate Examination:26-FEB-2010:19:04 File:25FE101D5ENDRSCK
Experiment:DIOXIN Function:3 Reference:PFK

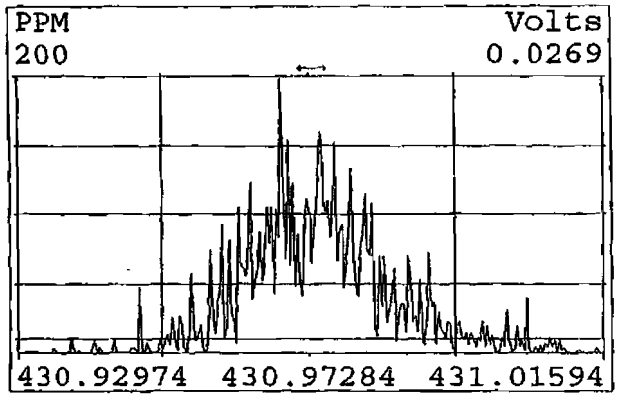


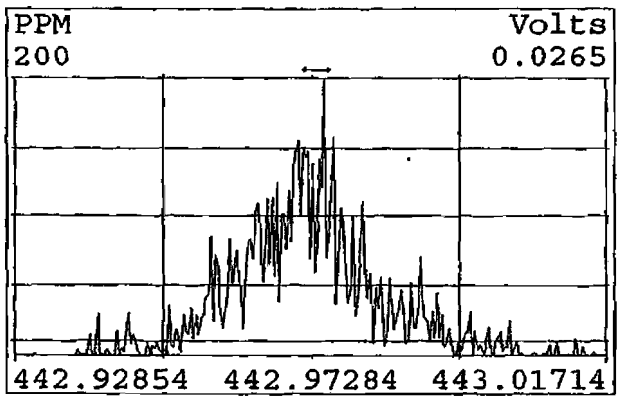


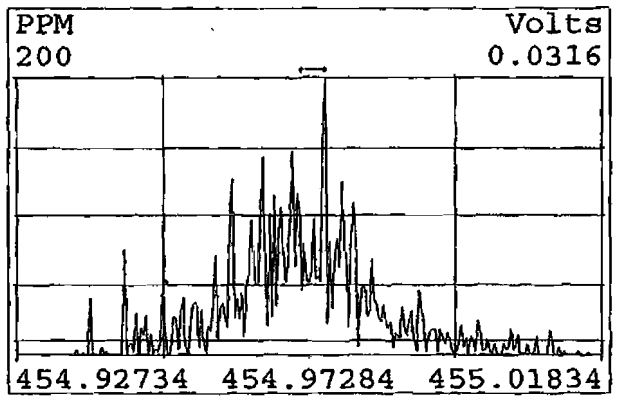




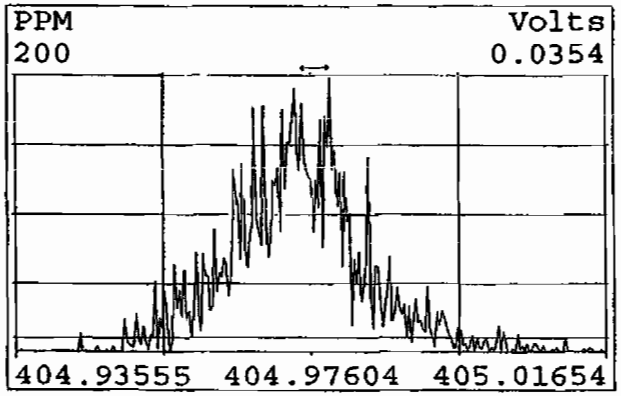


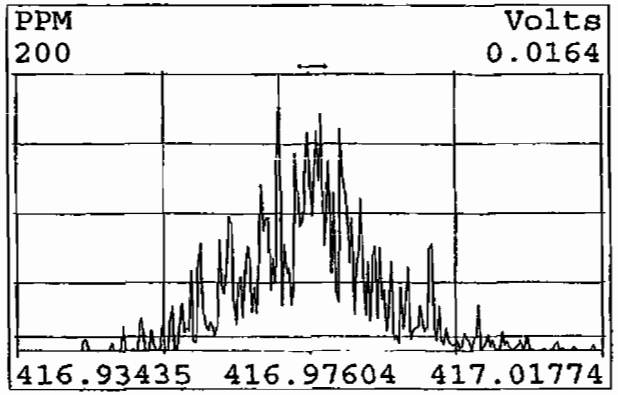


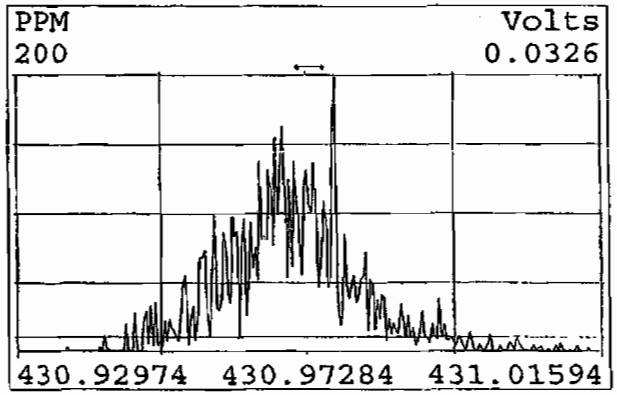


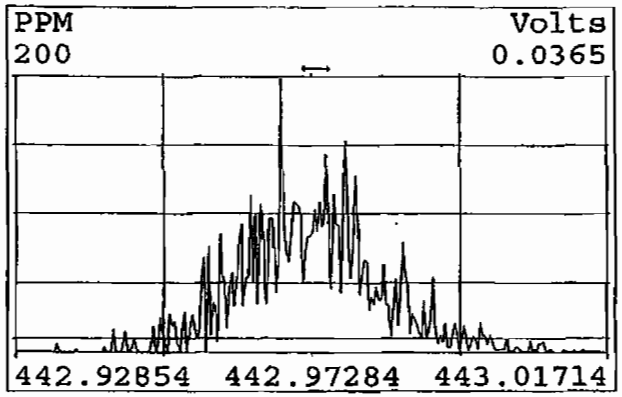


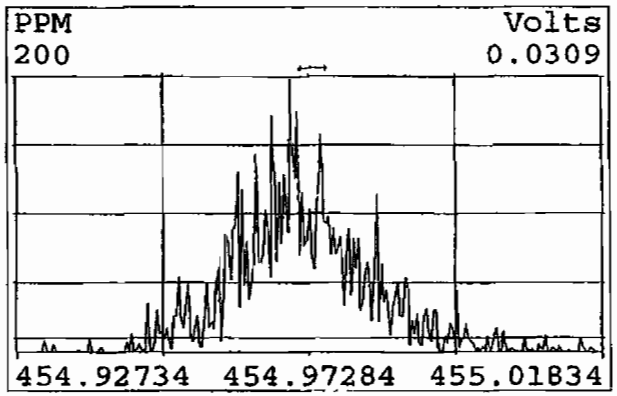
Peak Locate Examination:26-FEB-2010:19:04 File:25FE101D5ENDRSCK
Experiment:DIOXIN Function:4 Reference:PFK

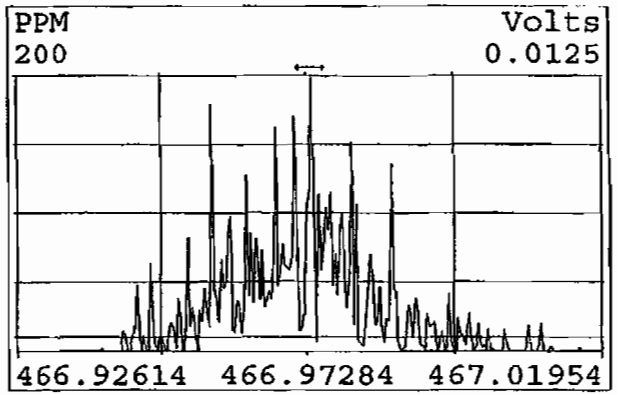


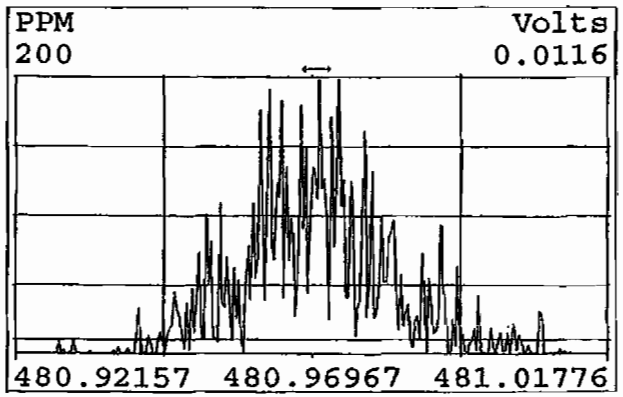




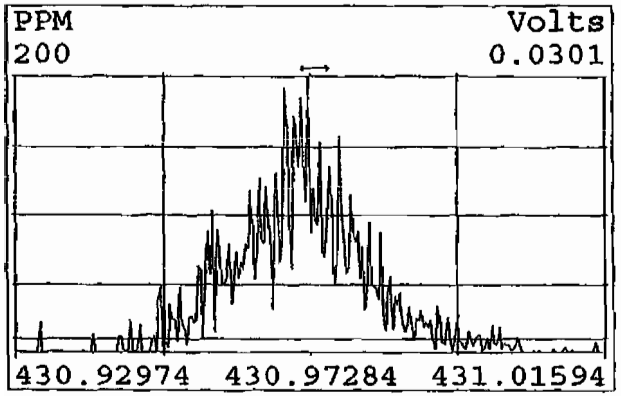


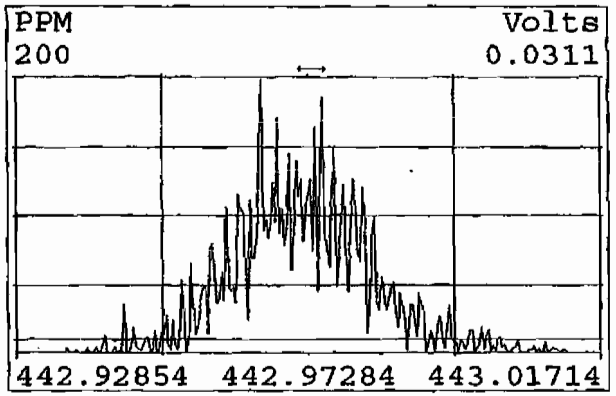


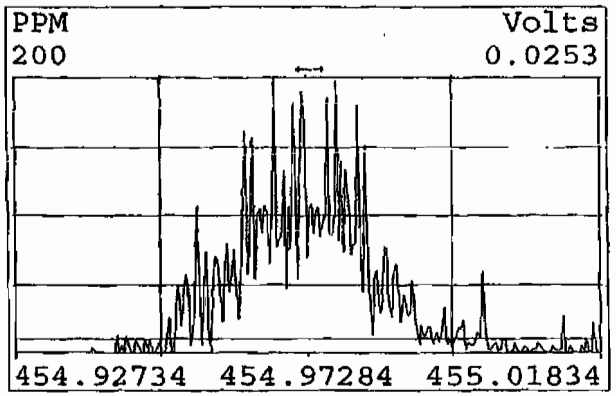


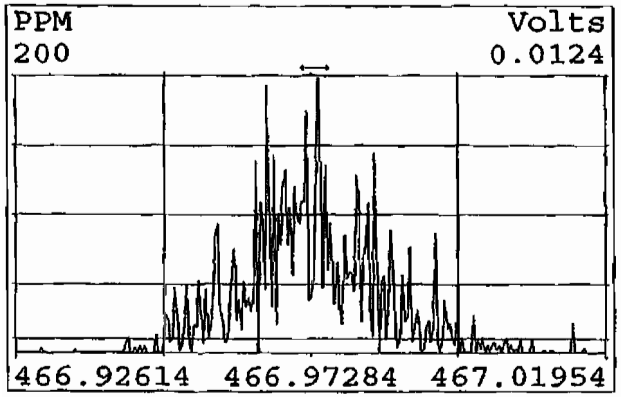


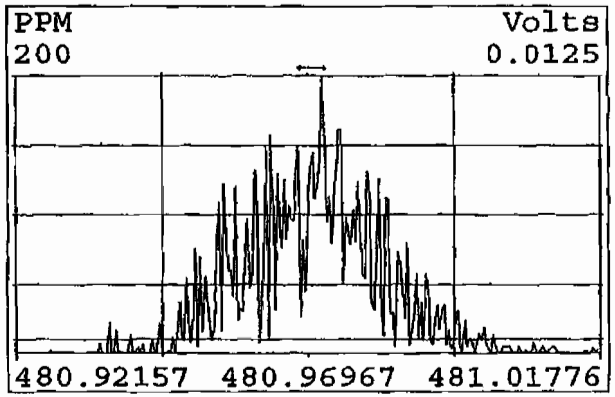
Peak Locate Examination:26-FEB-2010:19:05 File:25FE101D5ENDRSCK
Experiment:DIOXIN Function:5 Reference:PFK

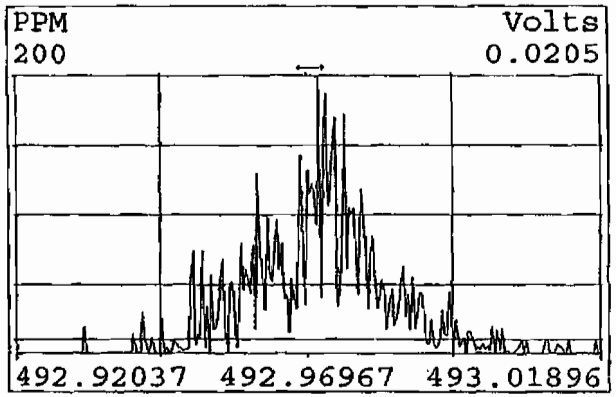


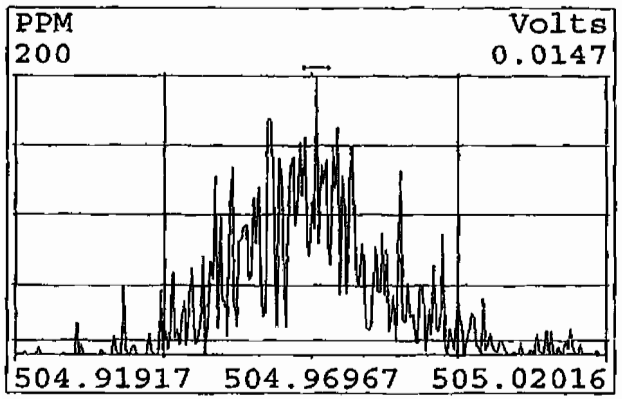


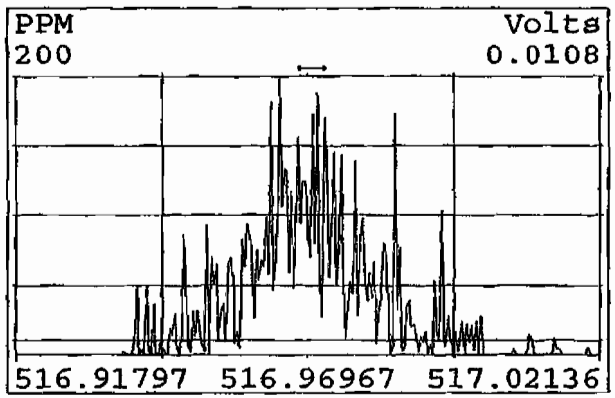












Run text: ST0225A File text: ST0225A :CS3 10DXN049
Run #6 Filename 25FE101D5 S: 3 I: 1
Acquired: 25-FEB-10 15:23:45 Processed: 25-FEB-10 23:49:14
Run: 25FE101D5 Analyte: 8290 Cal: 82901231091D5 Results: 25FE101D58290

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	134683700	0.78	y	18:43	-	100.00	-	n
13C-2,3,7,8-TCDF	233400000	0.80	y	18:10	1.73	100.00	10.7	n
2,3,7,8-TCDF	20981750	0.77	y	18:11	0.90	10.00	4.5	n
Total TCDF	21228326	1.07	n	17:46	0.90	10.00	4.5	n
13C-2,3,7,8-TCDD	140529600	0.75	y	18:55	1.04	100.00	5.0	n
2,3,7,8-TCDD	12803320	0.78	y	18:56	0.91	10.00	-2.4	n
Total TCDD	12869258	0.49	n	15:46	0.91	10.00	-2.4	n
37Cl-2,3,7,8-TCDD	28455000	1.00	y	18:56	2.11	10.00	-4.7	n
13C-1,2,3,7,8-PeCDF	153419700	1.64	y	23:33	1.14	100.00	6.2	n
1,2,3,7,8-PeCDF	81750900	1.62	y	23:35	1.07	50.00	6.6	n
2,3,4,7,8-PeCDF	74754500	1.63	y	25:00	0.97	50.00	3.8	n
Total F2 PeCDF	158616808	1.62	y	22:05	1.02	100.00	5.2	n
Total F1 PeCDF	464420	0.69	n	16:06	1.02	100.00	5.2	n
13C-1,2,3,7,8-PeCDD	91111700	1.67	y	25:45	0.68	100.00	1.5	n
1,2,3,7,8-PeCDD	44185000	1.67	y	25:46	0.97	50.00	4.4	n
Total PeCDD	44380155	3.24	n	25:29	0.97	50.00	4.4	n
13C-1,2,3,7,8,9-HxCDD	132049300	1.32	y	32:53	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	107075800	0.49	y	31:29	0.81	100.00	-9.2	n
1,2,3,4,7,8-HxCDF	70355500	1.26	y	31:30	1.31	50.00	9.6	n
1,2,3,6,7,8-HxCDF	80740700	1.29	y	31:39	1.51	50.00	10.0	n
2,3,4,6,7,8-HxCDF	72875400	1.28	y	32:19	1.36	50.00	9.6	n
1,2,3,7,8,9-HxCDF	80619600	1.26	y	33:06	1.51	50.00	13.6	n
Total HxCDF	304725920	1.26	y	31:30	1.42	200.00	10.7	n
13C-1,2,3,6,7,8-HxCDD	94809800	1.29	y	32:34	0.72	100.00	-1.9	n
1,2,3,4,7,8-HxCDD	46320100	1.26	y	32:30	0.98	50.00	0.7	n
1,2,3,6,7,8-HxCDD	51589700	1.31	y	32:35	1.09	50.00	2.8	n
1,2,3,7,8,9-HxCDD	65653000	1.27	y	32:54	1.38	50.00	8.6	n
Total HxCDD	163782071	1.26	y	32:30	1.15	150.00	4.4	n
13C-1,2,3,4,6,7,8-HpCDF	120551600	0.42	y	34:37	0.91	100.00	6.1	n
1,2,3,4,6,7,8-HpCDF	83891800	1.08	y	34:38	1.39	50.00	8.2	n
1,2,3,4,7,8,9-HpCDF	74635500	1.07	y	35:54	1.24	50.00	9.1	n
Total HpCDF	166077540	1.08	y	34:38	1.32	100.00	8.6	n
13C-1,2,3,4,6,7,8-HpCDD	112082000	1.10	y	35:32	0.85	100.00	12.8	n
1,2,3,4,6,7,8-HpCDD	58487500	1.05	y	35:33	1.04	50.00	4.6	n
Total HpCDD	58886926	0.88	n	34:56	1.04	50.00	4.6	n
13C-OCDD	160613800	0.89	y	38:16	0.61	200.00	7.7	n
OCDF	128363300	0.91	y	38:24	1.60	100.00	11.2	n
OCDD	94863100	0.88	y	38:17	1.18	100.00	6.5	n

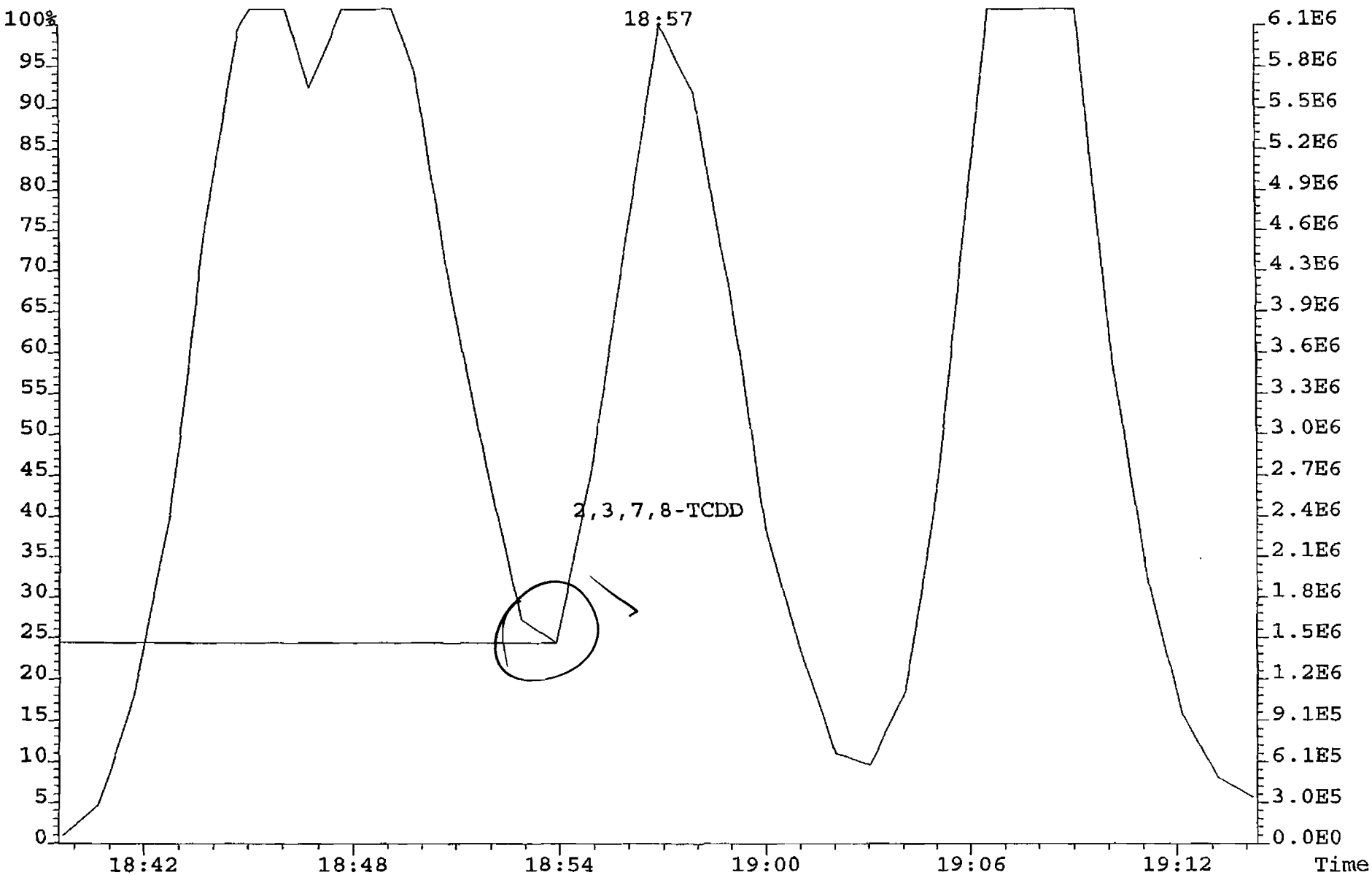
Run text: ST0225B File text: ST0225B :CS3 10DXN049
Run #19 Filename 25FE101D5 S: 21 I: 1
Acquired: 26-FEB-10 03:56:50 Processed: 26-FEB-10 09:41:53
Run: 25FE101D5 Analyte: 8290 Cal: 82901231091D5 Results: 25FE101D58290

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	99915000	0.80	y	18:45	-	100.00	-	n
13C-2,3,7,8-TCDF	155928100	0.78	y	18:11	1.56	100.00	-0.3	n
2,3,7,8-TCDF	12287410	0.86	y	18:12	0.79	10.00	-8.4	n
Total TCDF	12780038	6.04	n	15:21	0.79	10.00	-8.4	n
13C-2,3,7,8-TCDD	98469000	0.79	y	18:57	0.99	100.00	-0.8	n
2,3,7,8-TCDD	8984270	0.80	y	18:58	0.91	10.00	-2.3	n
Total TCDD	9333975	0.68	y	14:27	0.91	10.00	-2.3	n
37Cl-2,3,7,8-TCDD	20505400	1.00	y	18:58	2.05	10.00	-7.5	n
13C-1,2,3,7,8-PeCDF	110638800	1.72	y	23:38	1.11	100.00	3.2	n
1,2,3,7,8-PeCDF	59285400	1.68	y	23:38	1.07	50.00	7.2	n
2,3,4,7,8-PeCDF	53863600	1.69	y	25:04	0.97	50.00	3.7	n
Total F2 PeCDF	114083530	1.25	n	22:10	1.02	100.00	5.5	n
Total F1 PeCDF	451644	2.84	n	14:32	1.02	100.00	5.5	n
13C-1,2,3,7,8-PeCDD	66150800	1.65	y	25:50	0.66	100.00	-0.6	n
1,2,3,7,8-PeCDD	32157500	1.64	y	25:51	0.97	50.00	4.6	n
Total PeCDD	32394401	1.94	n	22:59	0.97	50.00	4.6	n
13C-1,2,3,7,8,9-HxCDD	93554800	1.25	y	32:56	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	82266800	0.48	y	31:32	0.88	100.00	-1.5	n
1,2,3,4,7,8-HxCDF	52338700	1.29	y	31:33	1.27	50.00	6.1	n
1,2,3,6,7,8-HxCDF	63620600	1.26	y	31:42	1.55	50.00	12.8	n
2,3,4,6,7,8-HxCDF	56765200	1.28	y	32:22	1.38	50.00	11.1	n
1,2,3,7,8,9-HxCDF	57046000	1.29	y	33:08	1.39	50.00	4.6	n
Total HxCDF	229770500	1.29	y	31:33	1.40	200.00	8.7	n
13C-1,2,3,6,7,8-HxCDD	70011600	1.31	y	32:37	0.75	100.00	2.2	n
1,2,3,4,7,8-HxCDD	34786700	1.27	y	32:32	0.99	50.00	2.5	n
1,2,3,6,7,8-HxCDD	38435800	1.31	y	32:38	1.10	50.00	3.7	n
1,2,3,7,8,9-HxCDD	46491000	1.30	y	32:57	1.33	50.00	4.1	n
Total HxCDD	119713500	1.27	y	32:32	1.14	150.00	3.5	n
13C-1,2,3,4,6,7,8-HpCDF	88215400	0.42	y	34:39	0.94	100.00	9.6	n
1,2,3,4,6,7,8-HpCDF	59362200	1.06	y	34:40	1.35	50.00	4.6	n
1,2,3,4,7,8,9-HpCDF	49468400	1.06	y	35:56	1.12	50.00	-1.2	n
Total HpCDF	109653548	1.06	y	34:40	1.23	100.00	1.9	n
13C-1,2,3,4,6,7,8-HpCDD	77987800	1.08	y	35:34	0.83	100.00	10.8	n
1,2,3,4,6,7,8-HpCDD	38894500	1.07	y	35:35	1.00	50.00	0.0	n
Total HpCDD	39357867	0.93	y	34:56	1.00	50.00	0.0	n
13C-OCDD	106048700	0.93	y	38:18	0.57	200.00	0.4	n
OCDF	77316500	0.92	y	38:26	1.46	100.00	1.4	n
OCDD	59913600	0.90	y	38:19	1.13	100.00	1.8	n

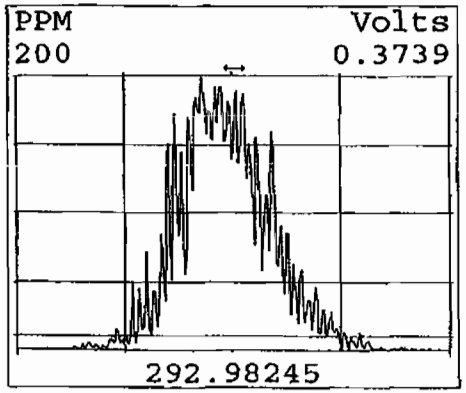
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
01MR10A1D5	1	ST0301	CS3 10DXN049				1.000	
01MR10A1D5	2	CP0301	DB-5 CPSM 3732-05				1.000	
01MR10A1D5	3	SB0301	Solvent Blank C-14				1.000	
01MR10A1D5	4	LV1KT-1-AC	G0B230551-5	20	8290/SOLID	25	10.440	g
01MR10A1D5	5	LVXHR-1-AA	G0B200451-2	20	8290/WATER		1.036	L
01MR10A1D5	6	LVXHT-1-AA	G0B200453-1	20	8290/WATER		1.053	L
01MR10A1D5	7	LVXHV-1-AA	G0B200453-2	20	8290/WATER		1.033	L
01MR10A1D5	8	LVXH0-1-AA	G0B200454-3	20	8290/WATER		0.998	L
01MR10A1D5	9	LVXH6-1-AA	G0B200456-4	20	8290/WATER		1.072	L
01MR10A1D5	10	LVVKF-1-AA	C0B180543-1	20	8290/WATER		0.976	L
01MR10A1D5	11	LV1KN-1-AC	G0B230551-1	20	8290/SOLID		10.300	g
01MR10A1D5	12	LV1K8-1-AA	G0B230553-1	20	8290/SOLID		10.000	g
01MR10A1D5	13	LV1K9-1-AA	G0B230553-2	20	8290/SOLID		10.890	g
01MR10A1D5	14	LV1LA-1-AA	G0B230553-3	20	8290/SOLID		10.060	g
01MR10A1D5	15	LV1LC-1-AA	G0B230553-4	20	8290/SOLID		10.090	g
01MR10A1D5	16	LV1LD-1-AA	G0B230553-5	20	8290/SOLID		10.500	g
01MR10A1D5	17	LV1LE-1-AA	G0B230553-6	20	8290/SOLID		10.470	g
01MR10A1D5	18	SB0301A	Solvent Blank C-14				1.000	
01MR10A1D5	19	ST0301A	CS3 10DXN049				1.000	
01MR10A1D5	20	CP0301A	DB-5 CPSM 3732-05				1.000	
01MR10A1D5	21	SB0301B	Solvent Blank C-14				1.000	
01MR10A1D5	22	LVXHR-1-AA	G0B200451-2 RI	20	8290/WATER	25	1.036	L
01MR10A1D5	23	LVV18-1-AA	G0B190426-1	20	8290/WATER		1.066	L
01MR10A1D5	24	LVV2F-1-AA	G0B190429-1	20	8290/WATER		1.060	L
01MR10A1D5	25	LV1KT-1-AC	G0B230551-5 (5x)	20	8290/SOLID		10.440	g
01MR10A1D5	26	LVQ2C-1-AA	G0B160488-2 (20x)	20	8290/SOLID	19	10.000	g
01MR10A1D5	27	SB0301C	Solvent Blank C-14				1.000	
01MR10A1D5	28	SB0301D	Solvent Blank C-14				1.000	
01MR10A1D5	29	ST0301B	CS3 10DXN049				1.000	
01MR10A1D5	30						1.000	
01MR10A1D5	31						1.000	
01MR10A1D5	32						1.000	
01MR10A1D5	33		MG 03/01/10				1.000	

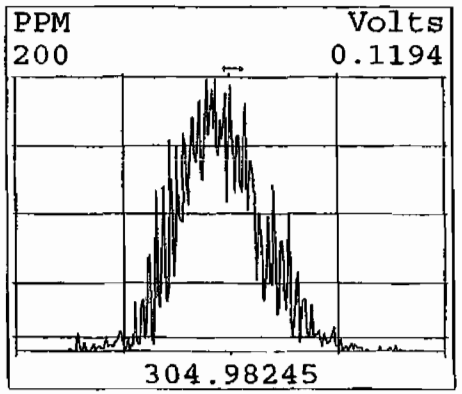
✓ AK 3/2/10

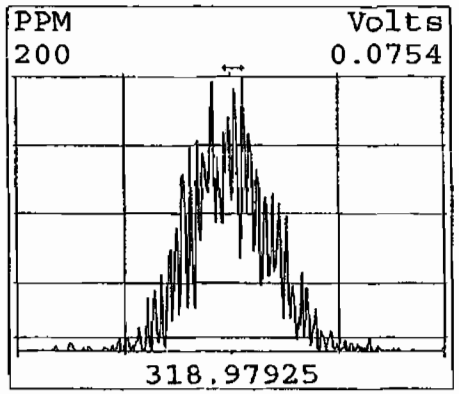
File:01MR10A1D5 #1-358 Acq: 1-MAR-2010 11:45:18 GC EI+ Voltage SIR 70SE
321.8936 S:2 Exp:DIOXIN

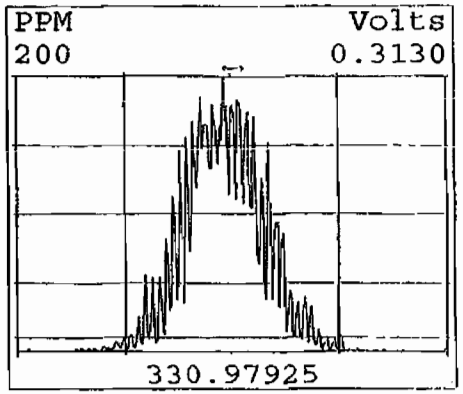


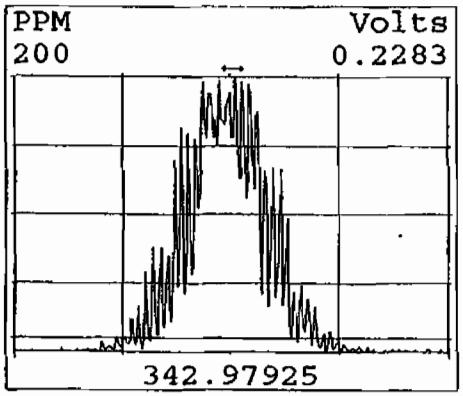
Peak Locate Examination: 1-MAR-2010:11:00 File:01MR10A1D5
Experiment:DIOXIN Function:1 Reference:PFK

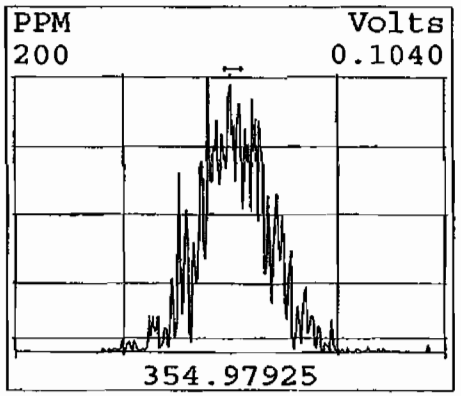


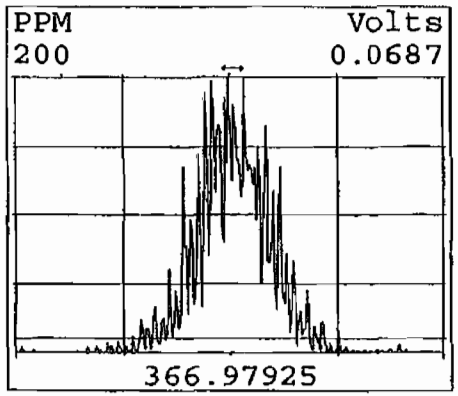


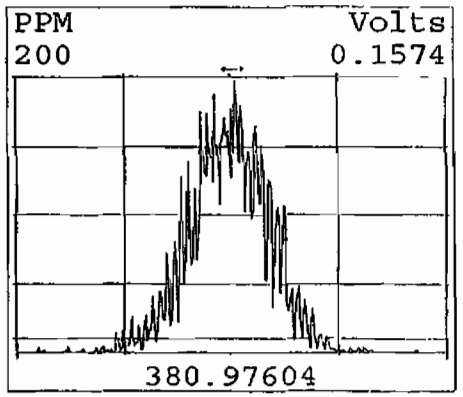


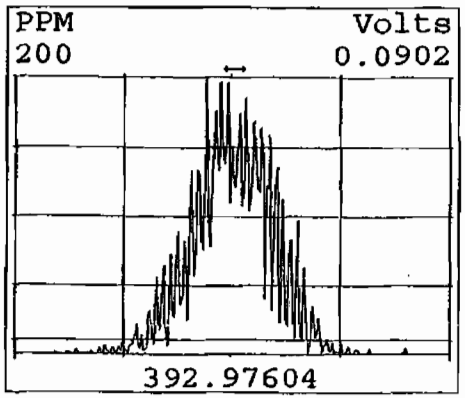


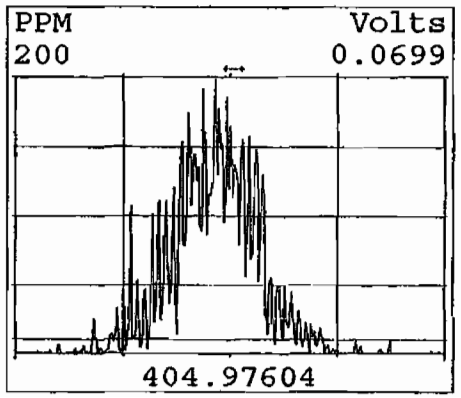


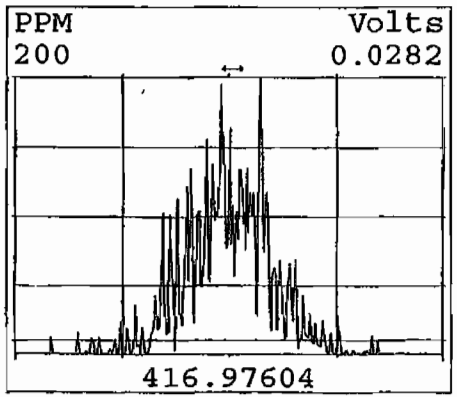




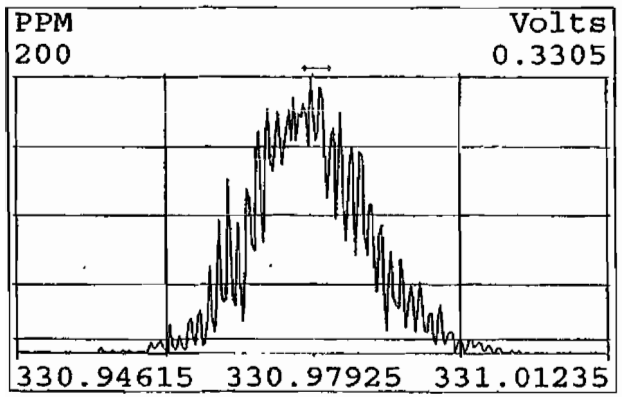


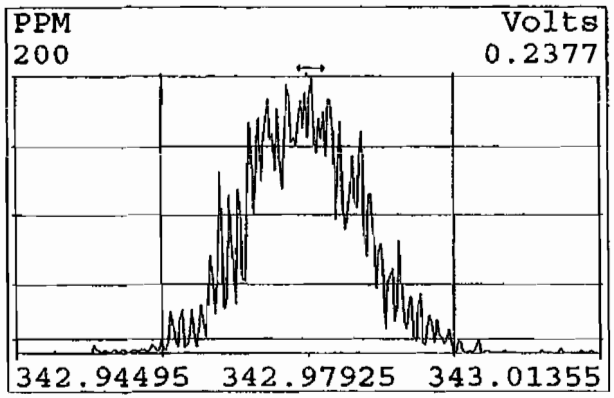


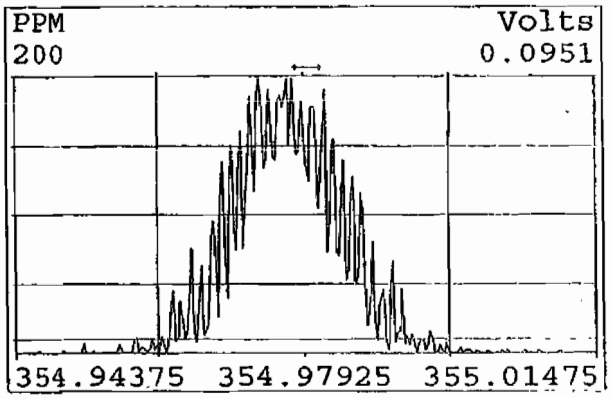


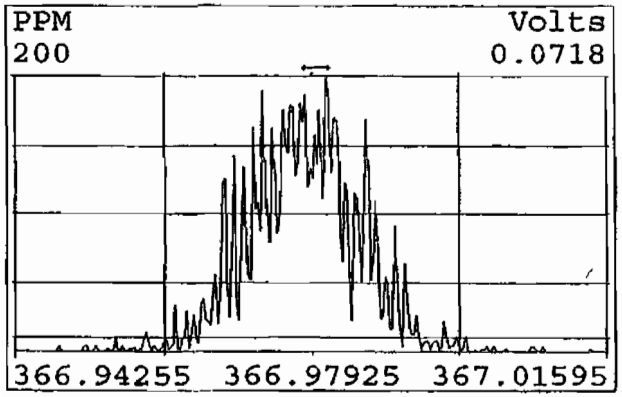


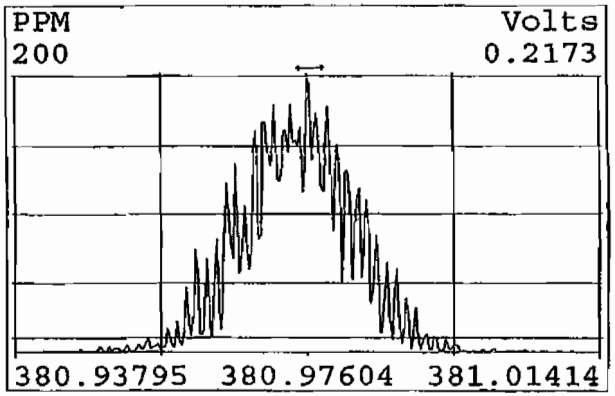
Peak Locate Examination: 1-MAR-2010:11:01 File:01MR10A1D5
Experiment:DIOXIN Function:2 Reference:PFK

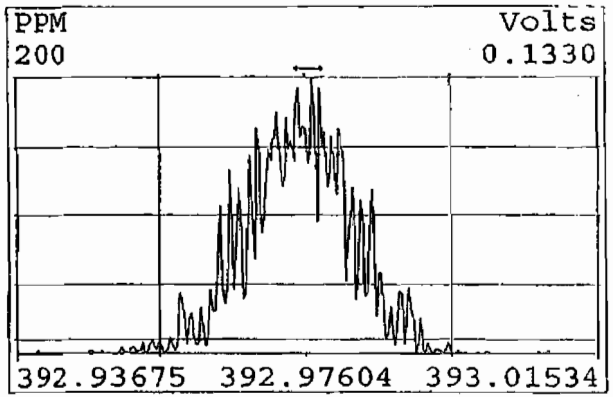


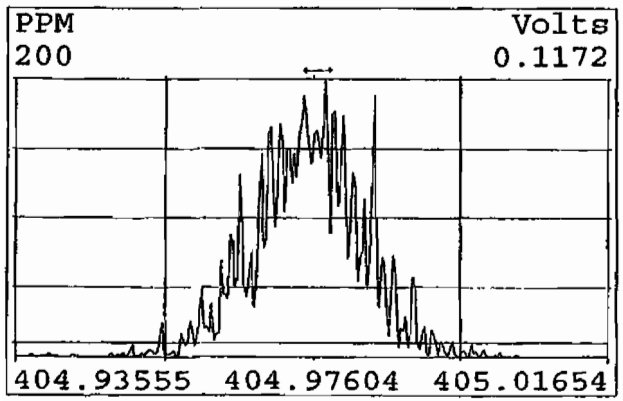


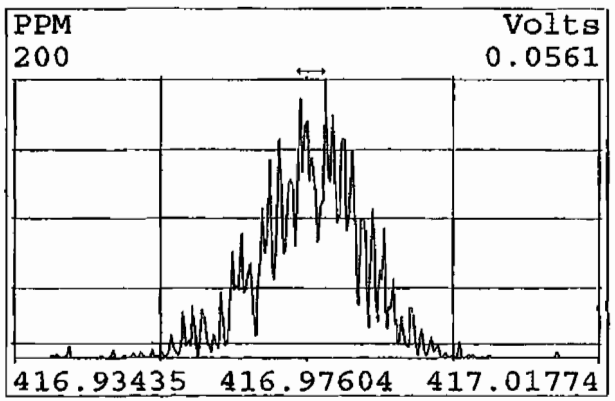




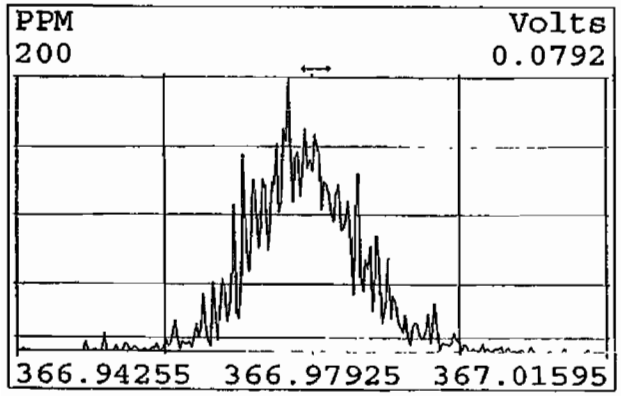


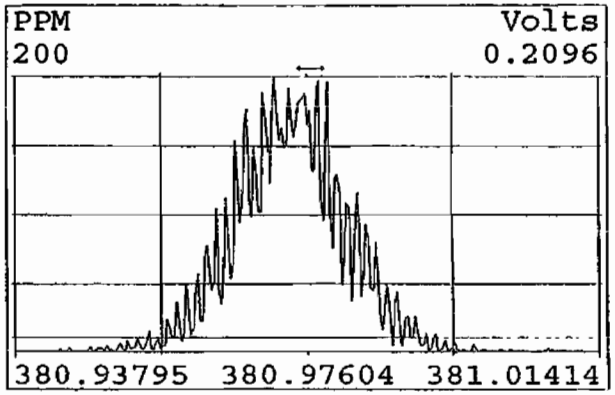


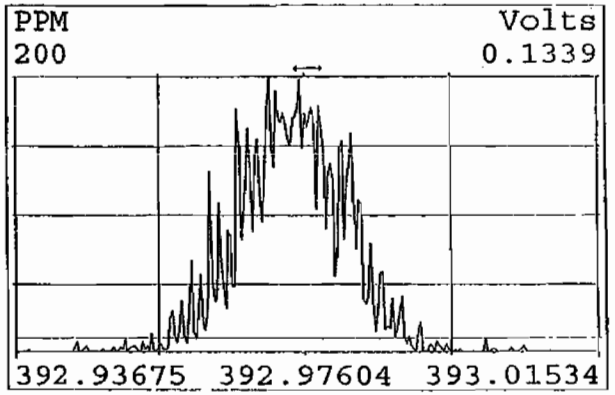


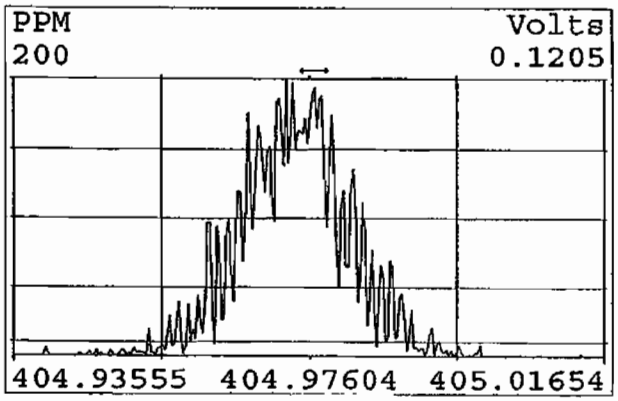


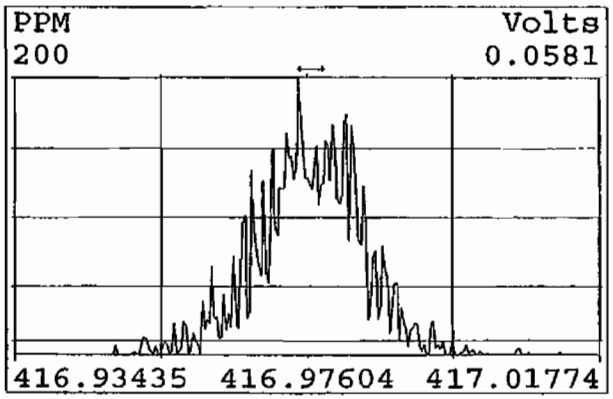
Peak Locate Examination: 1-MAR-2010:11:01 File:01MR10A1D5
Experiment:DIOXIN Function:3 Reference:PFK

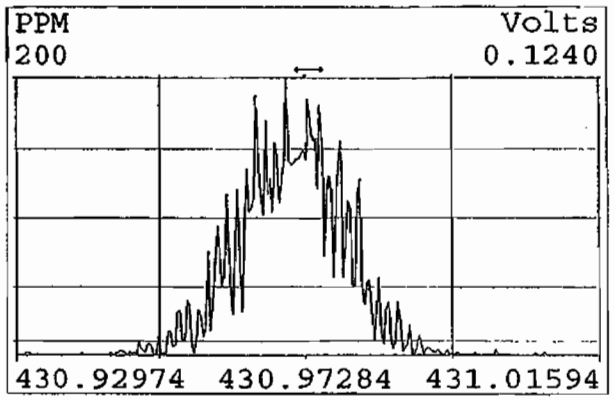


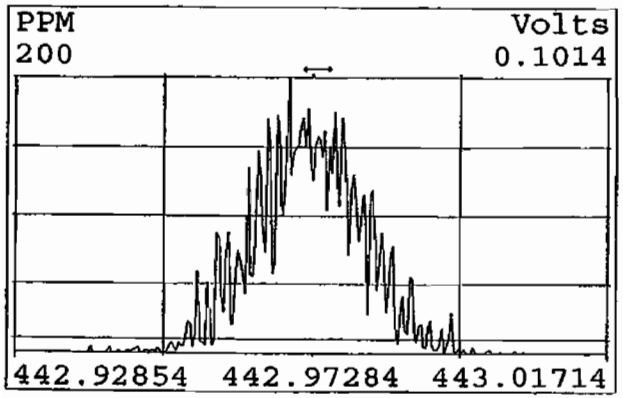


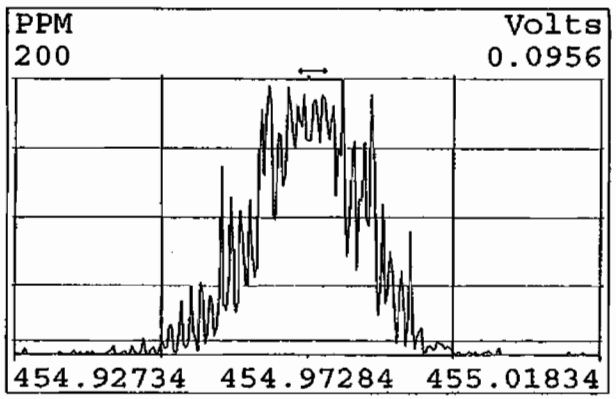




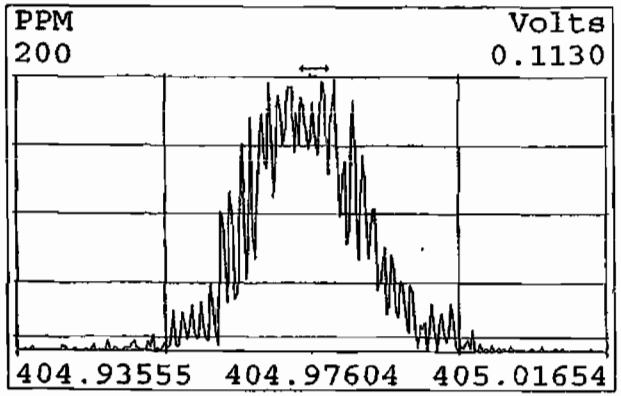


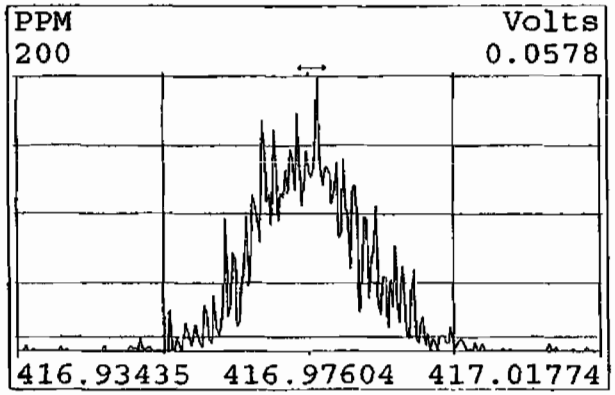


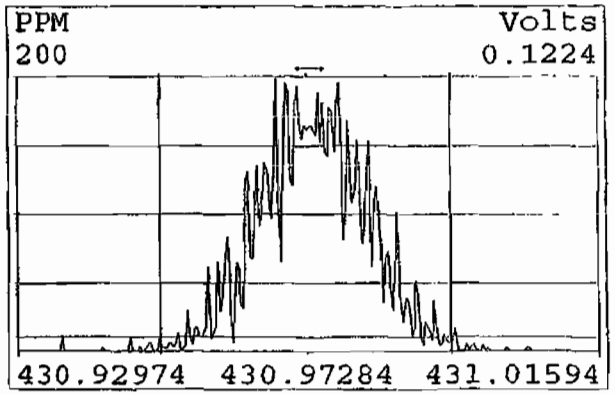


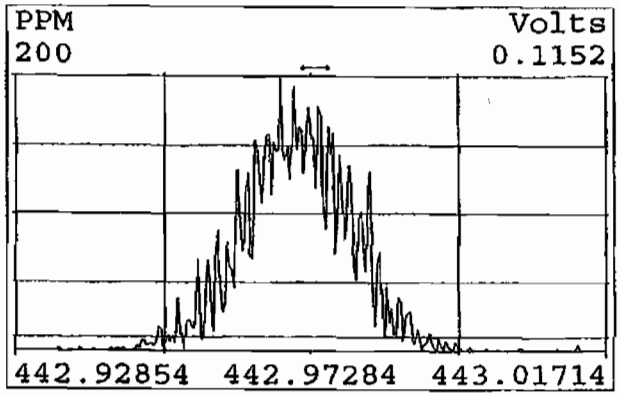


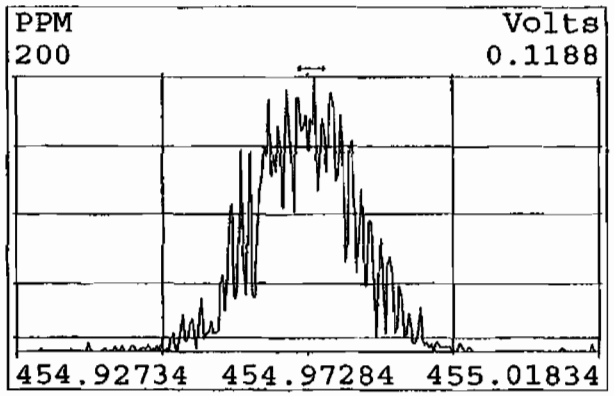
Peak Locate Examination: 1-MAR-2010:11:02 File:01MR10A1D5
Experiment:DIOXIN Function:4 Reference:PFK

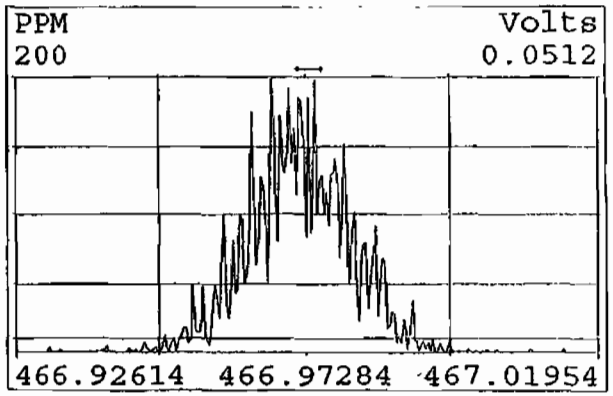


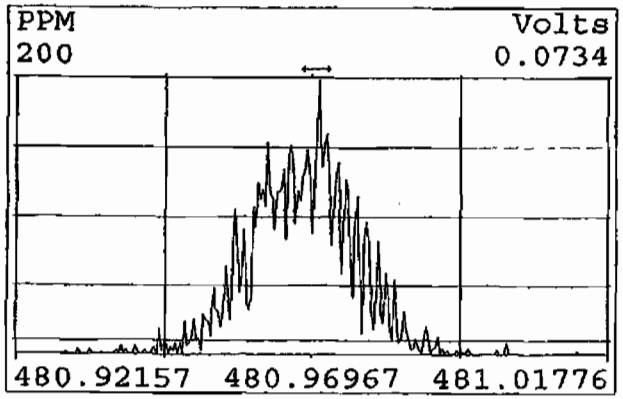




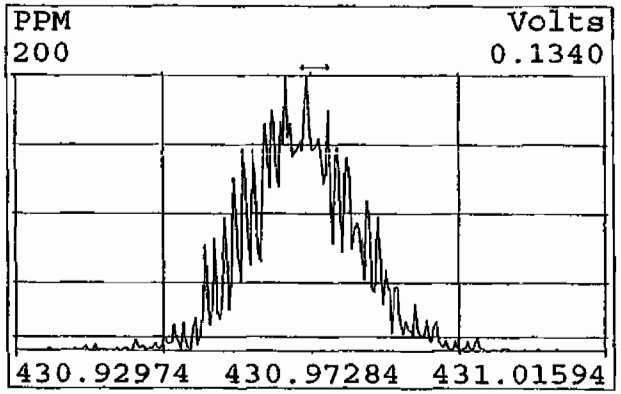


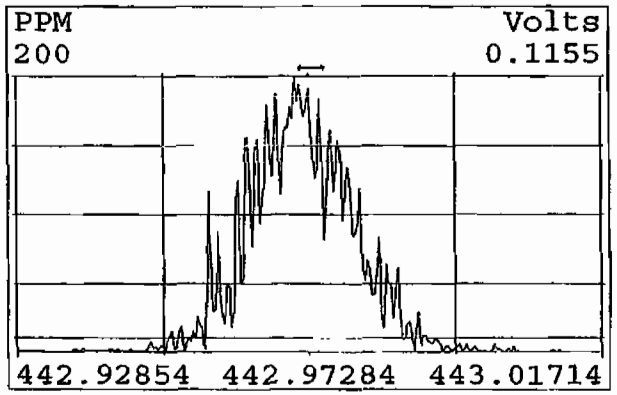


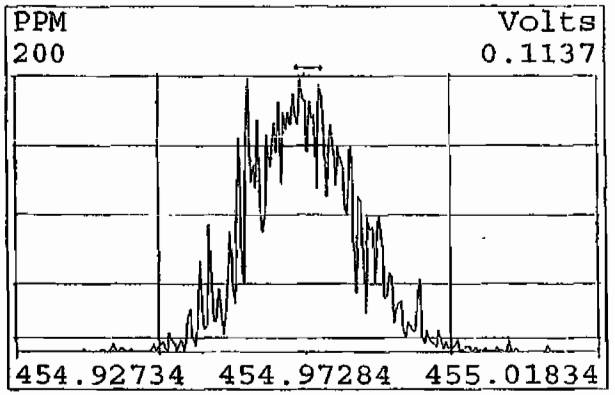


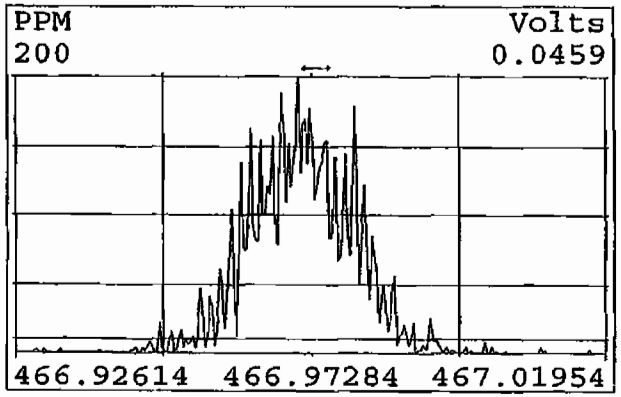


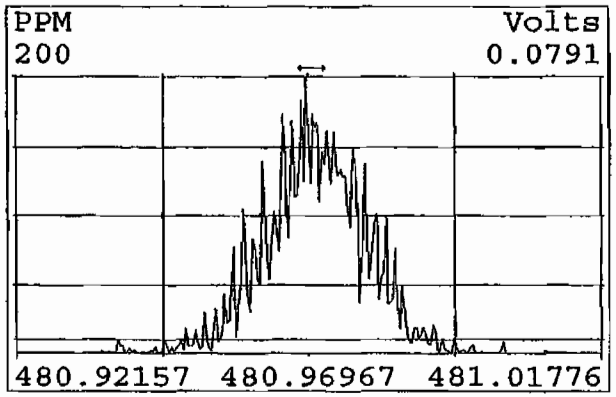
Peak Locate Examination: 1-MAR-2010:11:02 File:01MR10A1D5
Experiment:DIOXIN Function:5 Reference:PFK

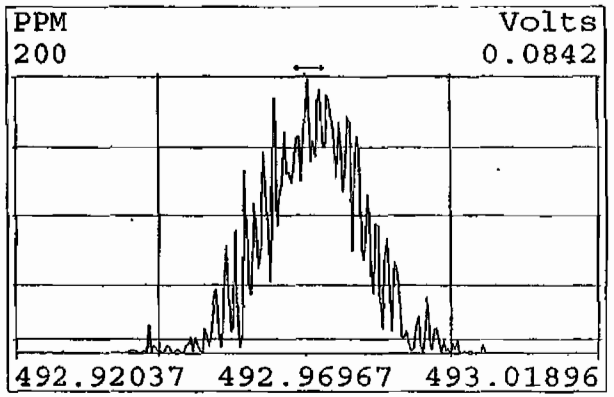


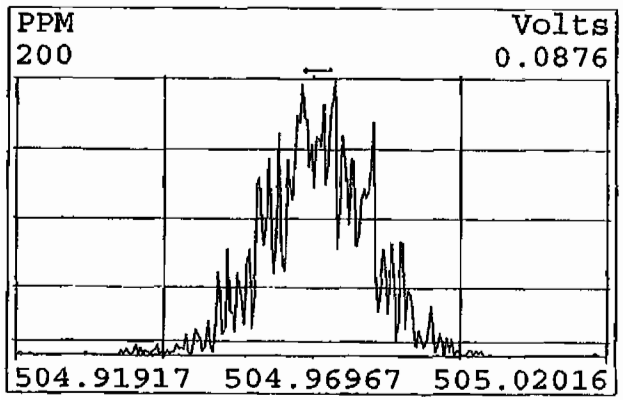


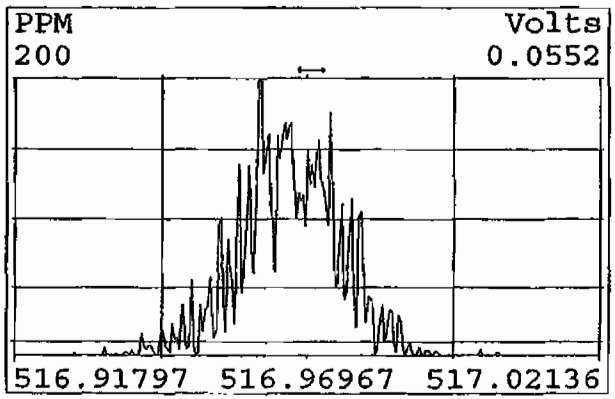




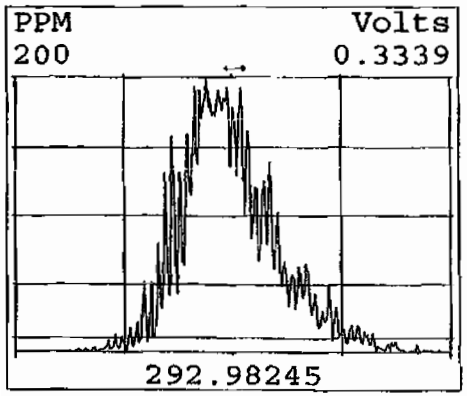


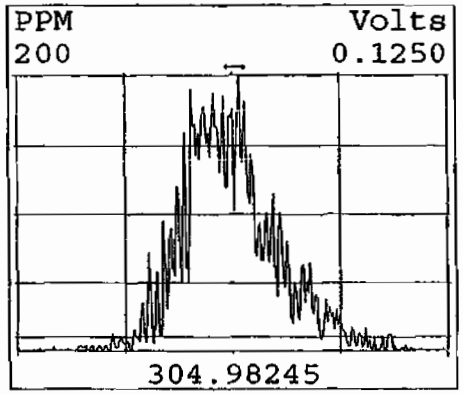


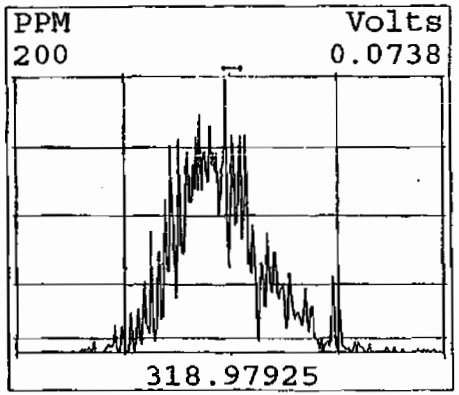


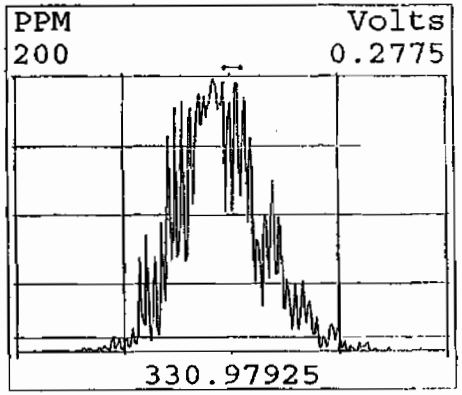


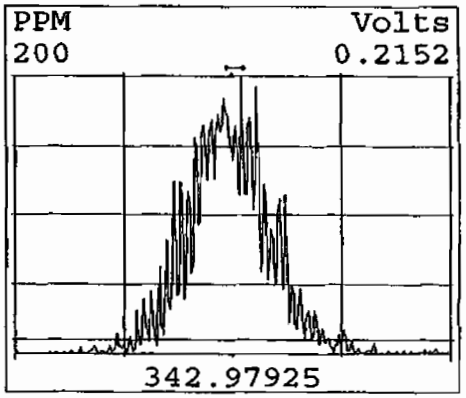
Peak Locate Examination: 2-MAR-2010:08:19 File:ENDRES01MR10A1D5
Experiment:DIOXIN Function:1 Reference:PFK

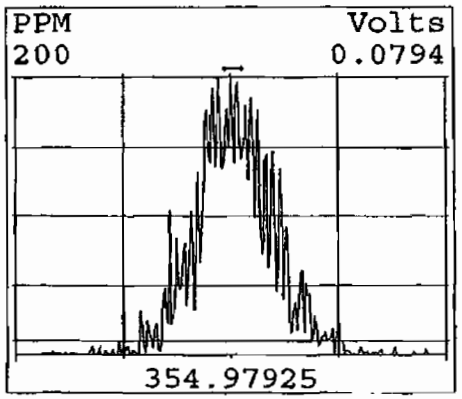


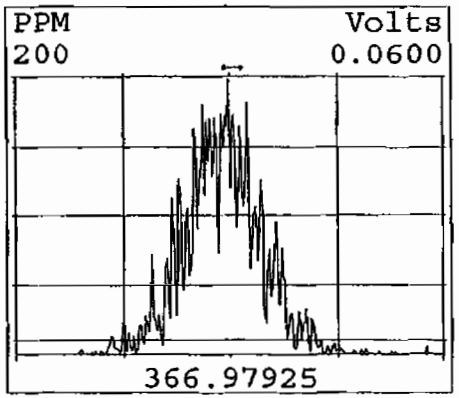


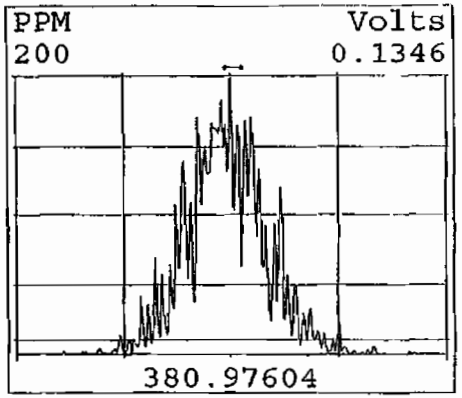


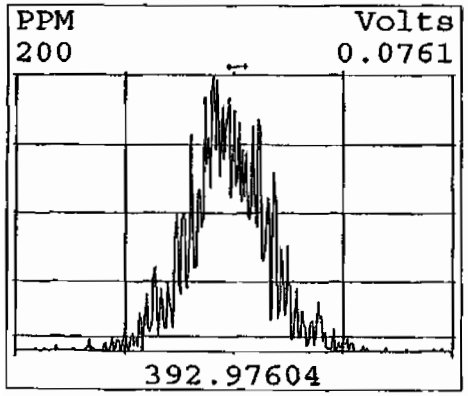


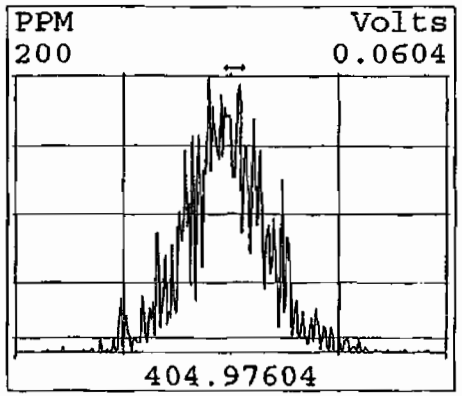


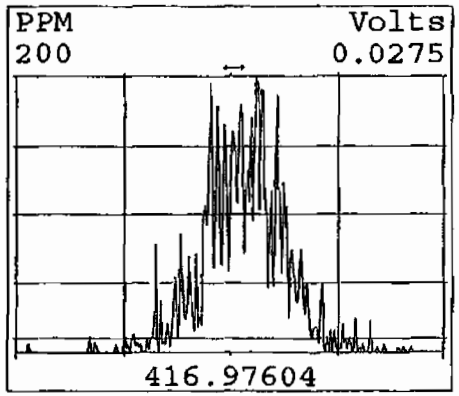




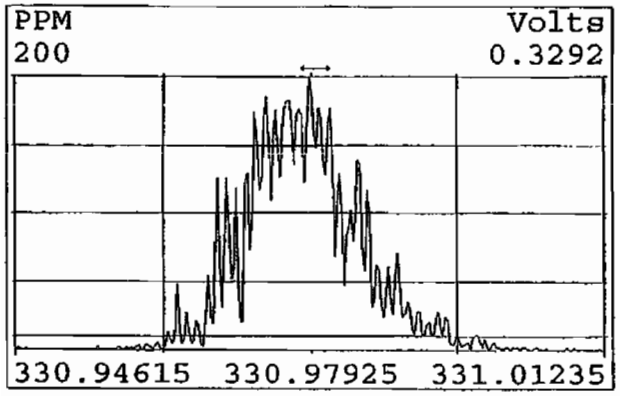


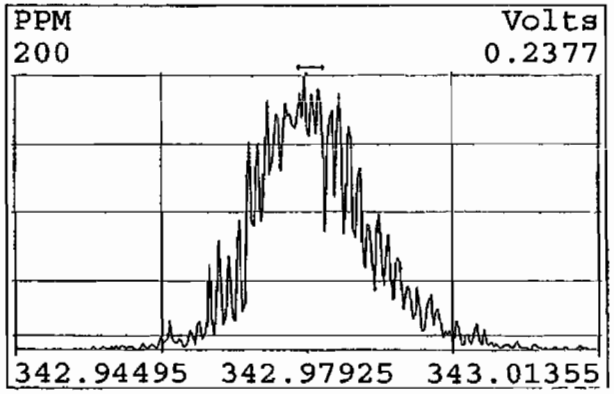


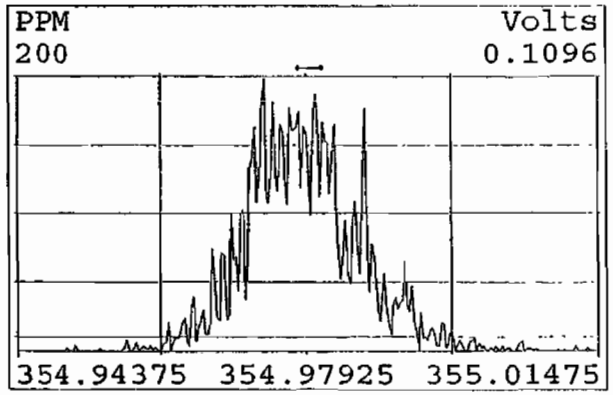


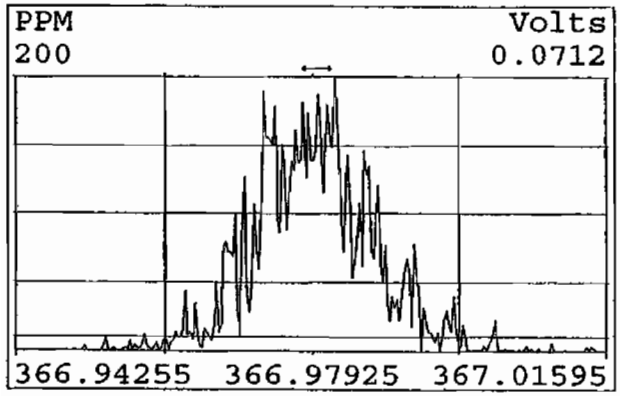


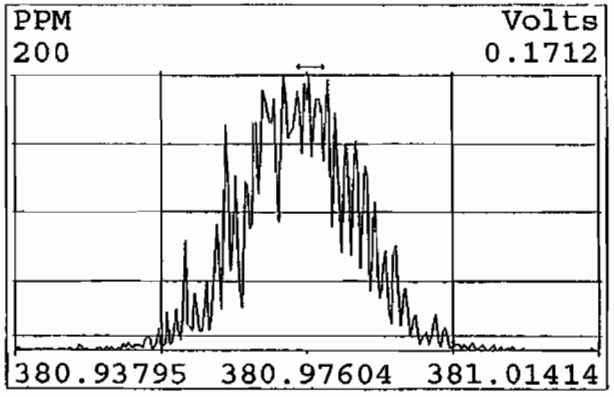
Peak Locate Examination: 2-MAR-2010:08:20 File:ENDRES01MR10A1D5
Experiment:DIOXIN Function:2 Reference:PFK

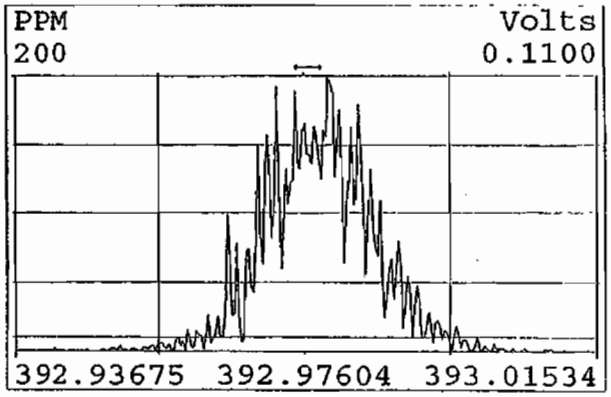


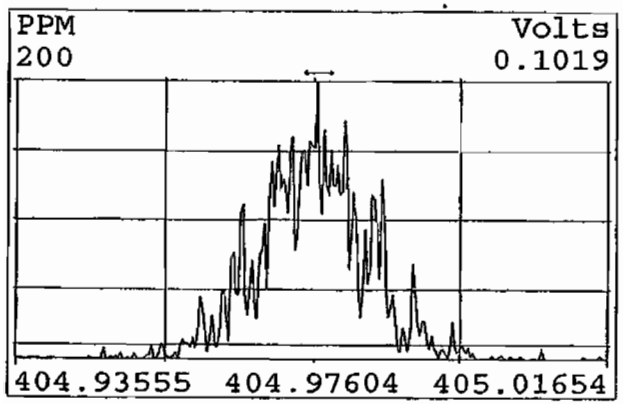


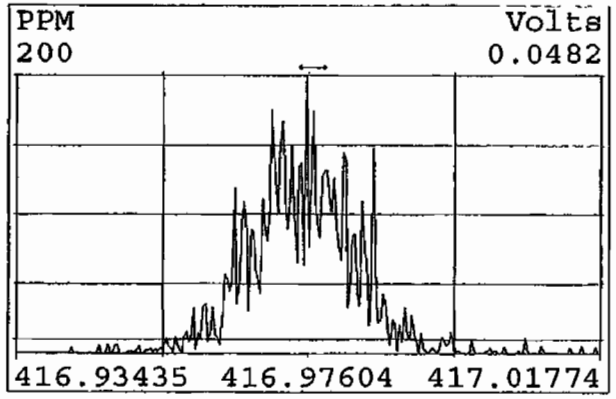




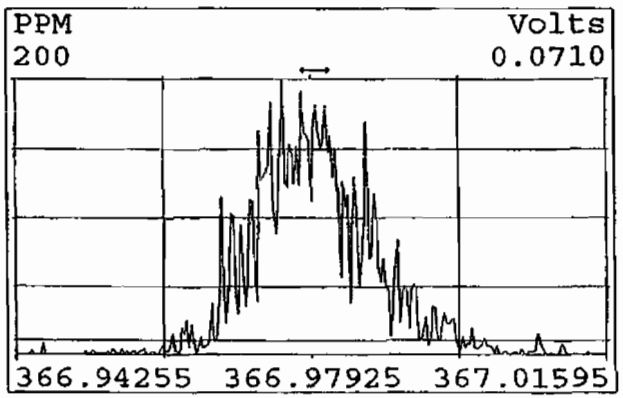


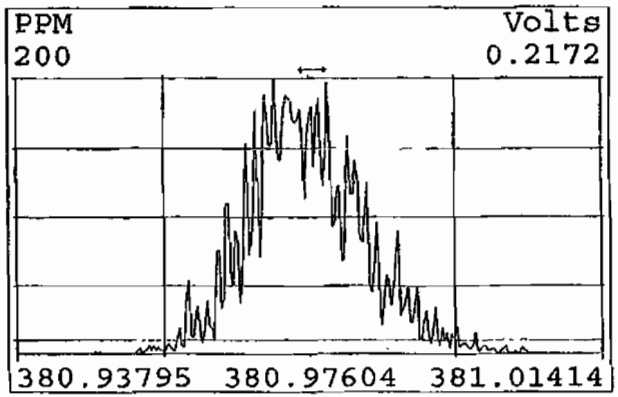


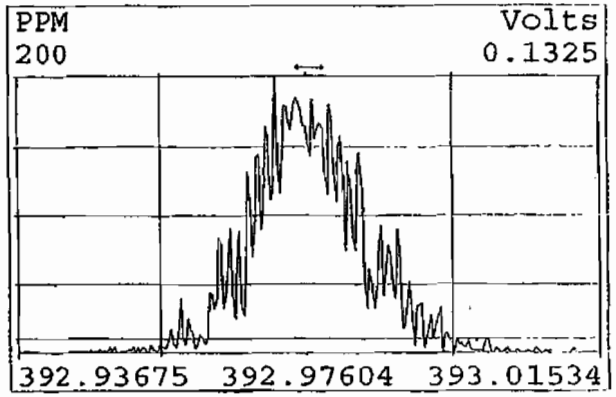


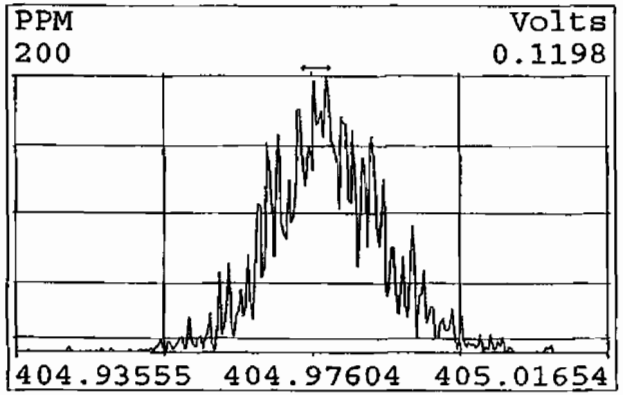


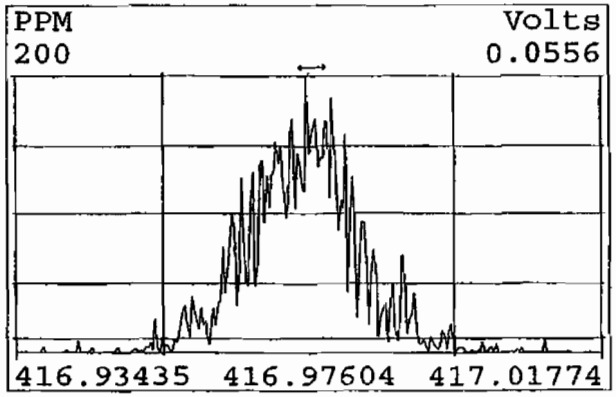
Peak Locate Examination: 2-MAR-2010:08:21 File:ENDRES01MR10A1D5
Experiment:DIOXIN Function:3 Reference:PFK

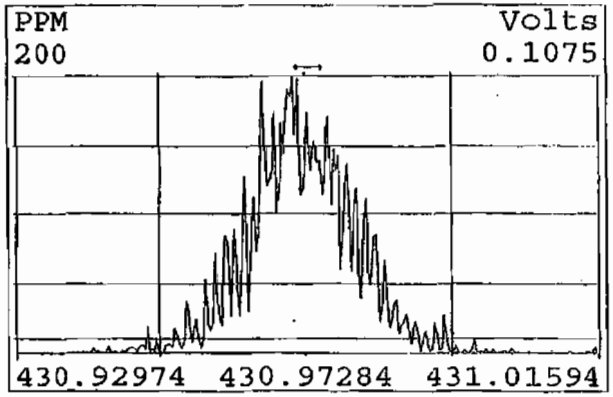


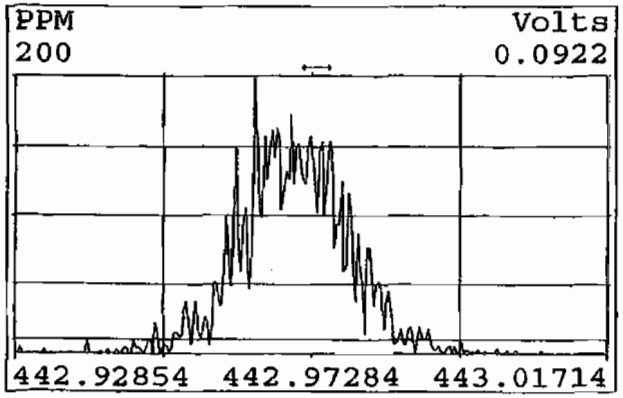


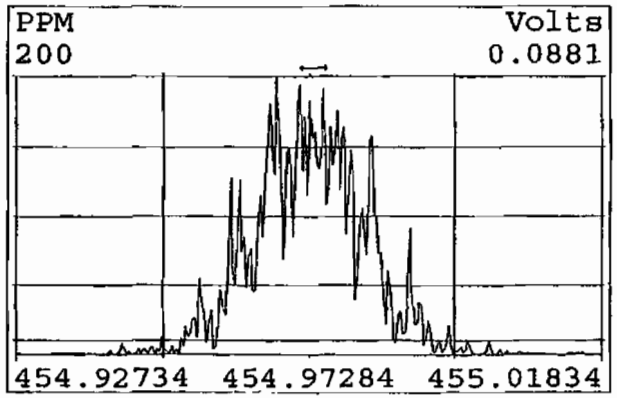




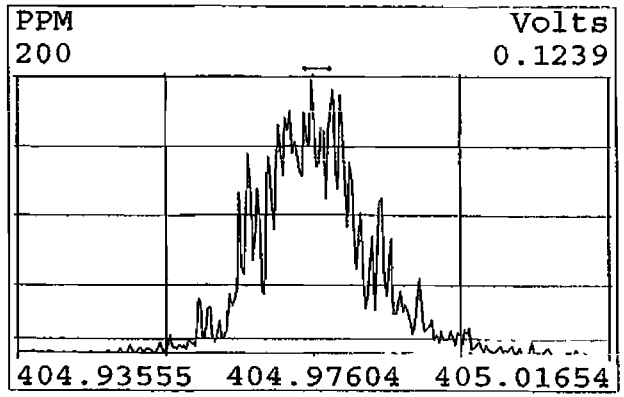


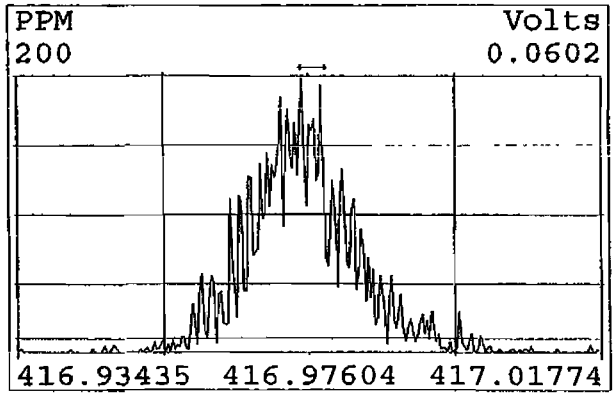


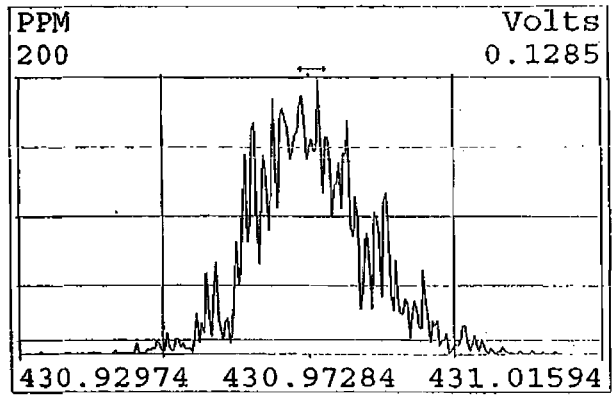


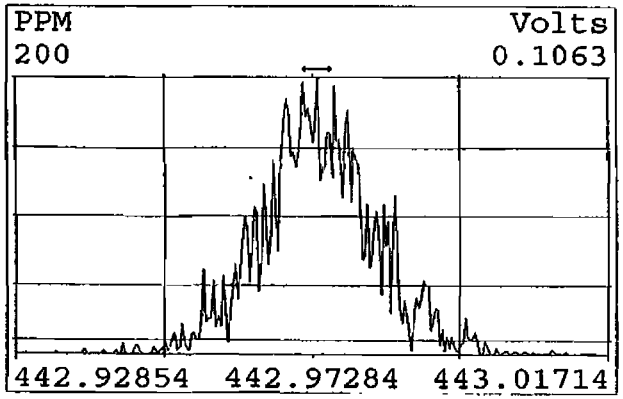


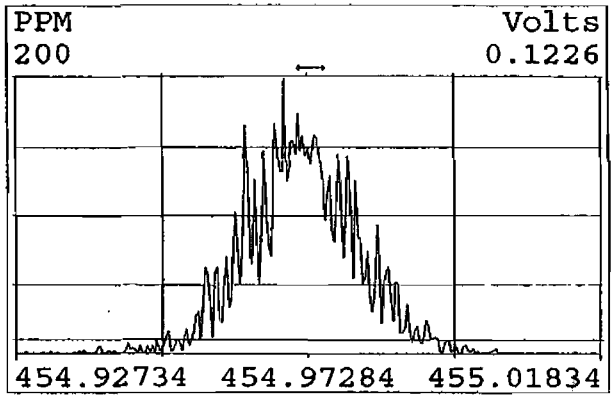
Peak Locate Examination: 2-MAR-2010:08:21 File:ENDRES01MR10A1D5
Experiment:DIOXIN Function:4 Reference:PFK

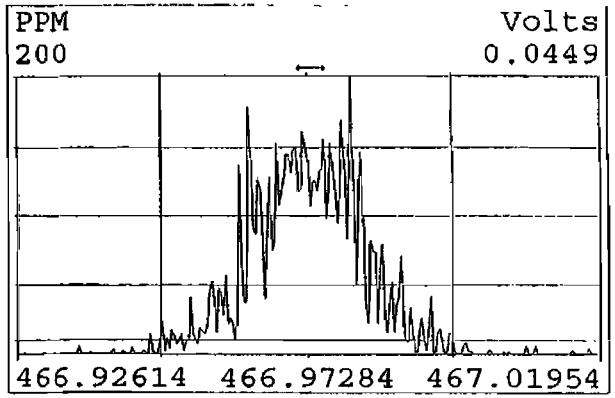


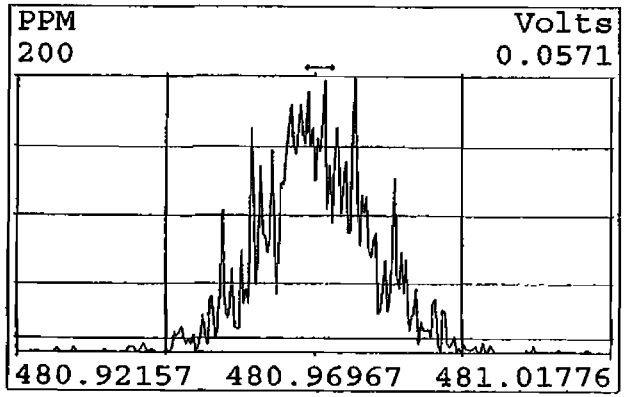




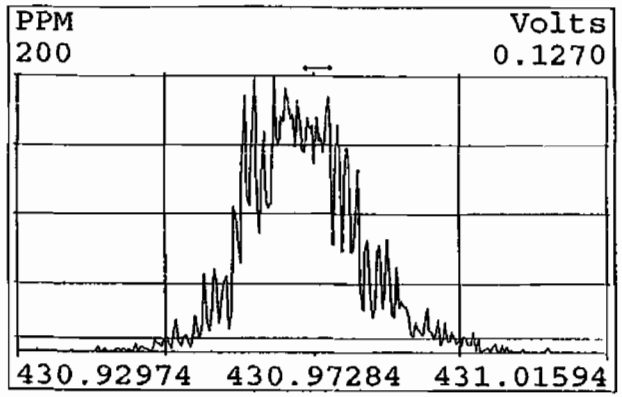


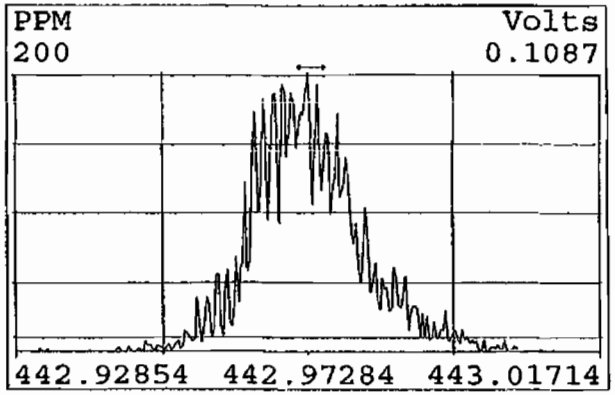


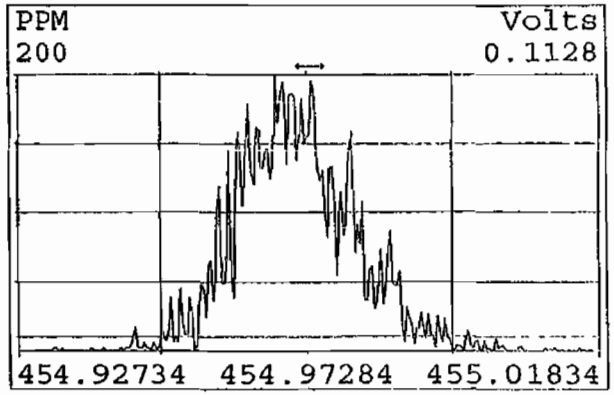


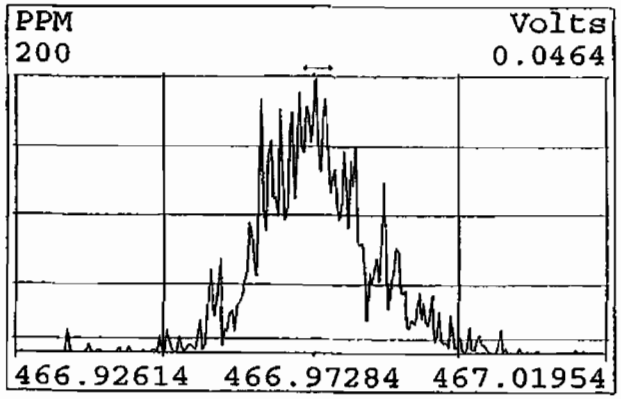


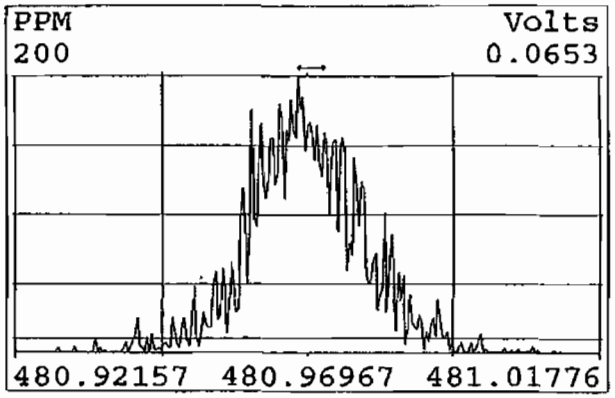
Peak Locate Examination: 2-MAR-2010:08:21 File:ENDRES01MR10A1D5
Experiment:DIOXIN Function:5 Reference:PFK

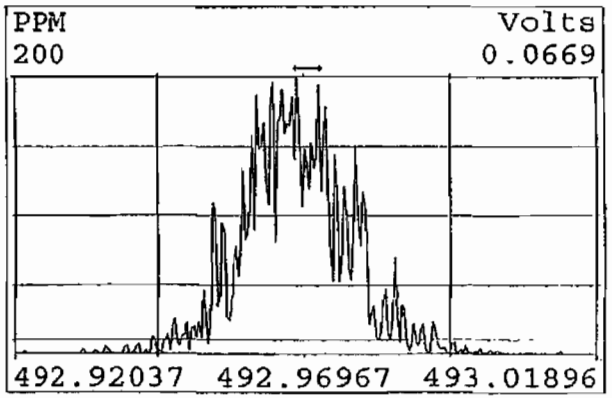


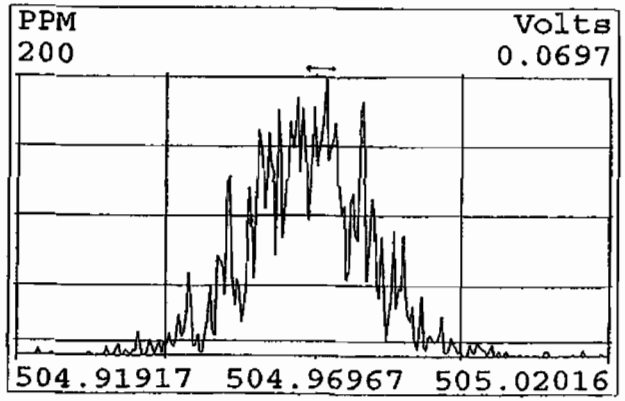


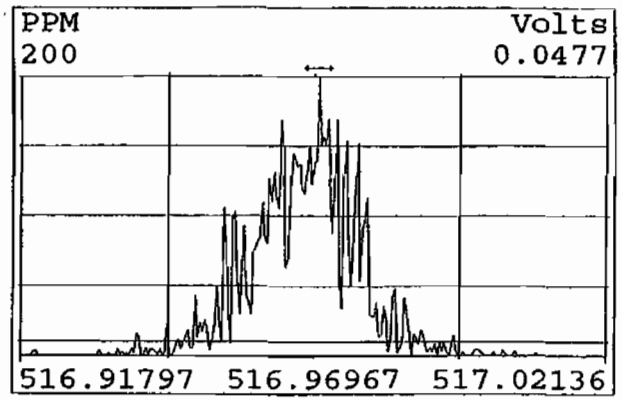












Run text: ST0301 File text: ST0301 :CS3 10DXN049
Run #6 Filename 01MR10A1D5 S: 1 I: 1
Acquired: 1-MAR-10 11:03:26 Processed: 1-MAR-10 16:55:08
Run: 01MR10A1D5 Analyte: 8290 Cal: 82901231091D5 Results: 01MR10A1D58290

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	200477400	0.78	y	18:47	-	100.00	-	n
13C-2,3,7,8-TCDF	332011000	0.78	y	18:13	1.66	100.00	5.8	n
2,3,7,8-TCDF	30371200	0.76	y	18:14	0.91	10.00	6.4	n
Total TCDF	30693541	1.26	n	15:56	0.91	10.00	6.4	n
13C-2,3,7,8-TCDD	214582200	0.78	y	19:00	1.07	100.00	7.8	n
2,3,7,8-TCDD	17933670	0.79	y	19:01	0.84	10.00	-10.5	n
Total TCDD	18276832	0.59	n	15:50	0.84	10.00	-10.5	n
37Cl-2,3,7,8-TCDD	43759400	1.00	y	19:01	2.18	10.00	-1.6	n
13C-1,2,3,7,8-PeCDF	214343700	1.62	y	23:40	1.07	100.00	-0.3	n
1,2,3,7,8-PeCDF	116505300	1.60	y	23:41	1.09	50.00	8.7	n
2,3,4,7,8-PeCDF	107896500	1.61	y	25:07	1.01	50.00	7.3	n
Total F2 PeCDF	225517168	2.21	n	22:12	1.05	100.00	8.0	n
Total F1 PeCDF	352526	0.46	n	14:11	1.05	100.00	8.0	n
13C-1,2,3,7,8-PeCDD	135593300	1.62	y	25:53	0.68	100.00	1.5	n
1,2,3,7,8-PeCDD	63967800	1.62	y	25:55	0.94	50.00	1.5	n
Total PeCDD	64120314	3.31	n	25:30	0.94	50.00	1.5	n
13C-1,2,3,7,8,9-HxCDD	165504900	1.29	y	32:57	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	156897100	0.53	y	31:33	0.95	100.00	6.2	n
1,2,3,4,7,8-HxCDF	98285400	1.23	y	31:35	1.25	50.00	4.5	n
1,2,3,6,7,8-HxCDF	111182100	1.29	y	31:43	1.42	50.00	3.4	n
2,3,4,6,7,8-HxCDF	106008600	1.26	y	32:23	1.35	50.00	8.8	n
1,2,3,7,8,9-HxCDF	104759800	1.28	y	33:10	1.34	50.00	0.7	n
Total HxCDF	420235900	1.23	y	31:35	1.34	200.00	4.3	n
13C-1,2,3,6,7,8-HxCDD	135858400	1.26	y	32:38	0.82	100.00	12.1	n
1,2,3,4,7,8-HxCDD	74570100	1.26	y	32:34	1.10	50.00	13.2	n
1,2,3,6,7,8-HxCDD	75244700	1.28	y	32:39	1.11	50.00	4.7	n
1,2,3,7,8,9-HxCDD	81580400	1.26	y	32:58	1.20	50.00	-5.8	n
Total HxCDD	231395200	1.26	y	32:34	1.14	150.00	3.1	n
13C-1,2,3,4,6,7,8-HpCDF	160097100	0.43	y	34:40	0.97	100.00	12.5	n
1,2,3,4,6,7,8-HpCDF	112985200	1.08	y	34:41	1.41	50.00	9.7	n
1,2,3,4,7,8,9-HpCDF	95826200	1.07	y	35:57	1.20	50.00	5.4	n
Total HpCDF	208811400	1.08	y	34:41	1.30	100.00	7.7	n
13C-1,2,3,4,6,7,8-HpCDD	138487500	1.07	y	35:36	0.84	100.00	11.2	n
1,2,3,4,6,7,8-HpCDD	74425900	1.10	y	35:37	1.07	50.00	7.7	n
Total HpCDD	74942647	1.10	y	34:59	1.07	50.00	7.7	n
13C-OCDD	202115900	0.89	y	38:22	0.61	200.00	8.2	n
OCDF	159663700	0.91	y	38:29	1.58	100.00	9.9	n
OCDD	124306900	0.91	y	38:22	1.23	100.00	10.9	n

Run text: ST0301A File text: ST0301A :CS3 10DXN049
Run #22 Filename 01MR10A1D5 S: 19 I: 1
Acquired: 1-MAR-10 23:38:51 Processed: 2-MAR-10 08:14:03
Run: 01MR10A1D5 Analyte: 8290 Cal: 82901231091D5 Results: 01MR10A1D58290

Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	167624200	0.79 y	18:46	-	100.00	-	n
13C-2,3,7,8-TCDF	310353000	0.78 y	18:13	1.85	100.00	18.2	n
2,3,7,8-TCDF	24277000	0.75 y	18:14	0.78	10.00	-9.0	n
Total TCDF	24671505	2.01 n	14:09	0.78	10.00	-9.0	n
13C-2,3,7,8-TCDD	179618100	0.79 y	18:59	1.07	100.00	7.9	n
2,3,7,8-TCDD	15701160	0.74 y	19:00	0.87	10.00	-6.4	n
Total TCDD	15965228	0.66 y	14:51	0.87	10.00	-6.4	n
37Cl-2,3,7,8-TCDD	36528000	1.00 y	19:00	2.18	10.00	-1.8	n
13C-1,2,3,7,8-PeCDF	169779600	1.64 y	23:39	1.01	100.00	-5.6	n
1,2,3,7,8-PeCDF	95076400	1.62 y	23:41	1.12	50.00	12.0	n
2,3,4,7,8-PeCDF	84379900	1.65 y	25:06	0.99	50.00	5.9	n
Total F2 PeCDF	180679034	1.70 y	22:11	1.06	100.00	9.0	n
Total F1 PeCDF	477120	0.53 n	16:05	1.06	100.00	9.0	n
13C-1,2,3,7,8-PeCDD	84496000	1.74 y	25:51	0.50	100.00	-24.4	n
1,2,3,7,8-PeCDD	45439600	1.59 y	25:53	1.08	50.00	15.8	n
Total PeCDD	45823123	1.30 n	23:41	1.08	50.00	15.8	n
13C-1,2,3,7,8,9-HxCDD	119814700	1.28 y	32:57	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	120092000	0.56 y	31:33	1.00	100.00	12.3	n
1,2,3,4,7,8-HxCDF	79915900	1.27 y	31:35	1.33	50.00	11.0	n
1,2,3,6,7,8-HxCDF	92995200	1.30 y	31:43	1.55	50.00	12.9	n
2,3,4,6,7,8-HxCDF	85913800	1.28 y	32:23	1.43	50.00	15.2	n
1,2,3,7,8,9-HxCDF	82948700	1.26 y	33:10	1.38	50.00	4.2	n
Total HxCDF	341847212	1.27 y	31:35	1.42	200.00	10.8	n
13C-1,2,3,6,7,8-HxCDD	95582000	1.28 y	32:39	0.80	100.00	9.0	n
1,2,3,4,7,8-HxCDD	50210400	1.26 y	32:34	1.05	50.00	8.3	n
1,2,3,6,7,8-HxCDD	56115700	1.30 y	32:39	1.17	50.00	10.9	n
1,2,3,7,8,9-HxCDD	63688700	1.29 y	32:58	1.33	50.00	4.5	n
Total HxCDD	170014800	1.26 y	32:34	1.19	150.00	7.7	n
13C-1,2,3,4,6,7,8-HpCDF	112216900	0.41 y	34:41	0.94	100.00	8.9	n
1,2,3,4,6,7,8-HpCDF	80388900	1.05 y	34:42	1.43	50.00	11.4	n
1,2,3,4,7,8,9-HpCDF	67718500	1.07 y	35:59	1.21	50.00	6.3	n
Total HpCDF	148107400	1.05 y	34:42	1.32	100.00	9.0	n
13C-1,2,3,4,6,7,8-HpCDD	110568600	1.09 y	35:37	0.92	100.00	22.7	n
1,2,3,4,6,7,8-HpCDD	54867000	1.11 y	35:38	0.99	50.00	-0.5	n
Total HpCDD	55073402	1.16 y	34:59	0.99	50.00	-0.5	n
13C-OCDD	136308300	0.89 y	38:23	0.57	200.00	0.8	n
OCDF	109505000	0.91 y	38:30	1.61	100.00	11.8	n
OCDD	88457200	0.91 y	38:23	1.30	100.00	17.0	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
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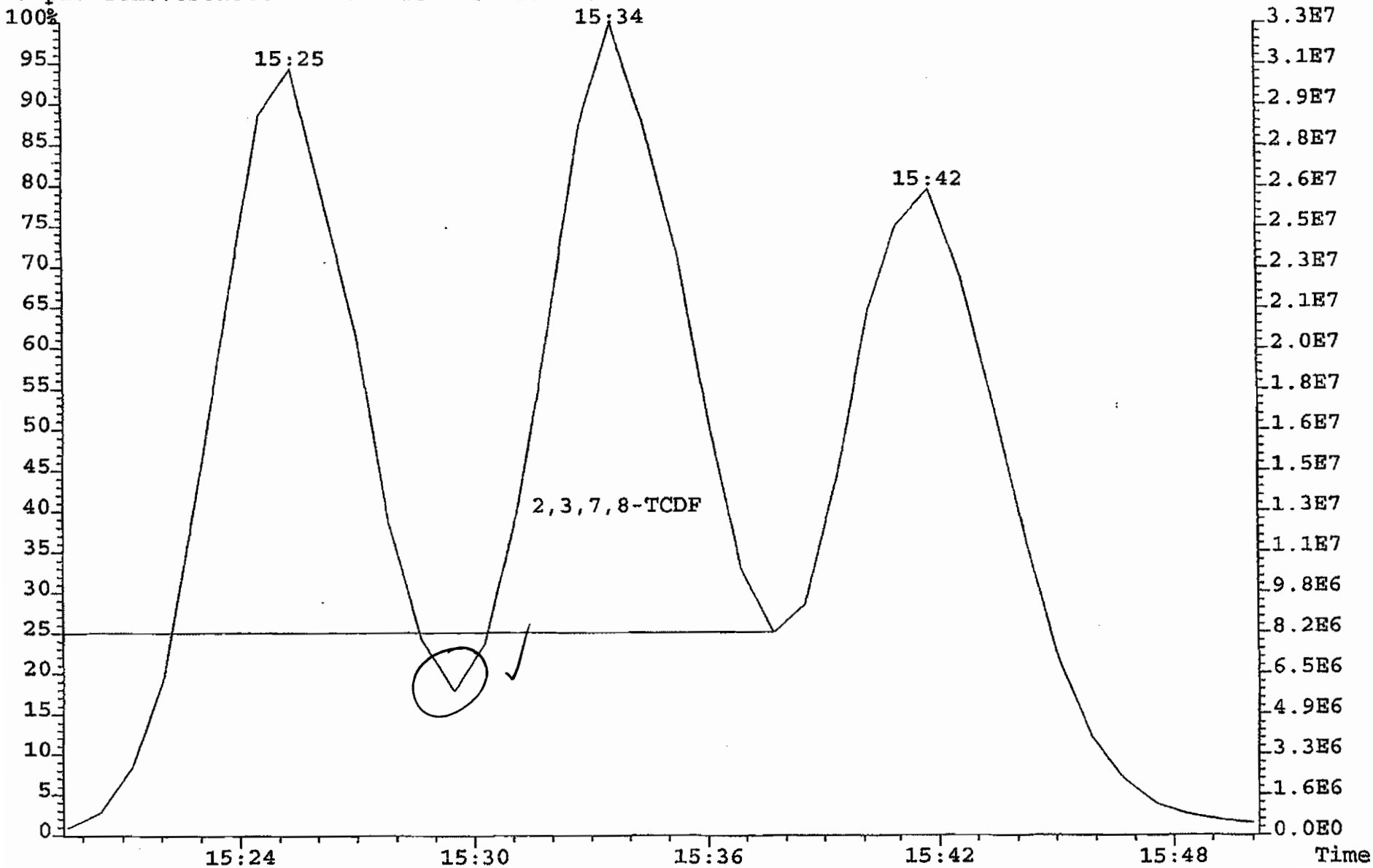
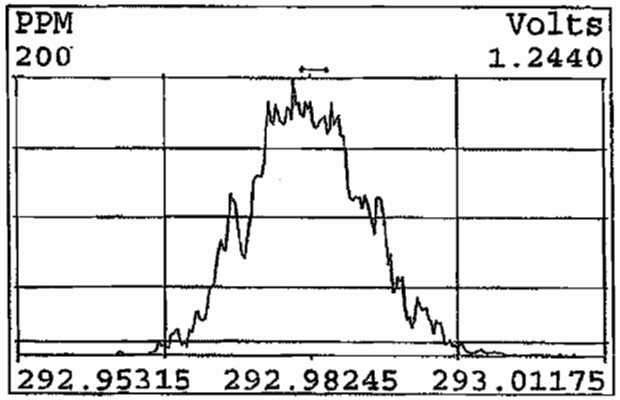
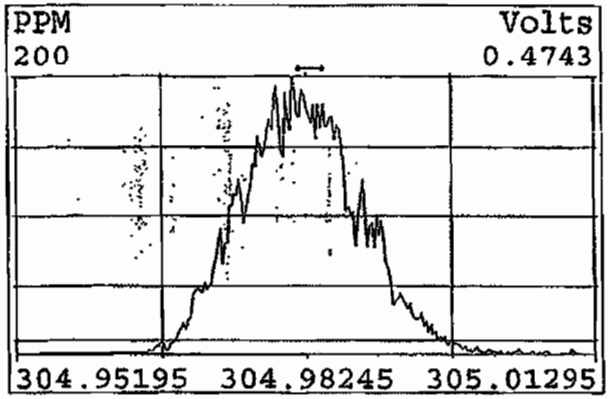
04JA10B5D2	2	CP0104C	DB225 CPSM 3732-01				1.000	
04JA10B5D2	3	ST0104D	CS-1 09DXN422				1.000	
04JA10B5D2	4	ST0104E	CS-2 09DXN423				1.000	
04JA10B5D2	5	ST0104F	CS-3 09DXN425				1.000	
04JA10B5D2	6	ST0104G	CS-5 09DXN456				1.000	
04JA10B5D2	7	ST0104H	CS-4 09DXN426				1.000	
04JA10B5D2	8	ST0104I	2nd Source 09DXN449				1.000	
04JA10B5D2	9						1.000	
04JA10B5D2	10						1.000	
04JA10B5D2	11						1.000	
04JA10B5D2	12						1.000	
04JA10B5D2	13						1.000	
04JA10B5D2	14		AM 01-04-10				1.000	
04JA10B5D2	15						1.000	

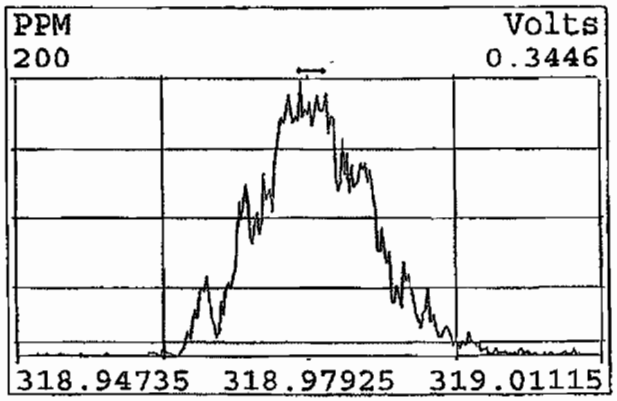
File:04JA10B5D2 #1-1242 Acq: 4-JAN-2010 22:17:05 GC EI+ Voltage SIR 70SE
303.9016 S:2 BSUB(128,15,-3.0) Exp:DB225 Noise:3300
Sample Text:CP0104C :DB225 CPSM 3732-01

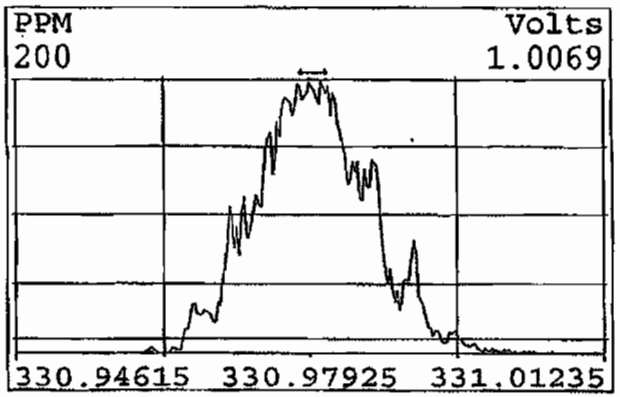


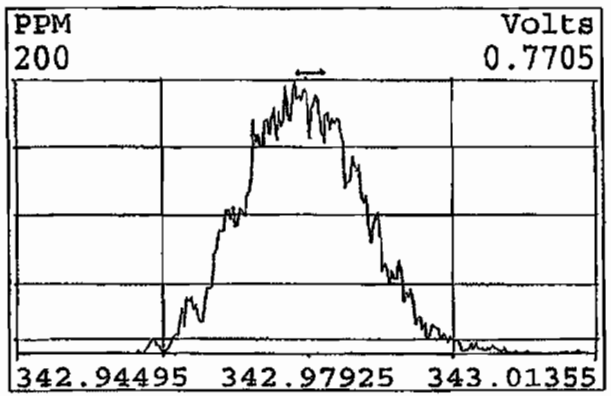
Peak Locate Examination: 4-JAN-2010:21:33 File:04JA10B5D2
Experiment:DB225 Function:1 Reference:PFK

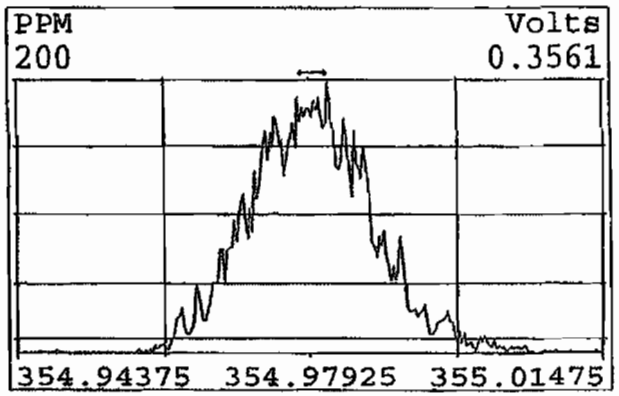


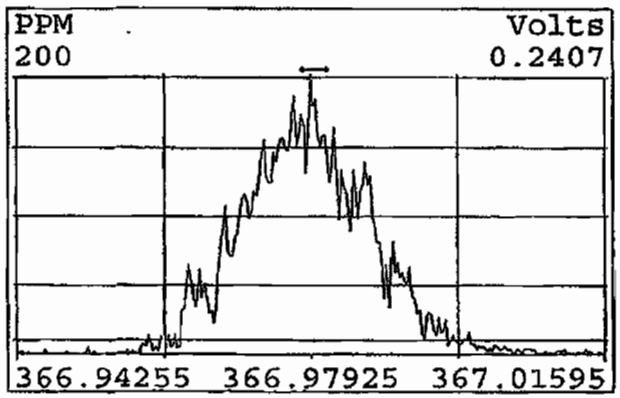


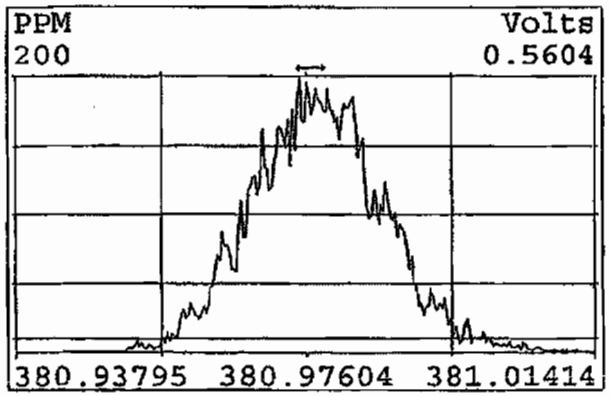




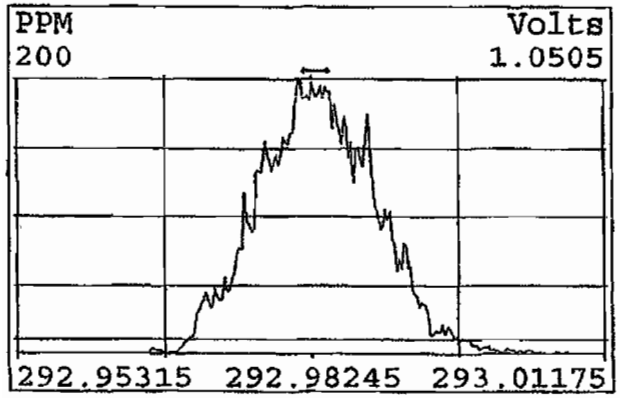


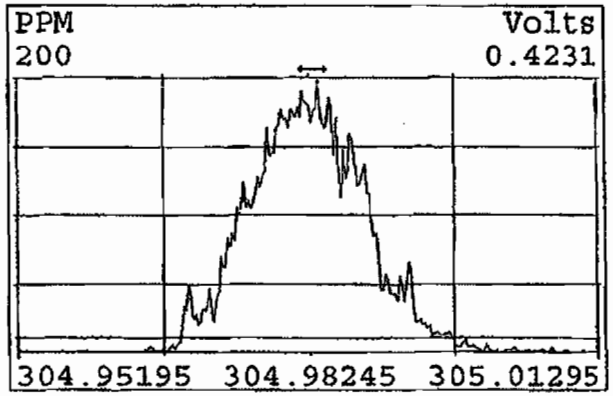


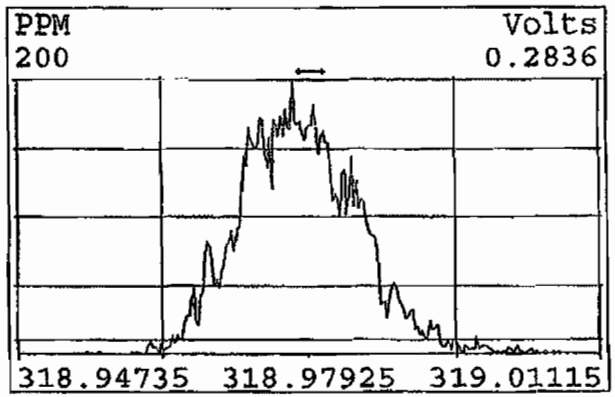


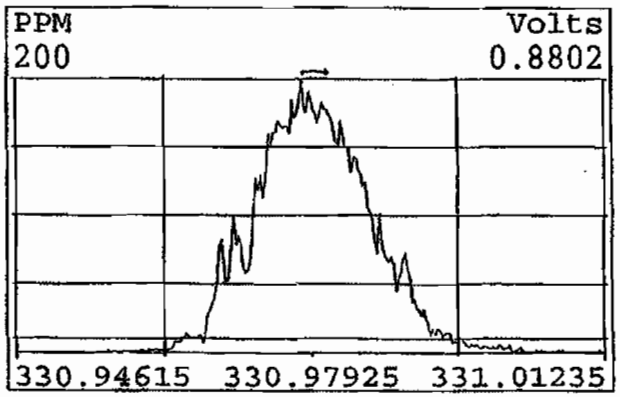


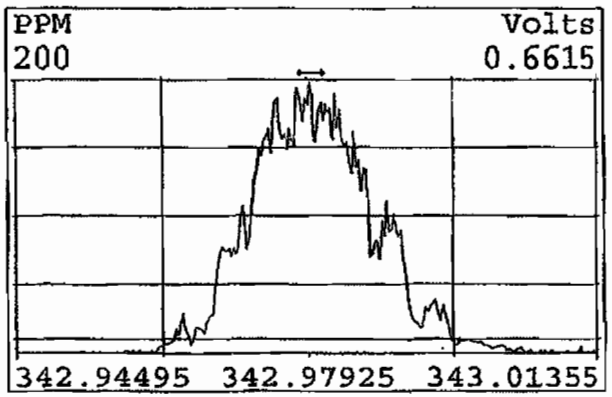
Peak Locate Examination: 5-JAN-2010:07:37 File:ENDRES04JA10B5D2
Experiment:DB225 Function:1 Reference:PFK

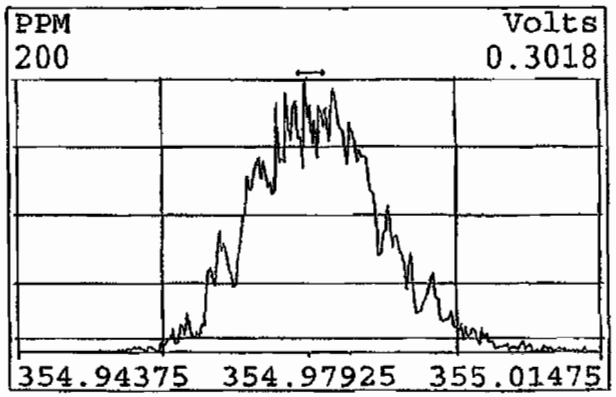


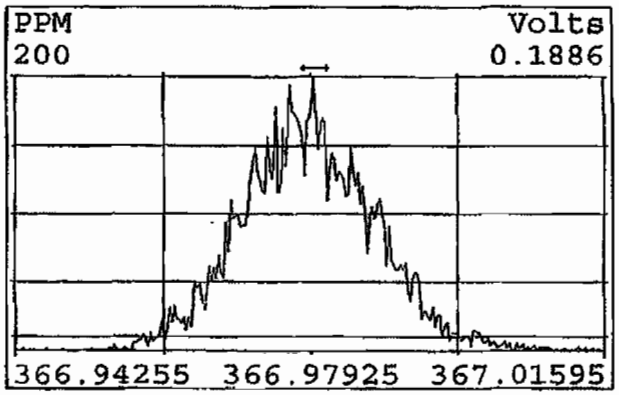


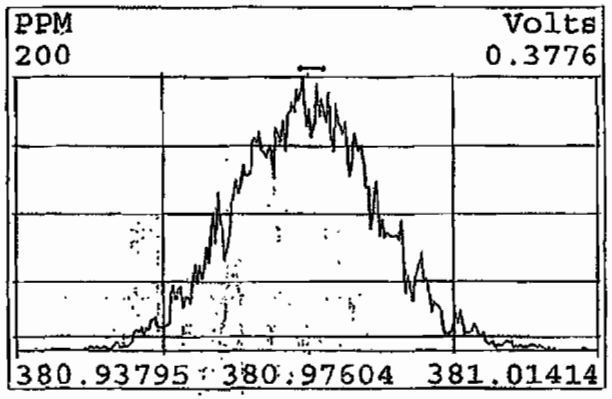












Run: 04JA10A5D2 Analyte: DB225 Cal: DB2250104105D2

ST0104D :CS-1 09DXN422 ST0104E :CS-2 09DXN423 ST0104F :CS-3 09DXN425
ST0104G :CS-5 09DXN456 ST0104H :CS-4 09DXN426

				04JA10B5D2	04JA10B5D2	04JA10B5D2	04JA10B5D2	04JA10B5D2
				S3	S4	S5	S6	S7
Name	Mean	S. D.	%RSD	RRF1	RRF2	RRF3	RRF4	RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.664	0.062	3.75 %	1.65	1.58	1.73	1.72	1.64
2,3,7,8-TCDF	1.014	0.078	7.69 %	1.14	0.94	0.97	1.01	1.00
13C-2,3,7,8-TCDD	0.951	0.045	4.78 %	0.98	0.90	0.99	0.98	0.91
2,3,7,8-TCDD	1.183	0.038	3.23 %	1.19	1.21	1.12	1.18	1.22
37Cl-2,3,7,8-TCDD	2.068	0.541	26.2 %	2.60	2.20	1.15	2.23	2.16

Run: 04JA10A5D2 Analyte: DB225AIR Cal: DB225AIR0104105D2

ST0104D :CS-1 09DXN422 ST0104E :CS-2 09DXN423 ST0104F :CS-3 09DXN425
ST0104G :CS-5 09DXN456 ST0104H :CS-4 09DXN426

Name	Mean	S. D.	%RSD	04JA10B5D2 S3 RRF1	04JA10B5D2 S4 RRF2	04JA10B5D2 S5 RRF3	04JA10B5D2 S6 RRF4	04JA10B5D2 S7 RRF5
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-
13C-2,3,7,8-TCDF	1.664	0.062	3.75 %	1.65	1.58	1.73	1.72	1.64
2,3,7,8-TCDF	1.014	0.078	7.69 %	1.14	0.94	0.97	1.01	1.00
13C-2,3,7,8-TCDD	0.951	0.045	4.78 %	0.98	0.90	0.99	0.98	0.91
2,3,7,8-TCDD	1.183	0.038	3.23 %	1.19	1.21	1.12	1.18	1.22
37Cl-2,3,7,8-TCDD	2.184	0.588	26.9 %	2.65	2.44	1.16	2.27	2.39

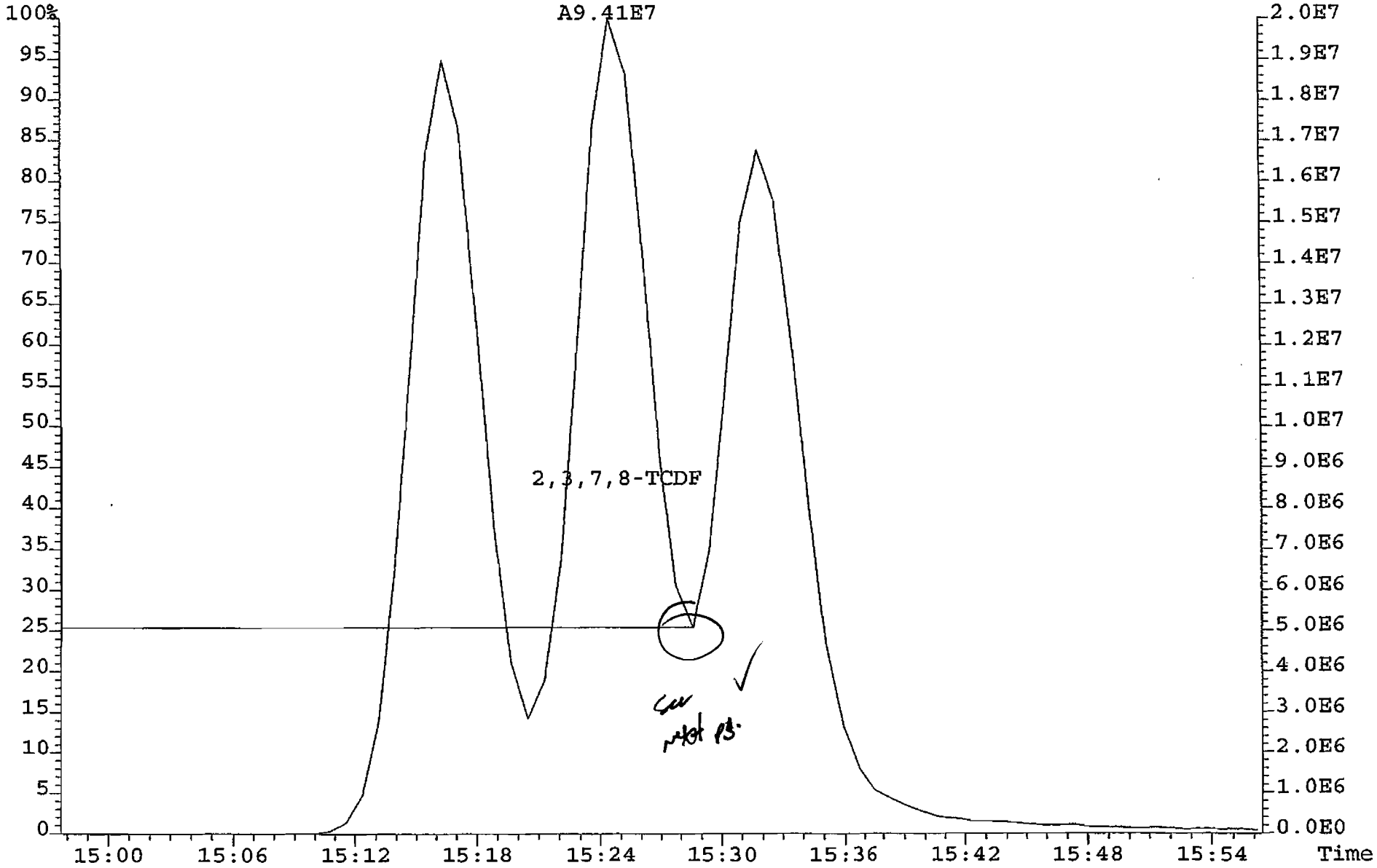
Run text: ST0104I Sample text: ST0104I :2nd Source 09DXN449
Run #6 Filename: 04JA10B5D2 S: 8 I: 1 Results: 04JA10B5D2DB225
Acquired: 5-JAN-10 01:59:23 Processed: 5-JAN-10 07:32:10
Run: 04JA10B5D2 Analyte: DB225 Cal: DB2250104105D2
Factor 1: 400.000 Factor 2: 20.000 Sample size: 1.000000

Name	Resp	RA		RT	RRF	Conc	EDL	Rec	M
13C-1,2,3,4-TCDD	231493400	0.75	y	14:21	-	107.01	-	-	n
13C-2,3,7,8-TCDF	411344000	0.79	y	15:29	1.66	2136.22	5.10	106.8	n
2,3,7,8-TCDF	39223200	0.79	y	15:30	1.01	188.17	2.13	-	n
13C-2,3,7,8-TCDD	223989400	0.75	y	14:08	0.95	2034.51	6.92	101.7	n
2,3,7,8-TCDD	26173300	0.82	y	14:09	1.18	197.63	2.54	-	n
37Cl-2,3,7,8-TCDD	54459400	1.00	y	14:09	2.07	227.53	1.20	113.8	n

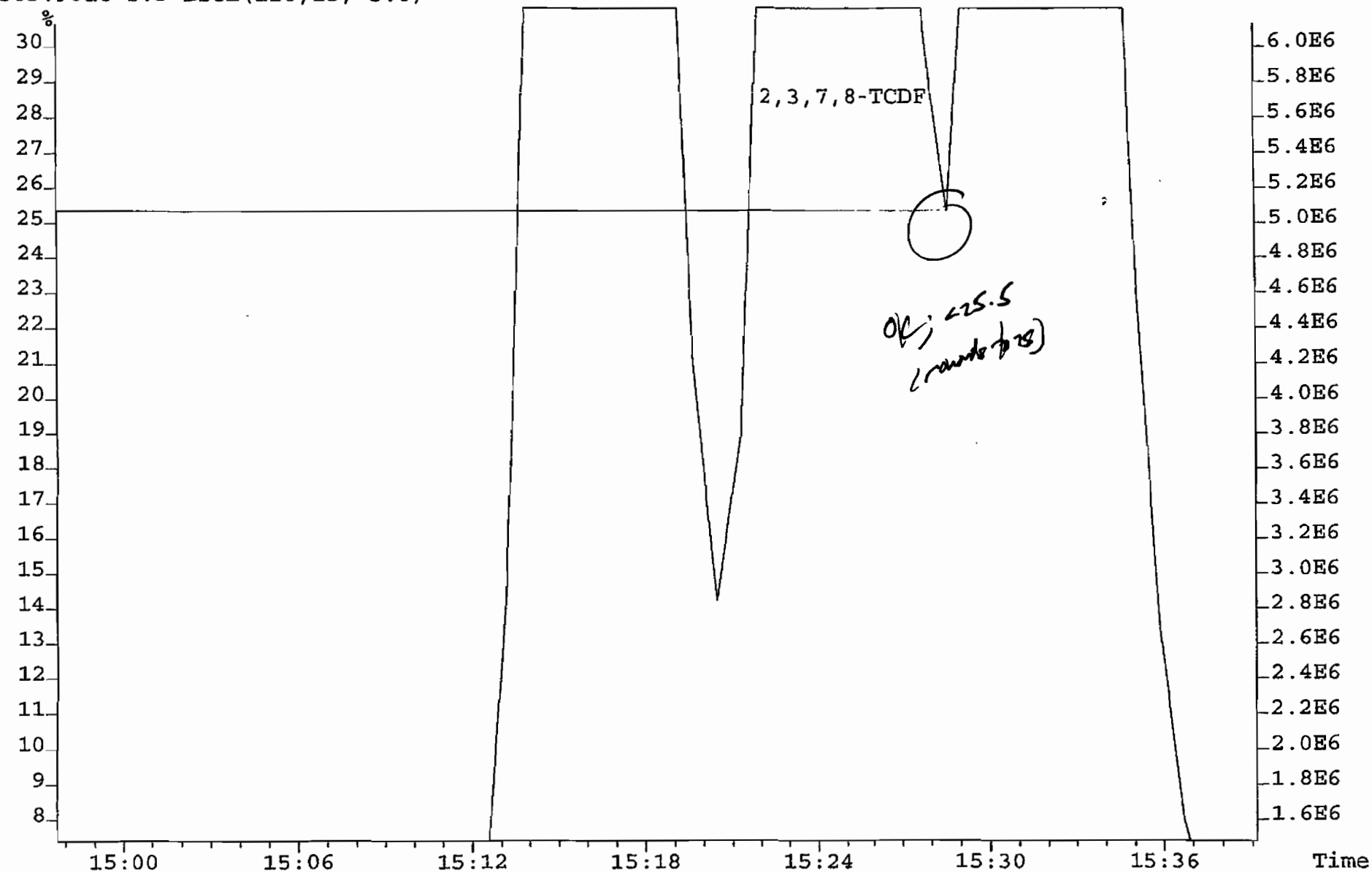
Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
02MR10B5D2	1	CP0302	DB-225 CPSM 3732-01				1.000	
02MR10B5D2	2	ST0302	CS3 10DXN083				1.000	
02MR10B5D2	3	CP0302A	DB-225 CPSM 3732-01				1.000	
02MR10B5D2	4	SB0302	Solvent Blank C-14				1.000	
02MR10B5D2	5	LV1LE-1-AA	G0B230553-6	20	8290/SOLID	25	10.470	g
02MR10B5D2	6	LVQ04-1-AA	G0B160481-2	20	8290/SOLID	22	10.170	g
02MR10B5D2	7	LVQ03-1-AA	G0B160481-1	20	8290/SOLID		10.810	g
02MR10B5D2	8	LV1LD-1-AA	G0B230553-5	20	8290/SOLID	25	10.500	g
02MR10B5D2	9	LV1K8-1-AA	G0B230553-1	20	8290/SOLID		10.000	g
02MR10B5D2	10	LVQ1Q-1-AA	G0B160487-1	20	8290/SOLID	22	10.080	g
02MR10B5D2	11	LVQ12-1-AA	G0B160487-2	20	8290/SOLID		10.670	g
02MR10B5D2	12	LV1LA-1-AA	G0B230553-3	20	8290/SOLID	25	10.060	g
02MR10B5D2	13	LVXH9-1-AC	G0B200458-2	20	8290/SOLID		10.590	g
02MR10B5D2	14	LV1KP-1-AC	G0B230551-2	20	8290/SOLID		10.010	g
02MR10B5D2	15	LV1KQ-1-AC	G0B230551-3	20	8290/SOLID		10.130	g
02MR10B5D2	16	LV1KR-1-AC	G0B230551-4	20	8290/SOLID		10.760	g
02MR10B5D2	17	LV1KT-1-AC	G0B230551-5 (10X)	20	8290/SOLID		10.440	g
02MR10B5D2	18	LV1KT-1-AC	G0B230551-5	20	8290/SOLID		10.440	g
02MR10B5D2	19	SB0302A	Solvent Blank C-14				1.000	
02MR10B5D2	20	SB0302B	Solvent Blank C-14				1.000	
02MR10B5D2	21	ST0302A	CS3 10DXN083				1.000	
02MR10B5D2	22	CP0302B	DB-225 CPSM 3732-06				1.000	
02MR10B5D2	23	SB0302C	Solvent Blank C-14				1.000	
02MR10B5D2	24						1.000	
02MR10B5D2	25						1.000	
02MR10B5D2	26		KSS 03-02-10				1.000	
02MR10B5D2	27						1.000	
02MR10B5D2	28						1.000	

logfile ✓
SM 3-3-10

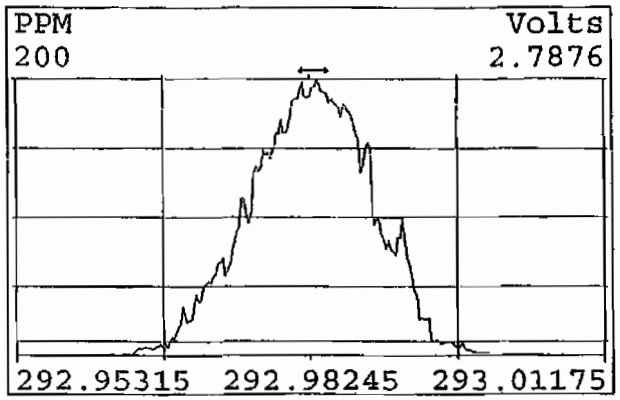
File:02MR10B5D2 #1-445 Acq: 2-MAR-2010 16:32:58 GC EI+ Voltage SIR 70SE
Sample#3 Exp:DB225
303.9016 S:3 BSUB(128,15,-3.0)

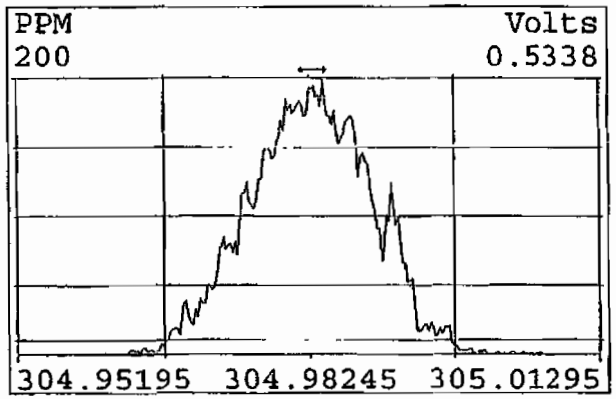


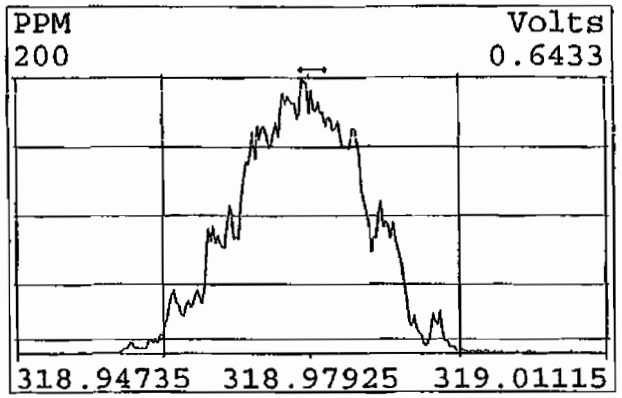
File:02MR10B5D2 #1-445 Acq: 2-MAR-2010 16:32:58 GC EI+ Voltage SIR 70SE
Sample#3 Exp:DB225
303.9016 S:3 BSUB(128,15,-3.0)

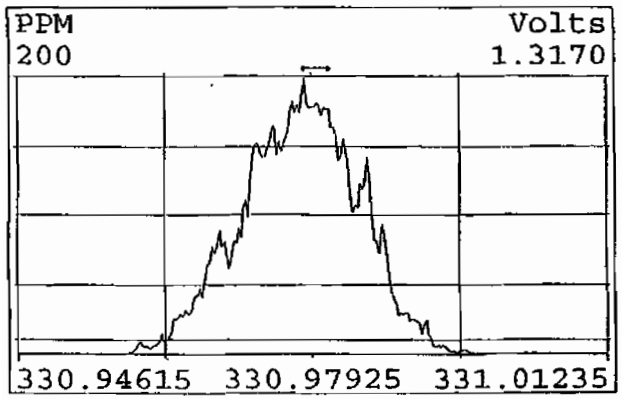


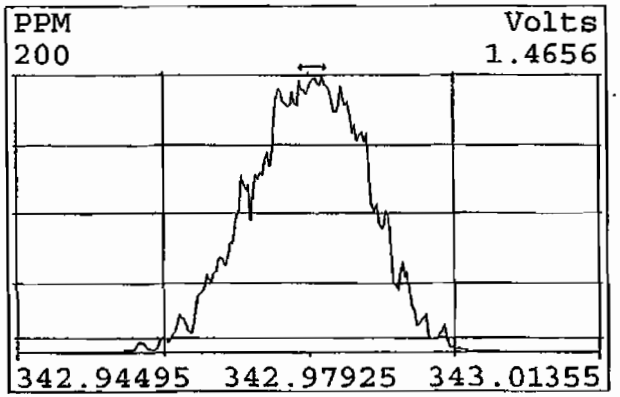
Peak Locate Examination: 2-MAR-2010:15:18 File:02MR10B5D2
Experiment:DB225 Function:1 Reference:PFK

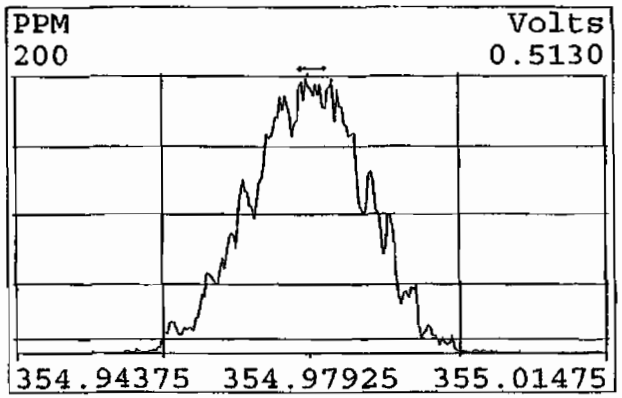


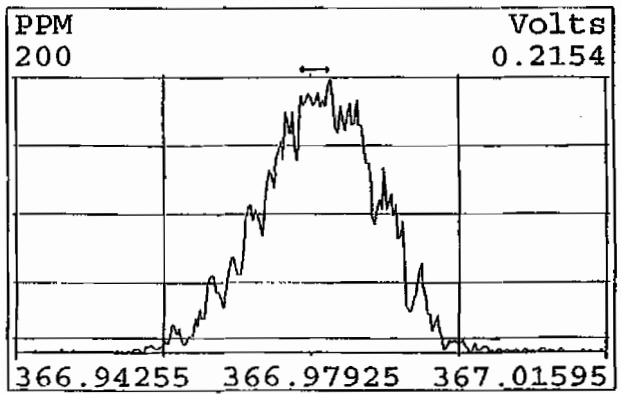


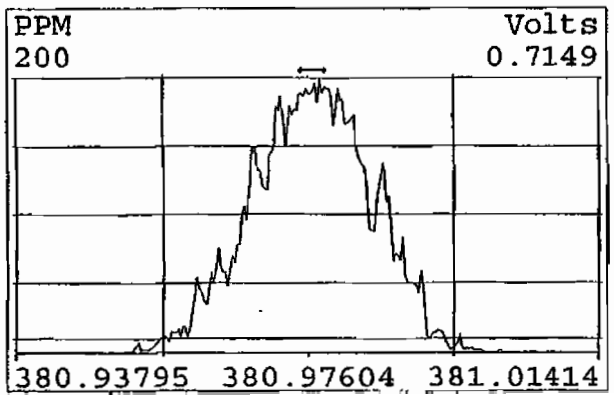




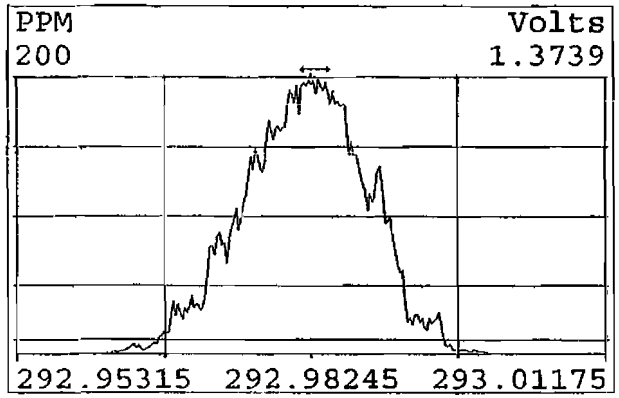


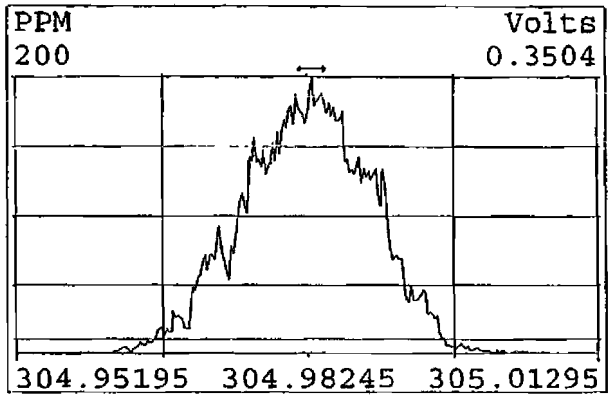


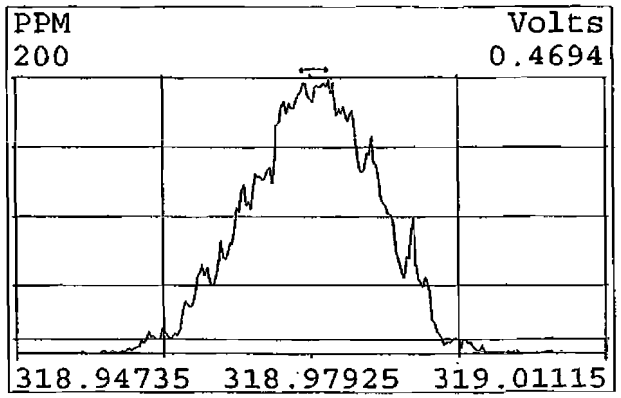


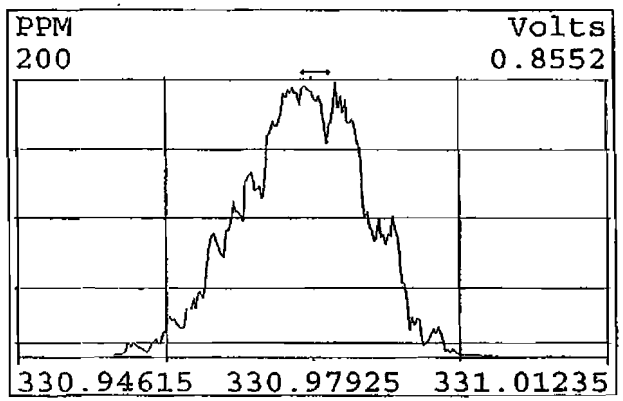


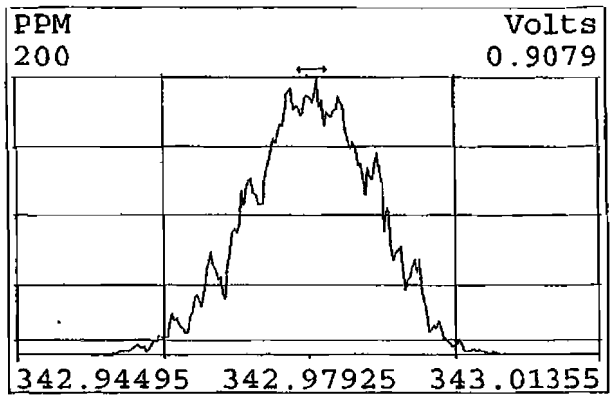
Peak Locate Examination: 3-MAR-2010:09:23 File:ENDRES02MR10B5D2
Experiment:DB225 Function:1 Reference:PFK

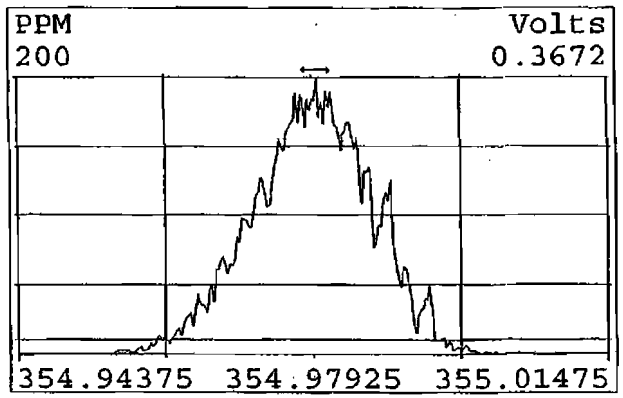


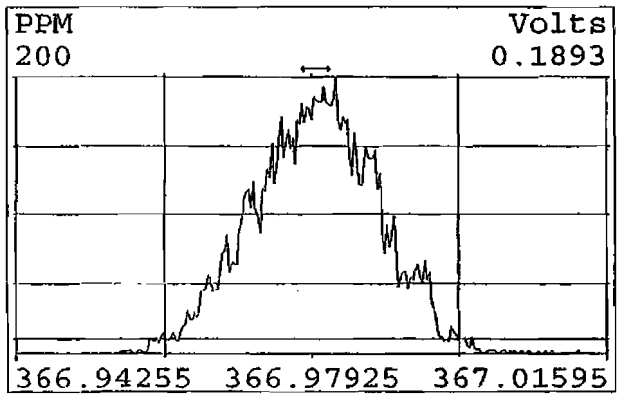


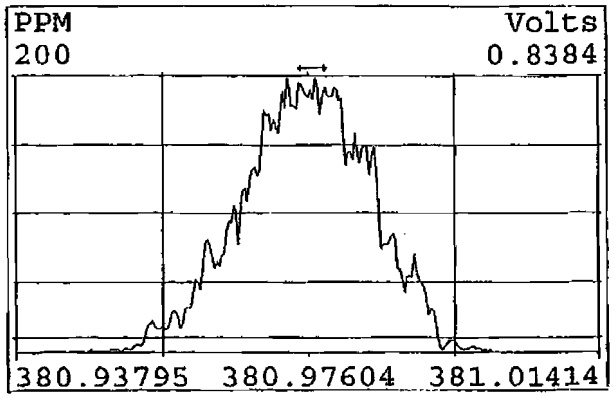












Run text: ST0302 File text: ST0302 :CS3 10DXN083
Run #6 Filename 02MR10B5D2 S: 2 I: 1
Acquired: 2-MAR-10 15:55:51 Processed: 2-MAR-10 17:40:36
Run: 02MR10B5D2 Analyte: DB225 Cal: DB2250104105D2 Results: 02MR10B5D2DB225

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	106835800	0.78	y	14:16	-	100.00	-	n
13C-2,3,7,8-TCDF	186698900	0.79	y	15:22	1.75	100.00	5.0	n
2,3,7,8-TCDF	17182970	0.74	y	15:23	0.92	10.00	-9.2	n
13C-2,3,7,8-TCDD	94637600	0.76	y	14:02	0.89	100.00	-6.9	n
2,3,7,8-TCDD	14169800	0.79	y	14:03	1.50	10.00	26.6	n
37Cl-2,3,7,8-TCDD	27076800	1.00	y	14:03	2.53	10.00	22.6	n

NA TCDF conf. only
3/2/10 KSS

Run text: ST0302A File text: ST0302A :CS3 10DXN083
Run #22 Filename 02MR10B5D2 S: 21 I: 1
Acquired: 3-MAR-10 03:39:55 Processed: 3-MAR-10 14:35:21
Run: 02MR10B5D2 Analyte: DB225 Cal: DB2250104105D2 Results: 02MR10B5D2DB225

Name	Resp	RA		RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	54605700	0.75	y	14:16	-	100.00	-	n
13C-2,3,7,8-TCDF	100640100	0.81	y	15:22	1.84	100.00	10.8	n
2,3,7,8-TCDF	9061700	0.72	y	15:23	0.90	10.00	-11.2	n
13C-2,3,7,8-TCDD	51482400	0.76	y	14:02	0.94	100.00	-0.9	n
2,3,7,8-TCDD	7313570	0.78	y	14:03	1.42	10.00	20.1	n
37Cl-2,3,7,8-TCDD	13063780	1.00	y	14:03	2.39	10.00	15.7	n

TestAmerica West Sacramento
High Resolution Prep Log
Dioxin/Furan Solid Analysis

Box # 25

Shared QC Batch: 0054332

Shares QC With: NA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Internal COC:	
Delivered to Inst.:	2/25/10
Inst Receipt:	

Batch: 0055365

MS Run #:

Prep Date: 2/24/2010

Method: IN 8290

Matrx: A SOLID

Extraction: 4W SOXHLET (NOMINAL)

QC: 01 STANDARD TEST SET

SAC: IN - A - 4W - 01

~~Soxhlet~~ therm time on: 22:00 ~~Soxhlet~~ therm time off: 2:00

Prep Reagents		
Reagent	Supplier	Lot #
Toluene	Baker	H25N56
Hexane	Baker	H33E04
H2SO4	Baker	NA
20% DCM:Hexane	NA	3630-48E
65% DCM:Hexane	NA	3630-49G
1:1 DCM:Cyclohexane	NA	NA
75;20:5 DCM:Hexane:Benzene	NA	NA
Silica Gel	Whitman	22-22
Acid Alumina	MP-Bio	19
5% Carbon:Silica Gel	NA	NA

Extraction Table

Sample ID	Suff	Work Order	Extraction Hold Time Expires	Sample size * 10g nom.	Final Volume 20uL	Final Volume Other	Analysis Hold Time Expires	Extraction ID	Rotovap ID
G0B230553 - 1		LV1K81AA	2/20/2010	10.00			4/10/2010		4
G0B230553 - 2		LV1K91AA	2/20/2010	10.09			4/10/2010		9
G0B230553 - 3		LV1LA1AA	2/20/2010	10.00			4/10/2010		4
G0B230553 - 4		LV1LC1AA	2/20/2010	10.09			4/10/2010		9
G0B230553 - 5		LV1LD1AA	2/20/2010	10.50			4/10/2010		4
G0B230553 - 6		LV1LE1AA	2/20/2010	10.47		2/25/10	4/10/2010	2/25/10	9
G0B240000 - 365	B	LV2VL1AA	2/20/2010	10.00			4/10/2010		9
G0B240000 - 365	C	LV2VL1AC	2/20/2010	10.00			4/10/2010		4

* See attached sheet for sample volumes recorded from scale

Comments/NCMs:

	ID	Spike Exp Date:	Spiked By:	Witnessed By:	Date:
Internal Standard All Samples	1.0ml 100XN072	10.31.10	ll		2.24.10
Spike Mix LCS/LCSD/MS/MS					
Cleanup Standard All Samples	1.0ml/100XN048	10/30/10	ML	T.L	2/25/10
Recovery Standard All Samples	20.0ml 09DXN388	11/19/10		T.L	2/25/10
Soxhlet Extraction Analyst/Date	2.24.10				

Split/Archive Analyst/Date	Option C Analyst/Date	IFB Analyst/Date	D2 Analyst/Date
—	—	ML/2/25/10	—

TestAmerica West Sacramento

Data Checklist
HRGCMS/LRGCMS Analyses

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Batch #: 0055365 Method ID: 8290

	DB-5	DB-225
Data Analyst:	as	as
Date initiated:	03-08-10	03-08-10
Reviewer:	[illegible]	[illegible]
Date reviewed:	3/11/10	3/11/10

QA/QC verification:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Daily standard package(s) present?	✓	✓	✓	✓
-Method Blank present?	✓	✓	NA	NA
-LCS/DCS copy present and meets native recovery criteria?	✓	✓	NA	NA
-Internal standard recoveries within limits?*	✓	✓	✓	✓
-Ion ratios within + 15% of theoretical values?	①	①	✓	✓
-Other QC (Dup,MS,SD) within specs?**	NA	NA	NA	NA

Sample Analysis:	Initiated DB-5	Reviewed DB-5	Initiated DB-225 (High Res Only)	Reviewed DB-225 (High Res Only)
-Correct sample aliquot used?	✓	✓	✓	✓
-All raw data present?	✓	✓	✓	✓
-Standard target DL's used? If RL's are used specify:_____	✓	✓	✓	✓
-DL's below TDL / LCL (please circle)?	✓	✓	✓	✓
-All positives reported at levels greater than method blank DL's?	✓	✓	✓	✓
-Correct RRF's used for method?	✓	✓	✓	✓
-Internal standard amounts correct for method?	✓	✓	✓	✓
-Target analytes are not saturated?	✓	✓	✓	✓
-Dilution/splitting of extract taken into account?	NA	NA	NA	NA
-Have dilution calculations been verified?	NA	NA	NA	NA
-Has a manual calculation for the sequence(s) been verified?	✓	✓	✓	✓
-Are retention times (RT) correct?	✓	✓	✓	✓
-Manual integrations checked?	✓	✓	NA	NA

Comments: (Use other side if necessary)

① 13C-1,2,3,7,8 PeCDD has ion ratios out in samples #3, 4, 5 and 6 see NCM# 07-01038.

* Recovery limits:		**RPD limits:
NCASI 551:	40-120%***	50%
Method 8290:	40-135%***	20%
Method 1613:	25-150%***	50%
Method 23:	40-130%***(Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr.)	50%
PCBs:	25-150%***	50%
Method 8280:	40-120%***	
DFLM01.0:	25-150%***	
Method 1614	25-150%***	

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

QA-371 07/99 MAF

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/25/10
Time: 13:19:02

LEV 1	LEV 2		LEV 1	LEV 2	
Y	_	Blank	Y	_	Weights/Volumes
Y	_	Check	Y	_	Spike & Surrogate Worksheet
_	_	MS/MSD	Y	_	Vial contains correct volume
			Y	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
Y Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: 002084 Ceasar Cortez

Concentrationist: 006625 Elizabeth Nguyen

QC BATCH: 0055365

PREP DATE: 2/24/10 22:00
COMP DATE: 2/25/10 15:00

Reviewer/Date: NGUYENE / 2/25/10

Dioxins/Furans, HRGC/HRMS (8290)
SOXHLET (NOMINAL)

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/20/10	3/12/10	G0B230553-001 **LV1K8-1-AA**	D	4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	3/12/10	G0B230553-002 **LV1K9-1-AA**	D	4W	IN	SOLID	**410.89g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	3/12/10	G0B230553-003 **LV1LA-1-AA**	D	4W	IN	SOLID	**10.06g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	3/12/10	G0B230553-004 **LV1LC-1-AA**	D	4W	IN	SOLID	**10.09g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	3/12/10	G0B230553-005 **LV1LD-1-AA**	D	4W	IN	SOLID	**10.50g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	3/12/10	G0B230553-006 **LV1LE-1-AA**	D	4W	IN	SOLID	**10.47g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															
2/20/10	0/00/00	G0B240000-365 **LV2VL-1-AAB**		4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	1.0ML IS 10DXN072
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/25/10
Time: 13:19:02

QC BATCH: 0055365

PREP DATE: 2/24/10 22:00
COMP DATE: 2/25/10 15:00

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
2/20/10	0/00/00	G0B240000-365 **LV2VL-1-ACC**		4W	IN	SOLID	**10.00g** 20.00uL	NA	NA	NA	TOL	300.0	C14	20.0	50.0UL NS 10DXN072 1.0ML IS 10DXN072

COMMENTS:

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 8

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THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

Preparation Data Review Checklist

Prep Batch(es) 00553105 **Test:** 8290B

Prep Date: 2.24.10 **Holding Times:** 2.26.10 **NCM:** Y (N) Samples received after hold time.

A. Spike Witness/Batch setup	Spike Witness	Reviewer
1. **Holding times checked?** NCMs filed as appropriate	*	
2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc)	✓	
3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match.	✓	NA
4. Worksheets have been checked for required spiking compounds	✓	
5. Spiking volumes are correctly documented	✓	
6. Std ID numbers on spike labels match numbers on bench sheet	✓	NA
7. Expiration dates have been checked	✓	
8. Calibration expiration dates on pipettors have been checked	✓	NA
9. Spiker and spike witness have signed and dated bench sheet	✓	
B. Weights and Volumes		
1. Recorded weights are in anticipated range	NA	
2. Balance upload or raw data for weights is included	NA	
3. Weights and volumes have been transcribed correctly to LIMS.	NA	
4. Weights are not targeted to meet exact weights.	NA	
5. Each weight or volume measurement is a unique record (no dittos or line downs)	NA	
C. Standards and Reagents		
1. Lot numbers for all reagents, including clean up stages, are recorded.	NA	
2. Are dates and analysts for cleanups recorded?	NA	
3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed?	NA	
D. Documentation		
1. Are all nonconformances documented appropriately?	NA	
2. QuantIMs entry correct, including dates and times.	NA	
3. Are all fields completed?	NA	

Spike witness: SW for Jonathan Reed Date: 2/24/10

2nd Level Reviewer: [signature] Date: 2/25/10

Comments:

* As per CC HTS expired in Transit – Needs HTV
2/24/10

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING	Test America – West Sacramento Daily Calibration Checklist Dioxin Methods

Method ID 8290 **Associated ICAL** 8290123109 1D5

Column ID DB5 **Instrument ID** 1D5

STD ID STD225A, STD225R **STD Solution** 10 DX N049

Analyzed by J.R.B. **Date Analyzed** 2/25/10, 2/26/10

Std. Pkg. By M.G **Date Std. Pkg. Assembled** 3/1/10

Std. Pkg. Reviewed By JRB **Date Std. Pkg. Reviewed** 3/1/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.
Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.
Method 23: See Method 23 Daily Standard Criteria, Table 5.
Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet
Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 **Associated ICAL** 8290123109105

Column ID DB5 **Instrument ID** 1D5

STD ID STD301, STD301A **STD Solution** 100XN049

Analyzed by M.G. **Date Analyzed** 3/1/10

Std. Pkg. By M.G. **Date Std. Pkg. Assembled** 3/2/10

Std. Pkg. Reviewed By MG **Date Std. Pkg. Reviewed** 3/2/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS:

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.
Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.
Method 23: See Method 23 Daily Standard Criteria, Table 5.
Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet
Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

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THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Daily Calibration Checklist
Dioxin Methods

Method ID 8290 (TCDF confir. only) **Associated ICAL** DB225010410502

Column ID DB 225 **Instrument ID** 5D2

STD ID ST0302, ST0302A **STD Solution** 10DXN083

Analyzed by KJS **Date Analyzed** 3-2-10, 3-3-10

Std. Pkg. By SH **Date Std. Pkg. Assembled** 3-3-10

Std. Pkg. Reviewed By M G **Date Std. Pkg. Reviewed** 3/3/10

DAILY STANDARD PACKAGE	INITIATED	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Beginning Static Resolution present?	✓	✓
CPSM blow up present?	✓	✓
Curve Summary present?	✓	✓
Summary of Method criteria present or documented below?	✓	✓
Daily standard within method specified limits?*	✓ ①	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	✓	✓
CPSM valley ≤ method specified limits?**	✓	✓
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard present?	✓	✓
Ending Static Resolutions present	✓	✓
Absolute retention times for 13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD are within +/- 15 seconds of the retention times in the Initial Calibration? (required for **all** 1613B samples)	NA	NA

COMMENTS: ① is for TCDF confirmation only

* **Method 8290/TO9/M0023A: (beginning)** ≤ 20% from curve RRFs for native analytes, ≤ 30% from curve RRFs for labeled compounds.
Method 8290/TO9/M0023A: (ending) ≤ 25% from curve RRFs for native analytes, ≤ 35% from curve RRFs for labeled compounds.
Method 23: See Method 23 Daily Standard Criteria, Table 5.
Method 1613B: See, Method 1613B or Method 1613B Tetras Daily Standard Criteria,
** **Method 23/0023A CPSM Criteria**: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the smallest peak of the triplet
Method 1613B/8290/TO9 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

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THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (8290, 1613, T09, 23, 0023A, TETRAS) 123109/D5

Method ID 8290, 1613B, T09, 23, 0023A

Date Scanned

Column ID DB5

Instrument ID 1D5

STD ID's ST1231(B,C,D,E,F)

STD Solution 09DXN(422, 423, 425, 426, 456)

GC Program OCDD

Multiplier Setting 270

Analyzed By A.M.

Date Analyzed 12/31/09, ~~1/1~~ 1/1/10 AS 1/4/10

Prepared By M.G.

Date Prepared 1/4/10

Reviewed By JRB

Date Reviewed 1/4/10

ANALYSIS OFFICIAL	INITIATED	REVIEWED
Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓	✓
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS: CS3 Retention Times: 13C-1,2,3,4-TCDD 18:40
13C-1,2,3,7,8,9-HxCDD 32:49

*Method 8290/T09/M0023A: %RSD ≤20% for natives, ≤30% for labeled compounds; S/N≥10
Method 1613B: %RSD≤ 20% natives, ≤30% labeled compounds; S/N ≥10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

Test America – West Sacramento

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Initial Calibration Checklist
Dioxin Methods

ICAL ID (DB225, DB225AIR) 010410 5D2

Method ID 8290, 1613B, 23, 0023A, TO9

Date Scanned

Column ID DB225

Instrument ID 5D2

STD ID's STO104(D,E,F,H,G)

STD Solution 09DXN(422, 423, 425, 426, 456)

GC Program DB225

Multiplier Setting 820

Analyzed By A.M.

Date Analyzed 1/4/10

Prepared By M.G.

Date Prepared 1/5/10

Reviewed By MG

Date Reviewed 1/5/10

ANALYSIS CHECKLIST	INITIALED	REVIEWED
Curve summary present?	✓	✓
Hardcopies of chromatograms for CS1-CS5 present?	✓	✓
Copy of log-file present?	✓	✓
Static resolution check present?	✓	✓
Target file RT's correct?	✓	✓
%RSD within method-specified limits?*	✓ (1)	(1)
Signal-to-noise criteria met?	✓	✓
Isotopic ratios within limits?	✓	✓
High point free of saturation?	✓	✓
Are chromatographic windows correct?	✓	✓
Manual reintegration's checked and hardcopies included?	✓	✓

COMMENTS: (1) CRS failed (26.2%) + (26.9%) ∴ use for TCDF confirmation only. Do not report CRS using this ICV.
ICAL CS3 13C-1,2,3,4-TCDD RT - 14:33

*Method 8290/TO9/M0023A: %RSD ≤20% for natives, ≤30% for labeled compounds; S/N≥10
Method 1613B: %RSD≤ 20% natives, ≤30% labeled compounds; S/N ≥10
Method 23: %RSD ≤ values specified in Table 5, Method 23; S/N ≥ 2.5

% Moisture/Solid Worksheet

QCBATCH: 0055159

Analyzed by: francisf

Report created: 2/25/10 8:26:35 AM

Lot ID	WorkOrder	Pan Tare	Sample Wet Wt	Sample Dry Wt	Wt Diff (Water)	Percent Water	Percent Solid	Reporting Limit	Foot Note	Date Time
G0B130465-1	LVNQ81AA	1.33	7.87	7.02	0.85	13.00	87.00	0.1		2/25/10 8:23:55 AM
G0B130465-1	LVNQ81AE	1.33	10.07	8.95	1.12	12.81	87.19	0.1		2/25/10 8:24:04 AM
G0B130465-2	LVNRA1AA	1.33	11.91	10.57	1.34	12.67	87.33	0.1		2/25/10 8:24:13 AM
G0B130465-3	LVNRC1AA	1.33	11.57	9.65	1.92	18.75	81.25	0.1		2/25/10 8:24:21 AM
G0B130465-4	LVNRD1AA	1.33	10.65	8.10	2.55	27.36	72.64	0.1		2/25/10 8:24:28 AM
G0B130465-5	LVNRE1AA	1.33	8.47	6.22	2.25	31.51	68.49	0.1		2/25/10 8:24:37 AM
G0B160487-1	LVQ1Q1AC	1.33	7.05	5.66	1.39	24.30	75.70	0.1		2/25/10 8:24:44 AM
G0B160487-2	LVQ121AC	1.33	6.85	5.22	1.63	29.53	70.47	0.1		2/25/10 8:24:52 AM
G0B160488-1	LVQ171AC	1.33	9.58	8.98	0.60	7.27	92.73	0.1		2/25/10 8:25:00 AM
G0B160488-2	LVQ2C1AC	1.33	10.35	9.29	1.06	11.75	88.25	0.1		2/25/10 8:25:07 AM
G0B230551-1	LV1KN1AA	1.33	5.96	5.61	0.35	7.56	92.44	0.1		2/25/10 8:25:14 AM
G0B230551-2	LV1KP1AA	1.33	7.52	6.61	0.91	14.70	85.30	0.1		2/25/10 8:25:22 AM
G0B230551-3	LV1KQ1AA	1.33	7.33	6.25	1.08	18.00	82.00	0.1		2/25/10 8:25:30 AM
G0B230551-4	LV1KR1AA	1.33	9.96	5.44	4.52	52.38	47.62	0.1		2/25/10 8:25:37 AM
G0B230551-5	LV1KT1AA	1.33	7.51	4.33	3.18	51.46	48.54	0.1		2/25/10 8:25:44 AM
G0B230553-1	LV1K81AC	1.33	11.15	8.38	2.77	28.21	71.79	0.1		2/25/10 8:25:51 AM
G0B230553-2	LV1K91AC	1.33	11.34	9.14	2.20	21.98	78.02	0.1		2/25/10 8:25:57 AM
G0B230553-3	LV1LA1AC	1.33	11.40	8.68	2.72	27.01	72.99	0.1		2/25/10 8:26:07 AM
G0B230553-4	LV1LC1AC	1.33	10.61	7.95	2.66	28.66	71.34	0.1		2/25/10 8:26:16 AM
G0B230553-5	LV1LD1AC	1.33	10.91	7.90	3.01	31.42	68.58	0.1		2/25/10 8:26:23 AM
G0B230553-6	LV1LE1AC	1.33	9.17	6.68	2.49	31.76	68.24	0.1		2/25/10 8:26:30 AM

All weights are in grams.
Sample weights (wet & dry) include the weight (tare) of the sample pan.
Wt. Diff. = sample wet weight (+ tare) - sample dry weight (+ tare).
% Water = (Wt. Diff/(sample wet weight - pan tare))*100
% Solid = 100 - percent Water

SECTION 4

INORGANIC AND WET CHEMISTRY DATA SUPPORT DOCUMENTATION

Inorganic Analyses Support Documentation

Environmental Standards Project Name: Arkema
Sample Collection Dates: 1/21/10
Job Number: 20D5556.A000
Project Manager: BL
Laboratory: TA

Reviewed By: BL
Approved By: JPP
Completion Date: 3/25/10

Applicable Sample No's.: ☑ Refer to Table 1 in the Quality Assurance Review

Sample No.: Work order # PTA0583

Lab. Control No.:

Deliverables: CLP (like) ☑
Tier I ☐
Tier II ☐
Limited ☐
Other

The following table indicates criteria which were examined, the identified problems, and support documentation attachments.

	Criteria Examined in Detail (Check (✓) If Yes or Footnote Letter for Comments Below)					Problems Identified (Check (✓) If Yes or Footnote Number for Comments Below)					Support Documentation Attachments (Check (✓) If Yes -- or Identify Attachment No.)				
	ICP or A.A Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Method(s) PA	ICP or A.A Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Method(s)	ICP or A.A Metals	Furnace Metals	Cold Vapor Mercury	Cyanide	Other Method(s) PA
Holding Times	✓				✓						✓				✓
Blank Analysis Results	✓										✓				
Matrix Spike (Predigestion) Results	✓										✓				
Duplicate Analysis Results ☑ Field ☑ Lab	✓				✓						✓				✓
Quantitation of Results	✓				✓						✓				✓
Detection Limits / Sensitivity	✓				✓						✓				✓
Initial Calibrations	✓				✓						✓				✓
Continuing Calibrations	✓				✓						✓				✓
Laboratory Control Standards (LCS)	✓				✓						✓				✓
ICP Linear Range Analysis															
ICP Interference Checks	✓										✓				
ICP Serial Dilutions															
ICP Post-Digestion Spike															
GFAA Post-Digestion Spikes															
GFAA Duplicate Injections															
ICP Multiple Exposures															
GFAA Standard Additions															
CRDL Standards															
Others: Condition Upon Receipt	✓				✓						✓				✓ (COC)

Comments:

Data acceptable unless otherwise qualified.

BLANK ANALYSIS RESULTS FOR INORGANIC PARAMETERS

MATRIX (Aq., S)	BLANK TYPE (✓) METHOD ICB	CCB	PREP.	TRIP	EQUIPMENT	FIELD	BLANK SAMPLE NUMBER	CONTAMINANT	CONCENTRATION (units)	QUALIFICATION LIMIT FOR AQUEOUS SAMPLES (ug/L) 5x	QUALIFICATION LIMIT FOR SOLID SAMPLES (mg/Kg) 5x
								No positives in blanks.	—	—	—

Aq. = Aqueous; S = Solid

Notes: No impact on data quality.

EVALUATION OF DUPLICATE ANALYSIS PRECISION

Units mg/kg	PRECISION OBJECTIVES[1]		
	Analyte > or = 5 X RL	RPD < or =	40
	Analyte < 5 X RL	Difference < or = RL Times	2

ANALYTE	B-127-10-12 Analyte Concentration[2]	Qual	RL	B-127-10-12-D Analyte Concentration[2]	Qual	RL	Difference	RPD	Notes
Arsenic	4.26		6.27	4.56		6.04	0.3	NA	IN
							NA	#DIV/0!	#DIV/0!
pH	9.27		1	9.09		1	NA	1.96%	IN
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!
							NA	#DIV/0!	#DIV/0!

results in pH units, not mg/kg

NOTES:

1) Enter the project-specific or default acceptance criteria
2) For not-detected results, enter the method detection limit in the Concentrations column and a "U" in the Qual column.
Qual) Column to enter J, U, U*, or B
RPD) Relative Percent Difference
RL) Reporting Limit
J) The analyte concentration should be considered estimated.
U) The analyte was not-detected in the sample. The numerical value will be used for comparison purposes.
U* or B) The result was blank qualified. The numerical value will be used for comparison purposes.
NA) The RPD or Difference is not applicable.
1) Both results are > or = 5 X RL and RPD over acceptance limit, flag positive results "J".
2) At least one of the results is < 5 X RL and difference is over acceptance limit, flag positive results "J" and "not-detected" results "UJ".

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Arsenic	EPA 6010B	**2.42**	*0.571*	6.65	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:16	J
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Arsenic	EPA 6010B	**13.2**	*0.540*	6.29	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:22	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Arsenic	EPA 6010B	**4.70**	*0.486*	5.66	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:28	J
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Arsenic	EPA 6010B	**20.8**	*0.510*	5.95	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:34	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Arsenic	EPA 6010B	**4.80**	*0.509*	5.94	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:40	J
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Arsenic	EPA 6010B	**13.3**	*0.492*	5.74	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 06:57	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Arsenic	EPA 6010B	**2.21**	*0.532*	6.20	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:03	J
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**4.26**	*0.538*	6.27	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:20	J
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**4.56**	*0.518*	6.04	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:26	J
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Arsenic	EPA 6010B	**3.27**	*0.628*	7.31	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:32	J
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Arsenic	EPA 6010B	**1.59**	*0.606*	7.07	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:38	J

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Arsenic	EPA 6010B	**3.05**	*0.622*	7.25	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:43	**J**
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Arsenic	EPA 6010B	**17.3**	*0.500*	5.82	mg/kg dry	1x	10A0648	01/26/10 12:07	01/27/10 07:49	
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
Arsenic	EPA 6010B	ND	*0.00940*	0.0500	mg/l	1x	10A0744	01/28/10 11:12	01/28/10 17:16	

TestAmerica Portland

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0648 **Soil Preparation Method: EPA 3050**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0648-BLK1)								Extracted: 01/26/10 12:07						
Arsenic	EPA 6010B	ND	0.425	4.95	mg/kg wet	1x	--	--	--	--	--	--	01/27/10 05:42	
LCS (10A0648-BS1)								Extracted: 01/26/10 12:07						
Arsenic	EPA 6010B	43.9	0.409	4.76	mg/kg wet	1x	--	47.6	92.2%	(80-120)	--	--	01/27/10 05:48	
Matrix Spike (10A0648-MS1)				QC Source: PTA0583-17				Extracted: 01/26/10 12:07						
Arsenic	EPA 6010B	61.7	0.509	5.94	mg/kg dry	1x	4.80	59.4	95.8%	(75-125)	--	--	01/27/10 06:45	
Matrix Spike Dup (10A0648-MSD1)				QC Source: PTA0583-17				Extracted: 01/26/10 12:07						
Arsenic	EPA 6010B	64.3	0.514	5.99	mg/kg dry	1x	4.80	59.9	99.2%	(75-125)	4.04%	(40)	01/27/10 06:51	

QC Batch: 10A0744 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10A0744-BLK1)								Extracted: 01/28/10 11:12						
Arsenic	EPA 6010B	ND	0.00940	0.0500	mg/l	1x	--	--	--	--	--	--	01/28/10 16:24	
LCS (10A0744-BS1)								Extracted: 01/28/10 11:12						
Arsenic	EPA 6010B	1.08	0.00940	0.0500	mg/l	1x	--	1.00	108%	(85-115)	--	--	01/28/10 16:30	
Duplicate (10A0744-DUP1)				QC Source: PTA0510-02				Extracted: 01/28/10 11:12						
Arsenic	EPA 6010B	ND	0.00940	0.0500	mg/l	1x	ND	--	--	--	NR	(20)	01/28/10 16:42	
Matrix Spike (10A0744-MS1)				QC Source: PTA0510-02				Extracted: 01/28/10 11:12						
Arsenic	EPA 6010B	1.05	0.00940	0.0500	mg/l	1x	ND	1.00	105%	(75-125)	--	--	01/28/10 16:47	
Matrix Spike (10A0744-MS2)				QC Source: PTA0692-05				Extracted: 01/28/10 11:12						
Arsenic	EPA 6010B	1.06	0.00940	0.0500	mg/l	1x	ND	1.00	106%	(75-125)	--	--	01/28/10 18:43	

Batch 10A0744 not evaluated.

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Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name: **Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number: 111208.02	Report Date:
Portland, OR 97204	Project Manager: Brendan Robinson	02/19/10 16:03

Laboratory Blank Report

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results
TestAmerica Portland

Batch 10A0648

Matrix		Lab Number	Sample Name	Dilution	File ID	Analyzed	Instrument
Soil	EPA 6010B	10A0648-BLK1	Blank	1x	012610A-01-067	01/27/10 05:42	ICP
Soil	EPA 6010B	10A0648-BS1	LCS	1x	012610A-01-068	01/27/10 05:48	ICP
Soil	EPA 6010B	10A0648-MS1	Matrix Spike	1x	012610A-01-078	01/27/10 06:45	ICP
Soil	EPA 6010B	10A0648-MSD1	Matrix Spike Dup	1x	012610A-01-079	01/27/10 06:51	ICP
Soil	EPA 6010B	PTA0583-01	B-122-0-2	1x	012610A-01-073	01/27/10 06:16	ICP
Soil	EPA 6010B	PTA0583-06	B-123-0-2	1x	012610A-01-074	01/27/10 06:22	ICP
Soil	EPA 6010B	PTA0583-11	B-124-0-2	1x	012610A-01-075	01/27/10 06:28	ICP
Soil	EPA 6010B	PTA0583-16	B-125-3-5	1x	012610A-01-076	01/27/10 06:34	ICP
Soil	EPA 6010B	PTA0583-17	B-125-8-10	1x	012610A-01-077	01/27/10 06:40	ICP
Soil	EPA 6010B	PTA0583-18	B-126-3-5	1x	012610A-01-080	01/27/10 06:57	ICP
Soil	EPA 6010B	PTA0583-19	B-126-8-10	1x	012610A-01-081	01/27/10 07:03	ICP
Soil	EPA 6010B	PTA0583-20	B-127-10-12	1x	012610A-01-084	01/27/10 07:20	ICP
Soil	EPA 6010B	PTA0583-21	B-127-10-12-D	1x	012610A-01-085	01/27/10 07:26	ICP
Soil	EPA 6010B	PTA0583-22	B-127-15-17	1x	012610A-01-086	01/27/10 07:32	ICP
Soil	EPA 6010B	PTA0583-23	B-128-10-12	1x	012610A-01-087	01/27/10 07:38	ICP
Soil	EPA 6010B	PTA0583-24	B-128-15-17	1x	012610A-01-088	01/27/10 07:43	ICP
Soil	EPA 6010B	PTA0583-25	B-129-0-2	1x	012610A-01-089	01/27/10 07:49	ICP
Water	EPA 6010B	10A0744-BLK1	Blank	1x	012810-01-020	01/28/10 16:24	ICP
Water	EPA 6010B	10A0744-BS1	LCS	1x	012810-01-021	01/28/10 16:30	ICP
Water	EPA 6010B	10A0744-DUP1	Duplicate	1x	012810-01-023	01/28/10 16:42	ICP
Water	EPA 6010B	10A0744-MS1	Matrix Spike	1x	012810-01-024	01/28/10 16:47	ICP
Water	EPA 6010B	10A0744-MS2	Matrix Spike	1x	012810-01-044	01/28/10 18:43	ICP
Water	EPA 6010B	PTA0583-31	RINSATE	1x	012810-01-029	01/28/10 17:16	ICP

ANALYSES DATA PACKAGE COVER PAGE
EPA 6010B

Laboratory: TestAmerica Portland
SDG: PTA0583
Client: Environmental Resources Management Inc.-Portlan
Project: Arkema Soils 2010

Client Sample Id:	Lab Sample Id:
B-122-0-2	PTA0583-01
B-123-0-2	PTA0583-06
B-124-0-2	PTA0583-11
B-125-3-5	PTA0583-16
B-125-8-10	PTA0583-17
B-126-3-5	PTA0583-18
B-126-8-10	PTA0583-19
B-127-10-12	PTA0583-20
B-127-10-12-D	PTA0583-21
B-127-15-17	PTA0583-22
B-128-10-12	PTA0583-23
B-128-15-17	PTA0583-24
B-129-0-2	PTA0583-25
RINSATE	PTA0583-31

012610A. All Data Report 1/27/2010, 9:23:52 AM

As 188.980 Calibration (ppm) **1/26/2010, 11:43:37 PM** **Correlation Coefficient: 0.999979**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		10.045	0.050000	0.049364	-0.000636	-1.3
Standard 2		45.450	0.25000	0.23973	-0.010266	-4.1
Standard 3		185.49	1.0000	0.99270	-0.007297	-0.7
Standard 4		461.05	2.5000	2.4744	-0.025580	-1.0
Standard 5		933.51	5.0000	5.0148	0.014769	0.3

>0.995

Curve Type: Linear Equation: y = 186.0 x + 0.9

B 249.678 Calibration (ppm) **1/26/2010, 11:43:37 PM** **Correlation Coefficient: 0.998099**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		2574.2	0.50000	0.45869	-0.041312	-8.3
Standard 2		12311	2.5000	2.2927	-0.20726	-8.3
Standard 3		21033	4.0000	3.9357	-0.064286	-1.6
Standard 4		27888	5.0000	5.2268	0.22682	4.5
Standard 5		60551	10.000	11.379	1.3794	13.8

Curve Type: Linear Equation: y = 5308.9 x + 139.1

Ba 233.527 Calibration (ppm) **1/26/2010, 11:43:37 PM** **Correlation Coefficient: 0.999987**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		292.37	0.010000	0.010098	0.000098	1.0
Standard 2		1316.2	0.050000	0.049192	-0.000808	-1.6
Standard 3		53152	2.0000	2.0285	0.028524	1.4
Standard 4		130676	5.0000	4.9887	-0.011265	-0.2
Standard 5		259734	10.000	9.9168	-0.083210	-0.8

Curve Type: Linear Equation: y = 26188.6 x + 27.9

Ca 315.887 Calibration (ppm) **1/26/2010, 11:43:37 PM** **Correlation Coefficient: 0.999685**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		415.88	0.10000	0.097179	-0.002821	-2.8
Standard 2		1870.3	0.50000	0.48881	-0.011192	-2.2
Standard 3		75747	20.000	20.381	0.38128	1.9
Standard 4		186317	50.000	50.154	0.15385	0.3
Standard 5		355791	100.00	95.787	-4.2129	-4.2

Curve Type: Linear Equation: y = 3713.8 x + 55.0

Cd 214.439 Calibration (ppm) **1/26/2010, 11:43:37 PM** **Correlation Coefficient: 0.999988**

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		97.9709	0.0100	0.0099	-0.0001	-1.3
Standard 2		487.972	0.0500	0.0489	-0.0011	-2.2
Standard 3		10246.9	1.0000	1.0258	0.0258	2.6
Standard 4		25136.8	2.5000	2.5164	0.0164	0.7
Standard 5		50103.7	5.0000	5.0157	0.0157	0.3

012810. All Data Report 1/28/2010, 10:14:03 PM

Label	Sol'n Conc.	Units	SD(Int)	%RSD(Int)	Int. (c/s)
Ca 315.887	100.00	ppm	2187.837	0.8	276643
Cd 214.439	5.0000	ppm	1629.210	3.9	41848.2
Cr 267.716	10.000	ppm	8242.986	4.6	177705
Fe 259.940	100.00	ppm	34564.406	4.7	742195
Mg 279.800	100.00	ppm	5151.024	4.2	123439
Na 589.592	100.00	ppm	797685.250	5.3	15182523
Pb 220.353	5.0000	ppm	146.831	3.4	4285.7
Se 196.026	5.0000	ppm	10.186	1.4	705.40
Si 288.158	100.00	ppm	12060.471	4.7	255364

Ag 328.068 Calibration (ppm) 1/28/2010, 1:06:40 PM Correlation Coefficient: 0.999299

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		417.54	0.020000	0.019719	-0.000281	-1.4
Standard 2		1854.5	0.10000	0.096949	-0.003051	-3.1
Standard 3		4550.8	0.25000	0.24186	-0.008135	-3.3
Standard 4		8832.7	0.50000	0.47200	-0.028004	-5.6
Standard 5		18961	1.0000	1.0163	0.016347	1.6

Curve Type: Linear Equation: y = 18606.2 x + 50.7

Al 237.312 Calibration (ppm) 1/28/2010, 1:06:40 PM Correlation Coefficient: 0.999494

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		57.5282	0.1000	0.0720	-0.0280	-28.0
Standard 2		337.765	0.5000	0.4651	-0.0349	-7.0
Standard 3		13776.5	20.0000	19.3173	-0.6827	-3.4
Standard 4		33877.2	50.0000	47.5151	-2.4849	-5.0
Standard 5		72274.1	100.000	101.379	1.3792	1.4

Curve Type: Linear Equation: y = 712.8 x + 6.2

As 188.980 Calibration (ppm) 1/28/2010, 1:06:40 PM Correlation Coefficient: 0.999626

Label	Flags	Int. (c/s)	Std Conc.	Calc Conc.	Error	%Error
Standard 1		8.1533	0.050000	0.048467	-0.001533	-3.1
Standard 2		36.195	0.25000	0.24514	-0.004863	-1.9
Standard 3		142.82	1.0000	0.99297	-0.007032	-0.7
Standard 4		342.53	2.5000	2.3936	-0.10636	-4.3
Standard 5		721.97	5.0000	5.0548	0.054847	1.1

Curve Type: Linear Equation: y = 142.6 x + 1.2

Total Metals Per EPA Method 6010B

Continuing Calibration Verification Summary

Work Order: PTA0583 **Sequence:** 012610a

ICV2

01/26/2010 23:55

Analyte	Result	Expected	Percent Recovery
As 188.980	1.963	2	98.2

CCV

01/27/2010 1:22

Analyte	Result	Expected	Percent Recovery
As 188.980	1.024	1	102

CCV

01/27/2010 4:50

Analyte	Result	Expected	Percent Recovery
As 188.980	0.984	1	98.4

CCV

01/27/2010 5:59

Analyte	Result	Expected	Percent Recovery
As 188.980	0.991	1	99.1

CCV

01/27/2010 7:09

Analyte	Result	Expected	Percent Recovery
As 188.980	1.022	1	102

CCV

01/27/2010 8:18

Analyte	Result	Expected	Percent Recovery
As 188.980	0.98	1	98

90-110%

Acceptance Criteria: ± 10% for ICV / CCV

Prepared 2/24/2010 10:25:07 AM

Total Metals Per EPA Method 6010B

Continuing Calibration Verification Summary

Work Order: PTA0583 **Sequence:** 012810

ICV1

01/28/2010 13:12

Analyte	Result	Expected	Percent Recovery
As 188.980	2.004	2	100

CCV

01/28/2010 15:50

Analyte	Result	Expected	Percent Recovery
As 188.980	1.074	1	107

CCV

01/28/2010 17:05

Analyte	Result	Expected	Percent Recovery
As 188.980	1.028	1	103

CCV

01/28/2010 18:14

Analyte	Result	Expected	Percent Recovery
As 188.980	0.996	1	99.6

CCV

01/28/2010 19:06

Analyte	Result	Expected	Percent Recovery
As 188.980	1.022	1	102

Acceptance Criteria: ± 10% for ICV / CCV

Prepared 2/24/2010 12:03:33 PM

Total Metals Per EPA Method 6010B
Continuing Calibration Blank Summary

Work Order: PTA0583 **Sequence:** 012610a

CCB
01/27/2010 0:00

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00322533	5	ND

CCB
01/27/2010 1:27

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00321738	5	ND

CCB
01/27/2010 4:56

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00575456	5	ND

CCB
01/27/2010 6:05

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00192784	5	ND

CCB
01/27/2010 7:14

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00148354	5	ND

CCB
01/27/2010 8:24

Analyte	Result	MRL	Percent Recovery
As 188.980	4.9605E-05	5	ND

Acceptance Criteria: < 1/2 MRL for CCB
Prepared 2/24/2010 10:25:57 AM

Total Metals Per EPA Method 6010B

Continuing Calibration Blank Summary

Work Order: PTA0583 **Sequence:** 012810

CCB

01/28/2010 13:23

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00191841	0.05	ND

CCB

01/28/2010 15:56

Analyte	Result	MRL	Percent Recovery
As 188.980	-0.0036407	0.05	ND

CCB

01/28/2010 17:11

Analyte	Result	MRL	Percent Recovery
As 188.980	-0.000871	0.05	ND

CCB

01/28/2010 18:20

Analyte	Result	MRL	Percent Recovery
As 188.980	-0.0017058	0.05	ND

CCB

01/28/2010 19:12

Analyte	Result	MRL	Percent Recovery
As 188.980	0.00139739	0.05	ND

Acceptance Criteria: < 1/2 MRL for CCB

Prepared 2/24/2010 12:06:28 PM

CRDL Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012610a

No CRDL Standards were analyzed with the specified sequence.

CRDL Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012810

No CRDL Standards were analyzed with the specified sequence.

Total Metals Per EPA Method 6010B

Interference Check Standard

Work Order: PTA0583 **Sequence:** 012610a

ICS A 01/27/2010 0:06			
Analyte	**Result**	**Expected**	**Percent Recovery**
Al 237.312	529.1	500	106
As 188.980	0.001	NA	NA
B 249.678	0.108	NA	NA
Ca 315.887	464.2	500	92.8
Fe 259.940	178.7	200	89.4
Mg 279.800	494.9	500	99
Mn 191.446	0.001	NA	NA

ICS AB 01/27/2010 0:12			
Analyte	**Result**	**Expected**	**Percent Recovery**
Al 237.312	550.2	500	110
As 188.980	0.004	NA	NA
B 249.678	0.087	NA	NA
Ca 315.887	481.8	500	96.4
Fe 259.940	185.5	200	92.8
Mg 279.800	511.7	500	102
Mn 191.446	0.462	0.5	92.4

* ICSABs & ICSAs could not be evaluated due to limited review performed.

Acceptance Criteria: < 120% for ICS

Prepared 2/24/2010 10:26:21 AM

Total Metals Per EPA Method 6010B

Interference Check Standard

Work Order: PTA0583 **Sequence:** 012810

ICS A 01/28/2010 13:29			
Analyte	**Result**	**Expected**	**Percent Recovery**
Al 237.312	538.2	500	108
As 188.980	-0.001	NA	NA
B 249.678	0.186	NA	NA
Ca 315.887	451.1	500	90.2
Fe 259.940	183.9	200	92
Mg 279.800	516.3	500	103
Mn 191.446	-0.001	NA	NA

ICS AB 01/28/2010 13:35			
Analyte	**Result**	**Expected**	**Percent Recovery**
Al 237.312	524.2	500	105
As 188.980	-0.002	NA	NA
B 249.678	0.144	NA	NA
Ca 315.887	450.8	500	90.2
Fe 259.940	179.9	200	90
Mg 279.800	504.8	500	101
Mn 191.446	0.457	0.5	91.4

Acceptance Criteria: < 120% for ICS

Prepared 2/24/2010 12:01:01 PM

METHOD DETECTION AND REPORTING LIMITS

EPA 6010B

Laboratory: TestAmerica Portland **SDG:** PTA0583

Client: Environmental Resources Management Inc.-Portland **Project:** Arkema Soils 2010

Matrix: Soil **Instrument:** ICP

Analyte	MDL	MRL	Units
Arsenic	0.429	5.00	mg/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 6010B

Laboratory: TestAmerica Portland **SDG:** PTA0583

Client: Environmental Resources Management Inc.-Portland **Project:** Arkema Soils 2010

Matrix: Water **Instrument:** ICP

Analyte	MDL	MRL	Units
Arsenic	0.00940	0.0500	mg/l

ICP Interelement Correction Factor Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012610a

The ICP Interelement Correction Factor Summary for the specified sequence is not available due to the instrumental software package.

No interelement correction factor was utilized for this analysis.

ICP Interelement Correction Factor Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012810

The ICP Interelement Correction Factor Summary for the specified sequence is not available due to the instrumental software package.

No interelement correction factor was utilized for this analysis.

Linear Range Standard Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012610a

No Linear Range Standards were analyzed with the specified sequence.

Analyte concentrations which are greater than the high point of the calibration curve are not reported.

Linear Range Standard Summary

SDG: PTA0583

Instrument: ICP
Sequence: 012810

No Linear Range Standards were analyzed with the specified sequence.

Analyte concentrations which are greater than the high point of the calibration curve are not reported.

Instrument: ICP
Sequence: 012610a

12/30/2009 11:20:54 AM	Worksheet operations log deleted
1/26/2010 11:10:45 PM	Analysis started.
1/26/2010 11:14:44 PM	**Measured Blank**
1/26/2010 11:20:30 PM	**Measured Standard 1**
1/26/2010 11:26:18 PM	**Measured Standard 2**
1/26/2010 11:32:04 PM	**Measured Standard 3**
1/26/2010 11:37:51 PM	**Measured Standard 4**
1/26/2010 11:43:37 PM	**Measured Standard 5**
1/26/2010 11:45:28 PM	Calibration passed
1/26/2010 11:49:21 PM	**Measured Sequence-ICV**
1/26/2010 11:51:13 PM	QCP test failed.
1/26/2010 11:51:13 PM	QCP test failure action is to flag and continue.
1/26/2010 11:53:07 PM	Request to stop the worksheet run after completing this solution.
1/26/2010 11:55:08 PM	**Measured Sequence-ICV2**
1/26/2010 11:56:59 PM	QCP test passed.
1/27/2010 12:00:54 AM	**Measured Sequence-CCB**
1/27/2010 12:02:45 AM	QCP test passed.
1/27/2010 12:06:40 AM	**Measured Sequence-IFA**
1/27/2010 12:08:31 AM	QCP test passed.
1/27/2010 12:12:27 AM	**Measured Sequence-IFB**
1/27/2010 12:14:18 AM	QCP test passed.
1/27/2010 12:15:22 AM	QCP test failed.
1/27/2010 12:15:22 AM	QCP test passed.
1/27/2010 12:15:22 AM	QCP test passed.
1/27/2010 12:15:22 AM	QCP test passed.
1/27/2010 12:15:22 AM	QCP test passed.
1/27/2010 12:15:41 AM	QCP test failed.
1/27/2010 12:15:41 AM	QCP test passed.
1/27/2010 12:15:41 AM	QCP test passed.
1/27/2010 12:15:41 AM	QCP test passed.
1/27/2010 12:15:41 AM	QCP test passed.
1/27/2010 12:16:01 AM	QCP test failed.
1/27/2010 12:16:01 AM	QCP test passed.
1/27/2010 12:16:01 AM	QCP test passed.
1/27/2010 12:16:01 AM	QCP test passed.
1/27/2010 12:16:01 AM	QCP test passed.
1/27/2010 12:16:23 AM	QCP test failed.
1/27/2010 12:16:23 AM	QCP test passed.
1/27/2010 12:16:23 AM	QCP test passed.
1/27/2010 12:16:23 AM	QCP test passed.
1/27/2010 12:16:23 AM	QCP test passed.
1/27/2010 12:17:14 AM	QCP test failed.
1/27/2010 12:17:14 AM	QCP test passed.
1/27/2010 12:17:14 AM	QCP test passed.
1/27/2010 12:17:14 AM	QCP test passed.
1/27/2010 12:17:14 AM	QCP test passed.
1/27/2010 12:17:40 AM	QCP test failed.
1/27/2010 12:17:40 AM	QCP test passed.
1/27/2010 12:17:40 AM	QCP test passed.
1/27/2010 12:17:40 AM	QCP test passed.
1/27/2010 12:17:40 AM	QCP test passed.
1/27/2010 12:17:54 AM	QCP test failed.
1/27/2010 12:17:54 AM	QCP test passed.
1/27/2010 12:17:54 AM	QCP test passed.
1/27/2010 12:17:54 AM	QCP test passed.
1/27/2010 12:17:54 AM	QCP test passed.
1/27/2010 12:18:06 AM	QCP test failed.
1/27/2010 12:18:06 AM	QCP test passed.
1/27/2010 12:18:06 AM	QCP test passed.
1/27/2010 12:18:06 AM	QCP test passed.
1/27/2010 12:18:06 AM	QCP test passed.
1/27/2010 12:18:24 AM	QCP test failed.
1/27/2010 12:18:24 AM	QCP test passed.
1/27/2010 12:18:24 AM	QCP test passed.
1/27/2010 12:18:24 AM	QCP test passed.
1/27/2010 12:18:24 AM	QCP test passed.
1/27/2010 12:18:35 AM	QCP test failed.
1/27/2010 12:18:35 AM	QCP test passed.
1/27/2010 12:18:35 AM	QCP test passed.
1/27/2010 12:18:35 AM	QCP test passed.
1/27/2010 12:18:35 AM	QCP test passed.
1/27/2010 12:18:51 AM	QCP test failed.
1/27/2010 12:18:51 AM	QCP test failed.
1/27/2010 12:18:51 AM	QCP test passed.
1/27/2010 12:18:51 AM	QCP test passed.
1/27/2010 12:18:51 AM	QCP test passed.
1/27/2010 12:19:06 AM	QCP test failed.
1/27/2010 12:19:06 AM	QCP test passed.
1/27/2010 12:19:06 AM	QCP test passed.
1/27/2010 12:19:06 AM	QCP test passed.
1/27/2010 12:19:06 AM	QCP test passed.
1/27/2010 12:19:35 AM	QCP test failed.
1/27/2010 12:19:35 AM	QCP test failed.
1/27/2010 12:19:35 AM	QCP test passed.
1/27/2010 12:19:35 AM	QCP test passed.
1/27/2010 12:19:35 AM	QCP test passed.
1/27/2010 12:20:14 AM	Analysis started.
1/27/2010 12:24:10 AM	**Measured 10A0472-MSD1**
1/27/2010 12:29:57 AM	**Measured PTA0350-01**

Instrument: ICP
Sequence: 012610a

1/27/2010 12:35:45 AM	**Measured 10A0603-DUP1**
1/27/2010 12:41:31 AM	**Measured 10A0603-MS1**
1/27/2010 12:47:18 AM	**Measured PTA0350-03**
1/27/2010 12:53:06 AM	**Measured PTA0353-03**
1/27/2010 12:58:54 AM	**Measured PTA0353-04**
1/27/2010 1:04:42 AM	**Measured PTA0353-05**
1/27/2010 1:10:30 AM	**Measured PTA0353-06**
1/27/2010 1:16:16 AM	**Measured PTA0353-07**
1/27/2010 1:22:05 AM	**Measured Sequence-CCVa**
1/27/2010 1:23:57 AM	QCP test failed.
1/27/2010 1:23:57 AM	QCP test failure action is to flag and continue.
1/27/2010 1:27:55 AM	**Measured Sequence-CCB**
1/27/2010 1:29:46 AM	QCP test passed.
1/27/2010 1:33:43 AM	**Measured PTA0355-09**
1/27/2010 1:39:29 AM	**Measured 10A0664-BLK1**
1/27/2010 1:45:15 AM	**Measured 10A0664-BS1**
1/27/2010 1:51:01 AM	**Measured PTA0227-01RE1**
1/27/2010 1:56:46 AM	**Measured PTA0227-05RE1**
1/27/2010 2:02:31 AM	**Measured PTA0276-01RE1**
1/27/2010 2:08:18 AM	**Measured PTA0309-01RE1**
1/27/2010 2:14:04 AM	**Measured PTA0313-01RE1**
1/27/2010 2:19:53 AM	**Measured PTA0410-01**
1/27/2010 2:25:39 AM	**Measured PTA0410-02**
1/27/2010 2:31:26 AM	**Measured Sequence-CCVa**
1/27/2010 2:33:18 AM	QCP test failed.
1/27/2010 2:33:18 AM	QCP test failure action is to flag and continue.
1/27/2010 2:37:13 AM	**Measured Sequence-CCB**
1/27/2010 2:39:04 AM	QCP test passed.
1/27/2010 2:43:01 AM	**Measured PTA0410-03**
1/27/2010 2:48:46 AM	**Measured PTA0437-01**
1/27/2010 2:54:34 AM	**Measured 10A0664-MS2**
1/27/2010 3:00:20 AM	**Measured PTA0448-07**
1/27/2010 3:06:07 AM	**Measured PTA0448-14**
1/27/2010 3:11:54 AM	**Measured PTA0448-21**
1/27/2010 3:17:41 AM	**Measured 10A0664-DUP1**
1/27/2010 3:23:28 AM	**Measured 10A0664-MS1**
1/27/2010 3:29:14 AM	**Measured PTA0475-01**
1/27/2010 3:35:01 AM	**Measured PTA0489-02**
1/27/2010 3:40:48 AM	**Measured Sequence-CCVa**
1/27/2010 3:42:39 AM	QCP test failed.
1/27/2010 3:42:39 AM	QCP test failure action is to flag and continue.
1/27/2010 3:46:36 AM	**Measured Sequence-CCB**
1/27/2010 3:48:27 AM	QCP test passed.
1/27/2010 3:52:23 AM	**Measured PTA0500-02**
1/27/2010 3:58:10 AM	**Measured PTA0500-03**
1/27/2010 4:03:56 AM	**Measured PTA0500-04**
1/27/2010 4:09:43 AM	**Measured PTA0500-05**
1/27/2010 4:15:30 AM	**Measured PTA0622-01**
1/27/2010 4:21:17 AM	**Measured 10A0668-BLK1**
1/27/2010 4:27:04 AM	**Measured 10A0668-BS1**
1/27/2010 4:32:51 AM	**Measured PTA0508-01**
1/27/2010 4:38:38 AM	**Measured 10A0668-MS1**
1/27/2010 4:44:23 AM	**Measured PTA0577-01**
1/27/2010 4:50:12 AM	**Measured Sequence-CCVa**
1/27/2010 4:52:04 AM	QCP test passed.
1/27/2010 4:56:00 AM	**Measured Sequence-CCB**
1/27/2010 4:57:51 AM	QCP test passed.
1/27/2010 5:01:46 AM	**Measured 10A668-DUP1**
1/27/2010 5:07:33 AM	**Measured 10A0668-MS2**
1/27/2010 5:13:19 AM	**Measured 10A0665-BLK1**
1/27/2010 5:19:06 AM	**Measured 10A0665-BS1**
1/27/2010 5:24:54 AM	**Measured PTA0522-01**
1/27/2010 5:30:41 AM	**Measured 10A0665-DUP1**
1/27/2010 5:36:26 AM	**Measured 10A0665-MS1**
1/27/2010 5:42:13 AM	**Measured 10A0648-BLK1**
1/27/2010 5:48:01 AM	**Measured 10A0648-BS1**
1/27/2010 5:53:47 AM	**Measured PTA0521-01**
1/27/2010 5:59:34 AM	**Measured Sequence-CCVa**
1/27/2010 6:01:26 AM	QCP test passed.
1/27/2010 6:05:22 AM	**Measured Sequence-CCB**
1/27/2010 6:07:13 AM	QCP test passed.
1/27/2010 6:11:12 AM	**Measured PTA0575-01**
1/27/2010 6:16:59 AM	**Measured PTA0583-01**
1/27/2010 6:22:44 AM	**Measured PTA0583-06**
1/27/2010 6:28:31 AM	**Measured PTA0583-11**
1/27/2010 6:34:19 AM	**Measured PTA0583-16**
1/27/2010 6:40:06 AM	**Measured PTA0583-17**
1/27/2010 6:45:52 AM	**Measured 10A0648-MS1**
1/27/2010 6:51:39 AM	**Measured 10A0648-MSD1**
1/27/2010 6:57:25 AM	**Measured PTA0583-18**
1/27/2010 7:03:12 AM	**Measured PTA0583-19**
1/27/2010 7:09:01 AM	**Measured Sequence-CCVa**
1/27/2010 7:10:52 AM	QCP test failed.
1/27/2010 7:10:52 AM	QCP test failure action is to flag and continue.
1/27/2010 7:14:49 AM	**Measured Sequence-CCB**
1/27/2010 7:16:40 AM	QCP test passed.
1/27/2010 7:20:36 AM	**Measured PTA0583-20**
1/27/2010 7:26:24 AM	**Measured PTA0583-21**

1/27/2010 7:32:13 AM	**Measured PTA0583-22**
1/27/2010 7:38:02 AM	**Measured PTA0583-23**
1/27/2010 7:43:49 AM	**Measured PTA0583-24**
1/27/2010 7:49:39 AM	**Measured PTA0583-25**
1/27/2010 7:55:27 AM	**Measured TRANG'S DOC1**
1/27/2010 8:01:16 AM	**Measured TRANG'S DOC2**
1/27/2010 8:07:05 AM	**Measured TRANG'S DOC3**
1/27/2010 8:12:54 AM	**Measured TRANG'S DOC4**
1/27/2010 8:18:42 AM	**Measured Sequence-CCVa**
1/27/2010 8:20:33 AM	QCP test passed.
1/27/2010 8:24:29 AM	**Measured Sequence-CCB**
1/27/2010 8:26:20 AM	QCP test passed.
1/27/2010 8:26:23 AM	Analysis completed.

Instrument: ICP
Sequence: 012610a

012610A

ICP Autsampler Setup Sheet
Analyst: TNL
Date: 1/26/10

	Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.
1	S11	10A0472_MSD	5X	16	W12	PTA0276-01Re1		31	W12	PTA0500-02		46	KB 0007	Dup	
2	W11	PTA0350-01	5X	17		PTA0309-01Re1		32		-03		47		MS1	
3		10A0603_Dup	5X	18		PTA0313-03Re1		33		-04		48	S13	10A0648_BLK	
4		MS1	5X	19		PTA0410-01		34		-05		49		BS1	
5		PTA0350-03		20		-02		35		PTA0622-01		50		PTA0521-01	
6		PTA0353-03		21		-03		36	KB 17	10A0668_BLK		51		PTA0575-01	
7		-04		22		PTA0437-01		37		BS1		52		PTA0583-01	
8		-05		23		MS2		38		PTA0508-01		53		-06	
9		-06		24		PTA0448-07		39		MS1		54		-11	
10		-07		25		-14		40		PTA0577-01		55		-16	
11		PTA0355-09		26		-21		41		Dup		56		-17	
12	W12	10A0664_BLK		27		Dup		42		MS2		57		MS1	
13		BS1		28		MS1		43	KB 0007	10A0665_BLK		58		MSD	
14		PTA0227-01Re1		29		PTA0475-01		44		BS1		59		PTA0583-18	
15		-05Re1		30		PTA0489-02		45		PTA0522-01		60		-19	

ICP Autsampler Setup Sheet
Analyst: TNL
Date: 11/26/10

	Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.
1	S13	PTA0583_20		16				31				46			
2		21		17				32				47			
3		22		18				33				48			
4		23		19				34				49			
5		24		20				35				50			
6		25		21				36				51			
7		TRang DOC	(W10_002 10A0067)	22				37				52			
8			(W10_003 10A0117)	23				38				53			
9			(W10_009 10A0401)	24				39				54			
10			(W09_401 9120898)	25				40				55			
11				26				41				56			
12				27				42				57			
13				28				43				58			
14				29				44				59			
15				30				45				60			

Analyte	S1/MRL 0.5 Mix 1 & 1.1 FV= 250 ml	S2 2.5 Mix 1 & 1.1 FV= 250 ml	S3/CCV 5 Mix 2 & 2.1 2 vials @FV= 500 mL	S4 1.25 Mix 3 & 3.1 FV= 250 ml	S5 2.5 Mix 3 & 3.1 FV= 250 ml
Ag	0.02	0.1	0.25	0.5	1
As	0.05	0.25	1	2.5	5
Cd	0.01	0.05	1	2.5	5
Cr	0.01	0.05	2	5	10
Cu	0.02	0.1	2	5	10
Ni	0.05	0.25	2	5	10
Pb	0.05	0.25	1	2.5	5
Se	0.05	0.25	1	2.5	5
V	0.01	0.05	1	2.5	5
Na	1	5	20	50	100
Al	0.1	0.5	20	50	100
Ca	0.1	0.5	20	50	100
Fe	0.1	0.5	20	50	100
K	1	5	20	50	100
Mg	0.1	0.5	20	50	100
Mo	0.05	0.25	5	10	20
Ti	0.1	0.5	[illegible]	2.5	5
B	0.5	2.5	4	5	10
Ba	0.01	0.05	2	5	10
Be	0.01	0.05	1	2.5	5
Co	0.01	0.05	1	2.5	5
Mn	0.1	0.5	2	5	10
P	0.5	2.5	20	50	100
Si	1	5	20	50	100
Sn	0.1	0.5	5	10	20
Tl	0.05	0.25	0.5	1	2
Sb	0.1	0.5	2	5	10
Sr	0.01	0.05	2	5	10
Zn	0.02	0.1	2	5	10

Sequence ID 1/26/2010 012610A

ICV1 and ICV2			
	FV= 200 mL	Element ID	Exp. Date
Minerals	0.4	9050156	6/1/2010
Trace Elements	4	9070251	8/1/2010
Trace Elements	1	9060011	7/1/2010
Silver/Thallium	1	9050228	6/1/2010
Silicon	0.5	9010211	2/1/2010
Phosphorus	0.4	9010098	2/1/2010
Boron	1	9010210	2/1/2010

ICV1 Prep Date/Initials ajh 1/12/10

ICV2 Prep Date/Initials ajh 1/12/10

CRDL/ 2x MRL			
	FV= 10 mL		Exp. Date
S2	2	_	_

CRDL Prep Date/Initials NA

	Element ID	Exp. Date	ICSA FV =500 mL	ICSAB FV =500 mL
ICP CLPP ICS-A	9030161	4/1/2010	50	50
ICP CLPP ICS-B	9100318	11/1/2010	_	5

Interference Prep Date/Initials wgm 11/2/09

Internal Standard			
	Element ID	Exp. Date	FV =2000 mL
Cesium	pt00112	1/12/2011	5.876 g
Scandium	9100317	11/1/2010	1 ml

Internal Standard Prep Date/Initials ajh 1/12/10

Calibration Stds	Element ID	Exp. Date
Mix1	9110202	12/1/2010
Mix 1.1	9110203	12/1/2010
Mix 2	9110204	12/1/2010
Mix 2.1	9110205	12/1/2010
Mix 3	9110206	12/1/2010
Mix 3.1	9110207	12/1/2010

Calibration Prep Date/Initials: ajh 1/12/10

HNO3 Lot # H10040

HCL Lot # H33A01

Metals Pipette IDs	
4833306	4181564
A68036900	4144057
4026444	1096887
4361184	

Last Wavelength Calibration*: 1/12/2010

*Not used for quantitative purposes

Instrument: ICP
Sequence 012810

1/28/2010 12:33:55 PM	Worksheet operations log deleted
1/28/2010 12:34:02 PM	Analysis started.
1/28/2010 12:37:57 PM	**Measured Blank**
1/28/2010 12:43:42 PM	**Measured Standard 1**
1/28/2010 12:49:27 PM	**Measured Standard 2**
1/28/2010 12:55:11 PM	**Measured Standard 3**
1/28/2010 1:00:55 PM	**Measured Standard 4**
1/28/2010 1:06:40 PM	**Measured Standard 5**
1/28/2010 1:08:32 PM	Calibration passed
1/28/2010 1:12:25 PM	**Measured Sequence-ICV**
1/28/2010 1:14:16 PM	QCP test failed.
1/28/2010 1:14:16 PM	QCP test failure action is to flag and continue.
1/28/2010 1:18:10 PM	**Measured Sequence-ICV2**
1/28/2010 1:20:00 PM	QCP test failed.
1/28/2010 1:20:00 PM	QCP test failure action is to flag and continue.
1/28/2010 1:23:54 PM	**Measured Sequence-CCB**
1/28/2010 1:25:45 PM	QCP test passed.
1/28/2010 1:29:42 PM	**Measured Sequence-IFA**
1/28/2010 1:31:32 PM	QCP test passed.
1/28/2010 1:35:28 PM	**Measured Sequence-IFB**
1/28/2010 1:37:19 PM	QCP test passed.
1/28/2010 1:37:20 PM	F F967: Internal Error. Varian Reference - Sampler invalid rack type.
1/28/2010 3:22:32 PM	Analysis started.
1/28/2010 3:22:32 PM	Request to stop the worksheet run after completing this solution.
1/28/2010 3:26:27 PM	**Measured PTA0420-06**
1/28/2010 3:35:31 PM	Analysis started.
1/28/2010 3:39:26 PM	**Measured PTA0420-09**
1/28/2010 3:43:21 PM	Request to stop the worksheet run after completing this solution.
1/28/2010 3:45:12 PM	**Measured 10A0556-MS2**
1/28/2010 3:50:57 PM	**Measured Sequence-CCVa**
1/28/2010 3:52:49 PM	QCP test failed.
1/28/2010 3:52:49 PM	QCP test failure action is to flag and continue.
1/28/2010 3:56:44 PM	**Measured Sequence-CCB**
1/28/2010 3:58:35 PM	QCP test passed.
1/28/2010 3:59:15 PM	Analysis started.
1/28/2010 4:03:11 PM	**Measured PTA0420-06**
1/28/2010 4:08:51 PM	Request to stop the worksheet run after completing this solution.
1/28/2010 4:09:00 PM	**Measured PTA0420-09**
1/28/2010 4:15:06 PM	Analysis started.
1/28/2010 4:19:01 PM	**Measured 10A0556-MS2**
1/28/2010 4:24:48 PM	**Measured 10A0744-BLK1**
1/28/2010 4:30:32 PM	**Measured 10A0744-BS1**
1/28/2010 4:36:18 PM	**Measured PTA0510-02**
1/28/2010 4:42:06 PM	**Measured 10A0744-DUP1**
1/28/2010 4:47:53 PM	**Measured 10A0744-MS1**
1/28/2010 4:53:41 PM	**Measured PTA0551-01**
1/28/2010 4:59:27 PM	**Measured PTA0551-03**
1/28/2010 5:05:14 PM	**Measured Sequence-CCVa**
1/28/2010 5:07:06 PM	QCP test failed.
1/28/2010 5:07:06 PM	QCP test failure action is to flag and continue.
1/28/2010 5:11:01 PM	**Measured Sequence-CCB**
1/28/2010 5:12:53 PM	QCP test passed.
1/28/2010 5:16:49 PM	**Measured PTA0583-31**
1/28/2010 5:22:35 PM	**Measured PTA0631-07**
1/28/2010 5:28:22 PM	**Measured PTA0631-14**
1/28/2010 5:34:09 PM	**Measured PTA0631-21**
1/28/2010 5:39:56 PM	**Measured PTA0632-07**
1/28/2010 5:45:43 PM	**Measured PTA0632-14**
1/28/2010 5:51:30 PM	**Measured PTA0632-21**
1/28/2010 5:57:17 PM	**Measured PTA0648-01**
1/28/2010 6:03:04 PM	**Measured PTA0656-01**
1/28/2010 6:08:49 PM	**Measured PTA0660-01**
1/28/2010 6:14:36 PM	**Measured Sequence-CCVa**
1/28/2010 6:16:27 PM	QCP test passed.
1/28/2010 6:20:24 PM	**Measured Sequence-CCB**
1/28/2010 6:22:15 PM	QCP test passed.
1/28/2010 6:26:11 PM	**Measured PTA0673-017**
1/28/2010 6:31:58 PM	**Measured PTA0673-18**
1/28/2010 6:37:46 PM	**Measured PTA0692-05**
1/28/2010 6:43:35 PM	**Measured 10A0744-MS2**
1/28/2010 6:49:23 PM	**Measured PTA0704-01**
1/28/2010 6:55:10 PM	**Measured PTA0704-02**
1/28/2010 7:00:59 PM	**Measured PTA0553-03**
1/28/2010 7:06:48 PM	**Measured Sequence-CCVa**
1/28/2010 7:08:39 PM	QCP test passed.
1/28/2010 7:12:38 PM	**Measured Sequence-CCB**
1/28/2010 7:14:29 PM	QCP test passed.
1/28/2010 7:14:31 PM	Analysis completed.
1/28/2010 9:57:24 PM	QCP test failed.
1/28/2010 9:57:24 PM	QCP test failed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test failed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test failed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test passed.

Instrument: ICP
Sequence 012810

1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:24 PM	QCP test passed.
1/28/2010 9:57:35 PM	QCP test failed.
1/28/2010 9:57:35 PM	QCP test failed.
1/28/2010 9:57:35 PM	QCP test passed.
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1/28/2010 9:57:35 PM	QCP test passed.
1/28/2010 9:57:35 PM	QCP test failed.
1/28/2010 9:57:35 PM	QCP test passed.
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1/28/2010 9:58:12 PM	QCP test failed.
1/28/2010 9:58:12 PM	QCP test failed.
1/28/2010 9:58:12 PM	QCP test passed.
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1/28/2010 9:58:12 PM	QCP test passed.
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1/28/2010 9:58:12 PM	QCP test passed.
1/28/2010 9:58:12 PM	QCP test failed.
1/28/2010 9:58:12 PM	QCP test passed.
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1/28/2010 9:59:59 PM	QCP test passed.
1/28/2010 9:59:59 PM	QCP test passed.

Instrument: ICP
Sequence 012810

ICP Autsampler Setup Sheet
Analyst: ADT
Date: 11/28/10

	Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.		Batch ID	Sample Name	Dil.
1	KR-13	PTA0420-06		16		-14		31				46			
2		-09		17		-21		32				47			
3		10A0556-MS2		18		PTA0632-07		33				48			
4		PTA0420-06	200X	19		-14		34				49			
5		-09	200X	20		-21		35				50			
6		-MS2	200X	21		PTA0648-01		36				51			
7	W-14	10A0744-BLK1		22		PTA0656-01		37				52			
8		-BS1		23		PTA0660-01		38				53			
9		PTA0510-02		24		PTA0673-17		39				54			
10		PTA0744-DUP1		25		-18		40				55			
11		-MS1		26		PTA0692-05		41				56			
12		PTA0551-01		27		10A0744-MS2		42				57			
13		-03		28		PTA0704-01		43				58			
14		PTA0553-31		29		PTA0704-02		44				59			
15		PTA0551-07		30		PTA0553-03		45				60			

Analyte	S1/MRL 0.5 Mix 1 & 1.1 FV= 250 ml	S2 2.5 Mix 1 & 1.1 FV= 250 ml	S3/CCV 5 Mix 2 & 2.1 2 vials @FV= 500 mL	S4 1.25 Mix 3 & 3.1 FV= 250 ml	S5 2.5 Mix 3 & 3.1 FV= 250 ml
Ag	0.02	0.1	0.25	0.5	1
As	0.05	0.25	1	2.5	5
Cd	0.01	0.05	1	2.5	5
Cr	0.01	0.05	2	5	10
Cu	0.02	0.1	2	5	10
Ni	0.05	0.25	2	5	10
Pb	0.05	0.25	1	2.5	5
Se	0.05	0.25	1	2.5	5
V	0.01	0.05	1	2.5	5
Na	1	5	20	50	100
Al	0.1	0.5	20	50	100
Ca	0.1	0.5	20	50	100
Fe	0.1	0.5	20	50	100
K	1	5	20	50	100
Mg	0.1	0.5	20	50	100
Mo	0.05	0.25	5	10	20
Tl	0.1	0.5	1	2.5	5
B	0.5	2.5	4	5	10
Ba	0.01	0.05	2	5	10
Be	0.01	0.05	1	2.5	5
Co	0.01	0.05	1	2.5	5
Mn	0.1	0.5	2	5	10
P	0.5	2.5	20	50	100
Si	1	5	20	50	100
Sn	0.1	0.5	5	10	20
Tl	0.05	0.25	0.5	1	2
Sb	0.1	0.5	2	5	10
Sr	0.01	0.05	2	5	10
Zn	0.02	0.1	2	5	10

Sequence ID ~~1/26/2010~~ 01/28/10 tnl

ICV1 and ICV2			
	FV= 200 mL	Element ID	Exp. Date
Minerals	0.4	9050156	6/1/2010
Trace Elements	4	9070251	8/1/2010
Trace Elements	1	9060011	7/1/2010
Silver/Thallium	1	9050228	6/1/2010
Silicon	0.5	9010211	2/1/2010
Phosphorus	0.4	9010098	2/1/2010
Boron	1	9010210	2/1/2010

ICV1 Prep Date/Initials ajh 1/12/10

ICV2 Prep Date/Initials ajh 1/12/10

CRDL/ 2x MRL			
	FV= 10 mL		Exp. Date
S2	2	_	_

CRDL Prep Date/Initials NA

	Element ID	Exp. Date	ICSA FV =500 mL	ICSAB FV =500 mL
ICP CLPP ICS-A	pt00245	4/1/2010	50	50
ICP CLPP ICS-B	9100318	11/1/2010	_	5

Interference Prep Date/Initials ajh 1/28/10

Internal Standard			
	Element ID	Exp. Date	FV =2000 mL
Cesium	pt00112	1/12/2011	5.876 g
Scandium	9100317	11/1/2010	1 ml

Internal Standard Prep Date/Initials ajh 1/12/10

Calibration Stds	Element ID	Exp. Date
Mix1	9110202	12/1/2010
Mix 1.1	9110203	12/1/2010
Mix 2	9110204	12/1/2010
Mix 2.1	9110205	12/1/2010
Mix 3	9110206	12/1/2010
Mix 3.1	9110207	12/1/2010

Calibration Prep Date/Initials: ajh 1/12/10

HNO3 Lot # H10040

HCL Lot # H33A01

Metals Pipette IDs

4833306	4181564
A68036900	4144057
4026444	1096887
4361184	

Last Wavelength Calibration*: 1/12/2010

*Not used for quantitative purposes

Form 4

PREPARATION BATCH SUMMARY

EPA 6010B

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0648 Batch Matrix: Soil Preparation: EPA 3050

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	10A0648-BLK1	012610A-01-067	01/26/10 12:07	
LCS	10A0648-BS1	012610A-01-068	01/26/10 12:07	
B-125-8-10	10A0648-MS1	012610A-01-078	01/26/10 12:07	
B-125-8-10	10A0648-MSD1	012610A-01-079	01/26/10 12:07	
B-122-0-2	PTA0583-01	012610A-01-073	01/26/10 12:07	level 4 dp, MDL
B-123-0-2	PTA0583-06	012610A-01-074	01/26/10 12:07	level 4 dp, MDL
B-124-0-2	PTA0583-11	012610A-01-075	01/26/10 12:07	level 4 dp, MDL
B-125-3-5	PTA0583-16	012610A-01-076	01/26/10 12:07	level 4 dp, MDL
B-125-8-10	PTA0583-17	012610A-01-077	01/26/10 12:07	level 4 dp, MDL; MS/MSD
B-126-3-5	PTA0583-18	012610A-01-080	01/26/10 12:07	level 4 dp, MDL
B-126-8-10	PTA0583-19	012610A-01-081	01/26/10 12:07.	level 4 dp, MDL
B-127-10-12	PTA0583-20	012610A-01-084	01/26/10 12:07	level 4 dp, MDL
B-127-10-12-D	PTA0583-21	012610A-01-085	01/26/10 12:07	level 4 dp, MDL
B-127-15-17	PTA0583-22	012610A-01-086	01/26/10 12:07	level 4 dp, MDL
B-128-10-12	PTA0583-23	012610A-01-087	01/26/10 12:07	level 4 dp, MDL
B-128-15-17	PTA0583-24	012610A-01-088	01/26/10 12:07	level 4 dp, MDL
B-129-0-2	PTA0583-25	012610A-01-089	01/26/10 12:07	level 4 dp, MDL

PREPARATION BENCH SHEET

TestAmerica Portland

BATCH: 10A0648

Matrix: Soil

Prepared using: Metals - EPA 3050
No Surrogate used

Lab Number	Client ID	Analysis	Sample pH	Initial (g)	Final (ml)	Spike ID	Source ID	Spike (uL)	Due	Comments: Extraction (Log)
10A0648-BLK1	Blank	QC		1.01	50					
10A0648-BS1	LCS	QC		1.05	50	9100170		500		
"	"	(Second Spike)		"	"	9100171		500		
10A0648-MS1	Matrix Spike	QC		1.05	50	9100170	PTA0583-17	500		
"	"	(Second Spike)		"	"	9100171	PTA0583-17	500		
10A0648-MSD1	Matrix Spike Dup	QC		1.04	50	9100170	PTA0583-17	500		
"	"	(Second Spike)		"	"	9100171	PTA0583-17	500		
PTA0521-01	WW GS-1	Mo Total ICP 6010B		5.00	50				02/03/10 08:00	
PTA0575-01	Centrifuge Cake	Al Total ICP 6010B		1.02	50				02/04/10 08:00	for FBF Feed totals (for FBF Feed totals)
PTA0583-01	B-122-0-2	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-06	B-123-0-2	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-11	B-124-0-2	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-16	B-125-3-5	As Total ICP 6010B		1.02	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-17	B-125-8-10	Al Total ICP 6010B		1.05	50					Added for BatchQC in: 10A0648 (BatchQC)
PTA0583-17	B-125-8-10	As Total ICP 6010B		↓	50				02/05/10 08:00	level 4 dp, MDL; MS/MSD (level 4 dp, MDL; MS/MSD)
PTA0583-17	B-125-8-10	Mo Total ICP 6010B		↓	50					Added for BatchQC in: 10A0648 (BatchQC)
PTA0583-18	B-126-3-5	As Total ICP 6010B		1.02	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-19	B-126-8-10	As Total ICP 6010B		1.01	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-20	B-127-10-12	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-21	B-127-10-12-D	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-22	B-127-15-17	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-23	B-128-10-12	As Total ICP 6010B		1.05	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-24	B-128-15-17	As Total ICP 6010B		1.03	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0583-25	B-129-0-2	As Total ICP 6010B		1.01	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)

553 of 298

RJF 1/26/10
Preparation By Date

1.26.10
Reviewed By Date

Printed: 1/26/2010 12:35:25PM

Reagent/Description/Expires Date

PT00176 Hydrochloric Acid - AR Select 7/21/2010	9090011 Hydrogen Peroxide 8/31/2010	9120006 Nitric Acid - AR Select ACS 2.5L Lot # H10040 12/1/2010

Batch Comments: S10-013
Temp of Joe: 95°C
C Tubes: A909LS288

Pipets:
S/N 4957516 500-5000uL
S/N 2062016 100-1000uL

554 of 2988

Printed: 1/26/2010 12:35:25PM

Preparation By Date Reviewed By Date

Form 4

PREPARATION BATCH SUMMARY

EPA 6010B

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0744 Batch Matrix: Water Preparation: EPA 200/3005

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	10A0744-BLK1	012810-01-020	01/28/10 11:12	
LCS	10A0744-BS1	012810-01-021	01/28/10 11:12	
Duplicate	10A0744-DUP1	012810-01-023	01/28/10 11:12	
Matrix Spike	10A0744-MS1	012810-01-024	01/28/10 11:12	
Matrix Spike	10A0744-MS2	012810-01-044	01/28/10 11:12	
RINSATE	PTA0583-31	012810-01-029	01/28/10 11:12	level 4 dp, MDL

PREPARATION BENCH SHEET

TestAmerica Portland

BATCH: 10A0744

Matrix: Water

Prepared using: Metals - EPA 200/3005
No Surrogate used

Lab Number	Client ID	Analysis	Sample pH<2	Initial (ml)	Final (ml)	Spike ID	Source ID	Spike (uL)	Due	Comments: Extraction (Log)
10A0744-BLK1	Blank	QC		50	50					
10A0744-BS1	LCS	QC		50	50	9100170		500		
"	"	(Second Spike)		"	"	9100171		500		
10A0744-DUP1	Duplicate	QC		50	50		PTA0510-02			
10A0744-MS1	Matrix Spike	QC		50	50	9100170	PTA0510-02	500		
"	"	(Second Spike)		"	"	9100171	PTA0510-02	500		
10A0744-MS2	Matrix Spike	QC		50	50	9100170	PTA0692-05	500		
"	"	(Second Spike)		"	"	9100171	PTA0692-05	500		
PTA0510-02	Fab2 0119-0120	Ag Total ICP 6010B	✓	50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Al Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	As Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	B Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Ba Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Ca Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Cd Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Cr Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Fe Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Mg Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Na Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Pb Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Se Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0510-02	Fab2 0119-0120	Si Total ICP 200.7		50	50				02/03/10 08:00	Fab 2 only: 4.3-16.8 (Fab 2 only: 4.3-16.8)
PTA0551-01	Outfall 011	Ca Total ICP 200.7	✓	50	50				02/04/10 08:00	
PTA0551-01	Outfall 011	Fe Total ICP 200.7		50	50				02/04/10 08:00	
PTA0551-01	Outfall 011	Mg Total ICP 200.7		50	50				02/04/10 08:00	
PTA0551-03	Outfall 001	Ca Total ICP 200.7	✓	50	50				02/04/10 08:00	
PTA0551-03	Outfall 001	Mg Total ICP 200.7		50	50				02/04/10 08:00	
PTA0553-03	East Fork	Na Total ICP 200.7		50	50				02/04/10 08:00	

BVE 1/28/10
Preparation By Date

PJH 1/28/10
Reviewed By Date

Printed: 1/28/2010 11:15:21 AM

PTA0583-31	RINSATE	As Total ICP 6010B	✓	50	50				02/05/10 08:00	level 4 dp, MDL (level 4 dp, MDL)
PTA0631-07	PNT012210A7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0631-07	PNT012210A7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0631-07	PNT012210A7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0631-14	PNT012210B7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0631-14	PNT012210B7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0631-14	PNT012210B7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0631-21	PNT012210C7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0631-21	PNT012210C7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0631-21	PNT0122I0C7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-07	PNT012410A7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0632-07	PNT012410A7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-07	PNT0124I0A7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-14	PNT012410B7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0632-14	PNT012410B7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-14	PNT0124I0B7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-21	PNT012410C7	Al Total ICP 200.7	✓	50	50				02/08/10 08:00	
PTA0632-21	PNT012410C7	Ca Total ICP 200.7		50	50				02/08/10 08:00	
PTA0632-21	PNT012410C7	Mg Total ICP 200.7		50	50				02/08/10 08:00	
PTA0648-01	E-pure system water	Fe Total ICP 200.7	✓	50	50				02/09/10 08:00	
PTA0656-01	D1D PTD	B Total ICP 200.7	✓	50	50				02/09/10 08:00	
PTA0660-01	W2 Well Water	Ca Total ICP 200.7	✓	50	50				02/09/10 08:00	pres in Sx 1/26/10 @ 1620 (pres in Sx 1/26/10 @ 1620)
PTA0660-01	W2 Well Water	Mg Total ICP 200.7		50	50				02/09/10 08:00	pres in Sx 1/26/10 @ 1620 (pres in Sx 1/26/10 @ 1620)
PTA0673-17	Swale East Water	Ag Total ICP 6010B	✓	~~50~~ 25	50	limited volume			02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	As Total ICP 6010B		50	50		BVE 1/28/10		02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	Ba Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	Cd Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	Cr Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	Pb Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-17	Swale East Water	Se Total ICP 6010B		~~50~~ ✓	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)

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Preparation By Date Reviewed By Date

PTA0673-18	Swale West Water	Ag Total ICP 6010B	✓	~~50~~ 25	50	limited Volume. BVE 1/28/10			02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	As Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	Ba Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	Cd Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	Cr Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	Pb Total ICP 6010B		50	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0673-18	Swale West Water	Se Total ICP 6010B		~~50~~	50				02/03/10 16:00	5 day TAT, MDL report (5 day TAT, MDL report)
PTA0692-05	Vault	Ag Total ICP 6010B	✓	50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Al Total ICP 200.7		50	50				02/10/10 08:00	
PTA0692-05	Vault	As Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	B Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Ba Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Ca Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Cd Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Cr Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Fe Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Mg Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Na Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Pb Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Se Total ICP 6010B		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0692-05	Vault	Si Total ICP 200.7		50	50					Added for BatchQC in: 10A0744 (BatchQC)
PTA0704-01	Vault 51	Ag Total ICP 6010B	✓	~~50~~ 25	50	limited Volume. BVE 1/28/10			02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-01	Vault 51	As Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-01	Vault 51	Ba Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-01	Vault 51	Cd Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-01	Vault 51	Cr Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)

Printed: 1/28/2010 11:15:21AM

Preparation By Date Reviewed By Date

PTA0704-01	Vault 51	Pb Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-01	Vault 51	Se Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Ag Total ICP 6010B	✓	~~50~~ 25	50	limited volume.	BJE 1/28/10		02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	As Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Ba Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Cd Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Cr Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Pb Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)
PTA0704-02	Vault 71	Se Total ICP 6010B		50	50				02/01/10 16:00	extremely limited volume; pres in Sx1/27/10 @1715 (extremely limited volume; pres in Sx1/27/10 @1715)

Reagent/Description/Expires Date

PT00038 Nitric Acid - AR Select ACS 2.5L Lot # H10040 7/7/2010	9100161 Hydrochloric Acid - AR Select H19A04 10/31/2010

Batch Comments: W10-014
C tube: A909LS288
Temp of Hotblock A: 95°C
Filter Lot # N/A

Pipets:
S/N 2062016 100-1000uL
S/N 4957516 500-5000uL

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Preparation By Date Reviewed By Date

ANALYSES DATA PACKAGE COVER PAGE

EPA 9045C

Laboratory: TestAmerica Portland

SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlan

Project: Arkema Soils 2010

Client Sample Id:	Lab Sample Id:
B-122-0-2	PTA0583-01
B-123-0-2	PTA0583-06
B-124-0-2	PTA0583-11
B-125-3-5	PTA0583-16
B-125-8-10	PTA0583-17
B-126-3-5	PTA0583-18
B-126-8-10	PTA0583-19
B-127-10-12	PTA0583-20
B-127-10-12-D	PTA0583-21
B-127-15-17	PTA0583-22
B-128-10-12	PTA0583-23
B-128-15-17	PTA0583-24
B-129-0-2	PTA0583-25

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Projeet Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods

TestAmerica Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01	**(B-122-0-2)**			**Soil**			**Sampled: 01/21/10 09:45**				
pH		EPA 9045C	**11.1**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-06	**(B-123-0-2)**			**Soil**			**Sampled: 01/21/10 09:33**				
pH		EPA 9045C	**11.4**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-11	**(B-124-0-2)**			**Soil**			**Sampled: 01/21/10 11:20**				
pH		EPA 9045C	**11.7**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	**H**
PTA0583-16	**(B-125-3-5)**			**Soil**			**Sampled: 01/21/10 16:30**				
pH		EPA 9045C	**8.92**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-17	**(B-125-8-10)**			**Soil**			**Sampled: 01/21/10 16:30**				
pH		EPA 9045C	**9.78**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-18	**(B-126-3-5)**			**Soil**			**Sampled: 01/21/10 16:00**				
pH		EPA 9045C	**10.4**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-19	**(B-126-8-10)**			**Soil**			**Sampled: 01/21/10 16:00**				
pH		EPA 9045C	**9.54**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-20	**(B-127-10-12)**			**Soil**			**Sampled: 01/21/10 15:30**				
pH		EPA 9045C	**9.27**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 12:00	
PTA0583-21	**(B-127-10-12-D)**			**Soil**			**Sampled: 01/21/10 15:30**				
pH		EPA 9045C	**9.09**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-22	**(B-127-15-17)**			**Soil**			**Sampled: 01/21/10 15:30**				
pH		EPA 9045C	**10.8**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-23	**(B-128-10-12)**			**Soil**			**Sampled: 01/21/10 14:10**				
pH		EPA 9045C	**8.66**	---		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	

ok; no 24 hr hold for soil pH.

TestAmerica Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
pH	EPA 9045C	**8.42**	—		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
pH	EPA 9045C	**11.4**	—		pH Units	1x	10A0723	01/28/10 08:43	01/28/10 13:54	**H**
PTA0583-31 (RINSATE)			**Water**			**Sampled: 01/21/10 16:50**				
pH	150.1/9040A	**5.77**	—		pH Units	1x	10A0547	01/22/10 12:30	01/22/10 13:20	

ok; no 24 hr hold for soil pH.

TestAmerica Portland

Darrell Auvil, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Conventional Chemistry Parameters per APHA/EPA Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10A0547 **Water Preparation Method: General Preparation**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10A0547-DUP1)					QC Source: PTA0570-01			Extracted: 01/22/10 08:30						
pH	150.1/9040A	7.80	---		pH Units	1x	7.82	--	--	--	0.256%	(25)	01/22/10 08:41	

QC Batch: 10A0723 **Soil Preparation Method: General Preparation**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10A0723-DUP1)					QC Source: PTA0583-17			Extracted: 01/28/10 08:43						
pH	EPA 9045C	9.84	---		pH Units	1x	9.78	--	--	--	0.612%	(25)	01/28/10 12:00	

batch QC; not extracted.

TestAmerica Portland

Darrell Auvil, Project Manager

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Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Date:
Portland, OR 97204	Project Manager:	Brendan Robinson	02/19/10 16:03

Laboratory Blank Report

Conventional Chemistry Parameters per APHA/EPA Methods - Laboratory Quality Control Results
TestAmerica Portland

Batch 10A0547

Matrix		Lab Number	Sample Name	Dilution	File ID	Analyzed	Instrument
Water	150.1/9040A	10A0547-DUP1	Duplicate	1x	NA	01/22/10 08:41	Inst
Water	150.1/9040A	PTA0583-31	RINSATE	1x	NA	01/22/10 13:20	Inst

Laboratory Blank Report

Conventional Chemistry Parameters per APHA/EPA Methods - Laboratory Quality Control Results
TestAmerica Portland

Batch 10A0547

Matrix		Lab Number	Sample Name	Dilution	File ID	Analyzed	Instrument
Soil	EPA 9045C	10A0723-DUP1	Duplicate	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-01	B-122-0-2	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-06	B-123-0-2	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-11	B-124-0-2	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-16	B-125-3-5	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-17	B-125-8-10	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-18	B-126-3-5	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-19	B-126-8-10	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-20	B-127-10-12	1x	NA	01/28/10 12:00	Inst
Soil	EPA 9045C	PTA0583-21	B-127-10-12-D	1x	NA	01/28/10 13:54	Inst
Soil	EPA 9045C	PTA0583-22	B-127-15-17	1x	NA	01/28/10 13:54	Inst
Soil	EPA 9045C	PTA0583-23	B-128-10-12	1x	NA	01/28/10 13:54	Inst
Soil	EPA 9045C	PTA0583-24	B-128-15-17	1x	NA	01/28/10 13:54	Inst
Soil	EPA 9045C	PTA0583-25	B-129-0-2	1x	NA	01/28/10 13:54	Inst

pH per EPA 150.1/9040A
CONTINUING CALIBRATION SUMMARY

Work Order: PTA0583
Analysis: EPA 150.1/9040A
Instrument: pH Meter
Analysis Date: 01/22/2010
Units: pH Units

Date/Time Analyzed	ICV @ 8 01/22/10 08:41 AM			7 Buffer 01/22/10 08:41 AM			7 Buffer 01/22/10 08:41 AM		
Analyte	True Value	Found	Diff	True Value	Found	Diff	True Value	Found	Diff
pH	8	7.98	-0.02	7	6.96	-0.04	7	7.02	0.02

Acceptance Criteria: ± 0.05 Meter Points

Prepared by: DGM 02/23/2010

pH per EPA 150.1/9040B/9045C/SM 4500-H B

Batch: 10A0547

1.68 Buffer	ID#	
4 Buffer	ID#	9090080
7 Buffer	ID#	9090081
10 Buffer	ID#	9110084
12.45 Buffer	ID#	
8 Buffer	ID#	9090082

Analyst: CC
Prepped: 1-22-10
Analyzed: 8:41
Matrix: water
Balance ID: N/A (only for soils)

pH meter: Orion Dual Star E01463 or Accumet 81201712 **Probe ID:** Robin

Lab Number	Letter	ID Verified	matrix	Solid grams	Solid mls H2O	Temp *C	pH Initial Result	Comment
1.68 Buffer			water					%eff, 99.8
4 Buffer			water			17.6	4.00	
7 Buffer			water			17.5	7.02	
10 Buffer			water			17.5	10.09	
12.45 Buffer			water			~~20.9~~	~~7.98~~ CC 1-22-10	
ICV@8			water			20.9	7.98	
Dup[570-01 1	A					8.0	7.80	
PTA 570-01	A					8.1	7.82	
PTA 570-02	A					8.3	7.88	
7 Buffer						17.4	6.96	
PTA 0583-31	C					19.2	5.77	ID 13:20
PTA 0589-01	A					18.3	8.35	
PTA 0589-02	A					18.2	9.00	
7 BUFFER						19.2	7.04	
PTA604-01	D					13.8	6.25	17:32
7 Buffer			water			18.2	7.02	
7 Buffer			water					
7 Buffer			water					

Buffer & ICVs must be within 0.05 meter points. The percent efficiency must be 95-105%, see user manual for details.
If outside of 97-103% consistently, clean or replace probe

For the Orion Dual Star there is one %eff, and the Accument has two %eff, record values as necessary.

pH per EPA 9045C
CONTINUING CALIBRATION SUMMARY

Work Order: PTA0583
Analysis: EPA 9045C
Instrument: pH Meter
Analysis Date: 01/28/10
Units: pH Units

Bracketed samples reanalyzed; no impact.

Date/Time Analyzed	ICV @ 8 01/28/10 12:00 PM			7 Buffer 01/28/10 12:00 PM			7 Buffer 01/28/10 12:00 PM		
Analyte	True Value	Found	Diff	True Value	Found	Diff	True Value	Found	Diff
pH	8	8.01	0.01	7	7.05	0.05	7	7.26	**0.26**

Date/Time Analyzed	ICV @ 8 01/28/10 12:00 PM			7 Buffer 01/28/10 12:00 PM			7 Buffer 01/28/10 12:00 PM		
Analyte	True Value	Found	Diff	True Value	Found	Diff	True Value	Found	Diff
pH	8	8.05	0.05	7	6.96	-0.04	7	7.02	0.02

Acceptance Criteria: ± 0.05 Meter Points

Prepared by: DGM 02/23/2010

pH per EPA 150.1/9040B/9045C/SM 4500-H B

Batch: 10A0723

1.68 Buffer	ID#	9100011
4 Buffer	ID#	9090080
7 Buffer	ID#	9090081
10 Buffer	ID#	9110034
12.45 Buffer	ID#	PT00234
8 Buffer	ID#	9090082

Analyst: CC
Prepped: 1-28-10
Analyzed: 12:00
Matrix: other dry soil
Balance ID: 1L450223
(only for soils)

pH meter: Orion Dual Star E01463 or Accumet 81201712 **Probe ID:** Robin

Lab Number	Letter	ID Verified	matrix	Solid grams	Solid mls H2O	Temp *C	pH Initial Result	Comment
1.68 Buffer			water			17.2	1.68	%eff: 99.9
4 Buffer			water			17.0	4.01	
7 Buffer			water			17.2	7.02	
10 Buffer			water			17.5	10.09	
12.45 Buffer			water			20.6	12.52	
ICV@8			water			21.0	8.01	
Dup[583-17]	B			9.80	10	20.2	9.84	
PTA 339-1	A			10.28	10	20.0	9.00	
PTA 583-1	A			10.08	10	20.6	11.08	
PTA 583-6	A			9.96	10	20.8	11.43	
PTA 583-11	A			9.83	10	21.1	11.72	
PTA 583-16	A			10.22	10	21.2	8.92	
PTA 583-17	B			10.19	10	21.3	9.78	
PTA 583-18	A			9.97	10	21.3	10.39	
PTA 583-19	A			9.69	10	21.1	9.54	
PTA 583-20	A			9.84	10	21.0	9.27	
7 Buffer			water			19.6	7.05	
PTA 583-21	A			10.14	10	20.9	9.16	re-calibrated + re-run samples
PTA 583-22	A			9.67	10	21.3	10.80	
PTA 583-23	A			9.78	10	21.3	8.66	
PTA 583-24	A			9.71	10	21.4	8.59	
PTA 583-25	A			9.66	10	21.8	11.43	
7 Buffer							7.26	out of range
4 Buffer						19.5	4.00	96%
7 Buffer			water			19.7	7.00	
10.00 Buffer						19.7	10.02	
12.45 Buffer						19.7	12.76	
ICV@8						20.3	8.05	
PTA 583-21	A					21.1	9.09	13:54
PTA 583-22						21.3	10.82	
PTA 583-23						21.3	8.66	
PTA 583-24						21.5	8.42	
PTA 583-25						21.7	11.41	
7 Buffer			water			20.0	6.96	

Buffer & ICVs must be within 0.05 meter points. The percent efficiency must be 95-105%, see user manual for details.
If outside of 97-103% consistently, clean or replace probe

1 For the Orion Dual Star there is one %eff, and the Accumet has two %eff, record values as necessary.

METHOD DETECTION AND REPORTING LIMITS

NCA SOP

Laboratory: TestAmerica Portland **SDG:** PTA0583

Client: Environmental Resources Management Inc.-Portland **Project:** Arkema Soils 2010

Matrix: Soil **Instrument:** Inst

Analyte	MDL	MRL	Units
% Solids	0.0100	0.0100	% by Weight

PREPARATION BENCH SHEET (Custom Equation)

10A0585

TestAmerica Portland

Printed: 1/25/2010 8:35:16AM

Matrix: Soil **Prepared using: Dry Weight**

Lab Number	Analysis	Prepared	Source ID	Tare Wt (g.)	Initial Weight + Tare (g/mL)	Final Amount + Tare (g)	Dry Weight (%)	Due Date
10A0585-DUP1	QC	01/23/10 08:34	PTA0583-19	0.99	8.71	7.11	79.3	
PTA0583-01	Solids, Dry Weight	01/23/10 08:34		1.00	7.20	5.44	71.6	01/29/10 16:00
PTA0583-06	Solids, Dry Weight	01/23/10 08:34		1.00	7.53	5.94	75.7	01/29/10 16:00
PTA0583-11	Solids, Dry Weight	01/23/10 08:34		1.00	7.56	6.52	84.1	01/29/10 16:00
PTA0583-16	Solids, Dry Weight	01/23/10 08:34		1.02	7.03	5.97	82.4	01/29/10 16:00
PTA0583-17	Solids, Dry Weight	01/23/10 08:34		1.02	7.50	6.22	80.2	01/29/10 16:00
PTA0583-18	Solids, Dry Weight	01/23/10 08:34		1.00	6.14	5.39	85.4	01/29/10 16:00
PTA0583-19	Solids, Dry Weight	01/23/10 08:34		1.00	6.90	5.71	79.8	01/29/10 16:00
PTA0583-20	Solids, Dry Weight	01/23/10 08:34		1.01	9.00	7.08	76.0	01/29/10 16:00
PTA0583-21	Solids, Dry Weight	01/23/10 08:34		1.02	7.66	6.25	78.8	01/29/10 16:00
PTA0583-22	Solids, Dry Weight	01/23/10 08:34		1.01	6.92	4.86	65.1	01/29/10 16:00
PTA0583-23	Solids, Dry Weight	01/23/10 08:34		1.01	7.76	5.56	67.4	01/29/10 16:00
PTA0583-24	Solids, Dry Weight	01/23/10 08:34		1.01	6.77	4.87	67.0	01/29/10 16:00
PTA0583-25	Solids, Dry Weight	01/23/10 08:34		1.03	6.10	5.34	85.0	01/29/10 16:00

Balance ID: Sartorious CP 2202S 16450223

Prepared By Date

Analyzed By 1/25/10 Date

Reviewed By 1/25/10 Date

Form 4

PREPARATION BATCH SUMMARY

150.1/9040A

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0547 Batch Matrix: Water Preparation: General Preparation

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Duplicate	10A0547-DUP1		01/22/10 08:30	
RINSATE	PTA0583-31		01/22/10 12:30	level 4 dp,

PREPARATION BENCH SHEET

Batch 10A0547

Printed: 2/23/2010 3:01:01PM

Prep method: General Preparation

TestAmerica Portland

Matrix: Water

No Surrogate used

Lab Number	Analysis	Prepared	Initial (ml)	Init	Final (ml)	Init	Spike ID	Spike Amt (uL)	Init	Source ID	Surr 1 (uL)	Init	Surr 2 (uL)	Init	pH	Extraction Comments
10A0547-DUP1	QC	01/22/10 08:30	1		1					PTA0570-01						
PTA0570-01	pH- SM 4500-H B	01/22/10 08:30	1		1											do not analyze samples outside of the holding time
PTA0570-01	pH-150.1/9040A	01/22/10 08:30	1		1											Added for BatchQC in: 10A0547
PTA0570-02	pH- SM 4500-H B	01/22/10 08:30	1		1											do not analyze samples outside of the holding time
PTA0583-31	pH-150.1/9040A	01/22/10 12:30	1		1											level 4 dp;
PTA0589-01	pH- SM 4500-H B	01/22/10 12:30	1		1											
PTA0589-02	pH- SM 4500-H B	01/22/10 12:30	1		1											
PTA0604-01	pH- SM 4500-H B	01/22/10 17:29	1		1											

Spiking Witnessed By Date

Preparation Reviewed By Date

Form 4

PREPARATION BATCH SUMMARY

EPA 9045C

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0723 Batch Matrix: Soil Preparation: General Preparation

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
B-125-8-10	10A0723-DUP1		01/28/10 08:43	
B-122-0-2	PTA0583-01		01/28/10 08:43	level 4 dp, MDL
B-123-0-2	PTA0583-06		01/28/10 08:43	level 4 dp, MDL
B-124-0-2	PTA0583-11		01/28/10 08:43	level 4 dp, MDL
B-125-3-5	PTA0583-16		01/28/10 08:43	level 4 dp, MDL
B-125-8-10	PTA0583-17		01/28/10 08:43	level 4 dp, MDL; MS/MSD
B-126-3-5	PTA0583-18		01/28/10 08:43	level 4 dp, MDL
B-126-8-10	PTA0583-19		01/28/10 08:43	level 4 dp, MDL
B-127-10-12	PTA0583-20		01/28/10 08:43	level 4 dp, MDL
B-127-10-12-D	PTA0583-21		01/28/10 08:43	level 4 dp, MDL
B-127-15-17	PTA0583-22		01/28/10 08:43	level 4 dp, MDL
B-128-10-12	PTA0583-23		01/28/10 08:43	level 4 dp, MDL
B-128-15-17	PTA0583-24		01/28/10 08:43	level 4 dp, MDL
B-129-0-2	PTA0583-25		01/28/10 08:43	level 4 dp, MDL

PREPARATION BENCH SHEET

Batch 10A0723

Printed: 2/11/2010 2:08:33PM

Prep method: General Preparation

TestAmerica Portland

Matrix: Soil

No Surrogate used

Lab Number	Analysis	Prepared	Initial (g)	Init	Final (ml)	Init	Spike ID	Spike Amt (uL)	Init	Source ID	Surr 1 (uL)	Init	Surr 2 (uL)	Init	pH	Extraction Comments
10A0723-DUP1	QC	01/28/10 08:43	9.8		10					PTA0583-17						
PTA0389-01	pH-150.1/9040A	01/28/10 08:43	10.28		10											
PTA0583-01	pH-9045B	01/28/10 08:43	10.08		10											level 4 dp, MDL
PTA0583-06	pH-9045B	01/28/10 08:43	9.96		10											level 4 dp, MDL
PTA0583-11	pH-9045B	01/28/10 08:43	9.83		10											level 4 dp, MDL
PTA0583-16	pH-9045B	01/28/10 08:43	10.22		10											level 4 dp, MDL
PTA0583-17	pH-150.1/9040A	01/28/10 08:43	10.19		10											Added for BatchQC in: 10A0723
PTA0583-17	pH-9045B	01/28/10 08:43	10.19		10											level 4 dp, MDL; MS/MSD
PTA0583-18	pH-9045B	01/28/10 08:43	9.97		10											level 4 dp, MDL
PTA0583-19	pH-9045B	01/28/10 08:43	9.69		10											level 4 dp, MDL
PTA0583-20	pH-9045B	01/28/10 08:43	9.84		10											level 4 dp, MDL
PTA0583-21	pH-9045B	01/28/10 08:43	10.14		10											level 4 dp, MDL
PTA0583-22	pH-9045B	01/28/10 08:43	9.67		10											level 4 dp, MDL
PTA0583-23	pH-9045B	01/28/10 08:43	9.78		10											level 4 dp, MDL
PTA0583-24	pH-9045B	01/28/10 08:43	9.71		10											level 4 dp, MDL
PTA0583-25	pH-9045B	01/28/10 08:43	9.66		10											level 4 dp, MDL

Spiking Witnessed By Date

Preparation Reviewed By Date

Form 4

PREPARATION BATCH SUMMARY

NCA SOP

Laboratory: TestAmerica Portland SDG: PTA0583

Client: Environmental Resources Management Inc.-Portlanc Project: Arkema Soils 2010

Batch: 10A0585 Batch Matrix: Soil Preparation: Dry Weight

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
B-126-8-10	10A0585-DUP1		01/23/10 08:34	
B-122-0-2	PTA0583-01		01/23/10 08:34	
B-123-0-2	PTA0583-06		01/23/10 08:34	
B-124-0-2	PTA0583-11		01/23/10 08:34	
B-125-3-5	PTA0583-16		01/23/10 08:34	
B-125-8-10	PTA0583-17		01/23/10 08:34	
B-126-3-5	PTA0583-18		01/23/10 08:34	
B-126-8-10	PTA0583-19		01/23/10 08:34	
B-127-10-12	PTA0583-20		01/23/10 08:34	
B-127-10-12-D	PTA0583-21		01/23/10 08:34	
B-127-15-17	PTA0583-22		01/23/10 08:34	
B-128-10-12	PTA0583-23		01/23/10 08:34	
B-128-15-17	PTA0583-24		01/23/10 08:34	
B-129-0-2	PTA0583-25		01/23/10 08:34	

PREPARATION BENCH SHEET (Custom Equation)

10A0585

TestAmerica Portland

Printed: 1/23/2010 10:23:48AM

Matrix: Soil **Prepared using: Dry Weight**

Lab Number	Analysis	Prepared	Source ID	Tare Wt (g.)	Initial Weight + Tare (g/mL)	Final Amount + Tare (g)	Dry Weight (%)	Due Date
10A0585-DUP1	QC	01/23/10 08:34	PTA0583-19	0.99	8.71	7.11		
PTA0583-01 A	Solids, Dry Weight	01/23/10 08:34		1.00	7.20	5.44		01/29/10 16:00
PTA0583-06	Solids, Dry Weight	01/23/10 08:34		1.00	7.53	5.94		01/29/10 16:00
PTA0583-11	Solids, Dry Weight	01/23/10 08:34		1.00	7.56	6.52		01/29/10 16:00
PTA0583-16	Solids, Dry Weight	01/23/10 08:34		1.02	7.03	5.97		01/29/10 16:00
PTA0583-17	Solids, Dry Weight	01/23/10 08:34		1.02	7.50	6.22		01/29/10 16:00
PTA0583-18	Solids, Dry Weight	01/23/10 08:34		1.00	6.14	5.39		01/29/10 16:00
PTA0583-19	Solids, Dry Weight	01/23/10 08:34		1.00	6.90	5.71		01/29/10 16:00
PTA0583-20	Solids, Dry Weight	01/23/10 08:34		1.01	9.00	7.08		01/29/10 16:00
PTA0583-21	Solids, Dry Weight	01/23/10 08:34		1.02	7.66	6.25		01/29/10 16:00
PTA0583-22	Solids, Dry Weight	01/23/10 08:34		1.01	6.92	4.86		01/29/10 16:00
PTA0583-23	Solids, Dry Weight	01/23/10 08:34		1.01	7.76	5.56		01/29/10 16:00
PTA0583-24	Solids, Dry Weight	01/23/10 08:34		1.01	6.77	4.87		01/29/10 16:00
PTA0583-25	Solids, Dry Weight	01/23/10 08:34		1.03	6.10	5.34		01/29/10 16:00

Balance ID: Sartorious CP 2202S 16450223

Prepared By: Jessica Nyr 1/23/10 Date

Analyzed By: Jessica Nyr 1/25/10 Date

Reviewed By: [signature] 1/25/10 Date

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Dry Weight (Solids) per ASTM D2216-80

TestAmerica Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01	**(B-122-0-2)**			**Soil**			**Sampled: 01/21/10 09:45**				
% Solids		NCA SOP	**71.6**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-06	**(B-123-0-2)**			**Soil**			**Sampled: 01/21/10 09:33**				
% Solids		NCA SOP	**75.7**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-11	**(B-124-0-2)**			**Soil**			**Sampled: 01/21/10 11:20**				
% Solids		NCA SOP	**84.1**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-16	**(B-125-3-5)**			**Soil**			**Sampled: 01/21/10 16:30**				
% Solids		NCA SOP	**82.4**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-17	**(B-125-8-10)**			**Soil**			**Sampled: 01/21/10 16:30**				
% Solids		NCA SOP	**80.2**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-18	**(B-126-3-5)**			**Soil**			**Sampled: 01/21/10 16:00**				
% Solids		NCA SOP	**85.4**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-19	**(B-126-8-10)**			**Soil**			**Sampled: 01/21/10 16:00**				
% Solids		NCA SOP	**79.8**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-20	**(B-127-10-12)**			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids		NCA SOP	**76.0**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-21	**(B-127-10-12-D)**			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids		NCA SOP	**78.8**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-22	**(B-127-15-17)**			**Soil**			**Sampled: 01/21/10 15:30**				
% Solids		NCA SOP	**65.1**	---	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-23	**(B-128-10-12)**			**Soil**			**Sampled: 01/21/10 14:10**				

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Dry Weight (Solids) per ASTM D2216-80

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
% Solids	NCA SOP	**67.4**	—	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
% Solids	NCA SOP	**67.0**	—	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
% Solids	NCA SOP	**85.0**	—	0.0100	% by Weight	1x	10A0585	01/23/10 08:34	01/23/10 08:34	

TestAmerica Portland

Darrell Auvil, Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0055159

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-03 (B-122-4-6)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0055159	**28.2**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:25	
PTA0583-05 (B-122-8-10)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0055159	**22**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:25	
PTA0583-08 (B-123-4-6)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0055159	**27**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-10 (B-123-8-10)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0055159	**28.7**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-13 (B-124-4-6)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0055159	**31.4**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	
PTA0583-15 (B-124-8-10)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0055159	**31.8**	*0.1*	0.1	%	1x	55159	02/24/10 00:00	02/25/10 08:26	

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0036433

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0036433	**19.6**	*0.1*	0.1	%	1x	36433	02/05/10 00:00	02/06/10 08:10	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0036433	**36.4**	*0.1*	0.1	%	1x	36433	02/05/10 00:00	02/06/10 08:10	

TestAmerica Portland

Darrell Auvil, Project Manager

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0037055

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	D 2216-90_0037055	**11.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	D 2216-90_0037055	**15.5**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	D 2216-90_0037055	**14.3**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	D 2216-90_0037055	**16.9**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:26	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	D 2216-90_0037055	**25.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	D 2216-90_0037055	**12.8**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	D 2216-90_0037055	**20.1**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	D 2216-90_0037055	**24.5**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	D 2216-90_0037055	**33.9**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	

TestAmerica Portland

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

D 2216-90_0037055

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	D 2216-90_0037055	**24.8**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:27	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Percent Moisture	D 2216-90_0037055	**10.7**	*0.1*	0.1	%	1x	37055	02/08/10 00:00	02/09/10 08:28	

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Darrell Auvil, Project Manager

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BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Moisture

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-01 (B-122-0-2)			**Soil**			**Sampled: 01/21/10 09:45**				
Percent Moisture	Moisture	**23**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**77**	*0.10*	0.10	"	"	"	"	"	
PTA0583-06 (B-123-0-2)			**Soil**			**Sampled: 01/21/10 09:33**				
Percent Moisture	Moisture	**19**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**81**	*0.10*	0.10	"	"	"	"	"	
PTA0583-11 (B-124-0-2)			**Soil**			**Sampled: 01/21/10 11:20**				
Percent Moisture	Moisture	**16**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**84**	*0.10*	0.10	"	"	"	"	"	
PTA0583-16 (B-125-3-5)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	Moisture	**18**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**82**	*0.10*	0.10	"	"	"	"	"	
PTA0583-17 (B-125-8-10)			**Soil**			**Sampled: 01/21/10 16:30**				
Percent Moisture	Moisture	**20**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**80**	*0.10*	0.10	"	"	"	"	"	
PTA0583-18 (B-126-3-5)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	Moisture	**12**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**88**	*0.10*	0.10	"	"	"	"	"	
PTA0583-19 (B-126-8-10)			**Soil**			**Sampled: 01/21/10 16:00**				
Percent Moisture	Moisture	**20**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**80**	*0.10*	0.10	"	"	"	"	"	
PTA0583-20 (B-127-10-12)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**22**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**78**	*0.10*	0.10	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

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PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Percent Moisture

TestAmerica Chicago

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTA0583-21 (B-127-10-12-D)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**17**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**83**	*0.10*	0.10	"	"	"	"	"	
PTA0583-22 (B-127-15-17)			**Soil**			**Sampled: 01/21/10 15:30**				
Percent Moisture	Moisture	**30**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**70**	*0.10*	0.10	"	"	"	"	"	
PTA0583-23 (B-128-10-12)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	Moisture	**35**	*0.10*	0.10	%	1x	79522	01/26/10 16:12	01/26/10 16:12	
Percent Solids	"	**65**	*0.10*	0.10	"	"	"	"	"	
PTA0583-24 (B-128-15-17)			**Soil**			**Sampled: 01/21/10 14:10**				
Percent Moisture	Moisture	**26**	*0.10*	0.10	%	1x	79522	01/26/10 16:15	01/26/10 16:15	
Percent Solids	"	**74**	*0.10*	0.10	"	"	"	"	"	
PTA0583-25 (B-129-0-2)			**Soil**			**Sampled: 01/21/10 13:10**				
Percent Moisture	Moisture	**14**	*0.10*	0.10	%	1x	79522	01/26/10 16:15	01/26/10 16:15	
Percent Solids	"	**86**	*0.10*	0.10	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

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SECTION 5

PROJECT CASE NARRATIVES AND CHAIN-OF-CUSTODY RECORDS

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THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Environmental Resources Management Inc.-Portland	**Date Sampled:**	1/21/2010
Project:	Arkema Soils 2010 111208.02	**Date Received:**	1/22/2010
Lab:	PTA0583		

SAMPLE RECEIPT: Samples were received intact, on ice, with chain of custody documentation. The sample temperature was measured at 4.2 °C upon receipt at the laboratory.

For sample PTA0583-17, 5 containers were documented on the chain of custody; however, 6 containers were received.

For sample PTA0583-28, 6 containers were documented on the chain of custody; however, only 3 containers were received.

For sample PTA0583-31, 3 containers were documented on the chain of custody; however, 4 containers were received.

Sample and hold.

HOLDING TIMES: The EPA 8081A analysis for samples PTA0583-19RE2 and PTA0583-19RE3 was performed past the method specified holding time.

The EPA 9045C analysis for sample PTA0583-01, PTA0583-06, PTA0583-11, and PTA0583-25 was performed past the method specified holding time.

PROBLEMS ENCOUNTERED: EPA 8081A sample PTA0583-19 was extracted in batch 10A0630 on 01/26/2010 and analyzed on 02/08/2010. The surrogate 2,4,5,6-Tetrachloro-m-xylene recovery (28.0%) for the specified sample was below the acceptance limits (36 – 140%).
The analyst suspected possible matrix interference; however, the surrogate Decachlorobiphenyl recovery (which is not reported) for the specified sample was within the acceptance limits (56%).
Due to this discrepancy, sample PTA0583-19 was re-extracted in batch 10B0314 (past the method specified holding time) on 02/11/2010, designated 'RE2', and analyzed on 02/15/2010 with surrogate 2,4,5,6-Tetrachloro-m-xylene recovery (41.3%) within the acceptance limits.
Sample results from both batches are reported for comparison purposes.

QA/QC CRITERIA: Due to sample matrix effects, the surrogate (2,4,5,6-Tetrachloro-m-xylene) recovery for EPA 8081A samples PTA0583-17, 10A0630-MS1, and 10A0630-MSD1 was outside the acceptance limits.

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 (503) 906-9210

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THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

Client:	Environmental Resources Management Inc.-Portland	**Date Sampled:**	1/21/2010
Project:	Arkema Soils 2010 111208.02	**Date Received:**	1/22/2010
Lab:	PTA0583		

The Calibration Verification recovery for Endrin was above the method control limit for EPA 8081A samples PTA0583-18 and PTA0583-19. The specified analyte was not detected in the samples; therefore, the data was not impacted.

Also due to ↑ analyte conc.

EPA 8081A sample PTA0583-18 required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate (2,4,5,6-Tetrachloro-m-xylene) spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
The surrogate (2,4,5,6-Tetrachloro-m-xylene) recovery was below the acceptance limits for EPA 8081A sample PTA0583-19.

The Aldrin, Endosulfan I, Endosulfan II, gamma-Chlordane, Heptachlor epoxide, and Methoxychlor recoveries for EPA 8081A sample 10A0630-MS1 were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

The Endosulfan II and Heptachlor epoxide recoveries for EPA 8081A sample 10A0630-MSD1 were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

The Aldrin RPD calculated between EPA 8081A samples 10A0630-MS1 and 10A0630-MSD1 exceeded the method control limit due to sample matrix effects.

Due to high levels of 4,4′-DDD, 4,4′-DDE, and 4,4′-DDT in the source, EPA 8081A samples 10A0630-MS2 and 10A0630-MSD2 do not provide useful spike recovery information. See Blank Spike (LCS).

Due to high levels of 4,4′-DDT in the source, EPA 8081A samples 10B0314-MS1 and 10B0314-MSD1 do not provide useful spike recovery information. See Blank Spike (LCS).

The 4,4′-DDE recovery for EPA 8081A sample 10B0314-MSD1 was below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

Continued...

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CASE NARRATIVE

Client:	Environmental Resources Management Inc.-Portland	**Date Sampled:**	1/21/2010
Project:	Arkema Soils 2010 111208.02	**Date Received:**	1/22/2010
Lab:	PTA0583		

The 4,4'-DDT RPD calculated between EPA 8081A samples 10B0314-MS1 and 10B0314-MSD1 exceeded the acceptance limits due to sample matrix effects.

OBSERVATIONS: Results that fall between the Method Detection Limit (MDL) and Method Reporting Limit (MRL) are estimated values, and are qualified "Ja". The user should be aware that this data is of limited reliability.

EPA 8081A sample PTA0583-16 was analyzed at a 50x dilution on 02/05/2010, designated 'RE1', and reported for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT only due to the concentrations for all remaining target analytes being below the calibration range of the instrument. The specified sample was re-analyzed at a 10x dilution on 02/08/2010 and reported for all target analytes except 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT.

EPA 8081A sample PTA0583-17 was analyzed at a 100x dilution on 02/05/2010, designated 'RE1', and reported for 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT only due to the concentrations for all remaining target analytes being below the calibration range of the instrument. The specified sample was re-analyzed at a 10x dilution on 02/08/2010 and reported for all target analytes except 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT.

EPA 8081A sample PTA0583-18 was analyzed at a 1000x dilution on 02/05/2010, designated 'RE1', and reported for 4,4'-DDE and 4,4'-DDT only due to the concentrations for all remaining target analytes being below the calibration range of the instrument. The specified sample was re-analyzed at a 25x dilution on 02/08/2010 and reported for all remaining target analytes except 4,4'-DDD due to the concentration for the specified analyte exceeding the calibration range of the instrument. Sample PTA0583-18 was re-analyzed at a 100x dilution on 02/09/2010, designated 'RE2', and reported for 4,4'-DDD.

EPA 8081A samples PTA0583-16, PTA0583-16RE1, PTA0583-17, PTA0583-17RE1, and PTA0583-18 required dilution due to high concentrations of target analyte.

Continued...

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CASE NARRATIVE

Client:	Environmental Resources Management Inc.-Portland	**Date Sampled:**	1/21/2010
Project:	Arkema Soils 2010 111208.02	**Date Received:**	1/22/2010
Lab:	PTA0583		

EPA 8081A sample PTA0583-19 was extracted in batch 10A0630, analyzed at a 4x dilution on 02/05/2010, designated 'RE1', and reported for 4,4'-DDT only due to the concentrations for all remaining target analytes being below the calibration range of the instrument. The specified sample was re-analyzed undiluted on 02/08/2010 and reported for all remaining target analytes except 4,4'-DDT.

EPA 8081A sample PTA0583-19 was extracted in batch 10B0314, analyzed on 02/05/2010 at 13:34, designated 'RE2', and reported for all target analytes except 4,4'-DDT due to the concentration for the specified analyte exceeding the calibration range of the instrument. The specified sample was re-analyzed at a 10x dilution on 02/15/2010 at 17:36, designated 'RE3', and reported for 4,4'-DDT.

SUBCONTRACTED: EPA 8270C (OCS, PCN) analysis was performed at the TestAmerica facility in Chicago, Il. The data package for the specified analysis is included in this data deliverables package as Appendix A.

SW846 8290 (Dioxin/Furans) analysis was performed at the TestAmerica facility in West Sacramento, CA. The data packages for the specified analysis is included in this data deliverables package as Appendix B.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Darrell Auvil
Project Manager

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Auvil, Darrell

From: Brendan Robinson [Brendan.Robinson@erm.com]
Sent: Tuesday, January 26, 2010 9:35 AM
To: Auvil, Darrell
Cc: Shira DeGrood
Subject: FW: Dioxin COC check.

Darrell,

I need to correct my previous email.

As per the COC, B-125-8-10 should be run. The sample and ms/msd that should be held is B-129-8-10.

Please call or email if there is any confusion.

Brendan Robinson, P.E.
Senior Engineer
ERM
101 SW Main St, Suite 804
Portland, OR 97204
T: +1 503 488 5282 (main)
T: +1 503 488 5011 (direct)
C: +1 503 310 8463
F: +1 503 488 5142
brendan.robinson@erm.com
www.erm.com

-----Original Message-----
From: Brendan Robinson
Sent: Tuesday, January 26, 2010 9:20 AM
To: 'Auvil, Darrell'
Cc: Shira DeGrood
Subject: RE: Dioxin COC check.

Darrell,

You are correct. The blank line on pages 3 and 4 should be "Hold".

Currently there should be 13 soil samples and 1 water sample analyzed for 8290.

The sample B-125-8-10 is currently held, pending the results of the shallower sample. If the held samples are run, this ms/msd will also be run, in order to meet the project qa/qc sampling requirements.

Thanks.

Brendan Robinson, P.E.
Senior Engineer
ERM
101 SW Main St, Suite 804
Portland, OR 97204
T: +1 503 488 5282 (main)
T: +1 503 488 5011 (direct)
C: +1 503 310 8463
F: +1 503 488 5142
brendan.robinson@erm.com
www.erm.com

-----Original Message-----
From: Auvil, Darrell [mailto:Darrell.Auvil@testamericainc.com]

Sent: Monday, January 25, 2010 5:10 PM
To: Brendan Robinson
Subject: Dioxin COC check.

Hi Brendan, my dioxin lab just wants to double check analyses on these COCs. Page 3 has a blank line where we would expect "HOLD" to be marked. Also, one sample was marked ms/msd, but is on hold. We counted 14 samples for 8290 analysis. Can you confirm these for me/us? Thanks, Darrell. -----Original Message----- From: PDX7272@TESTAMERICAINC.COM [mailto:PDX7272@TESTAMERICAINC.COM] Sent: Monday, January 25, 2010 6:43 PM To: Auvil, Darrell Subject: Attached image data. This is image data from the scanner.
CONFIDENTIALITY NOTICE: This e-mail communication, including any attachments, may contain privileged or confidential information for specific individuals and is protected by law. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited and you should delete this message and its attachments from your computer without retaining any copies. If you have received this communication in error, please reply to the sender immediately. We appreciate your cooperation. Please consider the environment before printing this e-mail.

This message contains information which may be confidential, proprietary, privileged, or otherwise protected by law from disclosure or use by a third party. If you have received this message in error, please contact us immediately at (925) 946-0455 and take the steps necessary to delete the message completely from your computer system. Thank you.

Please visit ERM's web site: http://www.erm.com

Holmes, Howard

From: Holmes, Howard
Sent: Monday, February 22, 2010 4:54 PM
To: Laver, Linda
Cc: Auvil, Darrell; 'brendan.robinson@erm.com'
Subject: FW: Arkema—Final PDF report---PTA0583—EDD needs a small fix.
Importance: High
Attachments: ERM-LSS Amended COC_022210.pdf

Hi Linda,
Please log-in the 6 listed soil samples on the amended COC attached for 8290B Dioxins/Furans. Please respond to this email with your scheduled due date.
Also, please continue to archive all samples and extracts until further notice.
Thanks for your help.
H2

HOWARD HOLMES
Client Services Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Avenue
Beaverton, OR 97008
Tel 503.906.9231 Fax 503-906-9210
www.testamericainc.com

From: Brendan Robinson [mailto:Brendan.Robinson@erm.com]
Sent: Monday, February 22, 2010 4:01 PM
To: Auvil, Darrell; Shira DeGrood
Cc: Holmes, Howard
Subject: RE: Arkema---Final PDF report----PTA0583---EDD needs a small fix.

Darrell/Howard,

Based on the dioxin and furan results from last week we have decided to run some of the archived samples for dioxins and furans.

Attached is an amended COC indicating the samples that we need to run for dioxin-furans by 8290B.

As discussed earlier, please do not throw out the other held samples or the left over extracts.

If you have any questions, please call or email me.

Thanks.

Brendan Robinson, P.E.
Senior Engineer
ERM
101 SW Main St, Suite 804

Portland, OR 97204
T: +1 503 488 5282 (main)
T: +1 503 488 5011 (direct)
C: +1 503 310 8463
F: +1 503 488 5142
brendan.robinson@erm.com
www.erm.com

From: Auvil, Darrell [mailto:Darrell.Auvil@testamericainc.com]
Sent: Friday, February 19, 2010 4:08 PM
To: Brendan Robinson; Shira DeGrood
Cc: Holmes, Howard
Subject: Arkema---Final PDF report----PTA0583---EDD needs a small fix.

Hello, let me know if you need anything added, I am out on Monday, please CC Howard Holmes if needed, I know we are coming up on hold times for the dioxins.

The EDD needs a little work, should not be delayed too much.

Thanks.

Darrell Auvil
Project Manager
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
9405 SW Nimbus Ave
Beaverton, Oregon 97008
Direct: 503 906-9261 | Fax: 503 906-9210
www.testamericainc.com
Fall/Winter sample receiving hours: 7am to 6pm M-F and 8am-12 on Saturday.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

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Please visit ERM's web site: http://www.erm.com

Job Narrative
500-23783-1

Comments
No additional comments.

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

GC/MS Semi VOA
Method(s) 8270C: Sample 500-23783-12 had 2-Fluorobiphenyl at 16% (21%-123%) and 500-23783-13 had Terphenyl-d14 at 120% (36% -119%). All other surrogate recoveries were within limits. No further action was taken.

Method(s) 8270C: The continuing calibration verification (CCV) for 11C0202A recovered above the upper control limit for Hexachloronaphthalene, Total. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data has been reported.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-122-0-2	PTA0583-01	Soil	01/21/10 09:45	01/22/10 07:50
B-122-4-6	PTA0583-03	Soil	01/21/10 09:45	01/22/10 07:50
B-122-8-10	PTA0583-05	Soil	01/21/10 09:45	01/22/10 07:50
B-123-0-2	PTA0583-06	Soil	01/21/10 09:33	01/22/10 07:50
B-123-4-6	PTA0583-08	Soil	01/21/10 09:33	01/22/10 07:50
B-123-8-10	PTA0583-10	Soil	01/21/10 09:33	01/22/10 07:50
B-124-0-2	PTA0583-11	Soil	01/21/10 11:20	01/22/10 07:50
B-124-4-6	PTA0583-13	Soil	01/21/10 11:20	01/22/10 07:50
B-124-8-10	PTA0583-15	Soil	01/21/10 11:20	01/22/10 07:50
B-125-3-5	PTA0583-16	Soil	01/21/10 16:30	01/22/10 07:50
B-125-8-10	PTA0583-17	Soil	01/21/10 16:30	01/22/10 07:50
B-126-3-5	PTA0583-18	Soil	01/21/10 16:00	01/22/10 07:50
B-126-8-10	PTA0583-19	Soil	01/21/10 16:00	01/22/10 07:50
B-127-10-12	PTA0583-20	Soil	01/21/10 15:30	01/22/10 07:50
B-127-10-12-D	PTA0583-21	Soil	01/21/10 15:30	01/22/10 07:50
B-127-15-17	PTA0583-22	Soil	01/21/10 15:30	01/22/10 07:50
B-128-10-12	PTA0583-23	Soil	01/21/10 14:10	01/22/10 07:50
B-128-15-17	PTA0583-24	Soil	01/21/10 14:10	01/22/10 07:50
B-129-0-2	PTA0583-25	Soil	01/21/10 13:10	01/22/10 07:50
RINSATE	PTA0583-31	Water	01/21/10 16:50	01/22/10 07:50

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

Environmental Resources Management Inc.-Portland	Project Name:	**Arkema Soils 2010**	
101 SW Main St. Suite 804	Project Number:	111208.02	Report Created:
Portland, OR 97204	Project Manager:	Brendan Robinson	03/17/10 16:25

Analytical Case Narrative

TestAmerica - Portland, OR

PTA0583

Sample #19 was extracted and analyzed for low-level organochlorine pesticides by EPA 8081A. Sample had low recovery of the surrogate, TCMX. Sample was re-extracted outside of EPA recommended hold time, and re-analyzed, both sets of data are reported.

TestAmerica Portland

Darrell Auvil, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

ERM

CHAIN OF CUSTODY RECORD

NO: 1588

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
11208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGroot	[signature]

RECEIVING LABORATORY

TA-Chicago 708 534-5200
2417 Bond St, University Park, IL 60466

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: PCN 8270B SIM	OCS 8270B SIM	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	8 oz	1	X			X	X	
B-122-2-4				X					1	X					X
B-122-4-6				X					1	X					X
B-122-6-8				X					1	X					X
B-122-8-10				X					1	X					X
B-123-0-2		0933		X					1	X			X	X	
B-123-2-4				X					1	X					X
B-123-4-6				X					1	X					X
B-123-6-8				X					1	X					X
B-123-8-10				X					1	X					X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1589

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGT

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrwood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PCN 8270B SIM	OCS 8270B SIM	Hold	Project-specific MS/MSD							
B-124-0-2	1-21-10	1120		X	DP	X	Y	4 oz					X	X									
B-124-2-4															X								
B-124-4-6															X								
B-124-6-8															X								
B-124-8-10															X								
B-125-3-5			1630										X	X									
B-125-8-10			1630						1 2 oz	3	X			X	X		X						
B-126-3-5			1600						4 oz				X	X									
B-126-8-10			1600										X	X									
B-127-10-12			1530										X	X									

REQUESTED PARAMETERS

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1590

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shiva Debrood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: PCN 8270B SIM	OCS 8270B SIM	Hold	Project-specific MS/MSD							
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4 oz	1	X			X	X									
B-127-15-17		1530							1	X			X	X									
B-128-10-12		1410							1	X			X	X									
B-128-15-17		1410							1	X			X	X									
B-129-0-2		1310							1	X			X	X									
B-129-2-4									1	X					X								
B-129-2-4D									1	X					X								
B-129-4-6									1	X					X								
B-129-6-8								1 2 oz	3	X					X	X							
B-129-8-10								4 oz	1	X					X								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brenda Robinson

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ERM

CHAIN OF CUSTODY RECORD

NO: 1591

Page 4 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema PGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8270B PCN SIM OCS
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

PTA0583

ERM

CHAIN OF CUSTODY RECORD

NO: 1575

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #: 111208.02

PROJECT NAME: Artema Portland DGE

SAMPLER (PRINT NAME): Shira Delwood

(SIGNATURE): [signature]

RECEIVING LABORATORY: TA-West Sacramento 916-373-5600, 800 Riverside Parkway

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: Dioxin/Furan 8290B	REQUESTED PARAMETERS: Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	40z	1	X			X	
B-122-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-122-4-6	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-122-6-8	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-122-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-123-0-2	↓	0933		↓	↓	↓	↓	↓	1	X			X	
B-123-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-123-4-6	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-123-6-8	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-123-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Chang Lha	1/22/10	0815

FIELD REMARKS: Only analyze sample NOT marked "Hold". Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1576

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #: 111208.02

PROJECT NAME: ARRemc DGI

SAMPLER (PRINT NAME): Shiva Oelrood

(SIGNATURE):

RECEIVING LABORATORY: TA-Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins	Halal	Project-specific PMS/MSD
B-124-0-2	1-21-10	1120		X	DP	X	Y	4oz	1	X			X		
B-124-2-4									1	X				X	
B-124-4-6									1	X				X	
B-124-6-8									1	X				X	
B-124-8-10									1	X				X	
B-125-3-5		1630							1	X			X		
B-125-8-10		1630						12oz	3	X			X		X
B-126-3-5		1600						4oz	1	X			X		
B-126-8-10		1600							1	X			X		
B-127-10-12		1530							1	X			X		

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			Cheng Vue	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT:
- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1577

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER (PRINT NAME)	(SIGNATURE)
Shiva Debrood	[signature]

RECEIVING LABORATORY: TA - Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	Project-specific, see instrs
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4-oz	1	X			X	
B-127-15-17		1530							1	X			X	
B-128-10-12		1410							1	X			X	
B-128-15-17		1410							1	X			X	
B-129-0-2		1310							1	X			X	
B-129-2-4									1	X				X
B-129-2-40									1	X				X
B-129-4-6									1	X				X
* B-129-6-8								12-oz	3	X				X
B-129-8-10								4-oz	1	X				X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			chang Vue	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

* 4 bottles rec'd - cw 1/22/10

ERM

CHAIN OF CUSTODY RECORD

NO: 1581

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	REQUESTED PARAMETERS: Analysis
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			e. hong 2L	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT:
- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: BAR

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583

NO: 1584

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema D6-I

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Redwood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PH 150.1	Arsenic 6010B	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	8oz	2				X	X	
B-122-2-4									2						X
B-122-4-6									2						X
B-122-6-8									2						X
B-122-8-10									2						X
B-123-0-2		0933							2				X	X	
B-123-2-4									2						X
B-123-4-6									2						X
B-123-6-8									2						X
B-123-8-10									2						X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~ 0750	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0503

NO: 1585

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Portland DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
S DeCrood	[signature]

RECEIVING LABORATORY: TA - Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PH 150.1	Arsenic 6010B	Hold	Project-specific MS/MSD	OCP 8081A						
B-124-0-2	1-21-10	1120		X	DP	X	Y	8-oz	2	X			X	X									
B-124-2-4									2	X					X								
B-124-4-6									2	X					X								
B-124-6-8									2	X					X								
B-124-8-10									2	X					X								
B-125-3-5		1636							2	X			X	X			X						
B-125-8-10		1630						20oz	5	X			X	X		X	X					15	
B-126-3-5		1600						8oz	2	X			X	X			X						
B-126-8-10		1600						8oz	2	X			X	X			X						
B-127-10-12		1530						4oz	1	X			X	X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~ 0750	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO:

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583

NO: 1586

Page 3 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208-02	ARRemer DGF

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shiva DeGrood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	pH 150.1	Arsenic 6010	Hold	Project-specific MS/MSD							
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4oz	1	X			X	X									
B-127-15-17		1530		X					1	X			X	X									
B-128-10-12		1410		X					1	X			X	X									
B-128-15-17		1410		X					1	X			X	X									
B-129-0-2		1310		X					1	X			X	X									
B-129-2-4				X					1	X					X								
B-129-2-4-D				X					1	X					X								
B-129-6-8				X				6 2x4oz	6	X					X	X							
B-129-4-6				X				4oz	1	X					X								
B-129-8-10				X				4oz	1	X					X								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~ 0750	[signature]	1/22/10	~~0850~~ 0750
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO:

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

PTA0583

NO: 1587

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208-11	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA Portland

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: OCP 8081A	REQUESTED PARAMETERS: pH 150.1	REQUESTED PARAMETERS: As 6010
Rinsate	1-21-10	1650		X	RB	HNO3	Y	2.5L	3		X		X	X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1/22/10	~~0850~~ 0850	[signature]	1/22/10	~~0850~~ 0850
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS: 4.2°C

SEND REPORT TO: Brenda Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In

Project: Arkema Soils 2010

Project Manager: Darrell Auvil
Project Number: 111208.02

Report To:
Environmental Resources Management Inc.-Portland
Brendan Robinson
101 SW Main St. Suite 804
Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142

Invoice To:
Legacy Site Services, LLC
Todd Slater
468 Thomas Jones Way, Suite 150
Exton, PA 19341-2528
Phone: (610) 594-4430
Fax: (610) 594-4439

Sample Receipt

Work Order Due Date: **03/17/10 18:00 (38 day TAT)**

Samples Received:	By:	Samples Logged In:	By:
01/22/10 07:50	Peggy Siegfried	01/22/10 09:39	Peggy Siegfried

Number of Coolers:	1		
Receipt Temp:	4.2°C	Submitted by:	N/A
ples received on ice?:	Yes	Shipped Via:	Client
tody Seals Present?:	No	SDG:	PTA0583
All Containers Intact?:	Yes		
e labels/COC agree?:	Yes		
Samples Preserved Prop?:	Yes		

COMMENTS: Level 4 ESI Data package, ERM Equis EDD. Data package within 2 weeks of final report.

Analysis	Due	TAT	Expires	Comments
PTA0583-02 Soil B-122-2-4 (Sampled: 01/21/10 09:45)				
[NO ANALYSES]				
PTA0583-04 Soil B-122-6-8 (Sampled: 01/21/10 09:45)				
[NO ANALYSES]				
PTA0583-07 Soil B-123-2-4 (Sampled: 01/21/10 09:33)				
[NO ANALYSES]				
PTA0583-09 Soil B-123-6-8 (Sampled: 01/21/10 09:33)				
[NO ANALYSES]				
PTA0583-12 Soil B-124-2-4 (Sampled: 01/21/10 11:20)				
[NO ANALYSES]				
PTA0583-14 Soil B-124-6-8 (Sampled: 01/21/10 11:20)				
[NO ANALYSES]				
PTA0583-26 Soil B-129-2-4 (Sampled: 01/21/10 13:10)				
[NO ANALYSES]				
PTA0583-27 Soil B-129-2-4-D (Sampled: 01/21/10 13:10)				
[NO ANALYSES]				
PTA0583-28 Soil B-129-6-8 (Sampled: 01/21/10 13:10)				
[NO ANALYSES]				
PTA0583-29 Soil B-129-4-6 (Sampled: 01/21/10 13:10)				
[NO ANALYSES]				
PTA0583-30 Soil B-129-8-10 (Sampled: 01/21/10 13:10)				
[NO ANALYSES]				

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In

Project: Arkema Soils 2010

Project Manager: Darrell Auvil
Project Number: 111208.02

Analysis	Due	TAT	Expires	Comments
PTA0583-01 Soil B-122-0-2 (Sampled: 01/21/10 09:45)				
Data Package - Level IV	03/04/10 16:00	15	01/31/10 09:45	
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 09:45	level 4 dp, MDL
Archive sample	02/18/10 08:00	19	01/16/11 09:45	HOLD all samples and extracts thru May 1.
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 09:45	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 09:45	level 4 dp, MDL
PTA0583-06 Soil B-123-0-2 (Sampled: 01/21/10 09:33)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 09:33	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 09:33	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 09:33	level 4 dp, MDL
PTA0583-11 Soil B-124-0-2 (Sampled: 01/21/10 11:20)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 11:20	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 11:20	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 11:20	level 4 dp, MDL
PTA0583-16 Soil B-125-3-5 (Sampled: 01/21/10 16:30)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 16:30	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 16:30	level 4 dp
JSC 8081A Pest	02/12/10 08:00	15	02/04/10 16:30	level 4 dp, add 2,4 ddx isomer std./analysis.
JSC 8081A Pest DP	02/12/10 08:00	15	02/04/10 16:30	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
pH-9045B	02/05/10 08:00	10	01/28/10 16:30	level 4 dp, MDL
PTA0583-17 Soil B-125-8-10 (Sampled: 01/21/10 16:30)				**MS/MSD**
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 16:30	level 4 dp, MDL; MS/MSD
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 16:30	level 4 dp
JSC 8081A Pest	02/12/10 08:00	15	02/04/10 16:30	level 4 dp, add 2,4 ddx isomer std./analysis.
JSC 8081A Pest DP	02/12/10 08:00	15	02/04/10 16:30	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
pH-9045B	02/05/10 08:00	10	01/28/10 16:30	level 4 dp, MDL; MS/MSD
PTA0583-18 Soil B-126-3-5 (Sampled: 01/21/10 16:00)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 16:00	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 16:00	level 4 dp
JSC 8081A Pest	02/12/10 08:00	15	02/04/10 16:00	level 4 dp, add 2,4 ddx isomer std./analysis.
JSC 8081A Pest DP	02/12/10 08:00	15	02/04/10 16:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
pH-9045B	02/05/10 08:00	10	01/28/10 16:00	level 4 dp, MDL
PTA0583-19 Soil B-126-8-10 (Sampled: 01/21/10 16:00)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 16:00	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 16:00	level 4 dp
JSC 8081A Pest	02/12/10 08:00	15	02/04/10 16:00	level 4 dp, add 2,4 ddx isomer std./analysis.
JSC 8081A Pest DP	02/12/10 08:00	15	02/04/10 16:00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
pH-9045B	02/05/10 08:00	10	01/28/10 16:00	level 4 dp, MDL

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In **Project Manager:** **Darrell Auvil**

Project: **Arkema Soils 2010** **Project Number:** **111208.02**

Analysis	Due	TAT	Expires	Comments
PTA0583-20 Soil B-127-10-12 (Sampled: 01/21/10 15:30)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 15:30	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 15:30	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 15:30	level 4 dp, MDL
PTA0583-21 Soil B-127-10-12-D (Sampled: 01/21/10 15:30)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 15:30	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 15:30	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 15:30	level 4 dp, MDL
PTA0583-22 Soil B-127-15-17 (Sampled: 01/21/10 15:30)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 15:30	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 15:30	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 15:30	level 4 dp, MDL
PTA0583-23 Soil B-128-10-12 (Sampled: 01/21/10 14:10)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 14:10	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 14:10	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 14:10	level 4 dp, MDL
PTA0583-24 Soil B-128-15-17 (Sampled: 01/21/10 14:10)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 14:10	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 14:10	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 14:10	level 4 dp, MDL
PTA0583-25 Soil B-129-0-2 (Sampled: 01/21/10 13:10)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 13:10	level 4 dp, MDL
Solids, Dry Weight	01/29/10 16:00	5	02/18/10 13:10	level 4 dp
pH-9045B	02/05/10 08:00	10	01/28/10 13:10	level 4 dp, MDL
PTA0583-31 Water RINSATE (Sampled: 01/21/10 16:50)				
As Total ICP 6010B	02/05/10 08:00	10	07/20/10 16:50	level 4 dp, MDL
JSC 8081A Pest DP	02/12/10 08:00	15	01/28/10 16:50	level 4 dp, MDL add 2,4 ddx isomers
pH-150.1/9040A	02/05/10 08:00	10	01/22/10 16:50	level 4 dp,

TestAmerica Chicago

PTA0583-01 Soil B-122-0-2 (Sampled: 01/21/10 09:45)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 09:45	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 09:45	level 4 dp. TA Chicago
PTA0583-06 Soil B-123-0-2 (Sampled: 01/21/10 09:33)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 09:33	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 09:33	level 4 dp. TA Chicago
PTA0583-11 Soil B-124-0-2 (Sampled: 01/21/10 11:20)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 11:20	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 11:20	level 4 dp. TA Chicago

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In **Project Manager:** Darrell Auvil

Project: Arkema Soils 2010 **Project Number:** 111208.02

Analysis	Due	TAT	Expires	Comments
TestAmerica Chicago				
PTA0583-16 Soil B-125-3-5 (Sampled: 01/21/10 16:30)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 16:30	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 16:30	level 4 dp. TA Chicago
PTA0583-17 Soil B-125-8-10 (Sampled: 01/21/10 16:30)				**MS/MSD**
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 16:30	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 16:30	level 4 dp. TA Chicago
PTA0583-18 Soil B-126-3-5 (Sampled: 01/21/10 16:00)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 16:00	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 16:00	level 4 dp. TA Chicago
PTA0583-19 Soil B-126-8-10 (Sampled: 01/21/10 16:00)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 16:00	level 4 dp. TA Chicago, MS/MSD
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 16:00	level 4 dp. TA Chicago, MS/MSD
PTA0583-20 Soil B-127-10-12 (Sampled: 01/21/10 15:30)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp. TA Chicago
PTA0583-21 Soil B-127-10-12-D (Sampled: 01/21/10 15:30)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp. TA Chicago
PTA0583-22 Soil B-127-15-17 (Sampled: 01/21/10 15:30)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 15:30	level 4 dp. TA Chicago
PTA0583-23 Soil B-128-10-12 (Sampled: 01/21/10 14:10)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 14:10	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 14:10	level 4 dp. TA Chicago
PTA0583-24 Soil B-128-15-17 (Sampled: 01/21/10 14:10)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 14:10	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 14:10	level 4 dp. TA Chicago
PTA0583-25 Soil B-129-0-2 (Sampled: 01/21/10 13:10)				
8270C OCS - SUB	02/12/10 16:00	10	02/18/10 13:10	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	02/18/10 13:10	level 4 dp. TA Chicago
PTA0583-31 Water RINSATE (Sampled: 01/21/10 16:50)				
8270C OCS - SUB	02/12/10 16:00	10	07/20/10 16:50	level 4 dp TA Chicago
8270C PCN - SUB	02/12/10 16:00	10	07/20/10 16:50	level 4 dp. TA Chicago
TestAmerica West Sacramento				
PTA0583-01 Soil B-122-0-2 (Sampled: 01/21/10 09:45)				
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 09:45	level 4 dp, MDL, TA west sac.

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In **Project Manager:** **Darrell Auvil**

Project: **Arkema Soils 2010** **Project Number:** **111208.02**

Analysis	Due	TAT	Expires	Comments	
TestAmerica West Sacramento					
PTA0583-03 Soil B-122-4-6 (Sampled: 01/21/10 09:45)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 09:45		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 09:45	level 4 dp, MDL, TA west sac.	
PTA0583-05 Soil B-122-8-10 (Sampled: 01/21/10 09:45)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 09:45		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 09:45	level 4 dp, MDL, TA west sac.	
PTA0583-06 Soil B-123-0-2 (Sampled: 01/21/10 09:33)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 09:33	level 4 dp, MDL, TA west sac.	
PTA0583-08 Soil B-123-4-6 (Sampled: 01/21/10 09:33)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 09:33		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 09:33	level 4 dp, MDL, TA west sac.	
PTA0583-10 Soil B-123-8-10 (Sampled: 01/21/10 09:33)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 09:33		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 09:33	level 4 dp, MDL, TA west sac.	
PTA0583-11 Soil B-124-0-2 (Sampled: 01/21/10 11:20)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 11:20	level 4 dp, MDL, TA west sac.	
PTA0583-13 Soil B-124-4-6 (Sampled: 01/21/10 11:20)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 11:20		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 11:20	level 4 dp, MDL, TA west sac.	
PTA0583-15 Soil B-124-8-10 (Sampled: 01/21/10 11:20)					**ON HOLD**
Solids, Dry Weight	03/17/10 16:00	5	02/18/10 11:20		
8290 Dioxin/Furans - SUB	03/17/10 16:00	15	07/20/10 11:20	level 4 dp, MDL, TA west sac.	
PTA0583-16 Soil B-125-3-5 (Sampled: 01/21/10 16:30)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 16:30	level 4 dp, MDL, TA west sac.	
PTA0583-17 Soil B-125-8-10 (Sampled: 01/21/10 16:30)					**MS/MSD**
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 16:30	level 4 dp, MDL, TA west sac.	
PTA0583-18 Soil B-126-3-5 (Sampled: 01/21/10 16:00)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 16:00	level 4 dp, MDL, TA west sac.	
PTA0583-19 Soil B-126-8-10 (Sampled: 01/21/10 16:00)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 16:00	level 4 dp, MDL, TA west sac.	
PTA0583-20 Soil B-127-10-12 (Sampled: 01/21/10 15:30)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 15:30	level 4 dp, MDL, TA west sac.	
PTA0583-21 Soil B-127-10-12-D (Sampled: 01/21/10 15:30)					
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 15:30	level 4 dp, MDL, TA west sac.	

WORK ORDER

PTA0583

TestAmerica Portland **Printed: 3/22/2010 12:32:45PM**

Environmental Resources Management In

Project: Arkema Soils 2010

Project Manager: Darrell Auvil
Project Number: 111208.02

Analysis	Due	TAT	Expires	Comments
TestAmerica West Sacramento				
PTA0583-22 Soil B-127-15-17 (Sampled: 01/21/10 15:30)				
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 15:30	level 4 dp, MDL, TA west sac.
PTA0583-23 Soil B-128-10-12 (Sampled: 01/21/10 14:10)				
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 14:10	level 4 dp, MDL, TA west sac.
PTA0583-24 Soil B-128-15-17 (Sampled: 01/21/10 14:10)				
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 14:10	level 4 dp, MDL, TA west sac.
PTA0583-31 Water RINSATE (Sampled: 01/21/10 16:50)				
8290 Dioxin/Furans - SUB	02/12/10 08:00	15	07/20/10 16:50	level 4 dp, MDL, TA west sac.

Analysis groups included in this work order

Data Package - Level IV

Data Package - Wet Chem	Data Package - Subcontrac	Data Package - Semivols	Data Package - Metals
Data Package - Dry Weigh	Data Package		

Reviewed By

Date

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTA0583 Date/Time Received: 1-22-10 07:50

Client Name and Project: ERM Arkema Soils

Time Zone:

☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures: 4.2

Digi #1 Digi #2 IR Gun

☐ ☐ ☒ (☐Plastic ☒Glass)

Temperature out of Range:

__Not enough or No Ice

__Ice Melted

__W/in 4 Hrs of collection

__Other:_____

Initials: K

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD.
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Proper Container and preservatives used? If no, document on NOD.
☐	☒	☐	7. pH of all samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	9. HF Dilution required?
	☒	☐	10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.
	☒	☐	11. Did chain of custody agree with samples received? If no, document on NOD.
	☒	☐	12. Is the "Sampled by" section of the COC completed?
☒	☐	☐	13. Were VOA/Oil Syringe samples without headspace?
☒	☐	☐	14. Were VOA vials preserved? ☐HCl ☐Sodium Thiosulfate ☐Ascorbic Acid
	☐	☒	15. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.
☒	☐	☐	19. Are analyses with short holding times received in hold?
	☒	☐	20. Was Standard Turn Around (TAT) requested?
	☒	☐	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

only rec. 3 jars for B-129-4-8 (not 4, as COC says)

TestAmerica Portland

Sample Receiving Checklist

Work Order #: PTA0583

Login Checks:

Initials: PS

N/A	Yes	No	
	☑	☐	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
☑	☐	☐	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM.
	☑	☐	24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times?
☑	☐	☐	25. Were special log in instructions read and followed?
	☑	☐	26. Were tests logged checked against the COC?
☑	☐	☐	27. Were rush notices printed and delivered?
☑	☐	☐	28. Were short hold notices printed and delivered?
☑	☐	☐	29. Were subcontract COCs printed?
☑	☐	☐	30. Was HF dilution logged?

Labeling and Storage Checks:

Initials: [illegible]

N/A	Yes	No	
☒	☐	☐	31. Were the subcontracted samples/containers put in Sx fridge?
☒	☐	☐	32. Were sample bottles and COC double checked for dissolved/filtered metals?
	☒	☐	33. Did the sample ID, Date, and Time from label match what was logged?
☒	☐	☐	34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge?
☒	☐	☐	35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
☒	☐	☐	36. Was an NOD for created for noted discrepancies and placed in folder?

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).

SAMPLE SUMMARY

Client: TestAmerica Laboratories, Inc

Job Number: 500-23783-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-23783-1	PTA0583-01	Solid	01/21/2010 0945	01/26/2010 0830
500-23783-2	PTA0583-06	Solid	01/21/2010 0933	01/26/2010 0830
500-23783-3	PTA0583-11	Solid	01/21/2010 1120	01/26/2010 0830
500-23783-4	PTA0583-16	Solid	01/21/2010 1630	01/26/2010 0830
500-23783-5	PTA0583-17	Solid	01/21/2010 1630	01/26/2010 0830
500-23783-5MS	PTA0583-17	Solid	01/21/2010 1630	01/26/2010 0830
500-23783-5MSD	PTA0583-17	Solid	01/21/2010 1630	01/26/2010 0830
500-23783-6	PTA0583-18	Solid	01/21/2010 1600	01/26/2010 0830
500-23783-7	PTA0583-19	Solid	01/21/2010 1600	01/26/2010 0830
500-23783-8	PTA0583-20	Solid	01/21/2010 1530	01/26/2010 0830
500-23783-9	PTA0583-21	Solid	01/21/2010 1530	01/26/2010 0830
500-23783-10	PTA0583-22	Solid	01/21/2010 1530	01/26/2010 0830
500-23783-11	PTA0583-23	Solid	01/21/2010 1410	01/26/2010 0830
500-23783-12	PTA0583-24	Solid	01/21/2010 1410	01/26/2010 0830
500-23783-13	PTA0583-25	Solid	01/21/2010 1310	01/26/2010 0830
500-23783-14	PTA0583-31	Water	01/21/2010 1650	01/26/2010 0830

500-23783

ERM

CHAIN OF CUSTODY RECORD

NO: 1588

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #: 11208.02

PROJECT NAME: Arkema OGI

SAMPLER: (PRINT NAME): Shira Delwood

(SIGNATURE):

RECEIVING LABORATORY: TA-Chicago 708 534-5200
2417 Bond St, University Park, IL 60466

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PCN 8270B SIM	OCS 8270B SIM	Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	8 oz	1	X			X	X	
B-122-2-4				X					1	X					X
B-122-4-6				X					1	X					X
B-122-6-8				X					1	X					X
B-122-8-10				X					1	X					X
B-123-0-2		0933		X					1	X			X	X	
B-123-2-4				X					1	X					X
B-123-4-6				X					1	X					X
B-123-6-8				X					1	X					X
B-123-8-10				X					1	X					X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-22-10	1145	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
				1/26/10	[illegible]
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

500-23783

ERM

CHAIN OF CUSTODY RECORD

NO: 1589

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delwood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: PCN 8270B SIM	OCS 8270B SIM	Hold	Project-specific MS/MSD							
B-124-0-2	1-21-10	1120		X	DP	X	Y	4oz					X	X									
B-124-2-4	↓	↓		↓	↓	↓	↓	↓							X								
B-124-4-6															X								
B-124-6-8															X								
B-124-8-10		↓													X								
B-125-3-5		1630						↓					X	X									
B-125-8-10		1630						1202	3	X			X	X		X							
B-126-3-5		1600						4oz					X	X									
B-126-8-10		1600											X	X									
B-127-10-12	↓	1530		↓	↓	↓	↓	↓					X	X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/26/10	0830

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

SDO-23783

ERM

CHAIN OF CUSTODY RECORD

NO: 1590

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shiva Debrood	[signature]

RECEIVING LABORATORY: TA - Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	PCN 8270B SIM	OCS 8270B SIM	Hold Pen	Project-specific MS/MSD							
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4 oz	1	X			X	X									
B-127-15-17		1530							1	X			X	X									
B-128-10-12		1410							1	X			X	X									
B-128-15-17		1410							1	X			X	X									
B-129-0-2		1310							1	X			X	X									
B-129-2-4									1	X					X								
B-129-2-4D									1	X					X								
B-129-4-6									1	X					X								
B-129-6-8								1 2 oz	3	X					X	X							
B-129-8-10								4 oz	1	X					X								

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/26/10	0850
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brenda Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

500-23783

ERM

CHAIN OF CUSTODY RECORD

NO: 1591

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6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
11208.02	Arkema PGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGood	[signature]

RECEIVING LABORATORY: TA-Chicago

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8270B PCN SIM OCS
Rinsate	1-21-10	1650		X	AG	X	Y	2 L	2		X		X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-22-10	1145	Fed Ex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/26/10	0830
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

Page 108 of 109
02/09/2010 8:08 of 2988

Login Sample Receipt Check List

Client: TestAmerica Laboratories, Inc

Job Number: 500-23783-1

Login Number: 23783
Creator: James, Jeff A
List Number: 1

List Source: TestAmerica Chicago

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
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	1.2
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.	N/A	no labels. ID's on lids of jars.
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.	N/A	
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	

Case Narrative

TestAmerica West Sacramento Project Number G0A220427

General Comments

The chain of custody (COC) indicated 3 jars were shipped; however 4 jars were received for client sample ID B-129-6-8 (PTA0583-29).

Sample on hold.

Please note the samples were shipped directly to the TestAmerica West Sacramento laboratory by the client. The COC cross-referencing the client sample IDs to TestAmerica Portland sample IDs was received at a later date.

WATER, 8290, Dioxins/Furans with Totals

Sample: 31

The 2,3,7,8-TCDF & 1,2,3,4,7,8-HxCDF results for this sample have been qualified with a "Q" flag since their ion abundance ratios did not meet acceptance criteria. These analytes have been reported as "estimated maximum possible concentrations" (EMPCs) since their quantitation was based on theoretical ion abundance ratios.

SOLID, 8290, Dioxins/Furans with Totals

Samples: 1, 6, 11, 16, 17, 18, 19, 20, 21, 21, 22, 23, 24, 25

The matrix spikes, which were performed on sample 17, have many recoveries & a RPD that do not meet acceptance criteria due to possible matrix interferences. Since the laboratory control sample met acceptance criteria, no corrective action was performed.

Samples: 1, 16, 19, 20, 21, 22, 23, 24, 25

Some analytes for these samples have been qualified with a "Q" flag since their ion abundance ratios did not meet acceptance criteria. These analytes have been reported as "estimated maximum possible concentrations" (EMPCs) since their quantitation was based on theoretical ion abundance ratios.

Sample: 1

The 1,2,3,4,7,8,9-HpCDF reporting limit was elevated for this sample due to matrix interferences.

Case Narrative

TestAmerica West Sacramento Project Number G0A220427

Sample: 11
This sample has a low recovery for the 13C-OCDD internal standard. Generally, data quality is not considered affected if the internal standard signal-to-noise ratio is greater than 10:1, which is achieved for all internal standards in this sample. There should be no impact on the data.

There were no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G0A220427

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LTMC5	1	PTA0583-01	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LTMEW	2	PTA0583-02	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LTME0	3	PTA0583-03	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LTME2	4	PTA0583-04	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LTME4	5	PTA0583-05	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LTME5	6	PTA0583-06	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LTME7	7	PTA0583-07	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LTME8	8	PTA0583-08	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LTME9	9	PTA0583-09	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LTMFC	10	PTA0583-10	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LTMFD	11	PTA0583-11	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LTMFH	12	PTA0583-12	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LTMFK	13	PTA0583-13	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LTMFL	14	PTA0583-14	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LTMFN	15	PTA0583-15	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LTMFP	16	PTA0583-16	1/21/2010 04:30 PM	1/22/2010 08:00 AM
LTMFQ	17	PTA0583-17	1/21/2010 04:30 PM	1/22/2010 08:00 AM
LTMFR	18	PTA0583-18	1/21/2010 04:00 PM	1/22/2010 08:00 AM
LTMFT	19	PTA0583-19	1/21/2010 04:00 PM	1/22/2010 08:00 AM
LTMFV	20	PTA0583-20	1/21/2010 03:30 PM	1/22/2010 08:00 AM
LTMFW	21	PTA0583-21	1/21/2010 03:30 PM	1/22/2010 08:00 AM
LTMFX	22	PTA0583-22	1/21/2010 03:30 PM	1/22/2010 08:00 AM
LTMF0	23	PTA0583-23	1/21/2010 02:10 PM	1/22/2010 08:00 AM
LTMF1	24	PTA0583-24	1/21/2010 02:10 PM	1/22/2010 08:00 AM
LTMF2	25	PTA0583-25	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMF3	26	PTA0583-26	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMF4	27	PTA0583-27	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMF9	28	PTA0583-28	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMGC	29	PTA0583-29	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMGD	30	PTA0583-30	1/21/2010 01:10 PM	1/22/2010 08:00 AM
LTMGF	31	PTA0583-31	1/21/2010 04:50 PM	1/22/2010 08:00 AM

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.

ERM

CHAIN OF CUSTODY RECORD

NO: 1575

Page 1 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema Portland DGE

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA-West Sacramento 916-373-5600, 800 Riverside Parkway

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: Dioxin/Furan 8290B	REQUESTED PARAMETERS: Hold
B-122-0-2	1-21-10	0945		X	DP	X	Y	4oz	1	X			X	
B-122-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X
B-122-4-6									1	X			X	X
B-122-6-8									1	X			X	X
B-122-8-10		↓							1	X			X	X
B-123-0-2		0933							1	X			X	
B-123-2-4		↓							1	X			X	X
B-123-4-6									1	X			X	X
B-123-6-8									1	X			X	X
B-123-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Chang Lha	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS: Only analyze sample NOT marked "Hold"

Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1576

Page 2 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	ARRemo DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Oelwood	

RECEIVING LABORATORY: TA-Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins	REQUESTED PARAMETERS: Hold	REQUESTED PARAMETERS: Project-specific MS/MSD
B-124-0-2	1-21-10	1120		X	DP	X	Y	4oz	1	X			X		
B-124-2-4									1	X				X	
B-124-4-6									1	X				X	
B-124-6-8									1	X				X	
B-124-8-10									1	X				X	
B-125-3-5		1630							1	X			X		
B-125-8-10		1630						12oz	3	X			X		X
B-126-3-5		1600						4oz	1	X			X		
B-126-8-10		1600							1	X			X		
B-127-10-12		1530							1	X			X		

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-21-10	1800	FedEx		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			Cheng Vue	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1577

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema OGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Delbrood	[signature]

RECEIVING LABORATORY: TA - Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans		Project-specific MS/MSD								
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4-oz	1	X			X										
B-127-15-17		1530							1	X			X										
B-128-10-12		1410							1	X			X										
B-128-15-17		1410							1	X			X										
B-129-0-2		1310							1	X			X										
B-129-2-4									1	X				X									
B-129-2-4D									1	X				X									
B-129-4-6									1	X				X									
* B-129-6-8								12-oz	3	X				X	X								
B-129-8-10								4-oz	1	X				X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	FedeX		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT:
- [ ] BOTTLE INTACT
- [ ] CUSTODY SEALS
- [ ] CHILLED
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

* 4 bottles rec'd - cw 1/22/10

ERM

CHAIN OF CUSTODY RECORD

NO: 1581

Page 4 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira DeGrood	

RECEIVING LABORATORY: TA Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	REQUESTED PARAMETERS: Freeze
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY**	**DATE**	**TIME**
			[illegible]	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY**	**DATE**	**TIME**

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: BAR

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER
PTA0583

SGD ID PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208.02
Project	Darrell Auvil	**Printed:**	2/18/2010 2 41:07PM

Report Information

Client Name Environmental Resources Management Inc.-Portland
Client PM. Brendan Robinson
Address 101 SW Main St Suite 804
Portland, OR 97204
Phone. (503) 488-5282
Fax (503) 488-5142
Due Date 02/18/10 18:00 (19 day TAT)
Delivery Method: Email

PONumber:

Sample Receipt Information

Samples Received at: 4 2°C

Samples Received By
Peggy Siegfried 01/22/10 07:50
Samples Logged By
Peggy Siegfried 01/22/10 09:39

Invoice Information

Legacy Site Services, LLC
Todd Slater
468 Thomas Jones Way, Suite 150
Exton, PA 19341-2528
Phone: (610) 594-4430
Fax (610) 594-4439

Pricing Information:
Acct Mgr. Noi Tran
Arkema Soils 2010

Custody Seals Present	No	Samples received on ice	Yes
All Containers Intact	Yes	Preservation Confirmed	No
Sample labels/COC agree	Yes		
Samples Preserved Properly	Yes		

Work Order Comments

Level 4 ESI Data package, ERM Equis EDD Data package within 2 weeks of final report

Line Items in Bid

Description	ItemType	Quantity	Price	Rate
10 percent Data Package	Percent	1		10.00%
Pesticide standard	Standard	1	$ 100 00	

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-01 B-122-0-2	**Soil**	**Sampled: 01/21/10 09:45**				
*Archive sample		02/18/10 08:00	19	01/16/11 09 45	$0 00	HOLD all samples and extracts thru May 1.
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 09:45	$18 00	level 4 dp, MDL
*Data Package - Level IV		02/19/10 08:00	15	02/20/10 09 45	$0 00	
*pH-9045B		02/05/10 08:00	10	01/28/10 09 45	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 09.45	$0 00	level 4 dp
PTA0583-02 B-122-2-4	**Soil**	**Sampled: 01/21/10 09:45**				**Comments: ON HOLD**
PTA0583-03 B-122-4-6	**Soil**	**Sampled: 01/21/10 09:45**				**Comments: ON HOLD**
PTA0583-04 B-122-6-8	**Soil**	**Sampled: 01/21/10 09:45**				**Comments: ON HOLD**
PTA0583-05 B-122-8-10	**Soil**	**Sampled: 01/21/10 09:45**				**Comments: ON HOLD**
PTA0583-06 B-123-0-2	**Soil**	**Sampled: 01/21/10 09:33**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 09:33	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08.00	10	01/28/10 09 33	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 09 33	$0 00	level 4 dp

Reviewed By _____ Date _____ Time _____

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THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave Beaverton, OR 97008 (503) 906-9200 fax (503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc -P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208 02
Project	Darrell Auvil	**Printed:**	2/18/2010 2.41·07PM

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-07 B-123-2-4	**Soil**	**Sampled: 01/21/10 09:33**				**Comments: ON HOLD**
PTA0583-08 B-123-4-6	**Soil**	**Sampled: 01/21/10 09:33**				**Comments: ON HOLD**
PTA0583-09 B-123-6-8	**Soil**	**Sampled: 01/21/10 09:33**				**Comments: ON HOLD**
PTA0583-10 B-123-8-10	**Soil**	**Sampled: 01/21/10 09:33**				**Comments: ON HOLD**
PTA0583-11 B-124-0-2	**Soil**	**Sampled: 01/21/10 11:20**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 11 20	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08 00	10	01/28/10 11:20	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16·00	5	02/18/10 11.20	$0.00	level 4 dp
PTA0583-12 B-124-2-4	**Soil**	**Sampled: 01/21/10 11:20**				**Comments: ON HOLD**
PTA0583-13 B-124-4-6	**Soil**	**Sampled: 01/21/10 11:20**				**Comments: ON HOLD**
PTA0583-14 B-124-6-8	**Soil**	**Sampled: 01/21/10 11:20**				**Comments: ON HOLD**
PTA0583-15 B-124-8-10	**Soil**	**Sampled: 01/21/10 11:20**				**Comments: ON HOLD**
PTA0583-16 B-125-3-5	**Soil**	**Sampled: 01/21/10 16:30**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16 30	$18.00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08 00	15	02/04/10 16.30	$0.00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08:00	15	02/04/10 16.30	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08.00	10	01/28/10 16·30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16·00	5	02/18/10 16:30	$0.00	level 4 dp
PTA0583-17 B-125-8-10	**Soil**	**Sampled: 01/21/10 16:30**				**Comments: MS/MSD**
As Total ICP 6010B		02/05/10 08.00	10	07/20/10 16.30	$18 00	level 4 dp, MDL, MS/MSD
*JSC 8081A Pest		02/12/10 08.00	15	02/04/10 16.30	$0 00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08·00	15	02/04/10 16 30	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08·00	10	01/28/10 16·30	$9 50	level 4 dp, MDL, MS/MSD
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16·30	$0 00	level 4 dp
PTA0583-18 B-126-3-5	**Soil**	**Sampled: 01/21/10 16:00**				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 16 00	$18 00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08:00	15	02/04/10 16 00	$0 00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08.00	15	02/04/10 16 00	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08·00	10	01/28/10 16·00	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16·00	$0 00	level 4 dp
PTA0583-19 B-126-8-10	**Soil**	**Sampled: 01/21/10 16:00**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16 00	$18.00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08.00	15	02/04/10 16:00	$0.00	level 4 dp, add 2,4 ddx isomer std /analysis

Reviewed By _____ Date _____ Time _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax.(503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208 02
Project	Darrell Auvil	**Printed:**	2/18/2010 2:41 07PM

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-19 B-126-8-10	**Soil**	**Sampled: 01/21/10 16:00**				
JSC 8081A Pest DP		02/12/10 08.00	15	02/04/10 16 00	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08.00	10	01/28/10 16:00	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16 00	$0 00	level 4 dp
PTA0583-20 B-127-10-12	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 15.30	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08 00	10	01/28/10 15:30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 15 30	$0 00	level 4 dp
PTA0583-21 B-127-10-12-D	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 15.30	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 15.30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 15:30	$0.00	level 4 dp
PTA0583-22 B-127-15-17	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 15.30	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 15:30	$9.50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16 00	5	02/18/10 15:30	$0.00	level 4 dp
PTA0583-23 B-128-10-12	**Soil**	**Sampled: 01/21/10 14:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 14 10	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 14 10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 14.10	$0.00	level 4 dp
PTA0583-24 B-128-15-17	**Soil**	**Sampled: 01/21/10 14:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 14 10	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 14:10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16 00	5	02/18/10 14 10	$0 00	level 4 dp
PTA0583-25 B-129-0-2	**Soil**	**Sampled: 01/21/10 13:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 13 10	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08.00	10	01/28/10 13 10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 13.10	$0 00	level 4 dp
PTA0583-26 B-129-2-4	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-27 B-129-2-4-D	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-28 B-129-6-8	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD MS/MSD if added.**
PTA0583-29 B-129-4-6	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-30 B-129-8-10	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-31 RINSATE	**Water**	**Sampled: 01/21/10 16:50**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16:50	$18 00	level 4 dp, MDL
JSC 8081A Pest DP		02/12/10 08:00	15	01/28/10 16:50	$110 00	level 4 dp, MDL add 2,4 ddx isomers
pH-150.1/9040A		02/05/10 08:00	10	01/22/10 16:50	$9 50	level 4 dp,

Reviewed By _____ Date _____ Time _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208.02
Project	Darrell Auvil	**Printed:**	2/18/2010 2 41.07PM

Analysis		Due	TAT	Expires	Price	Comments
TestAmerica Chicago						
PTA0583-01 B-122-0-2	Soil	**Sampled: 01/21/10 09:45**				
*8270C OCS - SUB		02/12/10 16 00	10	02/18/10 09 45	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16 00	10	02/18/10 09 45	$175 00	level 4 dp TA Chicago
PTA0583-06 B-123-0-2	Soil	**Sampled: 01/21/10 09:33**				
*8270C OCS - SUB		02/12/10 16.00	10	02/18/10 09 33	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16.00	10	02/18/10 09:33	$175 00	level 4 dp TA Chicago
PTA0583-11 B-124-0-2	Soil	**Sampled: 01/21/10 11:20**				
*8270C OCS - SUB		02/12/10 16 00	10	02/18/10 11.20	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 11:20	$175 00	level 4 dp TA Chicago
PTA0583-16 B-125-3-5	Soil	**Sampled: 01/21/10 16:30**				
*8270C OCS - SUB		02/12/10 16.00	10	02/18/10 16.30	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16.00	10	02/18/10 16 30	$175 00	level 4 dp TA Chicago
PTA0583-17 B-125-8-10	Soil	**Sampled: 01/21/10 16:30**				**Comments: MS/MSD**
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16 30	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 16:30	$175 00	level 4 dp TA Chicago
PTA0583-18 B-126-3-5	Soil	**Sampled: 01/21/10 16:00**				
*8270C OCS - SUB		02/12/10 16 00	10	02/18/10 16.00	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16 00	10	02/18/10 16 00	$175 00	level 4 dp TA Chicago
PTA0583-19 B-126-8-10	Soil	**Sampled: 01/21/10 16:00**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16:00	$175.00	level 4 dp TA Chicago, MS/MSD
*8270C PCN - SUB		02/12/10 16 00	10	02/18/10 16 00	$175 00	level 4 dp TA Chicago, MS/MSD
PTA0583-20 B-127-10-12	Soil	**Sampled: 01/21/10 15.30**				
*8270C OCS - SUB		02/12/10 16 00	10	02/18/10 15:30	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16 00	10	02/18/10 15:30	$175 00	level 4 dp TA Chicago
PTA0583-21 B-127-10-12-D	Soil	**Sampled: 01/21/10 15:30**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16 00	10	02/18/10 15:30	$175 00	level 4 dp TA Chicago
PTA0583-22 B-127-15-17	Soil	**Sampled: 01/21/10 15:30**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 15 30	$175 00	level 4 dp. TA Chicago
PTA0583-23 B-128-10-12	Soil	**Sampled: 01/21/10 14:10**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 14:10	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16.00	10	02/18/10 14 10	$175.00	level 4 dp. TA Chicago
PTA0583-24 B-128-15-17	Soil	**Sampled: 01/21/10 14:10**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 14:10	$175 00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 14 10	$175 00	level 4 dp. TA Chicago
PTA0583-25 B-129-0-2	Soil	**Sampled: 01/21/10 13:10**				

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax (503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc -P	Project Name:	Arkema Soils 2010
Client Code:	1379223	Project Number:	11208.02
Project	Darrell Auvil	Printed:	2/18/2010 2:41:07PM

Analysis		Due	TAT	Expires	Price	Comments
TestAmerica Chicago						
PTA0583-25 B-129-0-2	**Soil**	**Sampled: 01/21/10 13:10**				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 13:10	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 13:10	$175.00	level 4 dp TA Chicago
PTA0583-31 RINSATE	**Water**	**Sampled: 01/21/10 16:50**				
*8270C OCS - SUB		02/12/10 16:00	10	07/20/10 16:50	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	07/20/10 16:50	$175.00	level 4 dp TA Chicago
TestAmerica West Sacramento						
PTA0583-01 B-122-0-2	**Soil**	**Sampled: 01/21/10 09:45**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 09:45	$675.00	level 4 dp, MDL, TA west sac
PTA0583-06 B-123-0-2	**Soil**	**Sampled: 01/21/10 09:33**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 09:33	$675.00	level 4 dp, MDL, TA west sac
PTA0583-11 B-124-0-2	**Soil**	**Sampled: 01/21/10 11:20**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 11:20	$675.00	level 4 dp, MDL, TA west sac
PTA0583-16 B-125-3-5	**Soil**	**Sampled: 01/21/10 16:30**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-17 B-125-8-10	**Soil**	**Sampled: 01/21/10 16:30**				**Comments: MS/MSD**
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-18 B-126-3-5	**Soil**	**Sampled: 01/21/10 16:00**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:00	$675.00	level 4 dp, MDL, TA west sac
PTA0583-19 B-126-8-10	**Soil**	**Sampled: 01/21/10 16:00**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:00	$675.00	level 4 dp, MDL, TA west sac
PTA0583-20 B-127-10-12	**Soil**	**Sampled: 01/21/10 15:30**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 15:30	$675.00	level 4 dp, MDL, TA west sac.
PTA0583-21 B-127-10-12-D	**Soil**	**Sampled: 01/21/10 15:30**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 15:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-22 B-127-15-17	**Soil**	**Sampled: 01/21/10 15:30**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 15:30	$675.00	level 4 dp, MDL, TA west sac.
PTA0583-23 B-128-10-12	**Soil**	**Sampled: 01/21/10 14:10**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 14:10	$675.00	level 4 dp, MDL, TA west sac
PTA0583-24 B-128-15-17	**Soil**	**Sampled: 01/21/10 14:10**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 14:10	$675.00	level 4 dp, MDL, TA west sac.
PTA0583-31 RINSATE	**Water**	**Sampled: 01/21/10 16:50**				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:50	$675.00	level 4 dp, MDL, TA west sac

Reviewed By _____ Date _____ Time _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER
PTA0583

SGD ID PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208.02
Project	Darrell Auvil	**Printed:**	2/18/2010 2:41:07PM

Analysis groups included in this work order

Data Package - Level IV

Data Package - Wet Chem	Data Package - Subcontract
Data Package - Semivols	Data Package - Metals
Data Package - Dry Weight	Data Package

Reviewed By _____ Date _____ Time _____

TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT ERM PM W LOG # 62914

LOT# (QUANTIMS ID) G0A220427 QUOTE# ~~71988~~ 83694 11/22/10 LOCATION W19E

Checked (✓)

DATE RECEIVED 1/22/10 TIME RECEIVED 0800 ☑

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) 1575, 1576, 1577, 1581 ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 3, 2, 1 Average 2 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☑ ☐ OTHER _____ ☑

Initials: CV Date: 1/22/10

---

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

Initials: CV Date: 1/22/10

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

TestAmerica West Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G0A220427

	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	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 "NA" IF NOT APPLICABLE.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G0A220427

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
VOA*																				
VOAh*																				
AGB											2									
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ	1	1	1	1	1	1	1	1	4	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																				
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

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

Case Narrative

TestAmerica West Sacramento Project Number G0B230553

General Comments

These samples were initially received on January 22, 2010 and were submitted on a "HOLD" basis. On February 23, 2010, TestAmerica was requested to analyze these samples for 8290 which is after the recommended holding time for this method had expired.

SOLID, 8290, Dioxins/Furans with Totals
Samples: 1, 2, 3, 4, 5
Some analytes in these samples and the associated method blank 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.

Samples: 3, 4, 5, 6
The internal standard 13C-1,2,3,7,8 PeCDD has an ion abundance ratio outside of acceptance criteria in these samples. The theoretical areas for this internal standard are used to quantitate the recoveries of the internal standard and to quantitate the related target analyte. There is no adverse impact on the data quality as a result of this anomaly.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G0B230553

WO#	Sample #	Client Sample ID	Sampling Date	Received Date
LV1K8	1	PTA0583-03	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LV1K9	2	PTA0583-05	1/21/2010 09:45 AM	1/22/2010 08:00 AM
LV1LA	3	PTA0583-08	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LV1LC	4	PTA0583-10	1/21/2010 09:33 AM	1/22/2010 08:00 AM
LV1LD	5	PTA0583-13	1/21/2010 11:20 AM	1/22/2010 08:00 AM
LV1LE	6	PTA0583-15	1/21/2010 11:20 AM	1/22/2010 08:00 AM

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.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

SAMPLE RESUBMITTAL FORM
TestAmerica West Sacramento

Lot to be resubmitted	GOA220427	New Lot number	QOB230553
Quote Number	83694	Project Manager	Linda Laver
Original Lot location	W19E	New Lot location	W13B
Date and time of resubmittal	02/23/10	Receipt Date	01/22/10
Resubmittal Turnaround Time	12:00 LCL 02/23/10 Std. TAT	Reciept Time	08:00

	Client ID	Sample Date	Sample Time	Analysis requested	Container type
1	PTA0583-03	01-21-10	09:45	8290 P/F	4 oz. jars
2	PTA0583-05		09:45		
3	PTA0583-08		09:33		
4	PTA0583-10		09:33		
5	PTA0583-13		11:20		
6	PTA0583-15	01-21-10	11:20	8290 P/F	4 oz. jars
7					
8					
9					
10					
11					
12					
13					
14					
15					

Special Instructions

GOA220427-03 = PTA0583-03 = B-122-4-6
-05 = -05 = B-122-8-10
-08 = -08 = B-123-4-6
-10 = -10 = B-123-8-10
-13 = -13 = B-124-4-6
-15 = -15 = B-124-8-10

QA-381 EM 8/4/05

TestAmerica West Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G0B230553

	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

LEAVE NO SPACES BLANK. USE "NA" IF NOT APPLICABLE.

PTA0583

ERM

CHAIN OF CUSTODY RECORD

NO: 1575

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #: 111208.02

PROJECT NAME: Artema Portland DGE

SAMPLER (PRINT NAME): Shira Debrood

(SIGNATURE): [signature]

RECEIVING LABORATORY: TA-West Sacramento 916-373-5600, 800 Riverside Parkway

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	# OF CONT.	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: Dioxin/Furan 8290B	REQUESTED PARAMETERS: Hold	REQUESTED PARAMETERS: Dioxin/Furans 8290B (2/22/10)
B-122-0-2	1-21-10	0945		X	DP	X	Y	4oz	1	X			X		
B-122-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	
B-122-4-6	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	X
B-122-6-8	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	
B-122-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	X
B-123-0-2	↓	0933		↓	↓	↓	↓	↓	1	X			X		
B-123-2-4	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	
B-123-4-6	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	X
B-123-6-8	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	
B-123-8-10	↓	↓		↓	↓	↓	↓	↓	1	X			X	X	X

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1500	Chang Lha	1/22/10	0815

FIELD REMARKS: Only analyze sample NOT marked "Hold". Project-specific MS/MSD

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1576

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #: 111208.02

PROJECT NAME: ARRene D'GI

SAMPLER (PRINT NAME): Shira Oelwood

(SIGNATURE): [signature]

RECEIVING LABORATORY: TA-Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	FILTER	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	Dioxins 8290B	Hold	Project-specific MS/MSD	Dioxin Furans 8290B (2/2/10)						
B-124-0-2	1-21-10	1120		X	DP	X	Y	40z	1	X			X									
B-124-2-4	↓	↓		↓	↓	↓	↓	↓	1	X				X								
B-124-4-6	↓	↓		↓	↓	↓	↓	↓	1	X				X			X					
B-124-6-8	↓	↓		↓	↓	↓	↓	↓	1	X				X								
B-124-8-10	↓	↓		↓	↓	↓	↓	↓	1	X				X			X					
B-125-3-5	↓	1630		↓	↓	↓	↓	↓	1	X			X									
B-125-8-10	↓	1630		↓	↓	↓	↓	12oz	3	X			X		X							
B-126-3-5	↓	1600		↓	↓	↓	↓	4oz	1	X			X									
B-126-8-10	↓	1600		↓	↓	↓	↓	↓	1	X			X									
B-127-10-12	↓	1530		↓	↓	↓	↓	↓	1	X			X									

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	FedEx		

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			Chang Vue	1/22/10	0815

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS

SEND REPORT TO: Brenda Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

ERM

CHAIN OF CUSTODY RECORD

NO: 1577

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Debrood	[signature]

RECEIVING LABORATORY: TA - Sacramento

REQUESTED PARAMETERS: 8290B Dioxins/Furans; Project-specific, in MS/MSD

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	8290B Dioxins/Furans		Project-specific, in MS/MSD
B-127-10-12-D	1-21-10	1530		X	DP	X	Y	4-oz	1	X			X		
B-127-15-17		1530							1	X			X		
B-128-10-12		1410							1	X			X		
B-128-15-17		1410							1	X			X		
B-129-0-2		1310							1	X			X		
B-129-2-4									1	X				X	
B-129-2-4D									1	X				X	
B-129-4-6									1	X				X	
* B-129-6-8								12-oz	3	X				X	X
B-129-8-10								4-oz	1	X				X	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			chang Vu	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED ☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: Brendan Robinson

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

* 4 bottles rec'd - CU 1/22/10

ERM

CHAIN OF CUSTODY RECORD

NO: 1581

Page 4 of 4

6650 S.W. REDWOOD LANE, SUITE 300 • PORTLAND, OR 97224 • (503) 542-8007 • FAX (503) 542-8017

PROJECT #	PROJECT NAME
111208.02	Arkema DGI

SAMPLER: (PRINT NAME)	(SIGNATURE)
Shira Oelwood	[signature]

RECEIVING LABORATORY: TA Sacramento

SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESER-VATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX: SOIL	MATRIX: WATER	MATRIX: GAS	REQUESTED PARAMETERS: 8290B Dioxins/Furans	REQUESTED PARAMETERS: Freeze
Rinsate	1-21-10	1650		X	RB	X	Y	2L	2		X		X	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	1-21-10	1800	Fedex		
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature]	1/22/10	0815
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY	DATE	TIME

FIELD REMARKS:

REMARKS ON SAMPLE RECEIPT

- ☐ BOTTLE INTACT
- ☐ CUSTODY SEALS
- ☐ CHILLED
- ☐ PRESERVED
- ☐ SEALS INTACT
- ☐ SEE REMARKS

ERM REMARKS:

SEND REPORT TO: BAR

WHITE - LABORATORY COPY CANARY - FIELD COPY PINK - DATABASE MANAGER GOLD - PROJECT FILE

TestAmerica

411111 THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST
TestAmerica West Sacramento

CLIENT ERM PM U LOG # 62914

LOT# (QUANTIMS ID) GOA220427 QUOTE# ~~71988~~ CW 1/22/10 83694 LOCATION W19E

Checked (✓) ☑

DATE RECEIVED 1/22/10 TIME RECEIVED 0800

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) 1575, 1576, 1577, 1581 ☑

TEMPERATURE BLANK Observed: NA Corrected: _____

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 3, 2, 1 Average 2 Corrected Average 2

LABORATORY THERMOMETER ID:

IR UNIT: #4 ☐ #5 ☑ ☐ OTHER _____ ☑

CW 1/22/10
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

CW 1/22/10
Initials Date

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C

TestAmerica West Sacramento

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Bottle Lot Inventory

Lot ID: G0A220427

	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	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 "NA" IF NOT APPLICABLE.

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Bottle Lot Inventory

Lot ID: G0A220427

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
VOA*																				
VOAh*																				
AGB											2									
AGBs																				
250AGB																				
250AGBs																				
250AGBn																				
500AGB																				
____AGJ																				
500AGJ																				
250AGJ																				
125AGJ																				
____CGJ																				
500CGJ																				
250CGJ																				
125CGJ	1	1	1	1	1	1	1	1	4	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																				
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

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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THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER
PTA0583

SGD ID PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208.02
Project	Darrell Auvil	**Printed:**	2/18/2010 2 41:07PM

Report Information

Client Name: Environmental Resources Management Inc.-Portland
Client PM: Brendan Robinson
Address: 101 SW Main St Suite 804, Portland, OR 97204
Phone: (503) 488-5282
Fax: (503) 488-5142
Due Date: 02/18/10 18:00 (19 day TAT)
Delivery Method: Email
PONumber.

Sample Receipt Information

Samples Received at: 4 2°C
Samples Received By: Peggy Siegfried 01/22/10 07:50
Samples Logged By: Peggy Siegfried 01/22/10 09:39

Invoice Information

Legacy Site Services, LLC
Todd Slater
468 Thomas Jones Way, Suite 150
Exton, PA 19341-2528
Phone: (610) 594-4430
Fax (610) 594-4439

Pricing Information:
Acct Mgr. Noi Tran
Arkema Soils 2010

Custody Seals Present	No	Samples received on ice	Yes
All Containers Intact	Yes	Preservation Confirmed	No
Sample labels/COC agree	Yes		
Samples Preserved Properly	Yes		

Work Order Comments

Level 4 ESI Data package, ERM Equis EDD Data package within 2 weeks of final report

Line Items in Bid

Description	ItemType	Quantity	Price	Rate
10 percent Data Package	Percent	1		10.00%
Pesticide standard	Standard	1	$ 100 00	

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-01 B-122-0-2	Soil	Sampled: 01/21/10 09:45				
*Archive sample		02/18/10 08:00	19	01/16/11 09 45	$0 00	HOLD all samples and extracts thru May 1
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 09:45	$18 00	level 4 dp, MDL
*Data Package - Level IV		02/19/10 08:00	15	02/20/10 09 45	$0 00	
*pH-9045B		02/05/10 08:00	10	01/28/10 09 45	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 09 45	$0 00	level 4 dp
PTA0583-02 B-122-2-4	Soil	Sampled: 01/21/10 09:45				Comments: ON HOLD
PTA0583-03 B-122-4-6	Soil	Sampled: 01/21/10 09:45				Comments: ON HOLD
PTA0583-04 B-122-6-8	Soil	Sampled: 01/21/10 09:45				Comments: ON HOLD
PTA0583-05 B-122-8-10	Soil	Sampled: 01/21/10 09:45				Comments: ON HOLD
PTA0583-06 B-123-0-2	Soil	Sampled: 01/21/10 09:33				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 09:33	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08.00	10	01/28/10 09 33	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 09 33	$0 00	level 4 dp

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THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave Beaverton, OR 97008 (503) 906-9200 fax (503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc -P	Project Name:	Arkema Soils 2010
Client Code:	1379223	Project Number:	11208 02
Project	Darrell Auvil	Printed:	2/18/2010 2:41:07PM

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-07 B-123-2-4	Soil	Sampled: 01/21/10 09:33				Comments: ON HOLD
PTA0583-08 B-123-4-6	Soil	Sampled: 01/21/10 09:33				Comments: ON HOLD
PTA0583-09 B-123-6-8	Soil	Sampled: 01/21/10 09:33				Comments: ON HOLD
PTA0583-10 B-123-8-10	Soil	Sampled: 01/21/10 09:33				Comments: ON HOLD
PTA0583-11 B-124-0-2	Soil	Sampled: 01/21/10 11:20				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 11 20	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08 00	10	01/28/10 11:20	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16 00	5	02/18/10 11.20	$0.00	level 4 dp
PTA0583-12 B-124-2-4	Soil	Sampled: 01/21/10 11:20				Comments: ON HOLD
PTA0583-13 B-124-4-6	Soil	Sampled: 01/21/10 11:20				Comments: ON HOLD
PTA0583-14 B-124-6-8	Soil	Sampled: 01/21/10 11:20				Comments: ON HOLD
PTA0583-15 B-124-8-10	Soil	Sampled: 01/21/10 11:20				Comments: ON HOLD
PTA0583-16 B-125-3-5	Soil	Sampled: 01/21/10 16:30				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16 30	$18.00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08 00	15	02/04/10 16.30	$0.00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08:00	15	02/04/10 16.30	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08.00	10	01/28/10 16:30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16:30	$0.00	level 4 dp
PTA0583-17 B-125-8-10	Soil	Sampled: 01/21/10 16:30				Comments: MS/MSD
As Total ICP 6010B		02/05/10 08.00	10	07/20/10 16.30	$18 00	level 4 dp, MDL, MS/MSD
*JSC 8081A Pest		02/12/10 08.00	15	02/04/10 16.30	$0 00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08:00	15	02/04/10 16 30	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08:00	10	01/28/10 16:30	$9 50	level 4 dp, MDL, MS/MSD
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16:30	$0 00	level 4 dp
PTA0583-18 B-126-3-5	Soil	Sampled: 01/21/10 16:00				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 16 00	$18 00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08:00	15	02/04/10 16 00	$0 00	level 4 dp, add 2,4 ddx isomer std /analysis
JSC 8081A Pest DP		02/12/10 08.00	15	02/04/10 16 00	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08 00	10	01/28/10 16:00	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16:00	$0 00	level 4 dp
PTA0583-19 B-126-8-10	Soil	Sampled: 01/21/10 16:00				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16 00	$18.00	level 4 dp, MDL
*JSC 8081A Pest		02/12/10 08.00	15	02/04/10 16:00	$0.00	level 4 dp, add 2,4 ddx isomer std /analysis

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax.(503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208 02
Project	Darrell Auvil	**Printed:**	2/18/2010 2:41 07PM

Analysis		Due	TAT	Expires	Price	Comments
PTA0583-19 B-126-8-10	**Soil**	**Sampled: 01/21/10 16:00**				
JSC 8081A Pest DP		02/12/10 08.00	15	02/04/10 16 00	$170 00	dont extract!!!!! level 4 dp, MDL add 2,4 ddx isomers
*pH-9045B		02/05/10 08.00	10	01/28/10 16:00	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 16 00	$0 00	level 4 dp
PTA0583-20 B-127-10-12	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 15.30	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08 00	10	01/28/10 15:30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16.00	5	02/18/10 15 30	$0 00	level 4 dp
PTA0583-21 B-127-10-12-D	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 15.30	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 15.30	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 15 30	$0.00	level 4 dp
PTA0583-22 B-127-15-17	**Soil**	**Sampled: 01/21/10 15:30**				
As Total ICP 6010B		02/05/10 08 00	10	07/20/10 15.30	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 15 30	$9.50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16 00	5	02/18/10 15:30	$0 00	level 4 dp
PTA0583-23 B-128-10-12	**Soil**	**Sampled: 01/21/10 14:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 14 10	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 14 10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 14.10	$0.00	level 4 dp
PTA0583-24 B-128-15-17	**Soil**	**Sampled: 01/21/10 14:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 14 10	$18 00	level 4 dp, MDL
*pH-9045B		02/05/10 08:00	10	01/28/10 14:10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16 00	5	02/18/10 14 10	$0 00	level 4 dp
PTA0583-25 B-129-0-2	**Soil**	**Sampled: 01/21/10 13:10**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 13 10	$18.00	level 4 dp, MDL
*pH-9045B		02/05/10 08.00	10	01/28/10 13 10	$9 50	level 4 dp, MDL
*Solids, Dry Weight		01/29/10 16:00	5	02/18/10 13.10	$0 00	level 4 dp
PTA0583-26 B-129-2-4	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-27 B-129-2-4-D	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-28 B-129-6-8	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD MS/MSD if added.**
PTA0583-29 B-129-4-6	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-30 B-129-8-10	**Soil**	**Sampled: 01/21/10 13:10**				**Comments: ON HOLD**
PTA0583-31 RINSATE	**Water**	**Sampled: 01/21/10 16:50**				
As Total ICP 6010B		02/05/10 08:00	10	07/20/10 16:50	$18 00	level 4 dp, MDL
JSC 8081A Pest DP		02/12/10 08:00	15	01/28/10 16:50	$110 00	level 4 dp, MDL add 2,4 ddx isomers
pH-150 1/9040A		02/05/10 08.00	10	01/22/10 16:50	$9 50	level 4 dp,

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER
PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Management Inc.-P	Project Name:	Arkema Soils 2010
Client Code:	1379223	Project Number:	11208.02
Project	Darrell Auvil	Printed:	2/18/2010 2:41:07PM

Analysis		Due	TAT	Expires	Price	Comments
TestAmerica Chicago						
PTA0583-01 B-122-0-2	Soil	Sampled: 01/21/10 09:45				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 09:45	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 09:45	$175.00	level 4 dp TA Chicago
PTA0583-06 B-123-0-2	Soil	Sampled: 01/21/10 09:33				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 09:33	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 09:33	$175.00	level 4 dp TA Chicago
PTA0583-11 B-124-0-2	Soil	Sampled: 01/21/10 11:20				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 11:20	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 11:20	$175.00	level 4 dp TA Chicago
PTA0583-16 B-125-3-5	Soil	Sampled: 01/21/10 16:30				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 16:30	$175.00	level 4 dp TA Chicago
PTA0583-17 B-125-8-10	Soil	Sampled: 01/21/10 16:30				Comments: MS/MSD
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 16:30	$175.00	level 4 dp TA Chicago
PTA0583-18 B-126-3-5	Soil	Sampled: 01/21/10 16:00				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16:00	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 16:00	$175.00	level 4 dp TA Chicago
PTA0583-19 B-126-8-10	Soil	Sampled: 01/21/10 16:00				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 16:00	$175.00	level 4 dp TA Chicago, MS/MSD
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 16:00	$175.00	level 4 dp TA Chicago, MS/MSD
PTA0583-20 B-127-10-12	Soil	Sampled: 01/21/10 15:30				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
PTA0583-21 B-127-10-12-D	Soil	Sampled: 01/21/10 15:30				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
PTA0583-22 B-127-15-17	Soil	Sampled: 01/21/10 15:30				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 15:30	$175.00	level 4 dp. TA Chicago
PTA0583-23 B-128-10-12	Soil	Sampled: 01/21/10 14:10				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 14:10	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 14:10	$175.00	level 4 dp. TA Chicago
PTA0583-24 B-128-15-17	Soil	Sampled: 01/21/10 14:10				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 14:10	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 14:10	$175.00	level 4 dp. TA Chicago
PTA0583-25 B-129-0-2	Soil	Sampled: 01/21/10 13:10				

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax (503) 906-9210

WORK ORDER

PTA0583

SGD ID: PTA0583

Client:	Environmental Resources Managemcnt Inc -P	Project Name:	Arkema Soils 2010
Client Code:	1379223	Project Number:	11208.02
Project	Darrell Auvil	Printed:	2/18/2010 2:41:07PM

Analysis		Due	TAT	Expires	Price	Comments
TestAmerica Chicago						
PTA0583-25 B-129-0-2	Soil	Sampled: 01/21/10 13:10				
*8270C OCS - SUB		02/12/10 16:00	10	02/18/10 13:10	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	02/18/10 13:10	$175.00	level 4 dp TA Chicago
PTA0583-31 RINSATE	Water	Sampled: 01/21/10 16:50				
*8270C OCS - SUB		02/12/10 16:00	10	07/20/10 16.50	$175.00	level 4 dp TA Chicago
*8270C PCN - SUB		02/12/10 16:00	10	07/20/10 16:50	$175.00	level 4 dp TA Chicago
TestAmerica West Sacramento						
PTA0583-01 B-122-0-2	Soil	Sampled: 01/21/10 09.45				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 09:45	$675.00	level 4 dp, MDL, TA west sac
PTA0583-06 B-123-0-2	Soil	Sampled: 01/21/10 09:33				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 09:33	$675.00	level 4 dp, MDL, TA west sac
PTA0583-11 B-124-0-2	Soil	Sampled: 01/21/10 11:20				
8290 Dioxin/Furans - SUB		02/12/10 08.00	15	07/20/10 11.20	$675.00	level 4 dp, MDL, TA west sac
PTA0583-16 B-125-3-5	Soil	Sampled: 01/21/10 16:30				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-17 B-125-8-10	Soil	Sampled: 01/21/10 16:30				Comments: MS/MSD
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-18 B-126-3-5	Soil	Sampled: 01/21/10 16:00				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16:00	$675.00	level 4 dp, MDL, TA west sac
PTA0583-19 B-126-8-10	Soil	Sampled: 01/21/10 16:00				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 16.00	$675.00	level 4 dp, MDL, TA west sac
PTA0583-20 B-127-10-12	Soil	Sampled: 01/21/10 15:30				
8290 Dioxin/Furans - SUB		02/12/10 08.00	15	07/20/10 15:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-21 B-127-10-12-D	Soil	Sampled: 01/21/10 15:30				
8290 Dioxin/Furans - SUB		02/12/10 08:00	15	07/20/10 15:30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-22 B-127-15-17	Soil	Sampled: 01/21/10 15:30				
8290 Dioxin/Furans - SUB		02/12/10 08.00	15	07/20/10 15 30	$675.00	level 4 dp, MDL, TA west sac
PTA0583-23 B-128-10-12	Soil	Sampled: 01/21/10 14:10				
8290 Dioxin/Furans - SUB		02/12/10 08 00	15	07/20/10 14:10	$675 00	level 4 dp, MDL, TA west sac
PTA0583-24 B-128-15-17	Soil	Sampled: 01/21/10 14:10				
8290 Dioxin/Furans - SUB		02/12/10 08 00	15	07/20/10 14.10	$675 00	level 4 dp, MDL, TA west sac
PTA0583-31 RINSATE	Water	Sampled: 01/21/10 16:50				
8290 Dioxin/Furans - SUB		02/12/10 08 00	15	07/20/10 16:50	$675 00	level 4 dp, MDL, TA west sac

Reviewed By _____ Date _____ Time _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Nimbus Ave. Beaverton, OR 97008 (503) 906-9200 fax:(503) 906-9210

WORK ORDER

PTA0583

SGD ID PTA0583

Client:	Environmental Resources Management Inc.-P	**Project Name:**	Arkema Soils 2010
Client Code:	1379223	**Project Number:**	11208.02
Project	Darrell Auvil	**Printed:**	2/18/2010 2 41.07PM

Analysis groups included in this work order

Data Package - Level IV

Data Package - Wet Chem	Data Package - Subcontract
Data Package - Semivols	Data Package - Metals
Data Package - Dry Weight	Data Package

Reviewed By _____ Date _____ Time _____

SECTION 6

PROJECT CORRESPONDENCE

Eric Lahr

From: Eric Lahr
Sent: Thursday, March 25, 2010 4:32 PM
To: 'Darrell.Auvil@testamericainc.com'
Cc: 'McKenzie, Doug'; 'Laver, Linda'; 'Brendan Robinson'; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Requests

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, the surrogate compounds are not reported on the Continuing Calibration Check forms. Could you please provide amended forms that include the continuing calibration verification standard information for the surrogate compounds.

2.) In the dioxin/furan fraction (Sacramento Project Number G0A220427), could you please provide the summary form and raw data for the continuing calibration verification standard (CS3) analyzed on 2/9/10 (Sample 49; ST0208D).

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Eric Lahr

From: McKenzie, Doug [Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:59 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests
Attachments: PTA0583.Pest.CCVs.Instrumental.pdf

Importance: High

Here are the instrumental ECC forms. I'm still going to have the analyst see if they can determine why the surrogates aren't printing out on the forms from the LIMS though. ☺

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:45 PM
To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Requests

Thanks Doug! I have seen in past data packages that you have sent that you sometimes include CCV standard forms for pesticides that come directly from the instrument (Continuing Calibration Reports). Those reports have the surrogate compounds on them and it is fine if you can just provide those. That way, you don't need to go through the trouble of having to correct the Continuing Calibration Check forms.

-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:39 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests

I've requested that the analysts look at their sequences in our LIMS to see if we can get the pesticide forms corrected for you.

It probably won't get resolved until next week, but I'll send them over as quickly as I can get them fixed.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:32 PM
To: Auvil, Darrell
Cc: McKenzie, Doug; Laver, Linda; Brendan Robinson; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Requests

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, the surrogate compounds are not reported on the Continuing Calibration Check forms. Could you please provide amended forms that include the continuing calibration verification standard information for the surrogate compounds.

2.) In the dioxin/furan fraction (Sacramento Project Number G0A220427), could you please provide the summary form and raw data for the continuing calibration verification standard (CS3) analyzed on 2/9/10 (Sample 49; ST0208D).

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 11:38 am
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv1 100ppb PT00094
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:07:02 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	105.216	-5.2	105	0.00
2		alpha-BHC	100.000	102.587	-2.6	105	0.00
3		gamma-BHC (TCLP)	100.000	104.016	-4.0	106	0.00
4		beta-BHC	100.000	105.701	-5.7	105	0.00
5		delta-BHC	100.000	103.407	-3.4	105	0.00
6		heptachlor (TCLP)	100.000	110.218	-10.2	107	0.00
7		Aldrin	100.000	108.795	-8.8	104	0.00
8		Heptachlor Epoxide (TCLP)	100.000	104.215	-4.2	102	0.00
9		gamma-Chlordane	100.000	109.290	-9.3	105	0.00
10		alpha-Chlordane	100.000	106.540	-6.5	104	0.00
11		Endosulfan I	100.000	103.854	-3.9	101	0.00
12		4,4'-DDE	100.000	100.711	-0.7	103	0.00
13		Dieldrin	100.000	107.330	-7.3	102	0.00
14		Endrin (TCLP)	100.000	112.151	-12.2	106	0.00
15		4,4'-DDD	100.000	98.436	1.6	100	0.00
16		Endosulfan II	100.000	104.988	-5.0	104	0.00
17		4,4'-DDT	100.000	101.279	-1.3	104	0.00
18		Endrin Aldehyde	100.000	101.948	-1.9	103	0.00
19		Endosulfan Sulfate	100.000	104.734	-4.7	104	0.00
20		Methoxychlor (TCLP)	100.000	97.054	2.9	98	0.00
21		Endrin Ketone	100.000	99.049	1.0	96	0.00
22	S	DCBP (Surrogate)	100.000	82.464	17.5#	86	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	95.969	4.0	96	0.00
2		alpha-BHC	100.000	96.257	3.7	96	0.00
3		gamma-BHC (TCLP)	100.000	95.195	4.8	97	0.00
4		beta-BHC	100.000	97.023	3.0	96	0.00
5		delta-BHC	100.000	92.932	7.1	94	0.00
6		heptachlor (TCLP)	100.000	96.886	3.1	96	0.00
7		Aldrin	100.000	99.902	0.1	99	0.00
8		Heptachlor Epoxide (TCLP	100.000	95.076	4.9	97	0.00
9		gamma-Chlordane	100.000	100.162	-0.2	97	0.00
10		alpha-Chlordane	100.000	98.204	1.8	97	0.00
11		Endosulfan I	100.000	95.328	4.7	97	0.00
12		4,4'-DDE	100.000	100.344	-0.3	94	0.00
13		Dieldrin	100.000	100.003	-0.0	98	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 11:38 am
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv1 100ppb PT00094
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:07:02 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	98.955	1.0	98	0.00
15	4,4'-DDD	100.000	91.360	8.6	93	0.00
16	Endosulfan II	100.000	94.316	5.7	94	0.00
17	4,4'-DDT	100.000	100.373	-0.4	96	0.00
18	Endrin Aldehyde	100.000	85.496	14.5	89	0.00
19	Endosulfan Sulfate	100.000	94.635	5.4	96	0.00
20	Methoxychlor (TCLP)	100.000	87.697	12.3	90	0.00
21	Endrin Ketone	100.000	89.663	10.3	91	0.00
22 S	DCBP (Surrogate)	100.000	83.663	16.3#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 1:52 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:08:45 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	104.809	-4.8	105	0.00
2		alpha-BHC	100.000	104.675	-4.7	107	0.00
3		gamma-BHC (TCLP)	100.000	103.160	-3.2	105	0.00
4		beta-BHC	100.000	104.374	-4.4	104	0.00
5		delta-BHC	100.000	102.318	-2.3	104	0.00
6		heptachlor (TCLP)	100.000	110.187	-10.2	107	0.00
7		Aldrin	100.000	107.960	-8.0	103	0.00
8		Heptachlor Epoxide (TCLP)	100.000	105.204	-5.2	103	0.00
9		gamma-Chlordane	100.000	108.047	-8.0	104	0.00
10		alpha-Chlordane	100.000	106.374	-6.4	104	0.00
11		Endosulfan I	100.000	104.465	-4.5	102	0.00
12		4,4'-DDE	100.000	99.684	0.3	102	0.00
13		Dieldrin	100.000	106.595	-6.6	101	0.00
14		Endrin (TCLP)	100.000	113.528	-13.5	107	0.00
15		4,4'-DDD	100.000	97.203	2.8	99	0.00
16		Endosulfan II	100.000	105.695	-5.7	105	0.00
17		4,4'-DDT	100.000	99.134	0.9	102	0.00
18		Endrin Aldehyde	100.000	103.846	-3.8	104	0.00
19		Endosulfan Sulfate	100.000	101.728	-1.7	101	0.00
20		Methoxychlor (TCLP)	100.000	95.107	4.9	96	0.00
21		Endrin Ketone	100.000	100.761	-0.8	98	0.00
22	S	DCBP (Surrogate)	100.000	82.993	17.0#	86	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	97.713	2.3	98	0.00
2		alpha-BHC	100.000	100.151	-0.2	101	0.00
3		gamma-BHC (TCLP)	100.000	96.540	3.5	99	0.00
4		beta-BHC	100.000	98.121	1.9	97	0.00
5		delta-BHC	100.000	93.420	6.6	95	0.00
6		heptachlor (TCLP)	100.000	99.961	0.0	99	0.00
7		Aldrin	100.000	103.579	-3.6	102	0.00
8		Heptachlor Epoxide (TCLP	100.000	98.857	1.1	101	0.00
9		gamma-Chlordane	100.000	102.689	-2.7	100	0.00
10		alpha-Chlordane	100.000	100.357	-0.4	99	0.00
11		Endosulfan I	100.000	98.010	2.0	100	0.00
12		4,4'-DDE	100.000	100.843	-0.8	95	0.00
13		Dieldrin	100.000	102.591	-2.6	101	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 1:52 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:08:45 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	102.341	-2.3	102	0.00
15	4,4'-DDD	100.000	90.379	9.6	92	0.00
16	Endosulfan II	100.000	96.405	3.6	96	0.00
17	4,4'-DDT	100.000	100.723	-0.7	96	0.00
18	Endrin Aldehyde	100.000	85.120	14.9	88	0.00
19	Endosulfan Sulfate	100.000	95.490	4.5	97	0.00
20	Methoxychlor (TCLP)	100.000	87.480	12.5	90	0.00
21	Endrin Ketone	100.000	91.875	8.1	93	0.00
22 S	DCBP (Surrogate)	100.000	83.858	16.1#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051016.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 5:30 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv4 100ppb PT00094.
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 18:38:03 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.717	-7.7	108	0.00
2		alpha-BHC	100.000	105.420	-5.4	108	0.00
3		gamma-BHC (TCLP)	100.000	106.090	-6.1	108	0.00
4		beta-BHC	100.000	106.186	-6.2	105	0.00
5		delta-BHC	100.000	104.727	-4.7	106	0.00
6		heptachlor (TCLP)	100.000	109.890	-9.9	106	0.00
7		Aldrin	100.000	111.876	-11.9	107	0.00
8		Heptachlor Epoxide (TCLP)	100.000	106.058	-6.1	104	0.00
9		gamma-Chlordane	100.000	111.381	-11.4	107	0.00
10		alpha-Chlordane	100.000	106.657	-6.7	104	0.00
11		Endosulfan I	100.000	107.819	-7.8	105	0.00
12		4,4'-DDE	100.000	102.039	-2.0	104	0.00
13		Dieldrin	100.000	109.529	-9.5	104	0.00
14		Endrin (TCLP)	100.000	114.229	-14.2	108	0.00
15		4,4'-DDD	100.000	101.197	-1.2	103	0.00
16		Endosulfan II	100.000	105.683	-5.7	105	0.00
17		4,4'-DDT	100.000	95.926	4.1	98	0.00
18		Endrin Aldehyde	100.000	101.331	-1.3	102	0.00
19		Endosulfan Sulfate	100.000	102.116	-2.1	101	0.00
20		Methoxychlor (TCLP)	100.000	92.361	7.6	93	0.00
21		Endrin Ketone	100.000	98.085	1.9	96	0.00
22	S	DCBP (Surrogate)	100.000	82.929	17.1#	86	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	96.378	3.6	96	0.00
2		alpha-BHC	100.000	96.784	3.2	97	0.00
3		gamma-BHC (TCLP)	100.000	96.083	3.9	98	0.00
4		beta-BHC	100.000	97.904	2.1	97	0.00
5		delta-BHC	100.000	91.772	8.2	93	0.00
6		heptachlor (TCLP)	100.000	98.396	1.6	98	0.00
7		Aldrin	100.000	100.838	-0.8	100	0.00
8		Heptachlor Epoxide (TCLP	100.000	96.178	3.8	98	0.00
9		gamma-Chlordane	100.000	100.815	-0.8	98	0.00
10		alpha-Chlordane	100.000	99.398	0.6	98	0.00
11		Endosulfan I	100.000	96.123	3.9	98	0.00
12		4,4'-DDE	100.000	99.582	0.4	93	0.00
13		Dieldrin	100.000	99.724	0.3	98	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051016.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 5:30 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv4 100ppb PT00094.
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 18:38:03 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	100.172	-0.2	100	0.00
15	4,4'-DDD	100.000	91.474	8.5	93	0.00
16	Endosulfan II	100.000	95.024	5.0	95	0.00
17	4,4'-DDT	100.000	94.246	5.8	90	0.00
18	Endrin Aldehyde	100.000	81.860	18.1#	85	0.00
19	Endosulfan Sulfate	100.000	93.785	6.2	95	0.00
20	Methoxychlor (TCLP)	100.000	81.954	18.0#	84	0.00
21	Endrin Ketone	100.000	88.521	11.5	90	0.00
22 S	DCBP (Surrogate)	100.000	79.848	20.2#	84	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051026.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 9:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv5 100ppb PT00094.
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:13:09 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	108.902	-8.9	109	0.00
2		alpha-BHC	100.000	108.806	-8.8	112	0.00
3		gamma-BHC (TCLP)	100.000	109.419	-9.4	111	0.00
4		beta-BHC	100.000	109.559	-9.6	109	0.00
5		delta-BHC	100.000	108.465	-8.5	110	0.00
6		heptachlor (TCLP)	100.000	115.388	-15.4#	112	0.00
7		Aldrin	100.000	113.859	-13.9	108	0.00
8		Heptachlor Epoxide (TCLP)	100.000	109.059	-9.1	107	0.00
9		gamma-Chlordane	100.000	114.290	-14.3	110	0.00
10		alpha-Chlordane	100.000	111.387	-11.4	109	0.00
11		Endosulfan I	100.000	108.773	-8.8	106	0.00
12		4,4'-DDE	100.000	103.919	-3.9	106	0.00
13		Dieldrin	100.000	114.136	-14.1	108	0.00
14		Endrin (TCLP)	100.000	116.263	-16.3#	110	0.00
15		4,4'-DDD	100.000	101.440	-1.4	103	0.00
16		Endosulfan II	100.000	109.004	-9.0	108	0.00
17		4,4'-DDT	100.000	101.681	-1.7	104	0.00
18		Endrin Aldehyde	100.000	105.581	-5.6	106	0.00
19		Endosulfan Sulfate	100.000	107.786	-7.8	107	0.00
20		Methoxychlor (TCLP)	100.000	98.804	1.2	100	0.00
21		Endrin Ketone	100.000	102.460	-2.5	100	0.00
22	S	DCBP (Surrogate)	100.000	89.519	10.5	93	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	98.477	1.5	98	0.00
2		alpha-BHC	100.000	101.565	-1.6	102	0.00
3		gamma-BHC (TCLP)	100.000	99.157	0.8	102	0.00
4		beta-BHC	100.000	100.366	-0.4	99	0.00
5		delta-BHC	100.000	94.220	5.8	96	0.00
6		heptachlor (TCLP)	100.000	100.981	-1.0	100	0.00
7		Aldrin	100.000	104.293	-4.3	103	0.00
8		Heptachlor Epoxide (TCLP	100.000	99.768	0.2	102	0.00
9		gamma-Chlordane	100.000	105.869	-5.9	103	0.00
10		alpha-Chlordane	100.000	102.974	-3.0	102	0.00
11		Endosulfan I	100.000	99.298	0.7	101	0.00
12		4,4'-DDE	100.000	101.155	-1.2	95	0.00
13		Dieldrin	100.000	104.250	-4.3	102	0.00

Data Path : D:\MSDChem\1\DATA\020510\
Data File : 02051026.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 05 Feb 2010 9:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000393-ccv5 100ppb PT00094.
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 16 17:13:09 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	102.173	-2.2	102	0.00
15	4,4'-DDD	100.000	91.165	8.8	92	0.00
16	Endosulfan II	100.000	97.471	2.5	98	0.00
17	4,4'-DDT	100.000	100.687	-0.7	96	0.00
18	Endrin Aldehyde	100.000	82.048	18.0#	85	0.00
19	Endosulfan Sulfate	100.000	96.864	3.1	98	0.00
20	Methoxychlor (TCLP)	100.000	86.318	13.7	89	0.00
21	Endrin Ketone	100.000	92.582	7.4	94	0.00
22 S	DCBP (Surrogate)	100.000	85.651	14.3	90	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 3:21 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv1 50ppb PT00093.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:33:16 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	50.000	53.363	-6.7	107	0.00
2		alpha-BHC	50.000	52.061	-4.1	108	0.00
3		gamma-BHC (TCLP)	50.000	52.415	-4.8	108	0.00
4		beta-BHC	50.000	52.402	-4.8	107	0.00
5		delta-BHC	50.000	50.899	-1.8	105	0.00
6		heptachlor (TCLP)	50.000	55.143	-10.3	110	0.00
7		Aldrin	50.000	54.275	-8.5	107	0.00
8		Heptachlor Epoxide (TCLP)	50.000	53.225	-6.5	106	0.00
9		gamma-Chlordane	50.000	54.588	-9.2	107	0.00
10		alpha-Chlordane	50.000	54.776	-9.6	109	0.00
11		Endosulfan I	50.000	53.449	-6.9	107	0.00
12		4,4'-DDE	50.000	49.718	0.6	103	0.00
13		Dieldrin	50.000	54.449	-8.9	107	0.00
14		Endrin (TCLP)	50.000	56.493	-13.0	111	0.00
15		4,4'-DDD	50.000	48.365	3.3	101	0.00
16		Endosulfan II	50.000	53.189	-6.4	108	0.00
17		4,4'-DDT	50.000	50.469	-0.9	106	0.00
18		Endrin Aldehyde	50.000	51.290	-2.6	105	0.00
19		Endosulfan Sulfate	50.000	51.052	-2.1	105	0.00
20		Methoxychlor (TCLP)	50.000	48.009	4.0	101	0.00
21		Endrin Ketone	50.000	49.520	1.0	100	0.00
22	S	DCBP (Surrogate)	50.000	44.346	11.3	96	-0.01

Signal #2

1	S	TCMX (Surrogage)	50.000	47.468	5.1	94	0.00
2		alpha-BHC	50.000	48.502	3.0	97	0.00
3		gamma-BHC (TCLP)	50.000	48.271	3.5	99	0.00
4		beta-BHC	50.000	48.029	3.9	97	0.00
5		delta-BHC	50.000	45.521	9.0	92	0.00
6		heptachlor (TCLP)	50.000	50.655	-1.3	98	0.00
7		Aldrin	50.000	51.000	-2.0	97	0.00
8		Heptachlor Epoxide (TCLP	50.000	50.153	-0.3	98	0.00
9		gamma-Chlordane	50.000	49.683	0.6	96	0.00
10		alpha-Chlordane	50.000	49.387	1.2	98	0.00
11		Endosulfan I	50.000	50.238	-0.5	98	0.00
12		4,4'-DDE	50.000	46.499	7.0	90	0.00
13		Dieldrin	50.000	47.686	4.6	93	0.00

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081003.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 3:21 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv1 50ppb PT00093.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:33:16 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	50.000	52.262	-4.5	101	0.00
15	4,4'-DDD	50.000	41.797	16.4#	86	0.00
16	Endosulfan II	50.000	48.803	2.4	97	0.00
17	4,4'-DDT	50.000	47.233	5.5	91	0.00
18	Endrin Aldehyde	50.000	46.188	7.6	92	0.00
19	Endosulfan Sulfate	50.000	48.110	3.8	96	0.00
20	Methoxychlor (TCLP)	50.000	42.578	14.8	86	0.00
21	Endrin Ketone	50.000	44.770	10.5	89	0.00
22 S	DCBP (Surrogate)	50.000	41.984	16.0#	87	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	50.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	50.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	50.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	50.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	50.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	50.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	50.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	50.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	50.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	50.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	50.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	50.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	50.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	50.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 5:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:41:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.759	-7.8	108	0.00
2		alpha-BHC	100.000	104.912	-4.9	108	0.00
3		gamma-BHC (TCLP)	100.000	104.782	-4.8	106	0.00
4		beta-BHC	100.000	105.793	-5.8	105	0.00
5		delta-BHC	100.000	103.665	-3.7	105	0.00
6		heptachlor (TCLP)	100.000	111.987	-12.0	108	0.00
7		Aldrin	100.000	109.980	-10.0	105	0.00
8		Heptachlor Epoxide (TCLP)	100.000	107.293	-7.3	105	0.00
9		gamma-Chlordane	100.000	110.615	-10.6	107	0.00
10		alpha-Chlordane	100.000	106.939	-6.9	105	0.00
11		Endosulfan I	100.000	106.922	-6.9	104	0.00
12		4,4'-DDE	100.000	99.361	0.6	101	0.00
13		Dieldrin	100.000	109.246	-9.2	104	0.00
14		Endrin (TCLP)	100.000	112.985	-13.0	107	0.00
15		4,4'-DDD	100.000	97.511	2.5	99	0.00
16		Endosulfan II	100.000	105.307	-5.3	105	0.00
17		4,4'-DDT	100.000	99.663	0.3	102	0.00
18		Endrin Aldehyde	100.000	99.789	0.2	100	0.00
19		Endosulfan Sulfate	100.000	102.585	-2.6	102	0.00
20		Methoxychlor (TCLP)	100.000	96.952	3.0	98	0.00
21		Endrin Ketone	100.000	101.395	-1.4	99	0.00
22	S	DCBP (Surrogate)	100.000	87.398	12.6	91	-0.01

Signal #2

1	S	TCMX (Surrogage)	100.000	93.603	6.4	94	0.00
2		alpha-BHC	100.000	95.300	4.7	95	0.00
3		gamma-BHC (TCLP)	100.000	94.336	5.7	96	0.00
4		beta-BHC	100.000	95.066	4.9	94	0.00
5		delta-BHC	100.000	88.551	11.4	90	0.00
6		heptachlor (TCLP)	100.000	96.049	4.0	95	0.00
7		Aldrin	100.000	97.487	2.5	96	0.00
8		Heptachlor Epoxide (TCLP	100.000	93.646	6.4	95	0.00
9		gamma-Chlordane	100.000	96.542	3.5	94	0.00
10		alpha-Chlordane	100.000	95.820	4.2	95	0.00
11		Endosulfan I	100.000	94.552	5.4	97	0.00
12		4,4'-DDE	100.000	94.414	5.6	89	0.00
13		Dieldrin	100.000	97.867	2.1	96	0.00

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081008.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 5:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv2 100ppb PT00094.
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:41:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	98.244	1.8	98	0.00
15	4,4'-DDD	100.000	84.067	15.9#	85	0.00
16	Endosulfan II	100.000	91.337	8.7	91	0.00
17	4,4'-DDT	100.000	93.090	6.9	89	0.00
18	Endrin Aldehyde	100.000	88.964	11.0	92	0.00
19	Endosulfan Sulfate	100.000	90.807	9.2	92	0.00
20	Methoxychlor (TCLP)	100.000	84.237	15.8#	87	0.00
21	Endrin Ketone	100.000	87.253	12.7	88	0.00
22 S	DCBP (Surrogate)	100.000	81.808	18.2#	86	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091013.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:02 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:24 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 S	TCMX (Surrogage)	100.000	106.736	-6.7	107	0.00
2	alpha-BHC	100.000	104.361	-4.4	107	0.00
3	gamma-BHC (TCLP)	100.000	103.720	-3.7	105	0.00
4	beta-BHC	100.000	105.861	-5.9	105	0.00
5	delta-BHC	100.000	105.129	-5.1	107	0.00
6	heptachlor (TCLP)	100.000	108.590	-8.6	105	0.00
7	Aldrin	100.000	109.493	-9.5	104	0.00
8	Heptachlor Epoxide (TCLP)	100.000	107.260	-7.3	105	0.00
9	gamma-Chlordane	100.000	110.179	-10.2	106	0.00
10	alpha-Chlordane	100.000	106.269	-6.3	104	0.00
11	Endosulfan I	100.000	105.105	-5.1	102	0.00
12	4,4'-DDE	100.000	101.757	-1.8	104	0.00
13	Dieldrin	100.000	111.597	-11.6	106	0.00
14	Endrin (TCLP)	100.000	116.874	-16.9#	111	0.00
15	4,4'-DDD	100.000	104.167	-4.2	106	0.00
16	Endosulfan II	100.000	110.112	-10.1	109	0.00
17	4,4'-DDT	100.000	106.545	-6.5	110	0.00
18	Endrin Aldehyde	100.000	106.896	-6.9	108	0.00
19	Endosulfan Sulfate	100.000	110.849	-10.8	110	0.00
20	Methoxychlor (TCLP)	100.000	106.281	-6.3	107	0.00
21	Endrin Ketone	100.000	105.763	-5.8	103	0.00
22 S	DCBP (Surrogate)	100.000	92.597	7.4	96	-0.01

Signal #2

1 S	TCMX (Surrogage)	100.000	77.270	22.7#	77	0.00
2	alpha-BHC	100.000	77.224	22.8#	76	0.00
3	gamma-BHC (TCLP)	100.000	75.466	24.5#	76	0.00
4	beta-BHC	100.000	77.103	22.9#	76	0.00
5	delta-BHC	100.000	74.873	25.1#	75	0.00
6	heptachlor (TCLP)	100.000	79.213	20.8#	79	0.00
7	Aldrin	100.000	78.817	21.2#	78	0.00
8	Heptachlor Epoxide (TCLP	100.000	77.717	22.3#	79	0.00
9	gamma-Chlordane	100.000	78.082	21.9#	76	0.00
10	alpha-Chlordane	100.000	76.740	23.3#	76	0.00
11	Endosulfan I	100.000	77.289	22.7#	79	0.00
12	4,4'-DDE	100.000	80.426	19.6#	75	0.00
13	Dieldrin	100.000	80.146	19.9#	79	0.00

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091013.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:02 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:24 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14		Endrin (TCLP)	100.000	81.666	18.3#	81	0.00
15		4,4'-DDD	100.000	76.200	23.8#	77	0.00
16		Endosulfan II	100.000	79.265	20.7#	79	0.00
17		4,4'-DDT	100.000	81.893	18.1#	78	0.00
18		Endrin Aldehyde	100.000	77.639	22.4#	80	0.00
19		Endosulfan Sulfate	100.000	80.754	19.2#	82	0.00
20		Methoxychlor (TCLP)	100.000	77.894	22.1#	80	0.00
21		Endrin Ketone	100.000	77.858	22.1#	79	0.00
22	S	DCBP (Surrogate)	100.000	79.983	20.0#	84	0.00

Evaluate Continuing Calibration Report - Not Founds

23	H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23	H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24	L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25	L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26	L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27	L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28	L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29	L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:52 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	105.316	-5.3	105	-0.01
2		alpha-BHC	100.000	104.335	-4.3	107	-0.01
3		gamma-BHC (TCLP)	100.000	104.572	-4.6	106	-0.01
4		beta-BHC	100.000	105.053	-5.1	104	-0.01
5		delta-BHC	100.000	104.920	-4.9	107	-0.01
6		heptachlor (TCLP)	100.000	109.381	-9.4	106	-0.01
7		Aldrin	100.000	109.210	-9.2	104	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	105.592	-5.6	104	-0.01
9		gamma-Chlordane	100.000	108.071	-8.1	104	-0.01
10		alpha-Chlordane	100.000	107.949	-7.9	106	-0.01
11		Endosulfan I	100.000	106.049	-6.0	103	-0.01
12		4,4'-DDE	100.000	101.898	-1.9	104	-0.01
13		Dieldrin	100.000	108.363	-8.4	103	-0.01
14		Endrin (TCLP)	100.000	114.292	-14.3	108	-0.01
15		4,4'-DDD	100.000	101.670	-1.7	103	-0.01
16		Endosulfan II	100.000	107.245	-7.2	107	-0.01
17		4,4'-DDT	100.000	103.555	-3.6	106	-0.01
18		Endrin Aldehyde	100.000	106.336	-6.3	107	-0.01
19		Endosulfan Sulfate	100.000	107.279	-7.3	106	-0.01
20		Methoxychlor (TCLP)	100.000	104.321	-4.3	105	-0.01
21		Endrin Ketone	100.000	106.279	-6.3	104	-0.01
22	S	DCBP (Surrogate)	100.000	93.234	6.8	97	-0.02

Signal #2

1	S	TCMX (Surrogage)	100.000	77.779	22.2#	78	0.00
2		alpha-BHC	100.000	78.671	21.3#	78	0.00
3		gamma-BHC (TCLP)	100.000	77.848	22.2#	79	0.00
4		beta-BHC	100.000	78.734	21.3#	78	0.00
5		delta-BHC	100.000	76.179	23.8#	76	0.00
6		heptachlor (TCLP)	100.000	79.248	20.8#	79	0.00
7		Aldrin	100.000	80.984	19.0#	80	0.00
8		Heptachlor Epoxide (TCLP	100.000	79.051	20.9#	81	0.00
9		gamma-Chlordane	100.000	80.588	19.4#	78	0.00
10		alpha-Chlordane	100.000	79.280	20.7#	78	0.00
11		Endosulfan I	100.000	78.239	21.8#	80	0.00
12		4,4'-DDE	100.000	80.634	19.4#	76	0.00
13		Dieldrin	100.000	81.981	18.0#	80	0.00

Data Path : D:\MSDChem\1\DATA\020910\
Data File : 02091015.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 09 Feb 2010 7:56 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000424-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 12:31:52 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	82.823	17.2#	82	0.00
15	4,4'-DDD	100.000	73.928	26.1#	75	0.00
16	Endosulfan II	100.000	79.117	20.9#	79	0.00
17	4,4'-DDT	100.000	81.795	18.2#	78	0.00
18	Endrin Aldehyde	100.000	76.948	23.1#	80	0.00
19	Endosulfan Sulfate	100.000	80.489	19.5#	82	0.00
20	Methoxychlor (TCLP)	100.000	74.962	25.0#	77	0.00
21	Endrin Ketone	100.000	78.974	21.0#	80	0.00
22 S	DCBP (Surrogate)	100.000	82.243	17.8#	86	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151004.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 12:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:41:46 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	106.299	-6.3	106	-0.01
2		alpha-BHC	100.000	103.494	-3.5	106	-0.01
3		gamma-BHC (TCLP)	100.000	103.374	-3.4	105	-0.01
4		beta-BHC	100.000	105.170	-5.2	104	-0.01
5		delta-BHC	100.000	103.667	-3.7	105	-0.01
6		heptachlor (TCLP)	100.000	109.937	-9.9	106	-0.01
7		Aldrin	100.000	110.078	-10.1	105	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	106.095	-6.1	104	-0.01
9		gamma-Chlordane	100.000	112.795	-12.8	109	-0.01
10		alpha-Chlordane	100.000	110.062	-10.1	108	-0.01
11		Endosulfan I	100.000	105.940	-5.9	103	-0.01
12		4,4'-DDE	100.000	102.135	-2.1	104	-0.01
13		Dieldrin	100.000	110.645	-10.6	105	-0.01
14		Endrin (TCLP)	100.000	115.022	-15.0#	109	-0.01
15		4,4'-DDD	100.000	104.337	-4.3	106	-0.01
16		Endosulfan II	100.000	110.304	-10.3	110	-0.01
17		4,4'-DDT	100.000	107.060	-7.1	110	-0.01
18		Endrin Aldehyde	100.000	107.090	-7.1	108	-0.01
19		Endosulfan Sulfate	100.000	109.057	-9.1	108	-0.01
20		Methoxychlor (TCLP)	100.000	106.477	-6.5	107	-0.01
21		Endrin Ketone	100.000	108.189	-8.2	105	-0.02
22	S	DCBP (Surrogate)	100.000	99.235	0.8	103	-0.02

Signal #2

1	S	TCMX (Surrogage)	100.000	87.131	12.9	87	0.00
2		alpha-BHC	100.000	86.810	13.2	86	0.00
3		gamma-BHC (TCLP)	100.000	86.791	13.2	88	0.00
4		beta-BHC	100.000	89.190	10.8	88	0.00
5		delta-BHC	100.000	83.275	16.7#	84	0.00
6		heptachlor (TCLP)	100.000	87.378	12.6	87	0.00
7		Aldrin	100.000	91.253	8.7	90	0.00
8		Heptachlor Epoxide (TCLP	100.000	87.200	12.8	89	0.00
9		gamma-Chlordane	100.000	91.352	8.6	89	0.00
10		alpha-Chlordane	100.000	91.154	8.8	90	0.00
11		Endosulfan I	100.000	87.268	12.7	89	0.00
12		4,4'-DDE	100.000	90.280	9.7	85	0.00
13		Dieldrin	100.000	91.805	8.2	90	0.00

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151004.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 12:37 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv2 100ppb,PT00094.
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:41:46 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	92.062	7.9	92	0.00
15	4,4'-DDD	100.000	84.253	15.7#	85	0.00
16	Endosulfan II	100.000	88.271	11.7	88	0.00
17	4,4'-DDT	100.000	95.556	4.4	91	0.00
18	Endrin Aldehyde	100.000	85.719	14.3	89	0.00
19	Endosulfan Sulfate	100.000	90.478	9.5	92	0.00
20	Methoxychlor (TCLP)	100.000	86.160	13.8	89	0.00
21	Endrin Ketone	100.000	87.150	12.8	88	0.00
22 S	DCBP (Surrogate)	100.000	96.088	3.9	101	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 6:08 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:47:31 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	107.306	-7.3	107	0.00
2		alpha-BHC	100.000	105.231	-5.2	108	-0.01
3		gamma-BHC (TCLP)	100.000	106.183	-6.2	108	0.00
4		beta-BHC	100.000	106.125	-6.1	105	-0.01
5		delta-BHC	100.000	105.404	-5.4	107	-0.01
6		heptachlor (TCLP)	100.000	111.251	-11.3	108	-0.01
7		Aldrin	100.000	112.512	-12.5	107	-0.01
8		Heptachlor Epoxide (TCLP)	100.000	107.656	-7.7	106	-0.01
9		gamma-Chlordane	100.000	113.633	-13.6	109	-0.01
10		alpha-Chlordane	100.000	112.205	-12.2	110	-0.01
11		Endosulfan I	100.000	107.609	-7.6	105	-0.01
12		4,4'-DDE	100.000	103.134	-3.1	105	-0.01
13		Dieldrin	100.000	111.897	-11.9	106	-0.01
14		Endrin (TCLP)	100.000	116.967	-17.0#	111	-0.01
15		4,4'-DDD	100.000	102.336	-2.3	104	-0.01
16		Endosulfan II	100.000	109.914	-9.9	109	-0.01
17		4,4'-DDT	100.000	107.622	-7.6	111	-0.01
18		Endrin Aldehyde	100.000	108.190	-8.2	109	-0.01
19		Endosulfan Sulfate	100.000	111.640	-11.6	111	-0.01
20		Methoxychlor (TCLP)	100.000	107.304	-7.3	108	-0.01
21		Endrin Ketone	100.000	109.238	-9.2	106	-0.01
22	S	DCBP (Surrogate)	100.000	98.806	1.2	103	-0.02

Signal #2

1	S	TCMX (Surrogage)	100.000	89.209	10.8	89	0.00
2		alpha-BHC	100.000	89.365	10.6	89	0.00
3		gamma-BHC (TCLP)	100.000	89.792	10.2	92	0.00
4		beta-BHC	100.000	89.228	10.8	88	0.00
5		delta-BHC	100.000	86.518	13.5	87	0.00
6		heptachlor (TCLP)	100.000	89.327	10.7	89	0.00
7		Aldrin	100.000	92.734	7.3	92	0.00
8		Heptachlor Epoxide (TCLP	100.000	88.074	11.9	90	0.00
9		gamma-Chlordane	100.000	94.013	6.0	91	0.00
10		alpha-Chlordane	100.000	92.198	7.8	91	0.00
11		Endosulfan I	100.000	90.197	9.8	92	0.00
12		4,4'-DDE	100.000	90.398	9.6	85	0.00
13		Dieldrin	100.000	93.105	6.9	91	0.00

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\021510\
Data File : 02151014.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Feb 2010 6:08 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000443-ccv3 100ppb,PT00094.
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 13:47:31 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	94.733	5.3	94	0.00
15	4,4'-DDD	100.000	83.101	16.9#	84	0.00
16	Endosulfan II	100.000	90.007	10.0	90	0.00
17	4,4'-DDT	100.000	97.820	2.2	93	0.00
18	Endrin Aldehyde	100.000	88.193	11.8	91	0.00
19	Endosulfan Sulfate	100.000	92.336	7.7	94	0.00
20	Methoxychlor (TCLP)	100.000	86.335	13.7	89	0.00
21	Endrin Ketone	100.000	90.623	9.4	92	0.00
22 S	DCBP (Surrogate)	100.000	96.873	3.1	101	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Eric Lahr

From: Eric Lahr
Sent: Friday, March 26, 2010 12:11 PM
To: 'McKenzie, Doug'
Subject: RE: Work Order PTA0583 Deliverables Requests

Hey Doug,

Could you please provide the instrumental ECC form for the CCV standard analyzed on 2/8/10 at 19:07. It was not included in the attached .pdf file. Thanks!

-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:59 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests
Importance: High

Here are the instrumental ECC forms. I'm still going to have the analyst see if they can determine why the surrogates aren't printing out on the forms from the LIMS though. ☺

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:45 PM
To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Requests

Thanks Doug! I have seen in past data packages that you have sent that you sometimes include CCV standard forms for pesticides that come directly from the instrument (Continuing Calibration Reports). Those reports have the surrogate compounds on them and it is fine if you can just provide those. That way, you don't need to go through the trouble of having to correct the Continuing Calibration Check forms.

-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:39 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests

I've requested that the analysts look at their sequences in our LIMS to see if we can get the pesticide forms corrected for you.

It probably won't get resolved until next week, but I'll send them over as quickly as I can get them fixed.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:32 PM
To: Auvil, Darrell
Cc: McKenzie, Doug; Laver, Linda; Brendan Robinson; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Requests

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, the surrogate compounds are not reported on the Continuing Calibration Check forms. Could you please provide amended forms that include the continuing calibration verification standard information for the surrogate compounds.

2.) In the dioxin/furan fraction (Sacramento Project Number G0A220427), could you please provide the summary form and raw data for the continuing calibration verification standard (CS3) analyzed on 2/9/10 (Sample 49; ST0208D).

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Eric Lahr

From: Eric Lahr
Sent: Monday, March 29, 2010 1:35 PM
To: 'Darrell.Auvil@testamericainc.com'
Cc: 'McKenzie, Doug'; 'Brendan Robinson'; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Request #2

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, could you please provide forms summarizing the precision between the dual-column results (showing the calculated relative percent differences [RPDs] between the positive results and whether those RPDs are above or below the 40% acceptance criterion) for all samples and QC samples.

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Eric Lahr

Subject: RE: Work Order PTA0583 Deliverables Requests

Here it is

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Friday, March 26, 2010 9:11 AM
To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Requests

Hey Doug,

Could you please provide the instrumental ECC form for the CCV standard analyzed on 2/8/10 at 19:07. It was not included in the attached .pdf file. Thanks!

-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:59 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests
Importance: High

Here are the instrumental ECC forms. I'm still going to have the analyst see if they can determine why the surrogates aren't printing out on the forms from the LIMS though. ☺

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:45 PM
To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Requests

Thanks Doug! I have seen in past data packages that you have sent that you sometimes include CCV standard forms for pesticides that come directly from the instrument (Continuing Calibration Reports). Those reports have the surrogate compounds on them and it is fine if you can just provide those. That way, you don't need to go through the trouble of having to correct the Continuing Calibration Check forms.

-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Thursday, March 25, 2010 4:39 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Requests

I've requested that the analysts look at their sequences in our LIMS to see if we can get the pesticide forms corrected for you.

It probably won't get resolved until next week, but I'll send them over as quickly as I can get them fixed.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:32 PM
To: Auvil, Darrell
Cc: McKenzie, Doug; Laver, Linda; Brendan Robinson; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Requests

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, the surrogate compounds are not reported on the Continuing Calibration Check forms. Could you please provide amended forms that include the continuing calibration verification standard information for the surrogate compounds.

2.) In the dioxin/furan fraction (Sacramento Project Number G0A220427), could you please provide the summary form and raw data for the continuing calibration verification standard (CS3) analyzed on 2/9/10 (Sample 49; ST0208D).

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Evaluate Continuing Calibration Report

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081011.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 7:07 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv3 100ppb PT00094.
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:42:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	S	TCMX (Surrogage)	100.000	109.250	-9.3	109	0.00
2		alpha-BHC	100.000	108.586	-8.6	112	0.00
3		gamma-BHC (TCLP)	100.000	107.539	-7.5	109	0.00
4		beta-BHC	100.000	108.443	-8.4	108	0.00
5		delta-BHC	100.000	106.447	-6.4	108	0.00
6		heptachlor (TCLP)	100.000	112.491	-12.5	109	0.00
7		Aldrin	100.000	113.556	-13.6	108	0.00
8		Heptachlor Epoxide (TCLP)	100.000	108.104	-8.1	106	0.00
9		gamma-Chlordane	100.000	112.125	-12.1	108	0.00
10		alpha-Chlordane	100.000	109.719	-9.7	107	0.00
11		Endosulfan I	100.000	108.794	-8.8	106	0.00
12		4,4'-DDE	100.000	102.026	-2.0	104	0.00
13		Dieldrin	100.000	112.587	-12.6	107	0.00
14		Endrin (TCLP)	100.000	116.460	-16.5#	110	0.00
15		4,4'-DDD	100.000	100.338	-0.3	102	0.00
16		Endosulfan II	100.000	109.268	-9.3	109	0.00
17		4,4'-DDT	100.000	102.693	-2.7	105	0.00
18		Endrin Aldehyde	100.000	105.591	-5.6	106	0.00
19		Endosulfan Sulfate	100.000	105.128	-5.1	104	0.00
20		Methoxychlor (TCLP)	100.000	100.505	-0.5	101	0.00
21		Endrin Ketone	100.000	102.924	-2.9	100	0.00
22	S	DCBP (Surrogate)	100.000	87.351	12.6	91	0.00

Signal #2

1	S	TCMX (Surrogage)	100.000	97.013	3.0	97	0.00
2		alpha-BHC	100.000	98.894	1.1	99	0.00
3		gamma-BHC (TCLP)	100.000	96.525	3.5	99	0.00
4		beta-BHC	100.000	98.320	1.7	97	0.00
5		delta-BHC	100.000	95.431	4.6	97	0.00
6		heptachlor (TCLP)	100.000	99.279	0.7	99	0.00
7		Aldrin	100.000	102.863	-2.9	102	0.00
8		Heptachlor Epoxide (TCLP	100.000	97.119	2.9	99	0.00
9		gamma-Chlordane	100.000	101.890	-1.9	99	0.00
10		alpha-Chlordane	100.000	100.586	-0.6	100	0.00
11		Endosulfan I	100.000	96.950	3.0	99	0.00
12		4,4'-DDE	100.000	97.301	2.7	91	0.00
13		Dieldrin	100.000	99.791	0.2	98	0.00

Data Path : D:\MSDChem\1\DATA\020810\
Data File : 02081011.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 08 Feb 2010 7:07 pm
InstName : SV-ECD12
Operator : YUX
Sample : T000411-ccv3 100ppb PT00094.
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: AUTOINT1.E
Integration File signal 2: autoint2.e
Quant Time: Feb 17 11:42:20 2010
Quant Method : D:\MSDCHEM\1\METHODS\011910CT.M
Quant Title : 608/8081a pest
QLast Update : Tue Feb 16 16:57:33 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : STX-CLP II Signal #2 Phase: STX-CLP
Signal #1 Info : 0.25 mm Signal #2 Info : 0.25 mm

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
14	Endrin (TCLP)	100.000	100.032	-0.0	100	0.00
15	4,4'-DDD	100.000	86.440	13.6	87	0.00
16	Endosulfan II	100.000	95.251	4.7	95	0.00
17	4,4'-DDT	100.000	99.181	0.8	94	0.00
18	Endrin Aldehyde	100.000	92.447	7.6	96	0.00
19	Endosulfan Sulfate	100.000	93.815	6.2	95	0.00
20	Methoxychlor (TCLP)	100.000	86.629	13.4	89	0.00
21	Endrin Ketone	100.000	90.447	9.6	91	0.00
22 S	DCBP (Surrogate)	100.000	83.818	16.2#	88	0.00

Evaluate Continuing Calibration Report - Not Founds

23 H	Toxaphene	100.000	0.000	100.0#	0	-16.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-11.46#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-13.48#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-13.61#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.71#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-15.10#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

Signal #2

23 H	Toxaphene	100.000	0.000	100.0#	0	-14.00#
24 L1	Chlordane (1)	100.000	0.000	100.0#	0	-10.42#
25 L1	Chlordane (2)	100.000	0.000	100.0#	0	-11.28#
26 L1	Chlordane (3)	100.000	0.000	100.0#	0	-12.22#
27 L1	Chlordane (4)	100.000	0.000	100.0#	0	-13.39#
28 L1	Chlordane (5)	100.000	0.000	100.0#	0	-13.57#
29 L1	Chlordane - Total	100.000	0.000	100.0#	0	-1.90#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Eric Lahr

From: Laver, Linda [Linda.Laver@testamericainc.com]
Sent: Wednesday, March 31, 2010 3:50 PM
To: Eric Lahr; Auvil, Darrell
Cc: McKenzie, Doug; Brendan Robinson; Rock J. Vitale
Subject: RE: Work Order PTA0583 Deliverables Requests
Attachments: Pages from G0A220427_RP_5YRS.PDF; Pages from G0A220427_RP_5YRS.PDF

Good afternoon Eric and Darrell,

This email is in response to item 2 requested listed in the email below sent by Eric. The summary page is included on page 984 in our scanned copy of the data package and the chromatograms on pages 1051-1067. Not the easiest to find but they are there. I have attached a copy of each to help save time. I hope this helps. Please let me know if there is anything else we can assist you with.

Enjoy your day,

LINDA C. LAVER
Project Manager
Work hours M-F, 9:30-3:30

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

880 Riverside Parkway
West Sacramento, CA 95605
Office: 916 374 4362 | Fax: 916 372 1059
Linda.Laver@testamericainc.com
www.testamericainc.com

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

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From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Thursday, March 25, 2010 1:32 PM
To: Auvil, Darrell
Cc: McKenzie, Doug; Laver, Linda; Brendan Robinson; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Requests

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, the surrogate compounds are not reported on the Continuing Calibration Check forms. Could you please provide amended forms that include the continuing calibration verification standard information for the surrogate compounds.

2.) In the dioxin/furan fraction (Sacramento Project Number G0A220427), could you please provide the summary form and raw data for the continuing calibration verification standard (CS3) analyzed on 2/9/10 (Sample 49; ST0208D).

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

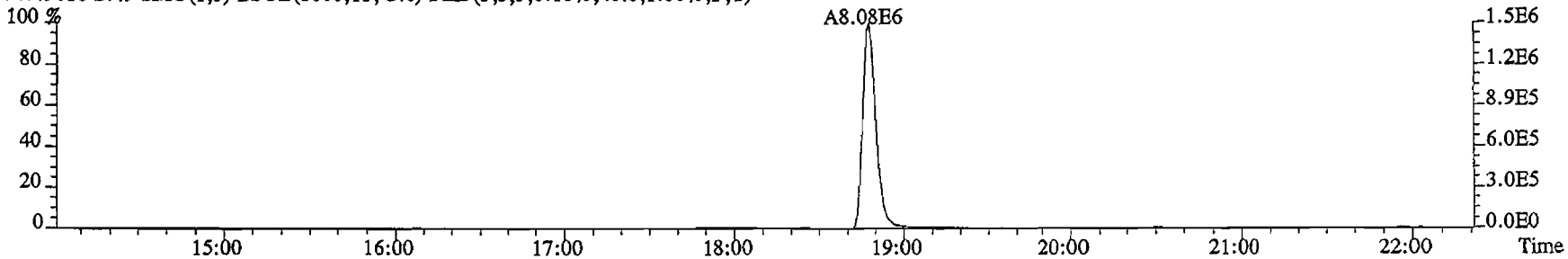
Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

Run text: ST0208D File text: ST0208D :CS3 09DXN425
Run #40 Filename 08FE104D5 S: 49 I: 1
Acquired: 10-FEB-10 00:16:19 Processed: 10-FEB-10 08:12:29
Run: 08FE104D5 Analyte: 8290 Cal: 82900204104D5 Results: 08FE104D58290

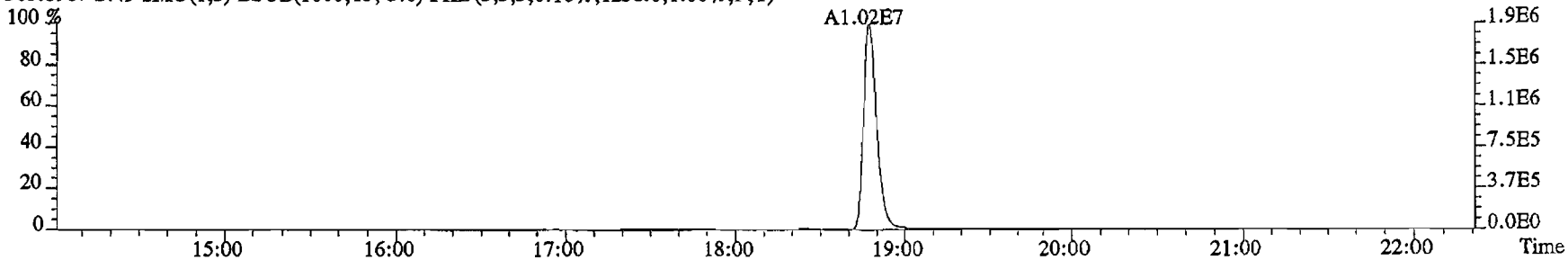
Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
13C-1,2,3,4-TCDD	110718800	0.81 y	19:19	-	100.00	-	n
13C-2,3,7,8-TCDF	172833400	0.80 y	18:46	1.56	100.00	-0.6	n
2,3,7,8-TCDF	18263920	0.79 y	18:48	1.06	10.00	0.4	n
Total TCDF	18509105	0.68 y	17:48	1.06	10.00	0.4	n
13C-2,3,7,8-TCDD	110379200	0.80 y	19:33	1.00	100.00	-0.4	n
2,3,7,8-TCDD	11436120	0.76 y	19:35	1.04	10.00	-1.7	n
Total TCDD	11631215	1.86 n	18:47	1.04	10.00	-1.7	n
37Cl-2,3,7,8-TCDD	25061400	1.00 y	19:35	2.26	10.00	-6.3	n
13C-1,2,3,7,8-PeCDF	142492400	1.58 y	24:24	1.29	100.00	-3.7	n
1,2,3,7,8-PeCDF	80885200	1.58 y	24:26	1.14	50.00	6.1	n
2,3,4,7,8-PeCDF	81137100	1.57 y	25:55	1.14	50.00	9.9	n
Total F2 PeCDF	163450003	1.52 y	22:56	1.14	100.00	8.0	n
Total F1 PeCDF	82414	1.11 n	14:14	1.14	100.00	8.0	n
13C-1,2,3,7,8-PeCDD	93990600	1.56 y	26:41	0.85	100.00	4.5	n
1,2,3,7,8-PeCDD	48208400	1.60 y	26:42	1.03	50.00	-1.2	n
Total PeCDD	48553918	1.60 y	26:42	1.03	50.00	-1.2	n
13C-1,2,3,7,8,9-HxCDD	101213500	1.27 y	33:02	-	100.00	-	n
13C-1,2,3,4,7,8-HxCDF	117620100	0.52 y	31:51	1.16	100.00	14.5	n
1,2,3,4,7,8-HxCDF	76885600	1.25 y	31:52	1.31	50.00	5.5	n
1,2,3,6,7,8-HxCDF	87565500	1.25 y	31:59	1.49	50.00	-0.1	n
2,3,4,6,7,8-HxCDF	77926600	1.25 y	32:34	1.33	50.00	-1.1	n
1,2,3,7,8,9-HxCDF	65045000	1.24 y	33:13	1.11	50.00	-9.3	n
Total HxCDF	307579967	1.19 y	30:42	1.31	200.00	-1.2	n
13C-1,2,3,6,7,8-HxCDD	96080500	1.28 y	32:46	0.95	100.00	7.4	n
1,2,3,4,7,8-HxCDD	47045200	1.27 y	32:42	0.98	50.00	8.5	n
1,2,3,6,7,8-HxCDD	57433900	1.30 y	32:46	1.20	50.00	0.5	n
1,2,3,7,8,9-HxCDD	54972500	1.28 y	33:03	1.14	50.00	-1.2	n
Total HxCDD	159451600	1.27 y	32:42	1.11	150.00	2.1	n
13C-1,2,3,4,6,7,8-HpCDF	96503300	0.46 y	34:34	0.95	100.00	0.9	n
1,2,3,4,6,7,8-HpCDF	66678000	0.99 y	34:34	1.38	50.00	6.4	n
1,2,3,4,7,8,9-HpCDF	51103300	1.00 y	35:41	1.06	50.00	-3.9	n
Total HpCDF	118457580	0.99 y	34:34	1.22	100.00	1.7	n
13C-1,2,3,4,6,7,8-HpCDD	79447600	1.08 y	35:21	0.78	100.00	-1.0	n
1,2,3,4,6,7,8-HpCDD	42991300	1.05 y	35:22	1.08	50.00	2.5	n
Total HpCDD	43380188	1.22 n	34:49	1.08	50.00	2.5	n
13C-OCDD	107436800	0.89 y	37:50	0.53	200.00	-8.8	n
OCDF	83979900	0.93 y	37:57	1.56	100.00	0.4	n
OCDD	64616300	0.92 y	37:50	1.20	100.00	0.8	n

File:08FB104D5 #1-578 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

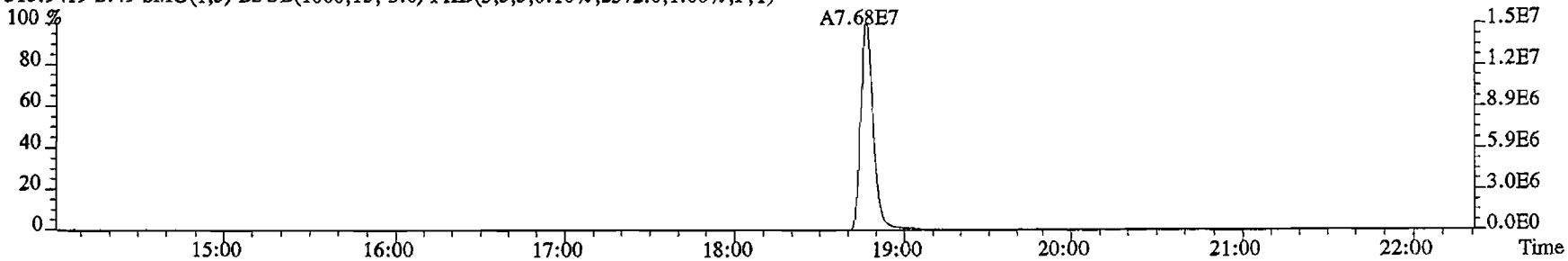
303.9016 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,48.0,1.00%,F,T)



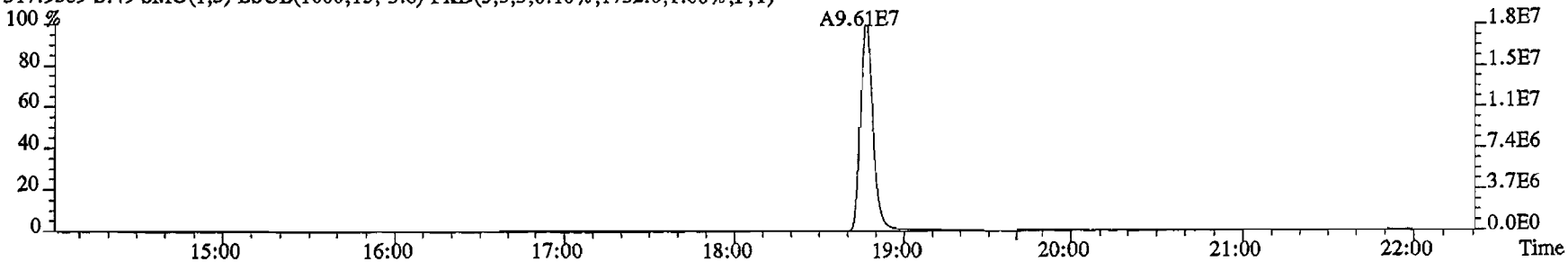
305.8987 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1256.0,1.00%,F,T)



315.9419 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2572.0,1.00%,F,T)

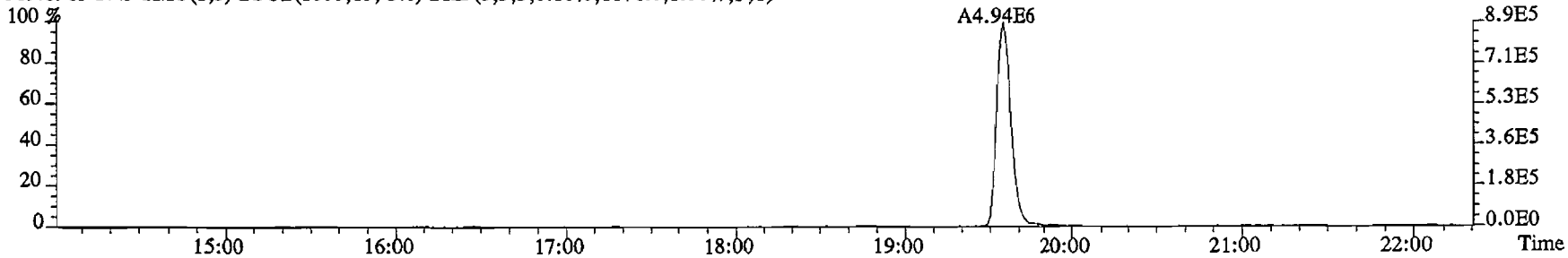


317.9389 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1732.0,1.00%,F,T)

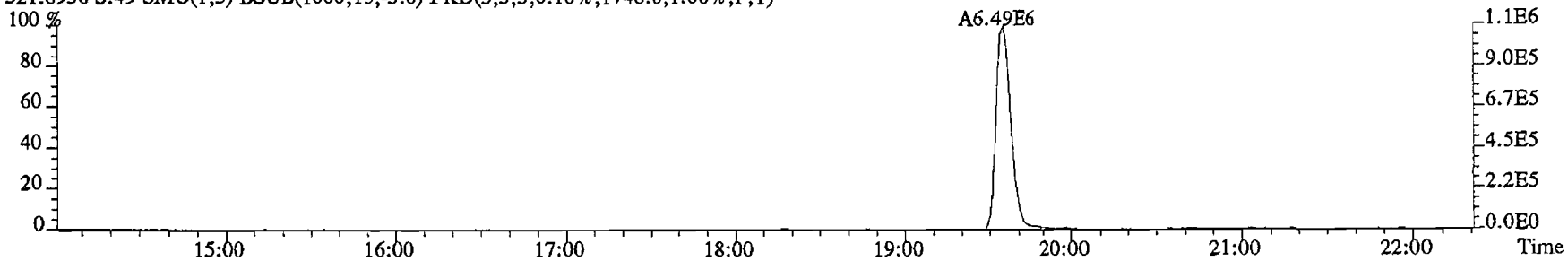


File:08FE104D5 #1-578 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

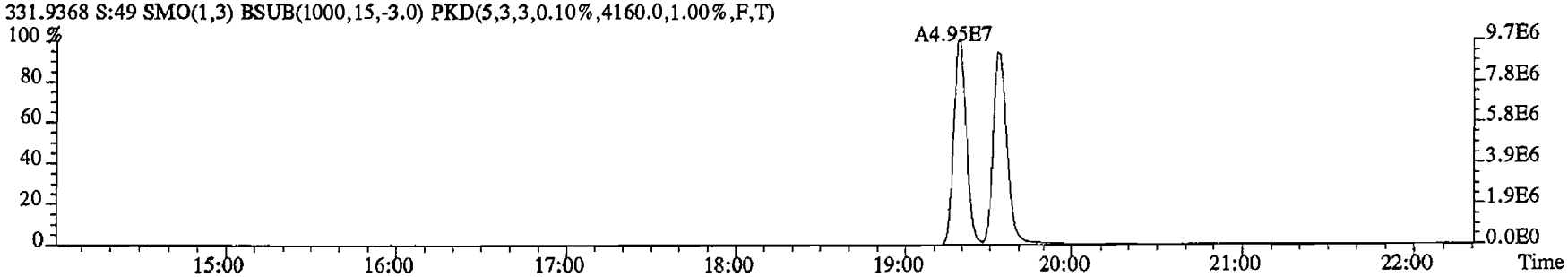
319.8965 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1176.0,1.00%,F,T)



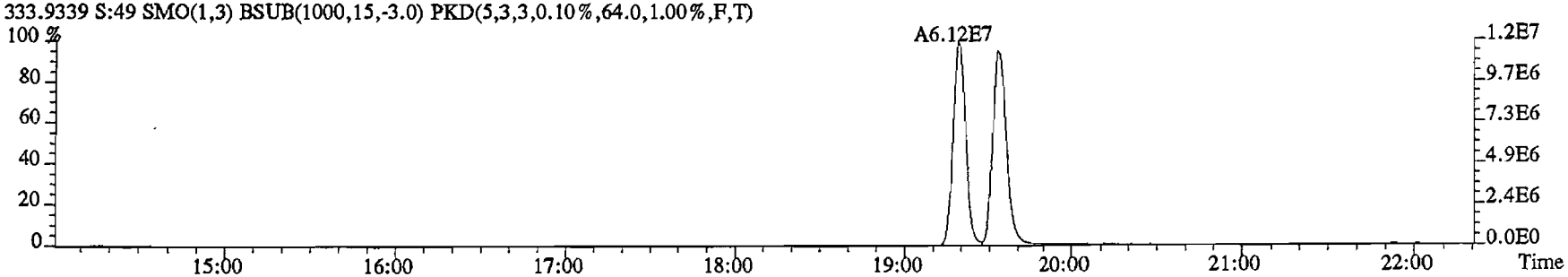
321.8936 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1748.0,1.00%,F,T)



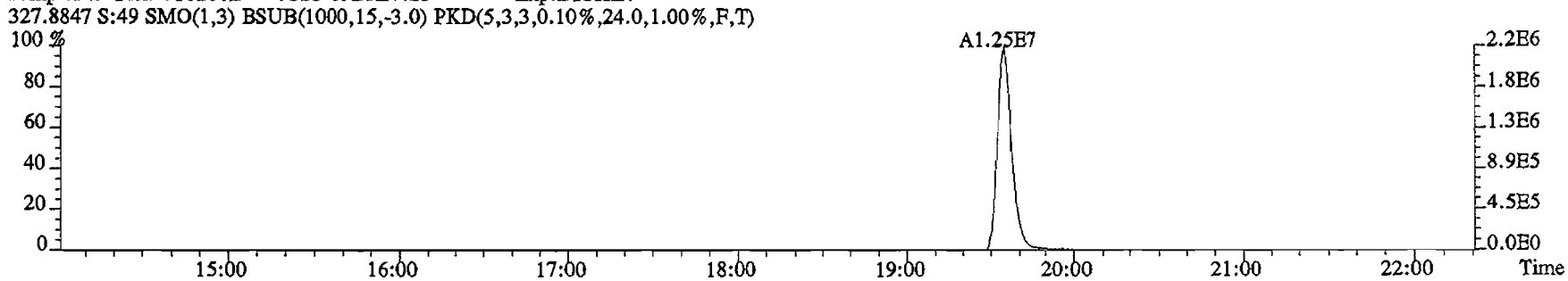
331.9368 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4160.0,1.00%,F,T)

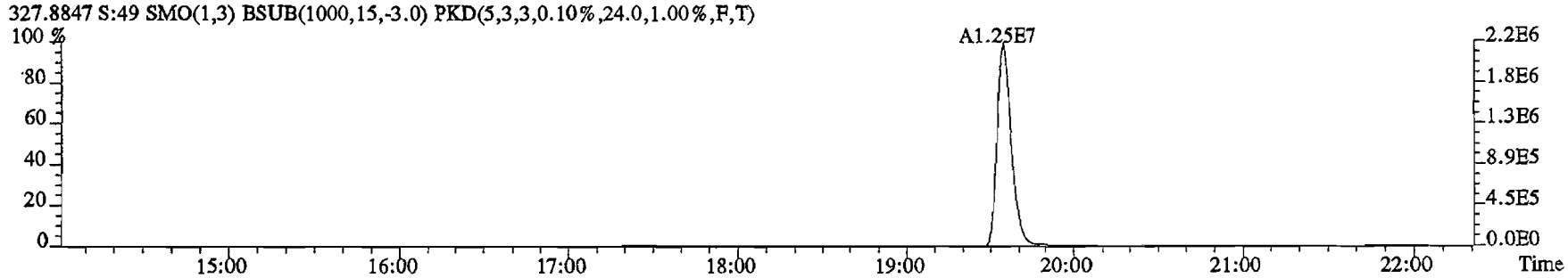


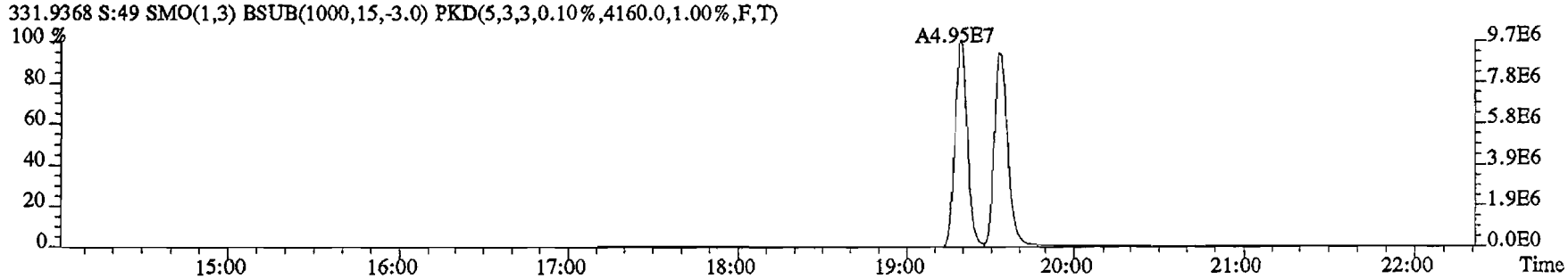
333.9339 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,64.0,1.00%,F,T)

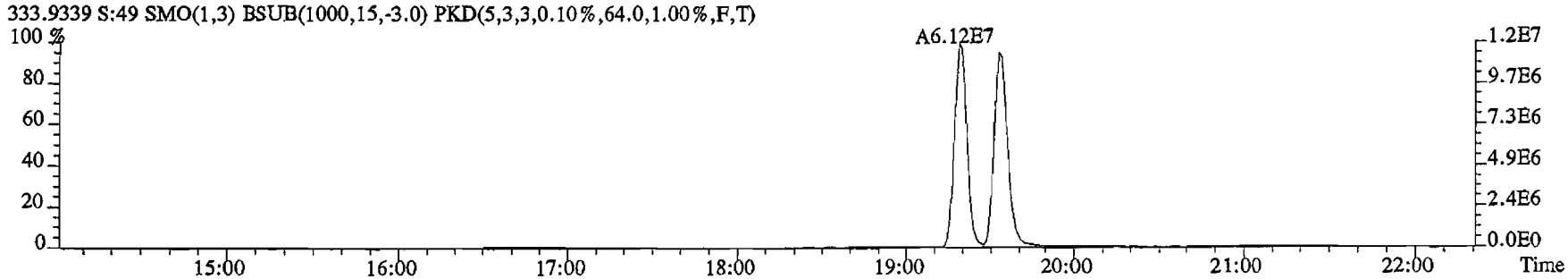


File:08FE104D5 #1-578 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN



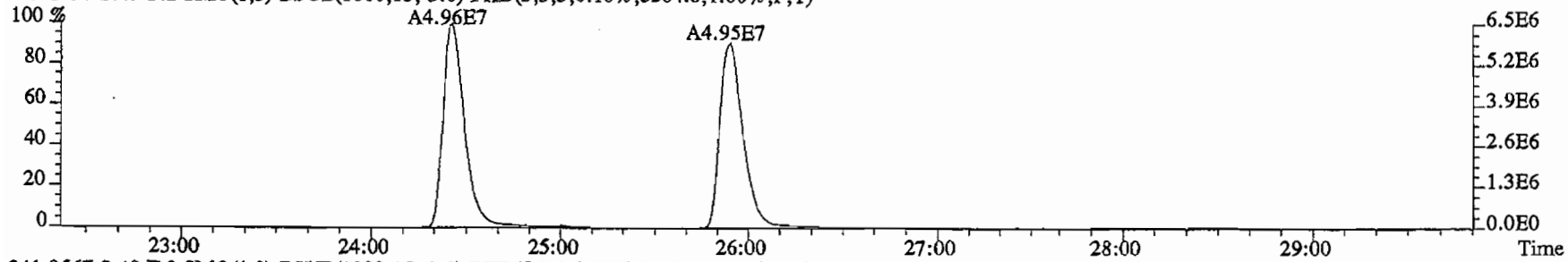




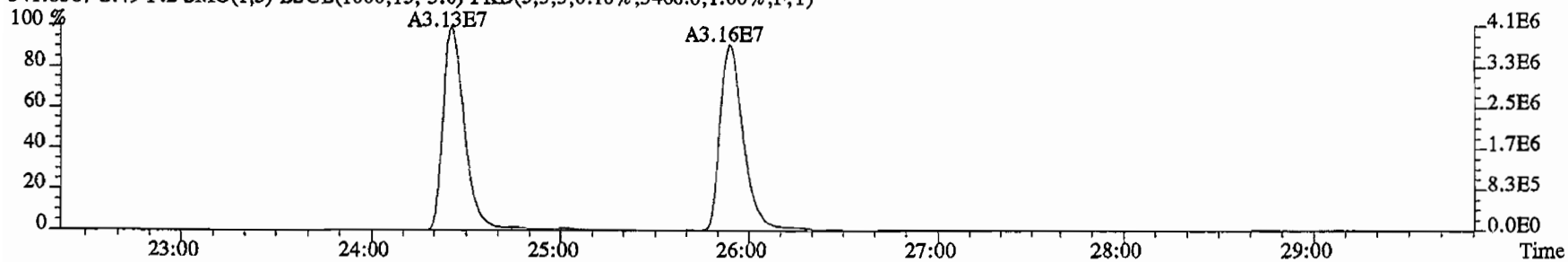


File:08FB104D5 #1-596 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

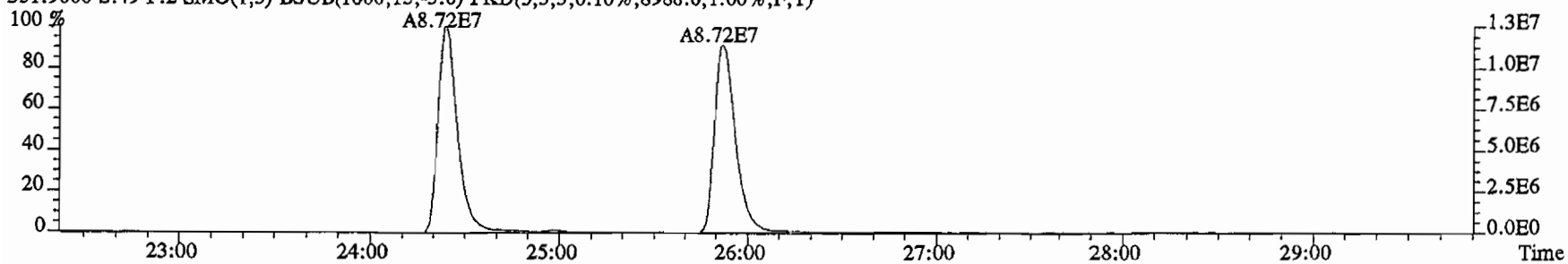
339.8597 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5504.0,1.00%,F,T)



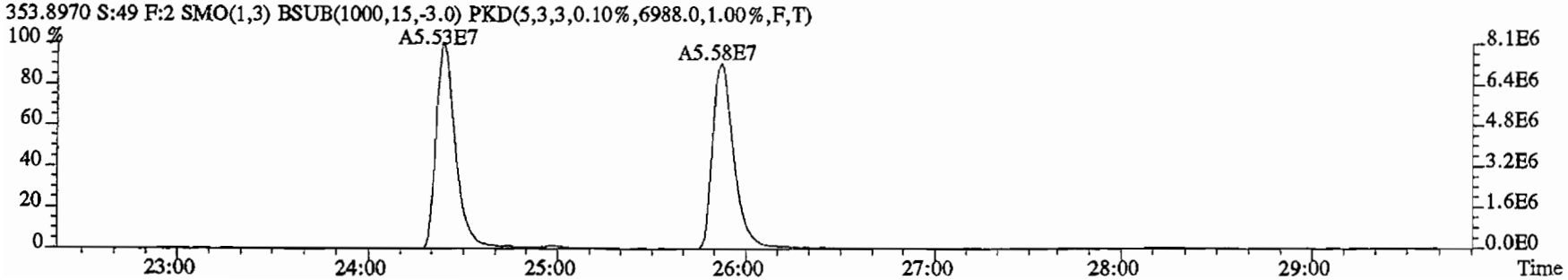
341.8567 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3468.0,1.00%,F,T)



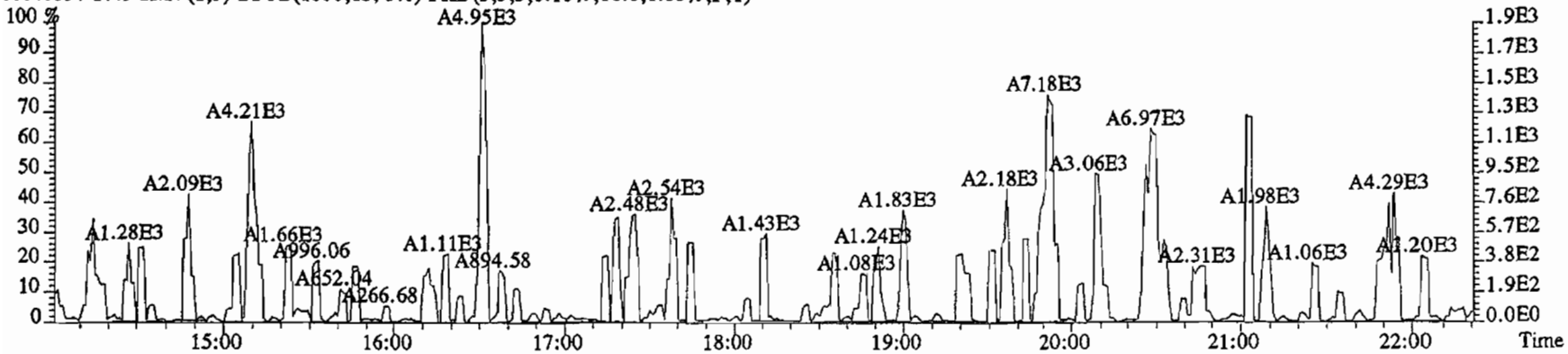
351.9000 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8988.0,1.00%,F,T)



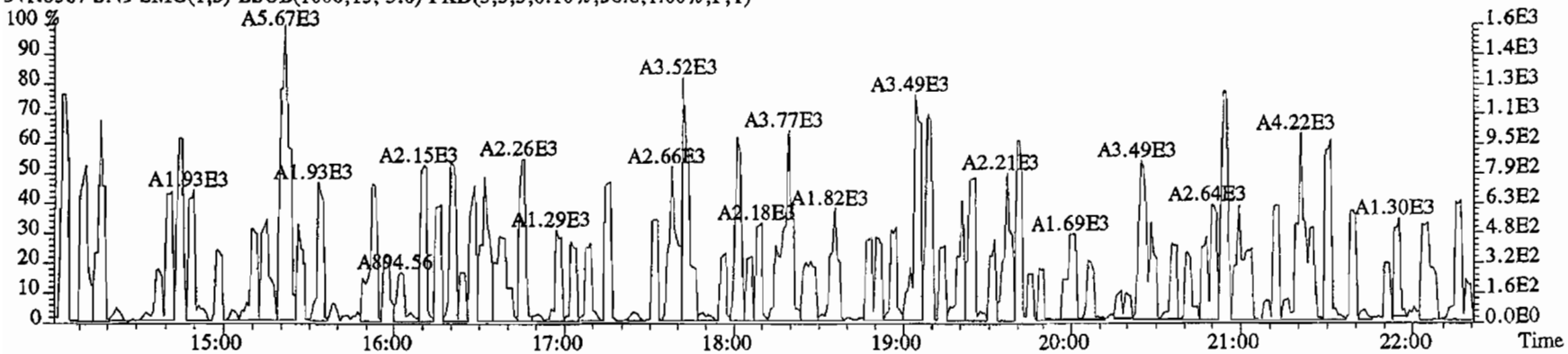
353.8970 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6988.0,1.00%,F,T)



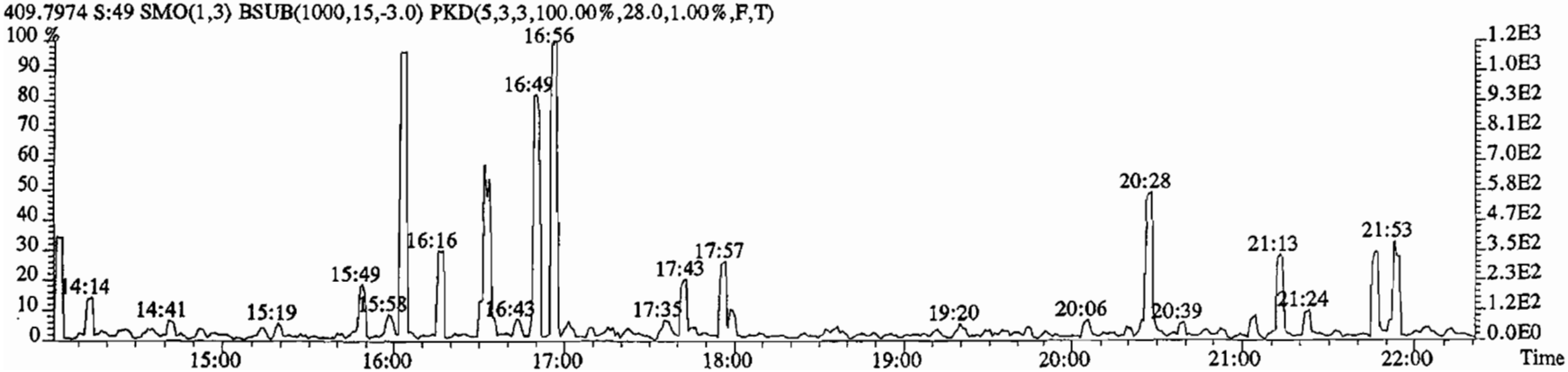
File:08FE104D5 #1-578 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN
339.8597 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16.0,1.00%,F,T)



341.8567 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,36.0,1.00%,F,T)

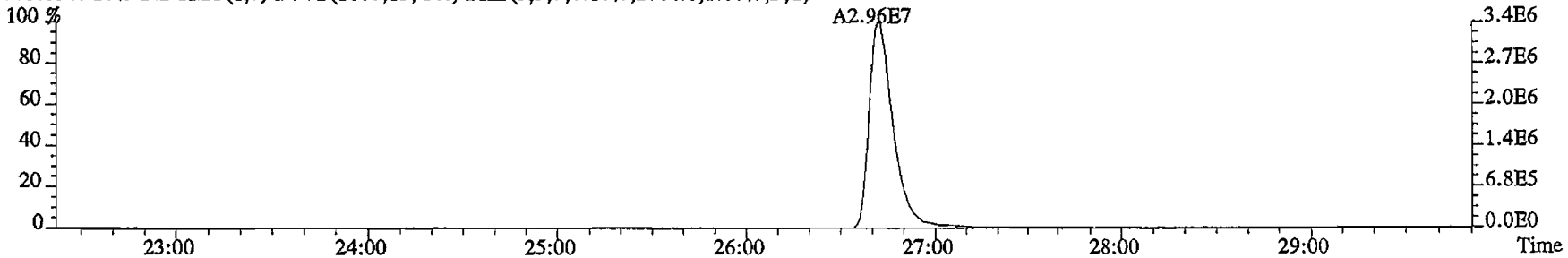


409.7974 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,28.0,1.00%,F,T)

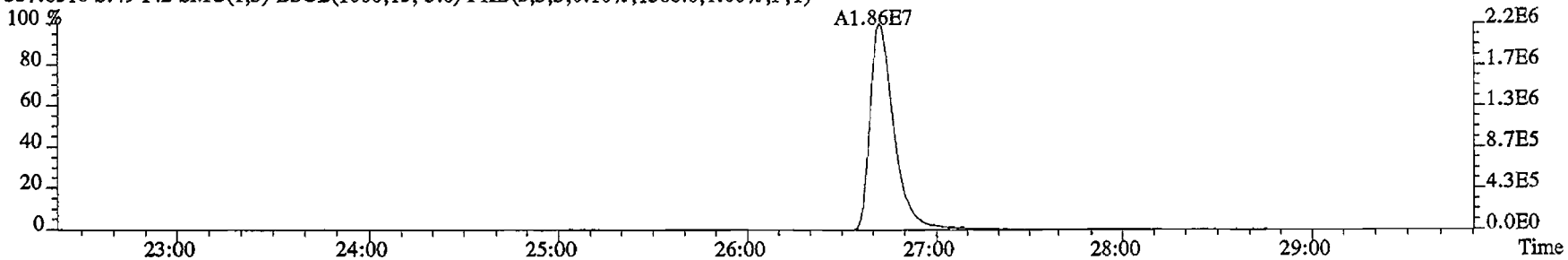


File:08FE104D5 #1-596 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

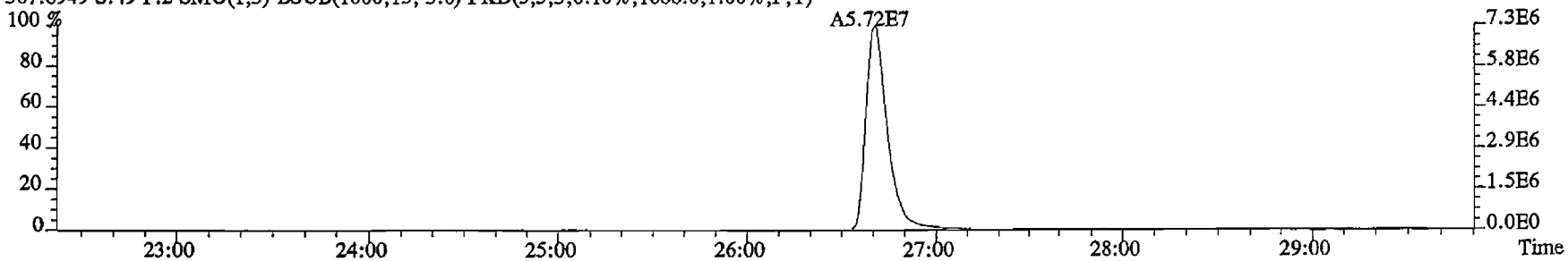
355.8546 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2784.0,1.00%,F,T)



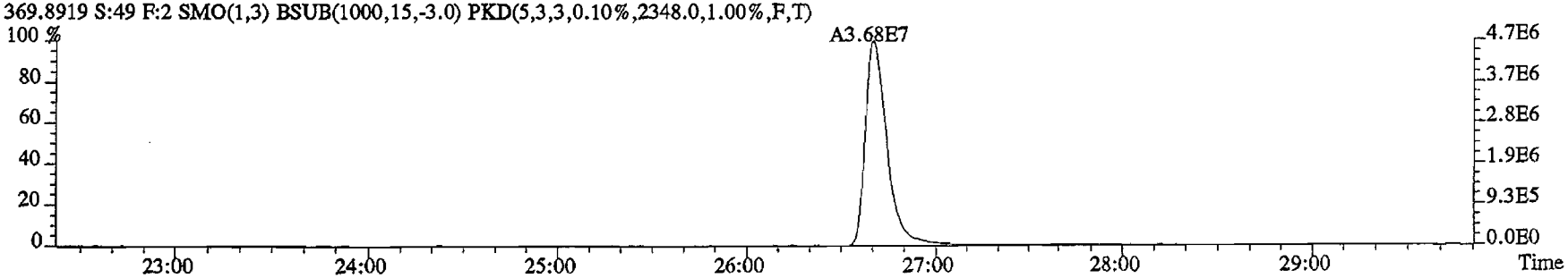
357.8516 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1568.0,1.00%,F,T)



367.8949 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1688.0,1.00%,F,T)

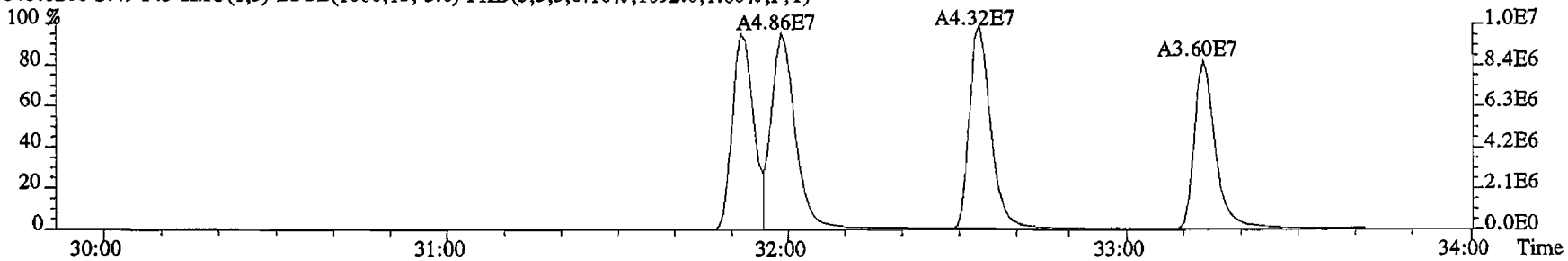


369.8919 S:49 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2348.0,1.00%,F,T)

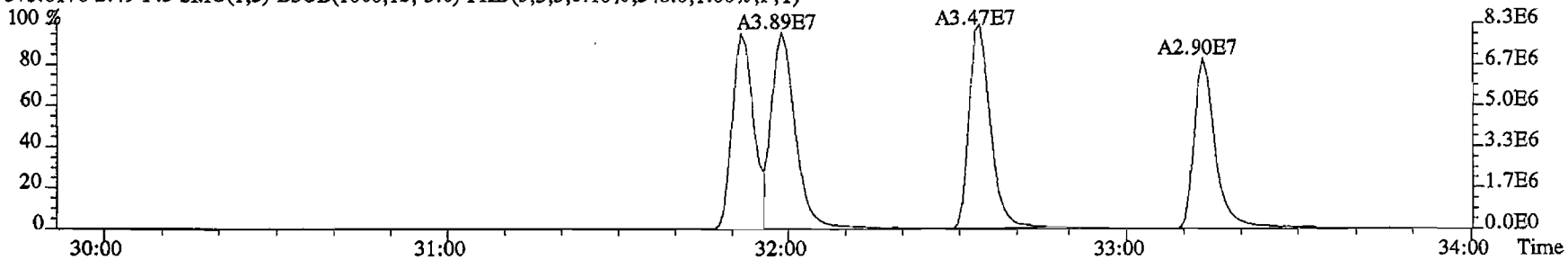


File:08FE104D5 #1-314 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

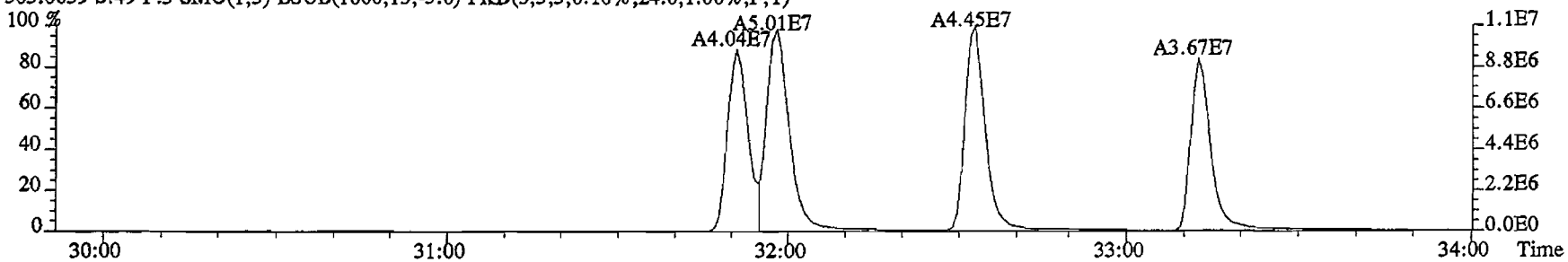
373.8208 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1092.0,1.00%,F,T)



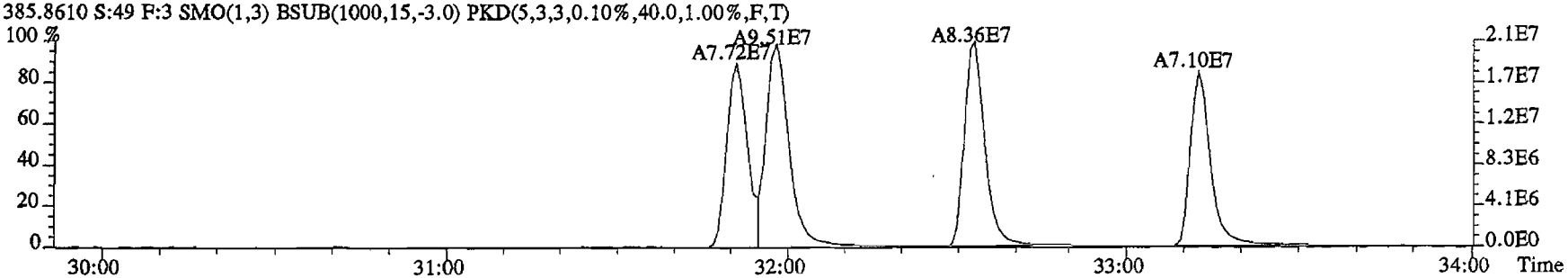
375.8178 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,348.0,1.00%,F,T)



383.8639 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,24.0,1.00%,F,T)

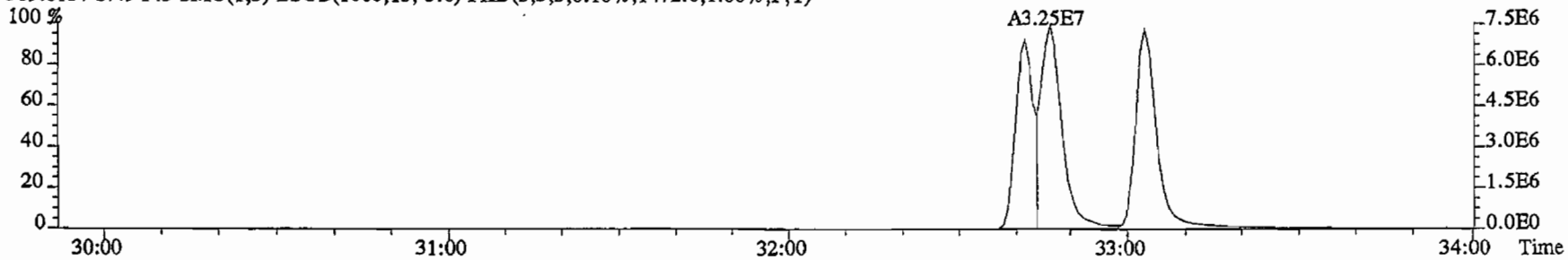


385.8610 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,40.0,1.00%,F,T)

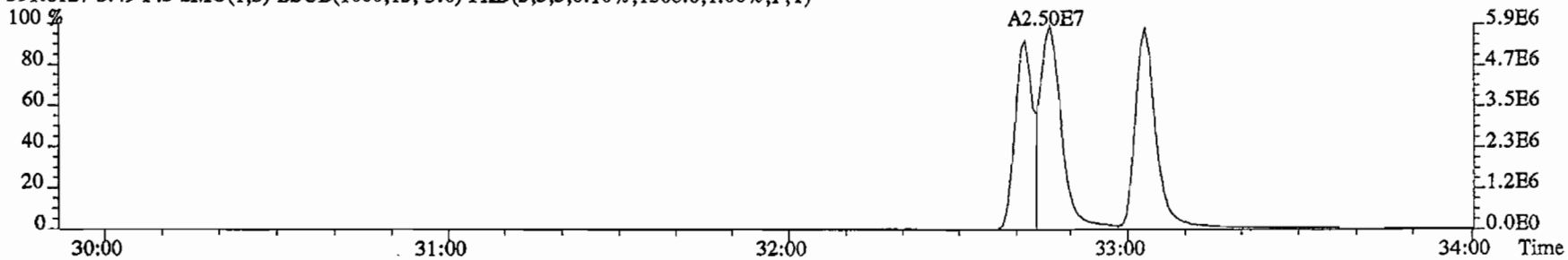


File:08FE104D5 #1-314 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

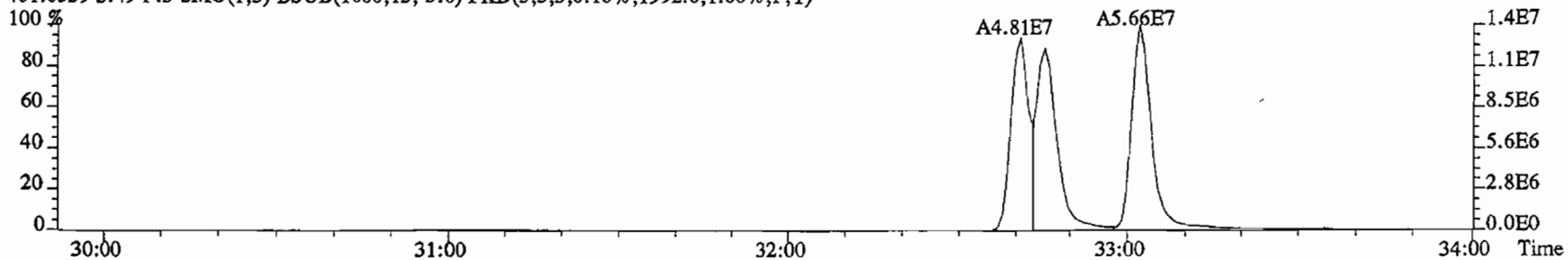
389.8157 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1472.0,1.00%,F,T)



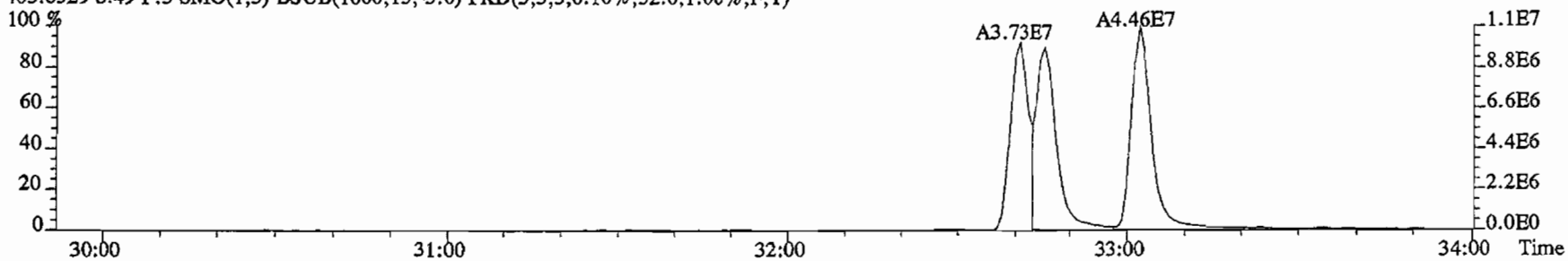
391.8127 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1508.0,1.00%,F,T)



401.8559 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1992.0,1.00%,F,T)

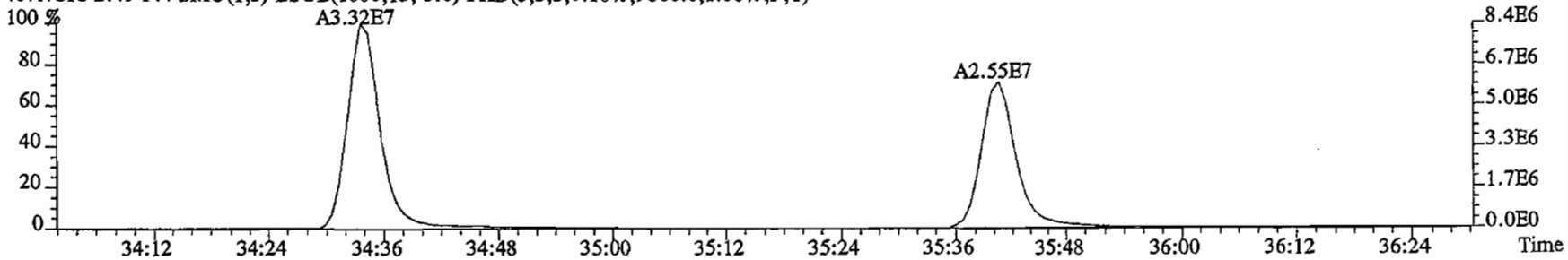


403.8529 S:49 F:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,52.0,1.00%,F,T)

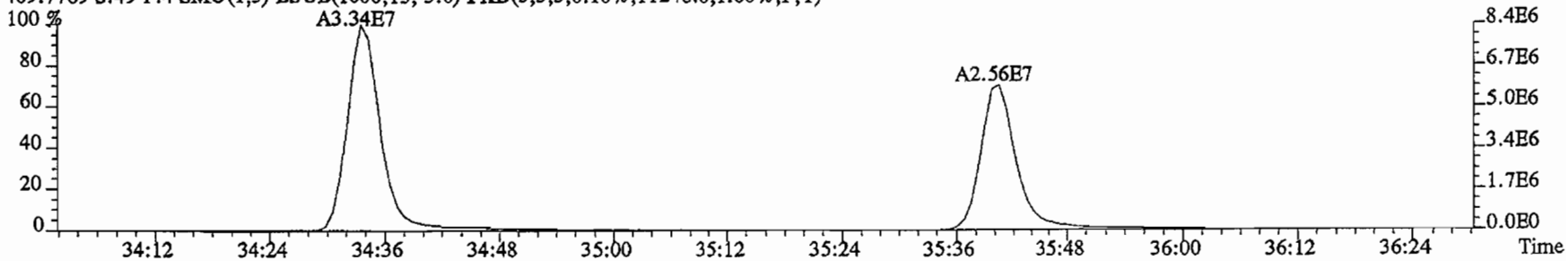


File:08FE104D5 #1-198 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

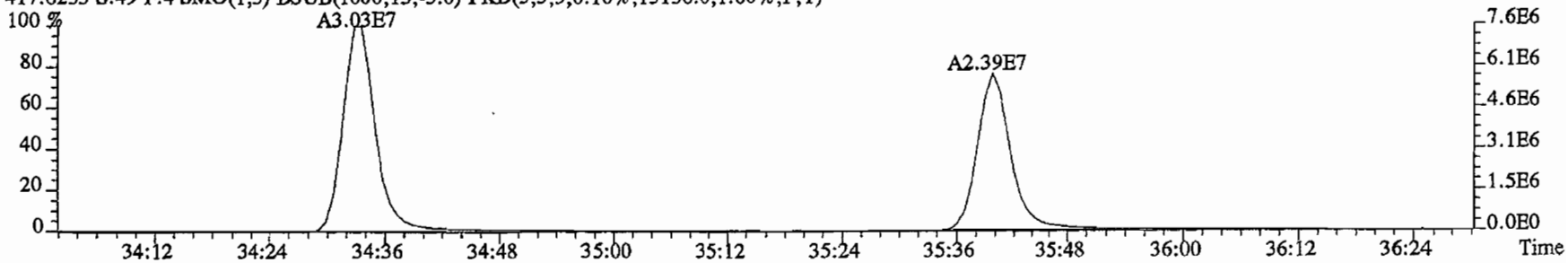
407.7818 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9860.0,1.00%,F,T)



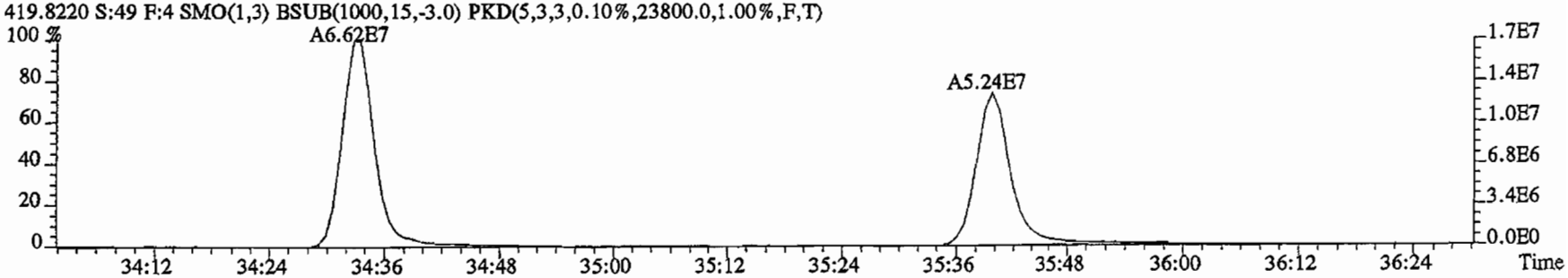
409.7789 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11248.0,1.00%,F,T)



417.8253 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,13156.0,1.00%,F,T)

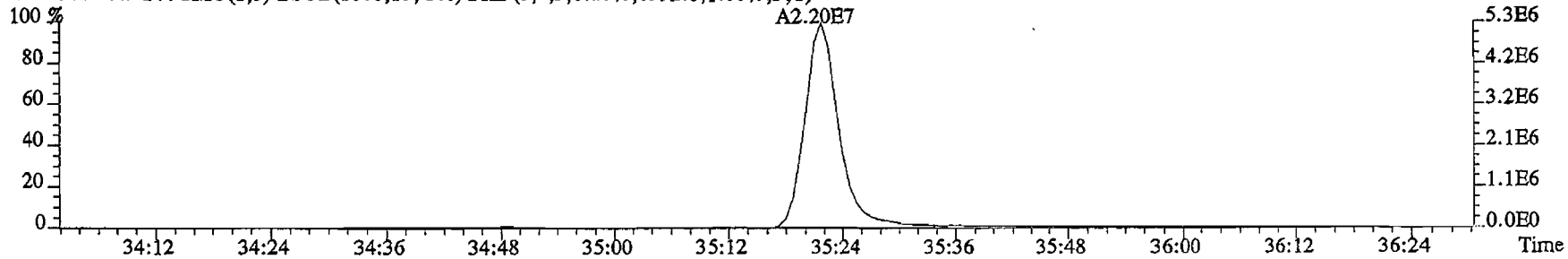


419.8220 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,23800.0,1.00%,F,T)

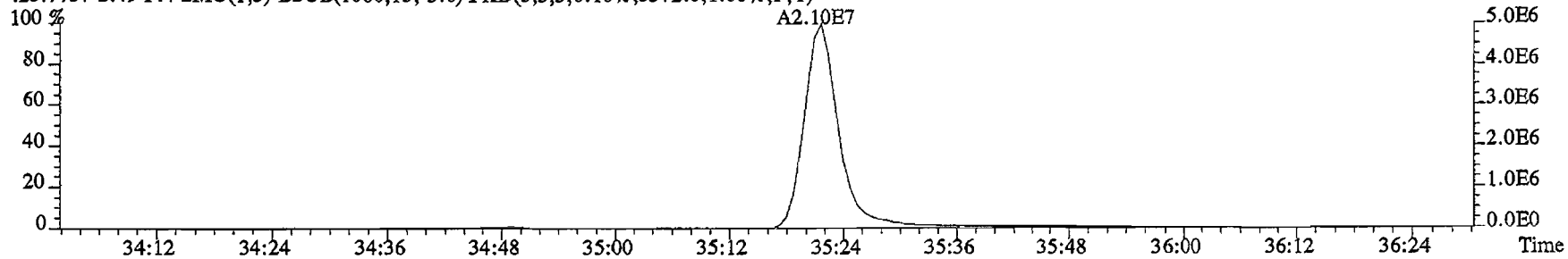


File:08FE104D5 #1-198 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

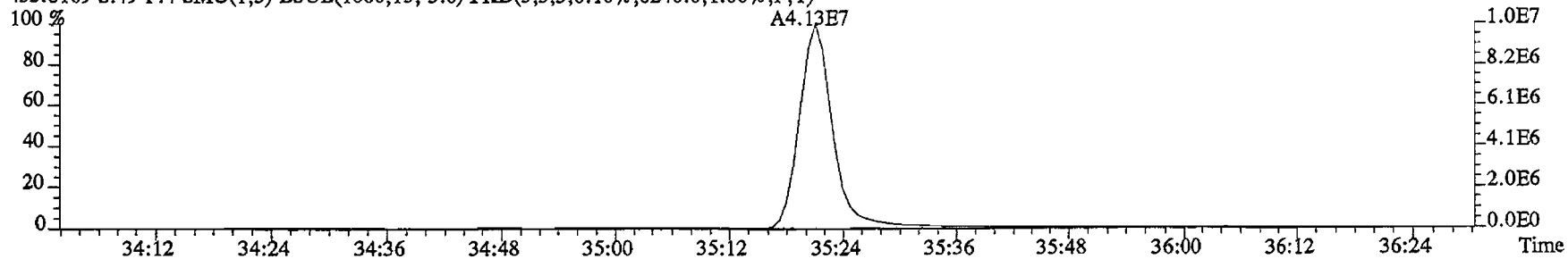
423.7766 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6592.0,1.00%,F,T)



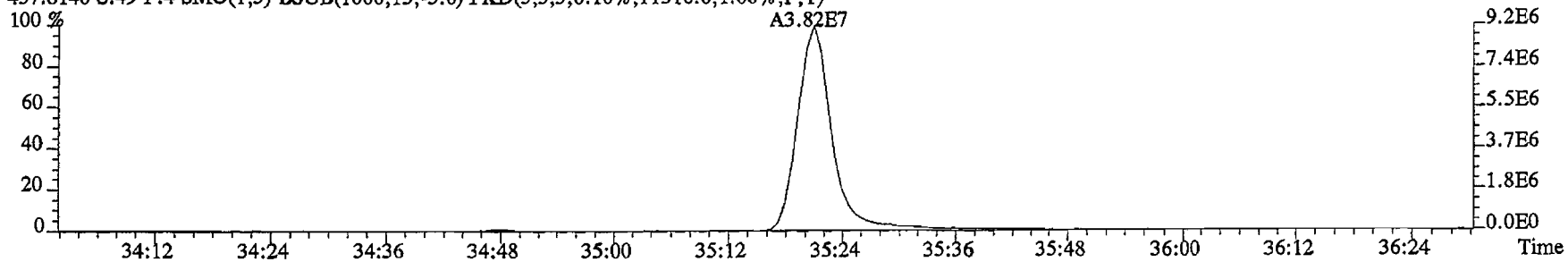
425.7737 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5372.0,1.00%,F,T)



435.8169 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6240.0,1.00%,F,T)

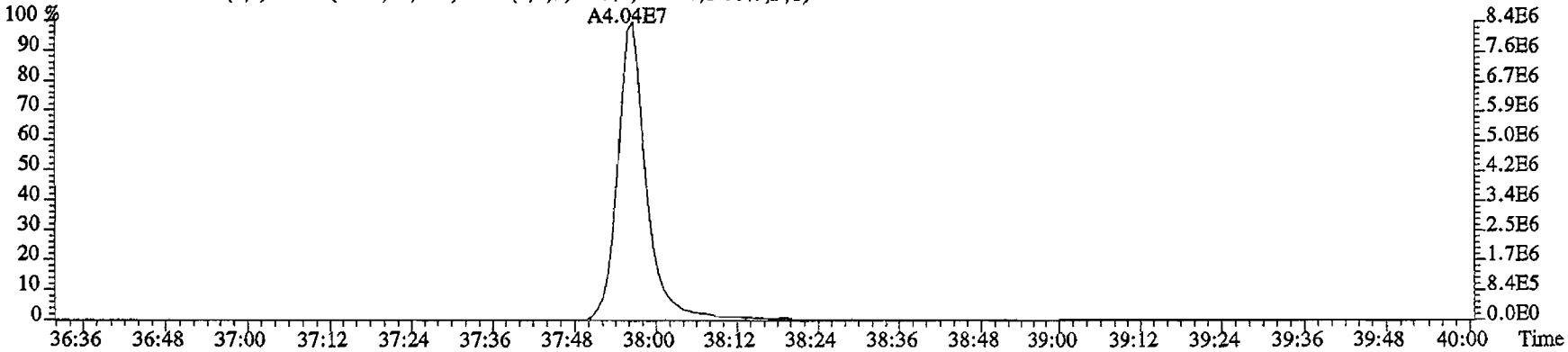


437.8140 S:49 F:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11516.0,1.00%,F,T)

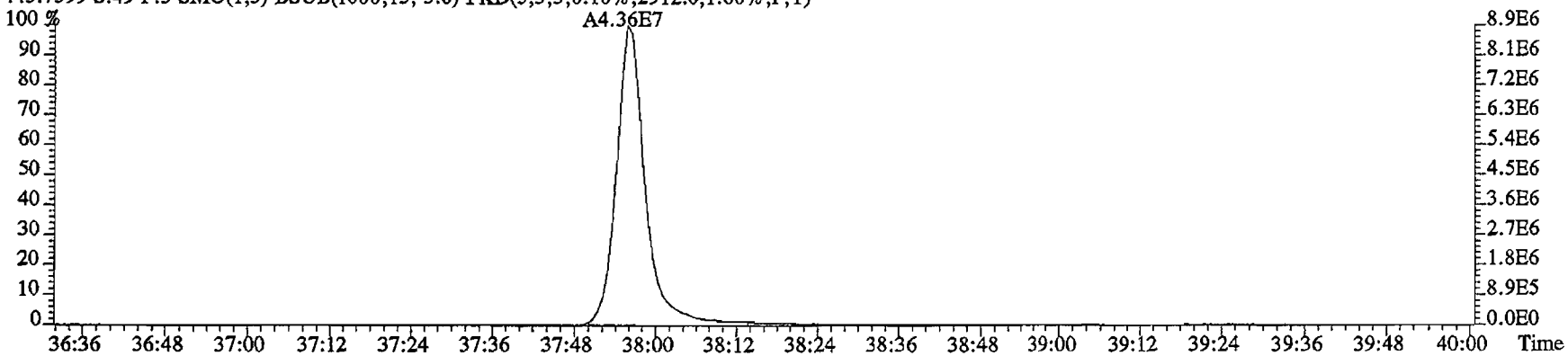


File:08FE104D5 #1-282 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

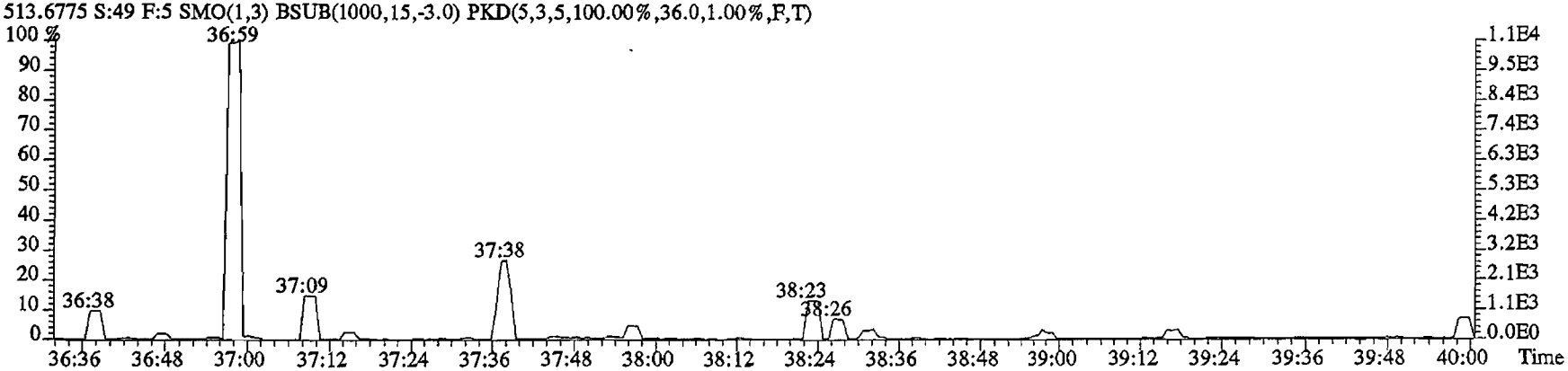
441.7428 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2384.0,1.00%,F,T)



443.7399 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2912.0,1.00%,F,T)

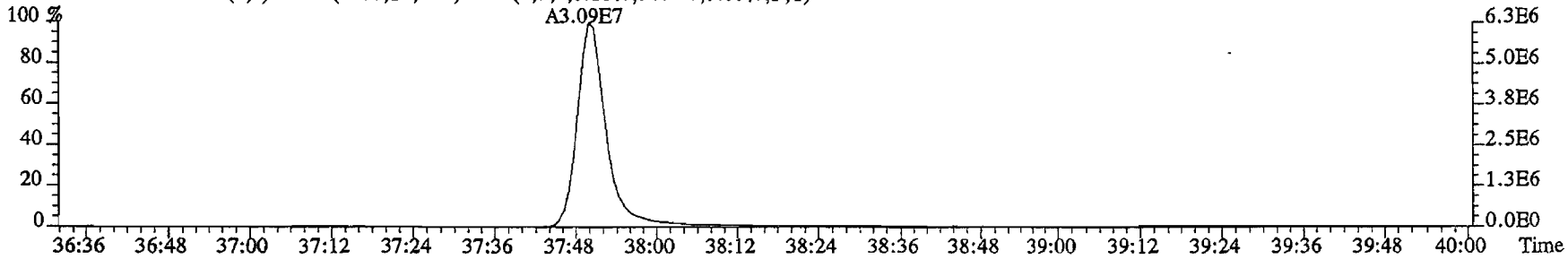


513.6775 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,5,100.00%,36.0,1.00%,F,T)

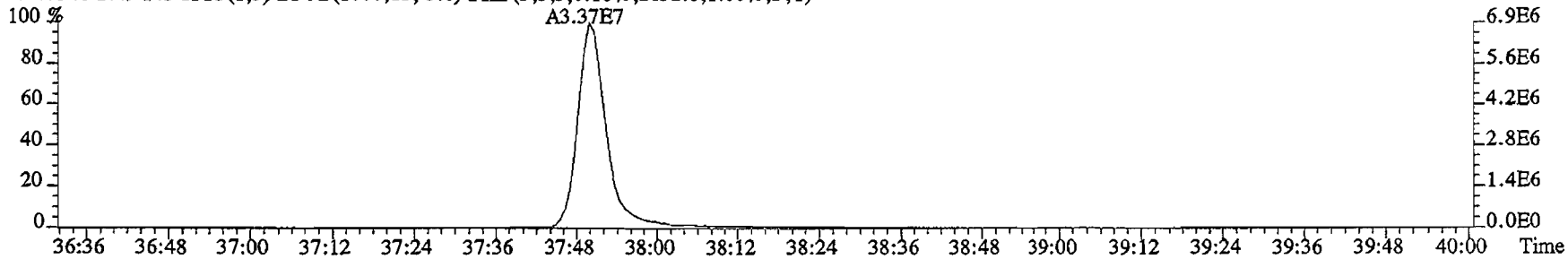


File:08FE104D5 #1-282 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

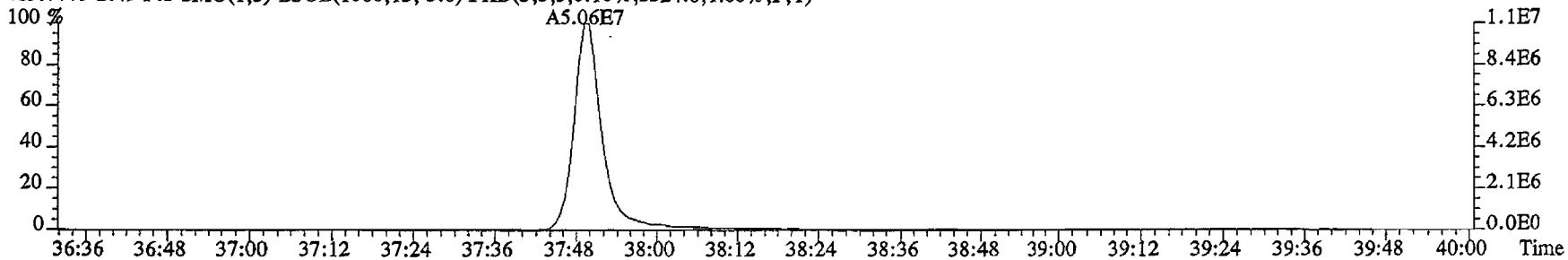
457.7377 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3404.0,1.00%,F,T)



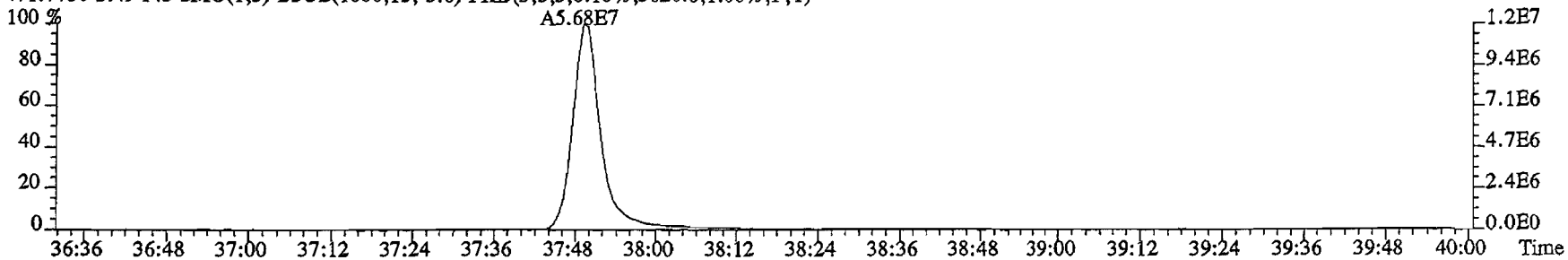
459.7348 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2632.0,1.00%,F,T)



469.7779 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5324.0,1.00%,F,T)

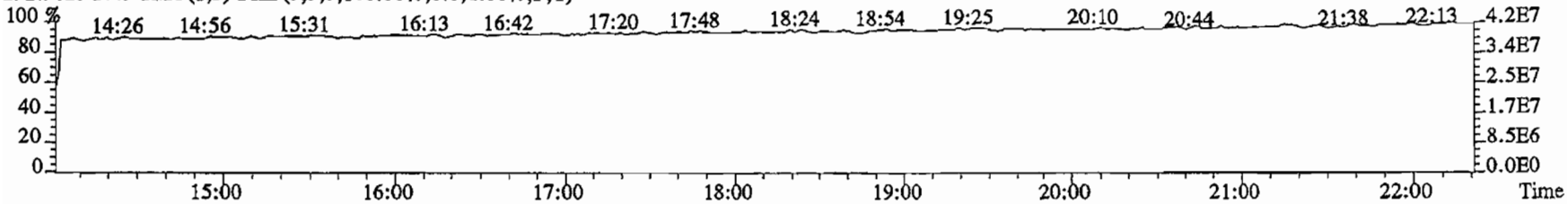


471.7750 S:49 F:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3620.0,1.00%,F,T)

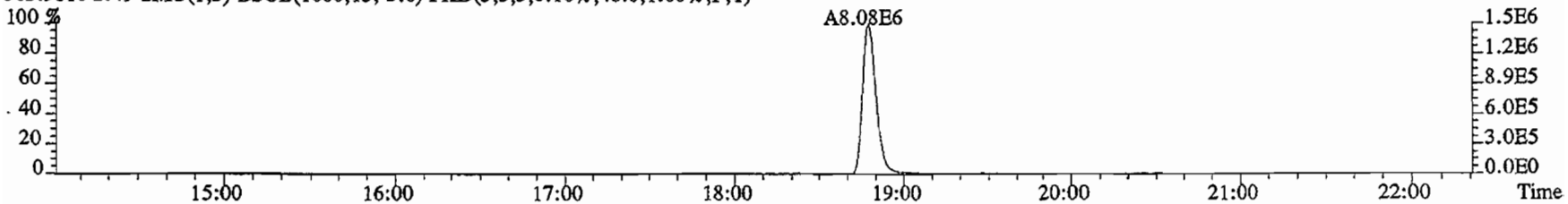


File:08FE104D5 #1-578 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN

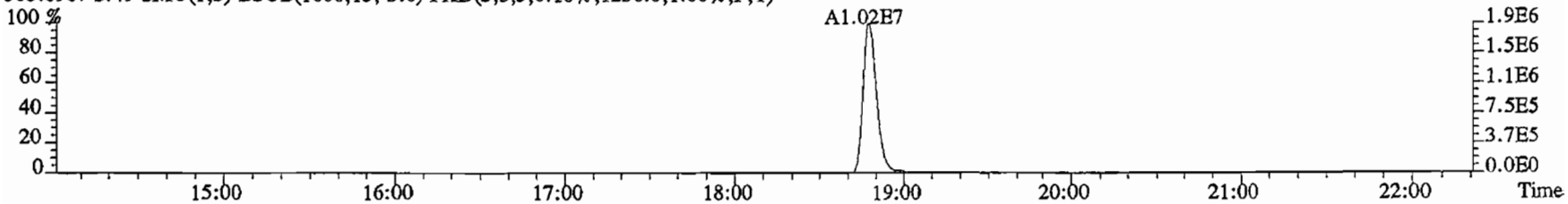
292.9825 S:49 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



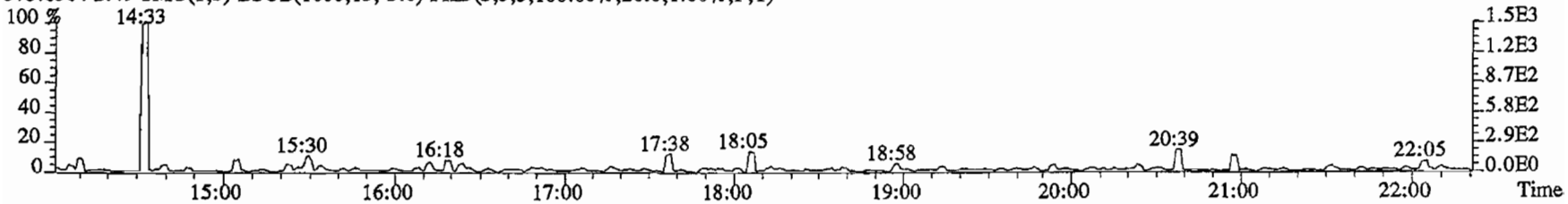
303.9016 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,48.0,1.00%,F,T)



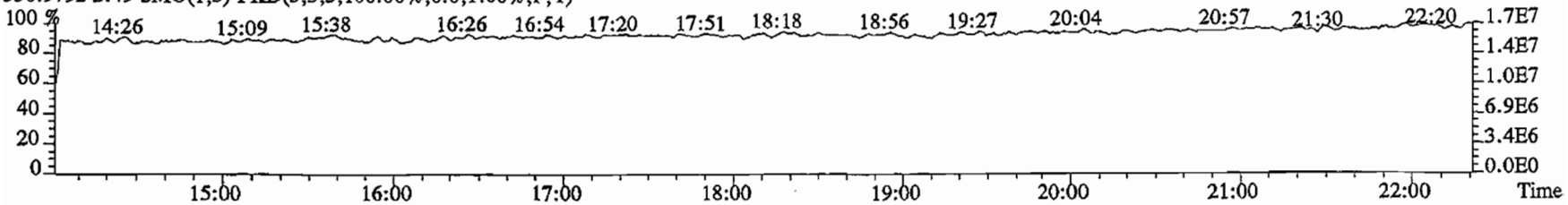
305.8987 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1256.0,1.00%,F,T)



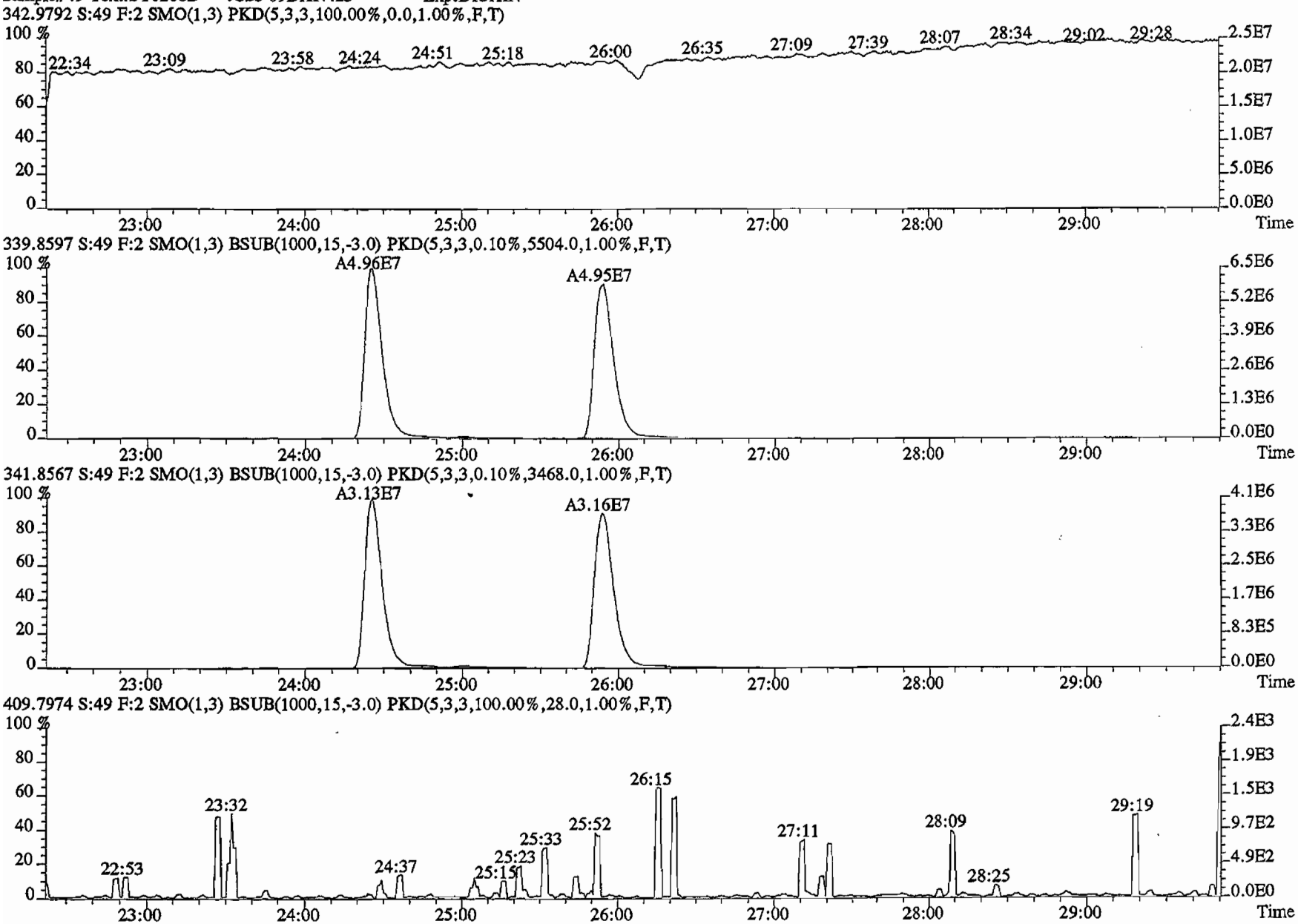
375.8364 S:49 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,100.00%,28.0,1.00%,F,T)



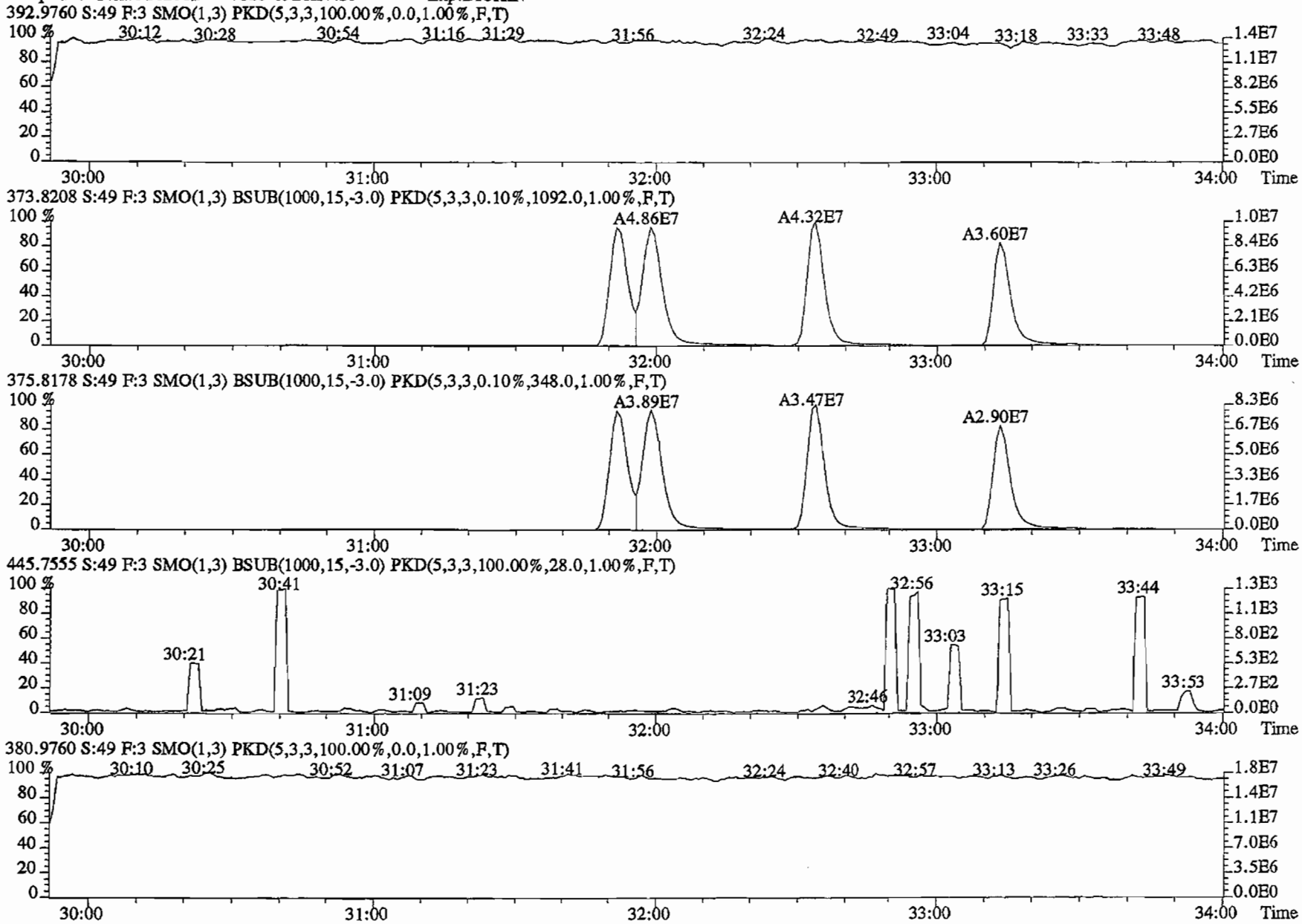
330.9792 S:49 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



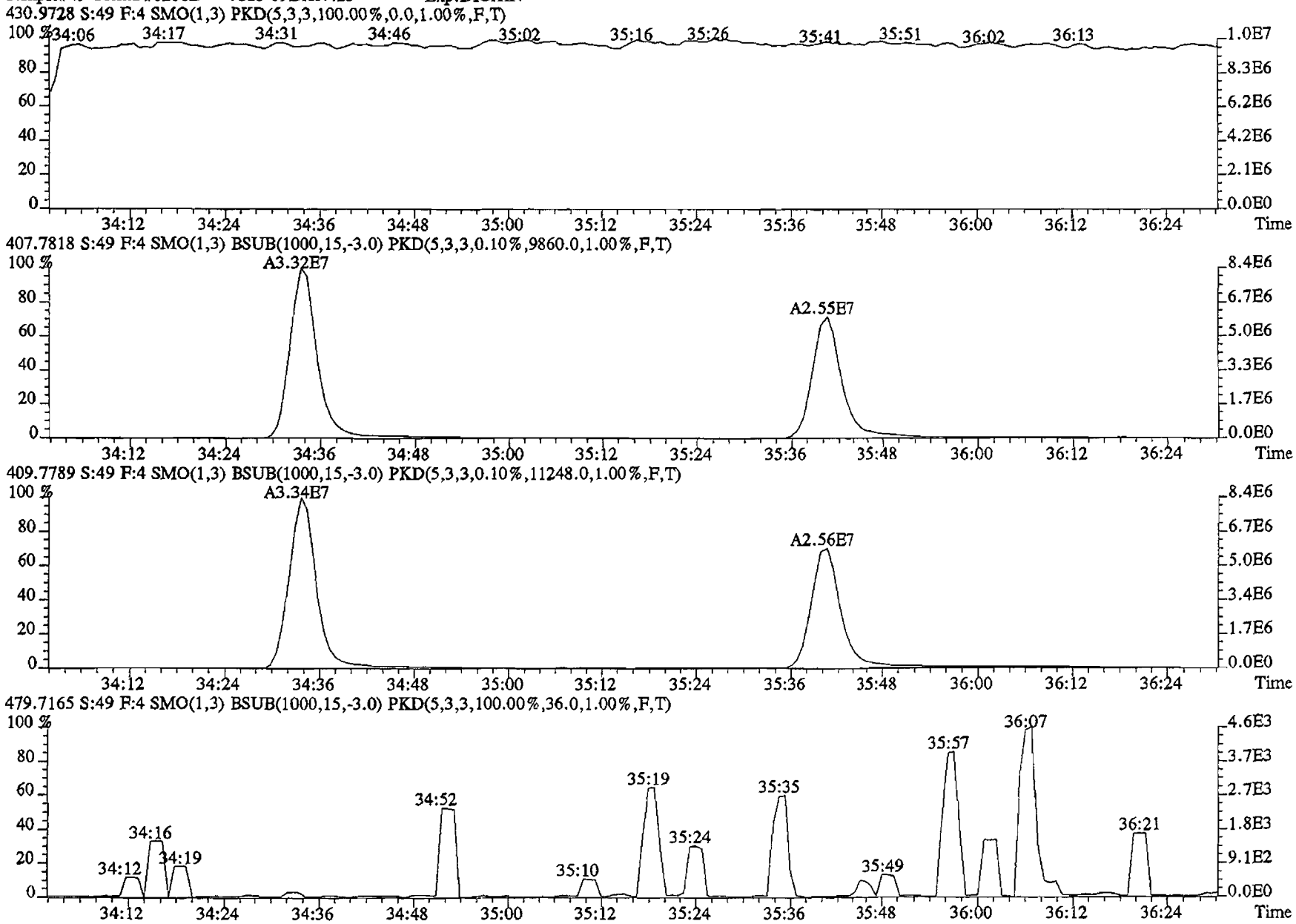
File:08FE104D5 #1-596 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN



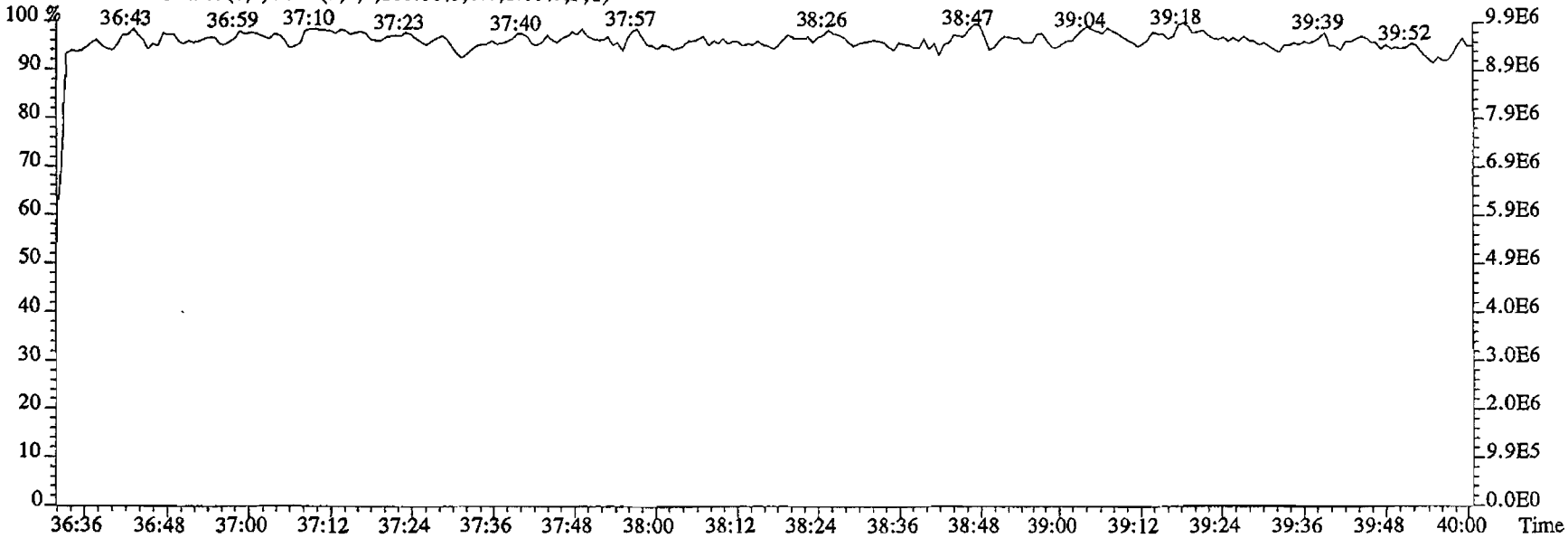
File:08FE104D5 #1-314 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN



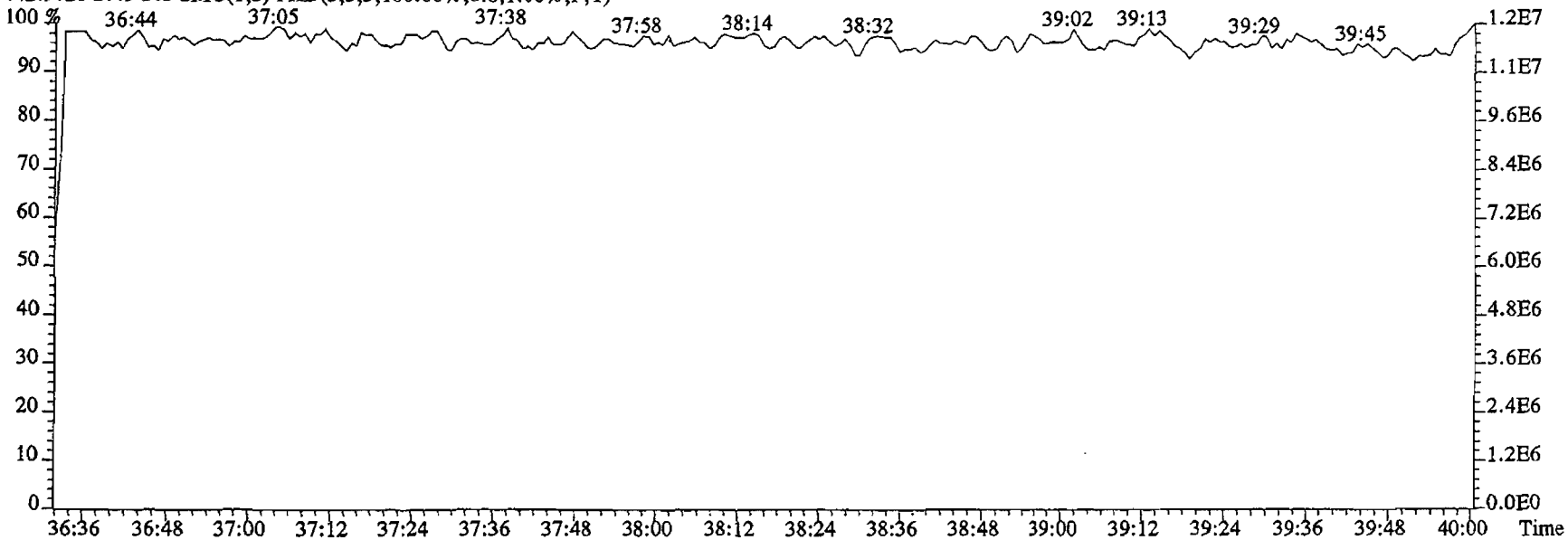
File:08FE104D5 #1-198 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN



File:08FE104D5 #1-282 Acq:10-FEB-2010 00:16:19 GC EI+ Voltage SIR Autospec-UltimaE
Sample#49 Text:ST0208D :CS3 09DXN425 Exp:DIOXIN
454.9728 S:49 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



442.9728 S:49 F:5 SMO(1,3) PKD(5,3,3,100.00%,0.0,1.00%,F,T)



Eric Lahr

From: McKenzie, Doug [Doug.McKenzie@testamericainc.com]
Sent: Monday, April 12, 2010 10:09 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Request #2
Attachments: PTA0583.Pest.2Column.Conf.pdf

Here are the summaries that were submitted by the department

Let me know if you have any questions.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Friday, April 09, 2010 10:42 AM
To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Request #2

No problem Doug. That sounds good and thanks for the update!

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Friday, April 09, 2010 1:31 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Request #2

Hey Eric...sorry about that.

The ability to enter data for both columns into the testcode we used for that analysis is not possible at the moment. We are going to modify that testcode so that the data for both columns can be uploaded from the instruments.

Since we can't go back and re-upload the old data, the analysts are going to produce the form(s) using Excel. I hope that this can be done by the end of the day on Monday.

Again, I'm sorry for the delay in both the forms and my response.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Friday, April 09, 2010 10:27 AM

To: McKenzie, Doug
Subject: RE: Work Order PTA0583 Deliverables Request #2

Hey Doug,

Do you have any updates regarding this yet? These forms are the only thing outstanding that are holding up the report at this point.

Thanks!
-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Monday, April 05, 2010 12:39 PM
To: Eric Lahr
Subject: RE: Work Order PTA0583 Deliverables Request #2

The semivolatiles department needs to load the second column data into the LIMS so that these forms can be produced. I'll find out when that is going to be accomplished at the status meeting today.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Monday, April 05, 2010 9:36 AM
To: McKenzie, Doug
Cc: Auvil, Darrell
Subject: RE: Work Order PTA0583 Deliverables Request #2

Hi Doug,

Any word on these forms?

Thanks!
-Eric

From: McKenzie, Doug [mailto:Doug.McKenzie@testamericainc.com]
Sent: Tuesday, March 30, 2010 4:08 PM
To: Eric Lahr
Cc: Auvil, Darrell
Subject: RE: Work Order PTA0583 Deliverables Request #2

Hello Eric,

I currently don't have these forms available. I'm attempting to get these summary forms from our IT department. The have the form template but we don't have the available data within the LIMS to populate them. I'm hoping that the IT department can assist us with this. I'll let you know as soon as they get back to me.

DOUG MCKENZIE
Department Manager

Data Packages
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

From: Eric Lahr [mailto:elahr@envstd.com]
Sent: Monday, March 29, 2010 10:35 AM
To: Auvil, Darrell
Cc: McKenzie, Doug; Brendan Robinson; Rock J. Vitale
Subject: Work Order PTA0583 Deliverables Request #2

Good afternoon Darrell,

Could you please address the following in Work Order PTA0583 when you get the chance:

1.) In the pesticide fraction, could you please provide forms summarizing the precision between the dual-column results (showing the calculated relative percent differences [RPDs] between the positive results and whether those RPDs are above or below the 40% acceptance criterion) for all samples and QC samples.

Thanks!

Eric T. Lahr
Senior Quality Assurance Chemist
Environmental Standards, Inc.
1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482
610.935.5577 • Fax: 610.935.5583 • www.envstd.com • elahr@envstd.com

Environmental Standards was named to the 2009 Inc. 5000 list of the Fastest Growing Private Companies in America.

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020510

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-16RE1	4,4'-DDE		46.17	42.05	9.34
Analyzed: 02/05/2010 20:10	4,4'-DDD		109.12	92.42	16.57
File ID: 02051022.D	4,4'-DDT		94.64	85.32	10.36
PTA0583-17RE1	4,4'-DDE		56.23	53.57	4.85
Analyzed: 02/05/2010 21:30	4,4'-DDD		130.16	114.97	12.40
File ID: 02051025.D	4,4'-DDT		84.54	81.82	3.28
PTA0583-18RE1	4,4'-DDE		28.35	25.80	9.42
Analyzed: 02/05/2010 20:37	4,4'-DDT		103.27	99.40	3.82
File ID: 02051023.D					
PTA0583-19RE1	4,4'-DDT		176.07	172.86	1.84
Analyzed: 02/05/2010 21:03					
File ID: 02051024.D					

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020810

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-19	4,4'-DDE		146.34	133.56	9.13
Analyzed: 02/08/2010 18:33	4,4'-DDD		20.19	18.37	9.45
File ID: 02081010.D					

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 020910

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-18RE2	4,4'-DDD		92.34	67.25	31.44
Analyzed: 02/09/2010 19:30 File ID: 02091014.D					

EPA 8081A
Second Column Confirmation Summary

SDG: PTA0583
Instrument: SV-ECD12
Calibration: 011910CT.M
Sequence: 021510

Sample ID	Analyte		Column 1	Column 2	%D
PTA0583-19RE2	Endosulfan I		41.39	31.78	26.27
Analyzed: 02/15/2010 13:34	4,4'-DDE		121.16	104.16	15.09
File ID: 02151006.D	4,4'-DDD		13.86	11.88	15.38