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Project Manager

March 10, 2017

Ms. Kathy Halbur
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U.S. Environmental Protection Agency Region 5
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Green Bay, Wisconsin 54313

**Subject: Revised Final Site Assessment Report – VE Carter School
EPA Contract No. EP-S5-13-01
Technical Direction Document No. S05-0001-1610-200
Document Tracking No. 1568**

Dear Ms. Halbur:

Tetra Tech, Inc. (Tetra Tech) is submitting the Revised Final Site Assessment Report for the VE Carter School site. This report summarizes activities conducted on November 9, 2016. The revised final report addresses your comments on a previous version of the report that Tetra Tech submitted on February 15, 2017. If you have any questions regarding this report, please call me at (312) 201-7760.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Andre Baker'.

Andre Baker
Project Manager

Enclosure

cc: Kevin Scott, Tetra Tech Program Manager
TDD File

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**REVISED FINAL SITE ASSESSMENT REPORT
VE CARTER SCHOOL
MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN**

Prepared for

U.S. Environmental Protection Agency
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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech Inc. (Tetra Tech), under Superfund Technical Assessment and Response Team (START) Contract EP-S5-13-01, Technical Direction Document (TDD) No. S05-0001-1610-200, to perform a site assessment at the VE Carter School in Milwaukee, Wisconsin. The assessment included the following activities:

- Provide photographic and written documentation of site activities
- Assess the potential risk to the environment and human health
- Develop and implement a Health and Safety Plan (HASP) and Sampling and Analysis Plan (SAP)
- Collect indoor and outdoor ambient air samples for analysis of asbestos fibers
- Screen the building for mercury, radiation, and other chemical concentrations using real-time instruments
- Collect bulk samples of suspect asbestos-containing building material
- Complete data validation reports for the property

These activities were performed as part of a site assessment, as described in TDD No. S05-0001-1610-200, for the VE Carter School (EPA 2016). The purpose of site assessment was to evaluate the potential for threats to human health and the environment and to assess the necessity for removal action. Activity-based sampling methods were used to evaluate the potential exposure to a trespasser who enters the site.

This site assessment report provides site background location and description in Section 2.0, summarizes site assessment activities and results in Section 3.0, summarizes key site assessment findings in Section 4.0, and includes references in Section 5.0. Figures 1 through 5 are provided in Appendix A; Tables B-1 through B-5 are provided in Appendix B; photographic documentation is provided as Appendix C; field notes recorded by Tetra Tech START personnel are provided in Appendix D; and laboratory reports are provided in Appendix E. Data validation reports for analytical results were previously submitted to EPA on December 19 and 27, 2016; and on January 4, 2017.

2.0 SITE BACKGROUND

This section provides a description of the site, including its location, background, and conditions.

2.1 SITE LOCATION

The former VE Carter School is located at 2001 West Vliet Street, Milwaukee, Wisconsin (see Figures 1 and 2 in Appendix A). The site is in a residential neighborhood with single-family homes to the east, south, and north, as well as apartment complexes to the north and northwest in close proximity to the site.

2.2 SITE DESCRIPTION

The site is an approximately 60,000-square-foot, brick, multi-story former school. The former school was originally built in 1897 with the first addition in the 1940s and the second addition in the 1970s (Jackson/MacCudden Inc. 2003). The school, formerly known as both the 5th District School and the William McKinley School, was owned and operated by Milwaukee Public Schools (MPS) until September 1991, when it was sold to VE Carter Child Development Corporation. VE Carter Development Group operated a school and daycare facility at the site until a fire damaged the facility in November 2013. The school was designated as a Milwaukee Historic Site in 1984; however, the school has fallen into disrepair since closure in 2013.

A contractor for the school, Jackson-MacCudden, Inc., developed an Asbestos Management Plan in 2003 in accordance with EPA Asbestos Hazard Emergency Response Act (AHERA) Regulation, 40 Code of Federal Regulation (CFR) Part 763 (Jackson-MacCudden, Inc. 2003). The report concluded that “At this time, there appears to be no area that requires immediate attention. Areas where repair is recommended (if any) may be done within a reasonable time frame because these areas are relatively inaccessible to building occupants.”

In its request for EPA Removal Program assistance, the Wisconsin Department of Natural Resources (WDNR) identified the following abandoned waste and hazardous materials in the building: friable asbestos, broken mercury-containing devices (thermostats, fluorescent bulbs), polychlorinated biphenyls (PCB) ballasts, and abandoned containers (WDNR 2016). The City of Milwaukee foreclosed on the property in 2016 and does not have the financial resources to address the hazardous materials, restore, or properly demolish the building. Conditions at the site are also beyond the means of WDNR.

During a site visit performed by the City of Milwaukee Department of Neighborhood Services (MDNS) on August 31, 2016, two entrances to the building were found unsecured (City of Milwaukee 2016). MDNS inspectors found additional entry points to the building upon subsequent inspections. Significant ongoing vandalism and graffiti was also observed by MDNS inspectors. The City of Milwaukee's board-up contractor has repeatedly tried to secure the building from trespassers breaking through the previous security measures. The sidewalk on the west side of the property is closed due to falling debris from the building's façade.

On October 25, 2016, EPA, Tetra Tech, and MDNS inspectors performed a site walk-through visit to assess hazards and identify potential sampling locations. The observations from this site visit confirmed observations made by WDNR and the City of Milwaukee of multiple entries into the building.

3.0 REMOVAL ASSESSMENT ACTIVITIES

On October 25 and November 9, 2016, EPA and Tetra Tech START conducted a site walk-through visit and performed a site assessment. The EPA On-Scene Coordinator (OSC) was Kathy Halbur. MDNS inspectors provided on-site support during the walk-through visit and site assessment. Before the site assessment, Tetra Tech developed a SAP and site-specific HASP for the site (Tetra Tech 2016a and 2016b). Site activities were recorded by Tetra Tech START personnel in the field log book (Appendix C) and by photographic documentation (Appendix D).

Section 3.0 is divided into two subsections. Section 3.1 discusses screening and sampling activities, and Section 3.2 discusses sample results.

3.1 SCREENING AND SAMPLING ACTIVITIES

On October 25, 2016, EPA and START performed a site walk-through to assess sample locations and perform preliminary screening for volatile organic compounds (VOCs) and gamma radiation. Based on the October walk-through, general sample locations were selected, presented, and agreed upon with WDNR. On November 9, 2016, EPA and START screened the building for mercury, VOCs, and gamma radiation to confirm the previous recon readings; collected samples of air and bulk materials; and collected liquid and solid waste samples. All screening and sampling was done in accordance with the START SAP (Tetra Tech 2016a).

3.1.1 Mercury, VOC, and Radiation Screening

On October 25 and November 9, 2016, EPA and START performed real-time screening for mercury using a Jerome J505 meter, as well as gamma radiation screening using a Ludlum 192. Real-time screening for VOCs using a MultiRAE Pro was also completed each room on each floor was screened upon initial entry using the Jerome, Ludlum, and MultiRAE Pro meters.

No VOCs were detected during either event. Gamma radiation was consistent with background concentrations (ranging from 4 to 5 microroentgen [μR]/hour) during both events. Mercury was not detected in any of the rooms during the investigation. EPA and START removed a total of six intact mercury switches from the boiler room area in the basement and near heaters in the top floor of the school. Mercury switches were relinquished to the City of Milwaukee for proper disposal.

3.1.2 Waste, Water, Paint, and Bulk Asbestos Sampling

EPA and START collected a total of 23 liquid or solid waste, water, bulk or waste asbestos, and paint samples for laboratory analysis during the November 9, 2016 site assessment. Sample locations and materials were selected based on the likelihood that trespassers or workers would come in contact with the materials or if the materials could pose an immediate threat to the environment. For example, samples of broken floor tiles and loose or fallen pipe wrap (possibly containing asbestos) were collected; paint samples of peeling paint that had fallen to the floor were collected; and waste samples were collected near floor drains or areas that could be disturbed by trespassers or workers. Tables B-1 and B-2 in Appendix B describe sample locations for water, waste, paint, and bulk asbestos samples collected during the site assessment; sample locations are shown on Figures 3 through 5 in Appendix A. Laboratory analyses selected for each sample were based on likelihood of the sample containing detectable chemical concentrations. Therefore, not all samples were analyzed for the same chemical constituents. Analytical results for each sample are provided in Tables B-3 through B-5 in Appendix B. Duplicate samples were not collected for waste, paint, and water because of the limited amount of available material corresponding to the sample analyte and media.

Asbestos samples were submitted to EMSL Analytical, Inc. (EMSL), in Cinnaminson, New Jersey. All remaining sample media were submitted to CT Laboratories in Baraboo, Wisconsin. Sample locations for waste and paint are provided on Figures 3 and 4 in Appendix A. Details on the location and description of each asbestos sample are provided in the logbook in Appendix C. Photographs of selected sample locations are provided in Appendix D.

3.1.3 Asbestos in Air Sampling

During the November 9, 2016 site assessment, EPA and Tetra Tech START collected eight air samples for asbestos analysis from the following locations:

- Four air samples were collected outside the building. Two samples were taken from each of the two fixed locations (ambient air locations). Locations were selected at the northeast and southwest playground to assess the most sensitive and likely receptors, such as children.
- Two activity-based air samples were collected from inside the building (representing potential trespasser exposure). Both samples were collected near the breathing zone of personnel as they collected samples and disturbed materials inside the building.
- Two ambient air samples were collected inside the building. One sample was collected at each of two fixed locations (representing potential bystander exposure) in areas that indoor dust could leave the building, such as from broken windows.

Four fixed Air-Con ambient air samplers were positioned and turned on outside the building in the playground areas near the school. Two fixed ambient air samplers were collocated to the southwest (VEC-AAL-P1-110916 and VEC-AAH-P1-110916) and two fixed air samplers were collocated to the northeast (VEC-AAL-P2-110916 and VEC-AAH-P2-110916) to measure fibrous airborne matter possibly escaping the building. Each ambient air sampling location had collocated high (10 L/min) and low (3 L/min) volume sampling pumps. Ambient air samples were collected over an approximate 6-hour period, which overlapped with activity-based and bystander air sampling.

To perform activity-based air sampling, START personnel moved throughout the building collecting asbestos samples and disturbing material whenever possible. Each person was fitted with two pumps (one calibrated to 5 liters per minute [L/min] and one calibrated to 3 L/min). The sample intake was positioned near the breathing zone of the person conducting the activities (VEC-AAH-AB-110916, VEC-AAL-AB-110916, VEC-AAH-MM-110916, and VEC-AAL-MM-110916). Both high-volume (5 L/min) and low-volume (3 L/min) samples were collected to ensure the laboratory would have a backup sample in case the filter for the high-volume sample was overloaded, preventing an accurate count of asbestos fibers. However, the laboratory was instructed to analyze one sample from each pair, resulting in a total of two activity-based samples. One activity-based air sample was collected over an approximate 3-hour period (VEC-AAH-MM-110916). The low flow activity-based air sampling pump failed during the sampling event; consequently, the resulting sample period was approximately 90 minutes (VEC-AAH-AB-110916).

Concurrent with activity-based sampling, two fixed indoor locations (bystander) were established, one in the hallway in the basement next to a broken window leading to the courtyard (VEC-AAH-BY-110916) and one in the hallway of the first floor next to a broken window (VEC-AAH-BY1-110916). As a result of equipment problems (pump failures) with the two collocated low-flow sampling pumps, only the high-volume air samples were collected from these locations and sent to the laboratory for analysis. These air samples were collected at a flow rate of approximately 10 L/min for a period of approximately 3 hours.

Quality control samples were collected for asbestos air sampling, including a field blank and an equipment blank. The field blank sample was opened for a quick duration and then closed. The equipment blank sample was taken directly from the shipment of laboratory-provided containers and submitted for analysis.

Figures 3 and 4 in Appendix A show fixed indoor air sampling locations. Sample locations for the four fixed outdoor ambient air samplers are provided on Figure 5 in Appendix A. Activity-based air sampling locations were not fixed therefore are not located on a figure. Photographic documentation of selected sample locations are provided in Appendix D. Asbestos air samples were submitted to EMSL in Cinnaminson, New Jersey.

3.2 ANALYTICAL RESULTS

Summaries of analytical results above the applicable action levels are provided in Sections 3.2.1 through 3.2.4. Waste and paint chip samples with exceedances detected by the laboratory are summarized in Tables B-3 through B-5 in Appendix B. Asbestos results are provided in Sections 3.2.3 and 3.2.4. Laboratory reports for each sample are provided in Appendix E.

3.2.1 Waste Sample Results

CT Laboratories analyzed six liquid or solid waste samples using one or more of the SW-846 methods listed below. Tetra Tech confirmed laboratory results during the data validation report (Document Tracking No. 1377) submitted to EPA on December 27, 2016.

- pH by Method 9045D
- Flashpoint by Method 1010
- Metals and mercury by Method 6010C for metals and Method 7471B for mercury
- PCBs by Method 8082A
- VOCs by Method 8260C

- Semivolatile Organic Compounds (SVOCs) by Method 8270D

Three of the six liquid or solid waste samples (VEC-SUMP1-110916, VEC-WASTE3-110916, and VEC-WASTE6-110916) contained chemical concentrations above action levels (see Tables B-3 and B-4 in Appendix B).

- VEC-SUMP1-110916 (sump water) contained a lead concentration of 21.0 micrograms per liter (µg/L) which is above the EPA Removal Management Level (RML) of 15 µg/L.
- VEC-WASTE3-110916 (paint thinner) contained a flashpoint of 104.5 degrees Fahrenheit (°F) indicating ignitability per 40 CFR 261, which is a flashpoint below 140 °F.
- VEC-WASTE-6-110916 (incinerator material) contained a lead concentration of 1,230 milligrams per kilogram (mg/kg) which is above the EPA RML of 400 mg/kg

3.2.2 Paint Sample Results

CT Laboratories analyzed four paint chip samples for lead using Method 6010C and for PCBs using Method 8082A. Two out of the four paint chip samples submitted contained lead concentrations above the action level (see Table B-5 in Appendix B). PCBs were also detected, but at concentrations below the action level.

- VEC-PAINT1-110916 (green paint with beige backing) contained lead at 28,000 mg/kg which exceeded the 5,000 mg/kg action level for lead-based paint hazards.
- VEC-PAINT4-110916 (paint from fire door) contained lead at 67,200 mg/kg which exceeded the 5,000 mg/kg action level for lead-based paint hazards.

Lead concentrations were compared to the lead-based paint hazard, as defined by 40 CFR Part 745; PCB concentrations were compared to PCB bulk product waste action levels, as defined by 40 CFR Part 761.

3.2.3 Asbestos Bulk Sample Results

Thirteen bulk or waste samples, including one duplicate, were submitted to EMSL in Cinnaminson, New Jersey, for asbestos analysis using EPA Method 600/R-93/116 via polarized light microscopy (PLM). Tetra Tech confirmed laboratory results during the data validation report (Document Tracking No. 1390) submitted to EPA on January 4, 2017. All but two of the positive bulk asbestos samples were considered “friable” meaning that the material is easily turned into powder or dust by only using hand pressure (VEC-BULK1-110916, VEC-BULK1-110916-DUP, VEC-BULK2-110916, VEC-BULK3-110916, VEC-BULK4-110916, VEC-BULK7-110916, VEC-BULK10-110916, and VEC-BULK11-110916). The laboratory separated six of the 13 bulk or waste samples into two to four components for a total of 21 samples. Components were recognized by the laboratory as containing different material in each sample.

Each component was then analyzed for asbestos. Eleven of the thirteen bulk or waste samples contained detectable amounts of asbestos in one or more of its components, as described in Table 1 below:

TABLE 1
ASBESTOS BULK SAMPLING ANALYTICAL RESULTS
EPA METHOD 600/R-93/116 POLARIZED LIGHT MICROSCOPY (PLM)

Sample Number (Components) ¹	Description	Asbestos Concentration
VEC-BULK1-110916 (1)	Pipe Insulation (Gray) Friable	30% Amosite
VEC-BULK1-110916-DUP (1)	Duplicate of Bulk1 Friable	30% Amosite
VEC-BULK2-110916 (1)	Pipe Insulation (Tan/White/Black) Friable	30% Chrysotile
VEC-BULK3-110916 (1)	Boiler Room Floor Debris (Brown/Gray/Tan) Friable	15% Amosite 35% Chrysotile
VEC-BULK4-110916 (1)	Ceiling Tile (Gray/White) Friable	3% Amosite
VEC-BULK5-110916 (1)	Boiler Room Floor Debris (Gray/White) Friable	35% Amosite
VEC-BULK7-110916 (1 of 4)	Room 206 floor debris (Transite) Friable	8% Chrysotile
VEC-BULK9-110916 (2 of 2)	12 by 12-inch tan floor tile (Mastic and Floor Tile) Non-Friable	6% Chrysotile - mastic 4% Chrysotile - floor tile
VEC-BULK10-110916 (1 of 2)	1 by 1-foot gray ceiling tile (Ceiling Tile) Friable	8% Amosite 4% Chrysotile
VEC-BULK11-110916 (1)	Air cell pipe insulation (White) Friable	55% Chrysotile
VEC-BULK12-110916 (2 of 2)	12 by 12-inch red/brown Floor Tile (Mastic and Floor Tile) Non-Friable	8% Chrysotile - floor tile 6% Chrysotile - mastic

Note:

¹ = Number of components out of total components containing asbestos for each sample provided in parentheses.

3.2.4 Asbestos in Air Results

Two indoor activity-based, two indoor fixed (bystander), and four outdoor ambient air samples were collected and analyzed for asbestos by EMSL. Tetra Tech confirmed laboratory results during the data validation report (Document Tracking No. 1358) submitted to EPA on December 19, 2016. The laboratory performed an initial assessment on the air samples to determine the appropriate analysis. Based on the presence of the asbestos fibers, and the agreed-upon data quality objectives (DQOs), the laboratory performed the following analysis:

- VEC-AAL-P1-110916 National Institute for Occupational Safety and Health (NIOSH) Methods 7400 (Phase Contrast Microscopy – PCM) and 7402 (Transmission Electron Microscopy -- TEM)
- VEC-AAH-P1-110916 NIOSH Methods 7400 (PCM) and 7402 (TEM)
- VEC-AAL-P2-110916 NIOSH Methods 7400 (PCM) and 7402 (TEM)
- VEC-AAH-P2-110916 NIOSH Methods 7400 (PCM) and 7402 (TEM)
- VEC-AAH-MM-110916 International Standards Organization (ISO) Method 13794 (TEM/PCME)
- VEC-AAH-AA-110916 ISO Method 10312 (TEM/PCME)

- VEC-AAH-BY-110916 ISO Method 10312 (TEM/PCME)
- VEC-AAHBY1-110916 ISO Method 10312 (TEM/PCME)

The high-volume indoor air samples (5 L/min for activity-based and 10 L/min for bystander scenario) were not overloaded with material; therefore, the collocated indoor low-volume samples (3 L/min) were not analyzed. The high-volume (10 L/min) and low-volume (3 L/min) outdoor air samples were both analyzed to fully characterize hazards to the sensitive population that would use playground equipment.

Asbestos results in Table 2 are provided in two concentrations: (1) transmission electron microscopy (TEM) structures per cubic centimeter (s/cc) and (2) Phase Contrast Microscopy Equivalent (PCME) s/cc. TEM s/cc is the method of analysis for the concentration of asbestos fibers in relation to fibers with a length greater than or equal to 0.5 micron (um) and an aspect ratio greater than or equal to 3 per the binning rule description under the ISO 10312 analysis. PCME refers to the concentration of asbestos fibers in the air that meet the binning description of fibers that have a length greater than 5 um, a width greater than or equal to 0.25 um, and an aspect ratio greater than or equal to 3 which the Occupational Safety and Health Administration (OSHA) deems hazardous to human health. Therefore, the PCME is the OSHA comparable value. Both results were been calculated to assess exposure over an 8-hour working period.

Asbestos was not detected in any of the outdoor air samples. Asbestos was detected in all four of the indoor air samples analyzed by the laboratory; however, only the activity-based indoor air samples (VEC-AAH-MM-110916 and VEC-AAH-AB-110916) exceeded the OSHA permissible exposure limit (PEL) of 0.1 structure per cubic centimeter (s/cc).

TABLE 2
AIR SAMPLING ANALYTICAL RESULTS - ISO 13794/10312

Sample Number	TEM Total Structures	TEM Air Concentration (s/cc)	PCME Total Structures	PCME Air Concentration (s/cc)
VEC-AAH-MM-110916	23	0.4110	23	0.4110
VEC-AAH-AB-110916	113	0.2700	110	0.2628
VEC-AAH-BY1-110916	113	0.1011	103	0.0922
VEC-AAH-BY-110916	15	0.0059	13	0.0052

Notes:

PCME = Phase contrast microscopy equivalent

s/cc = Structures per cubic centimeter of air

TEM = Transmission electron microscopy

4.0 SUMMARY

EPA and START collected a total of 31 liquid or solid waste; water; fibers in air, bulk, or waste possibly containing asbestos; and paint samples during the site assessment. The samples were submitted for laboratory analyses and the results are listed below.

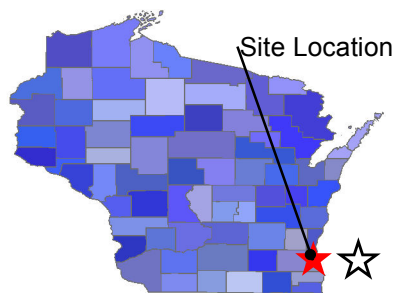
- No significant mercury, VOC, or gamma radiation readings were detected in the ambient air of the building during two screening events.
- One waste sample was ignitable per 40 CFR Part 261.
- One waste sample and one sump sample contained lead at concentrations above EPA RMLs.
- Two paint samples contained lead concentrations above the level that defines lead-based paint.
- Thirteen bulk asbestos samples, nine of which are considered friable, contained either chrysotile or amosite asbestos; the asbestos content in these samples ranged from 3 percent to 55 percent.
- Asbestos was detected in all indoor air samples; however, only the activity based air samples exceeded the OSHA PEL.
- No asbestos was detected in outdoor ambient air samples.

Based on the observations during the site assessment and the analytical results of the samples that exceeded applicable screening levels, START recommends removal of the contaminants before proceeding with any demolition of the building.


5.0 REFERENCES

- City of Milwaukee. 2016. E-mail summarizing WDNR site observation and history of VE Carter School. From: Chris Kraco, WDNR. To: Kathy Halbur, EPA. October.
- Jackson-MacCudden, Inc. 2003. "Asbestos Management Plan in accordance with EPA AHERA Regulation 40 CFR Part 763, V.E. Carter Child Development Group Inc." 2001 West Vliet Street, Milwaukee, WI 53205. December 17.
- Tetra Tech, Inc. (Tetra Tech) 2016a. "Abbreviated Sampling and Analysis Plan (SAP) for the VE Carter School Site." Prepared for EPA under Contract No. EP-S5-13-01. November 4.
- Tetra Tech 2016b. VE Carter School Site – Level 2 Health and Safety Plan. Prepared for EPA under Contract No. EP-S5-13-01. October 24.
- U.S. Environmental Protection Agency (EPA). 2016. Technical Direction Document (TDD) S05-001-1610-200, Specific Tasks START 4. October 5.
- Wisconsin Department of Natural Resources (WDNR). 2016. E-mail "Request for EPA Removals Assistance - Former VE Carter School, Milwaukee, WI." From: John E Sager, WDNR. To: Michael Ribordy, EPA. September 23.

APPENDIX A
SITE FIGURES



Legend

 Approximate Site Boundary

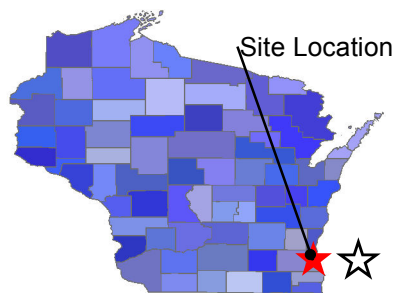
Former VE Carter School
Milwaukee, Wisconsin

Figure 1
Site Location Map




Prepared For: USEPA

Prepared By: Tetra Tech, Inc.



Legend

 Approximate Site Boundary

Former VE Carter School
Milwaukee, Wisconsin

Figure 2
Site Layout Map



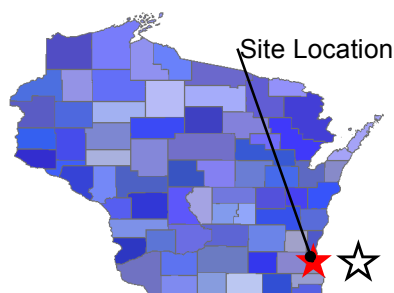
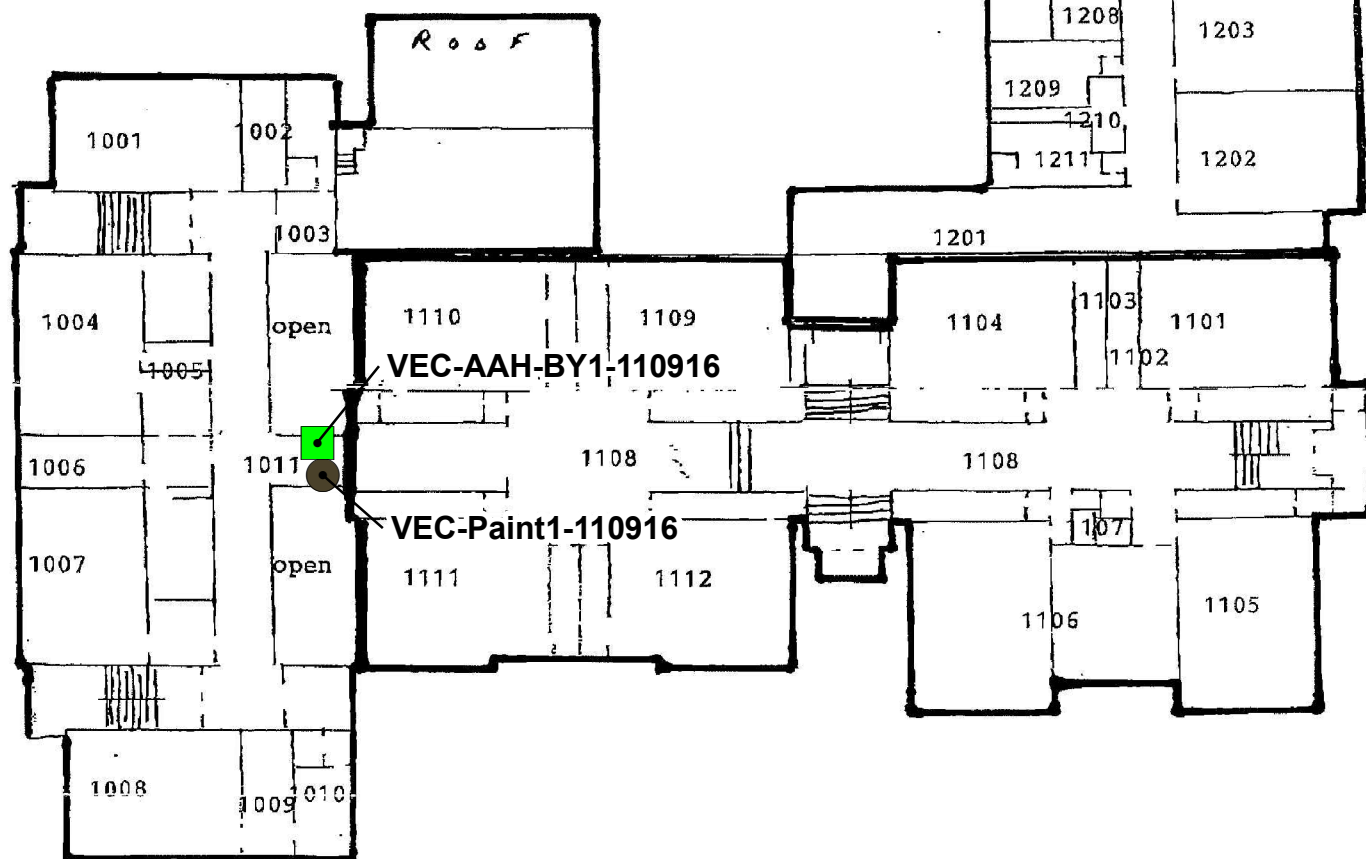
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Prepared By: Tetra Tech, Inc.





V.E. Carter Child Dev. Group, Inc.

FIRST FLOOR



Legend

-  Indoor Ambient Air Sample Location
-  Paint Sample Location

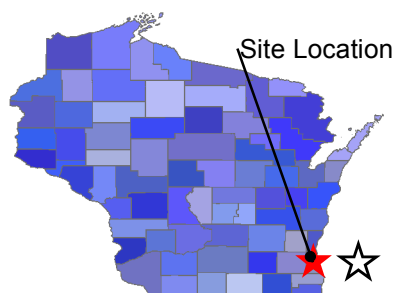
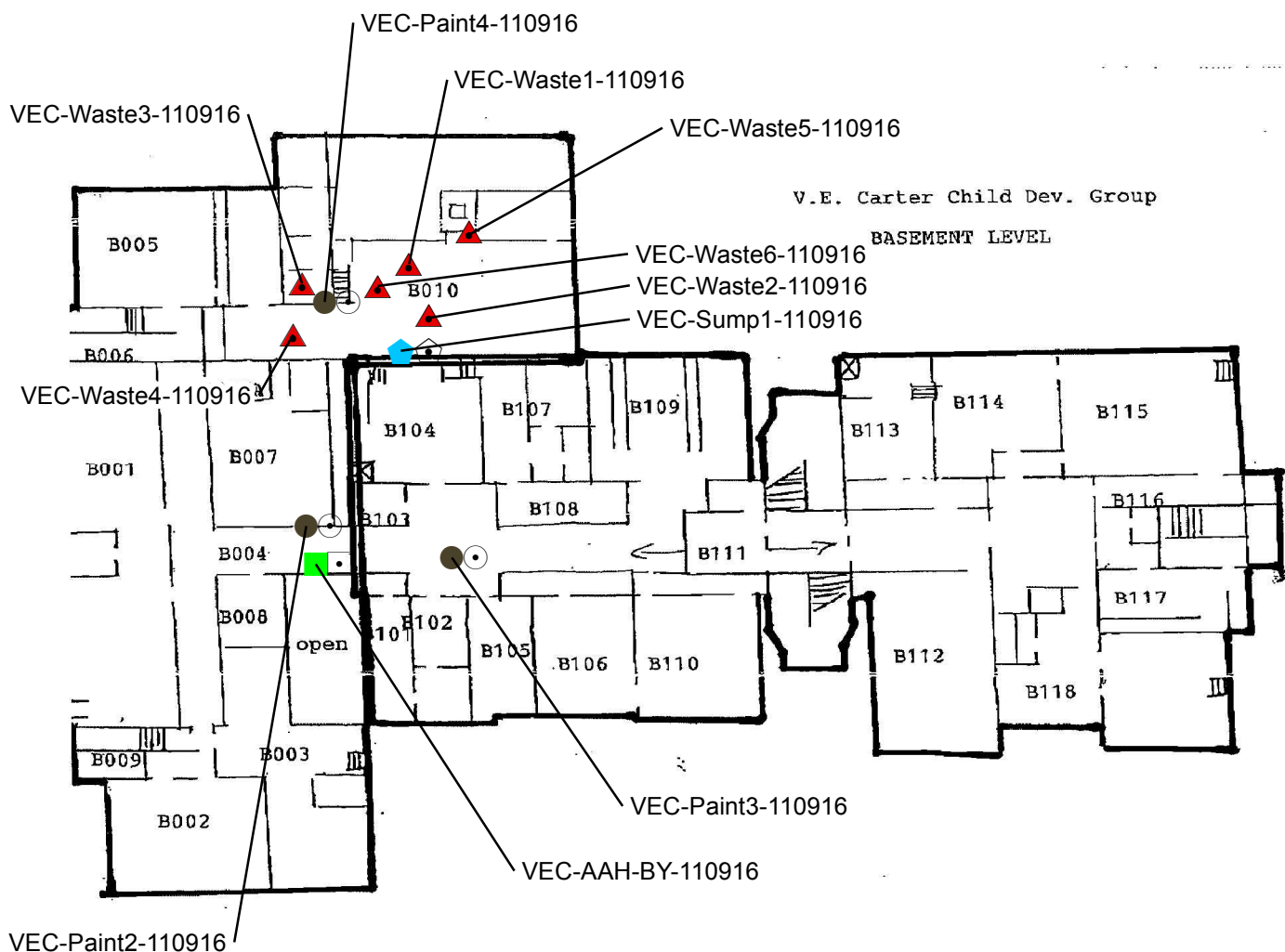
Former VE Carter School
Milwaukee, Wisconsin

Figure 3
First Floor Sampling Location Map



Prepared For: USEPA

Prepared By: Tetra Tech, Inc.



Legend

- Ambient Air Sample Location
- Paint Sample Location
- Waste Sample Location
- Water Sample Location

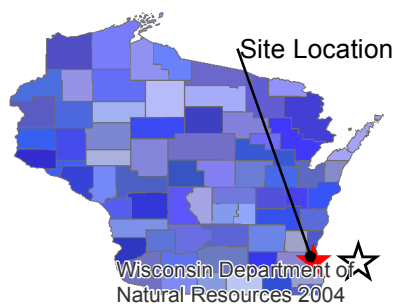
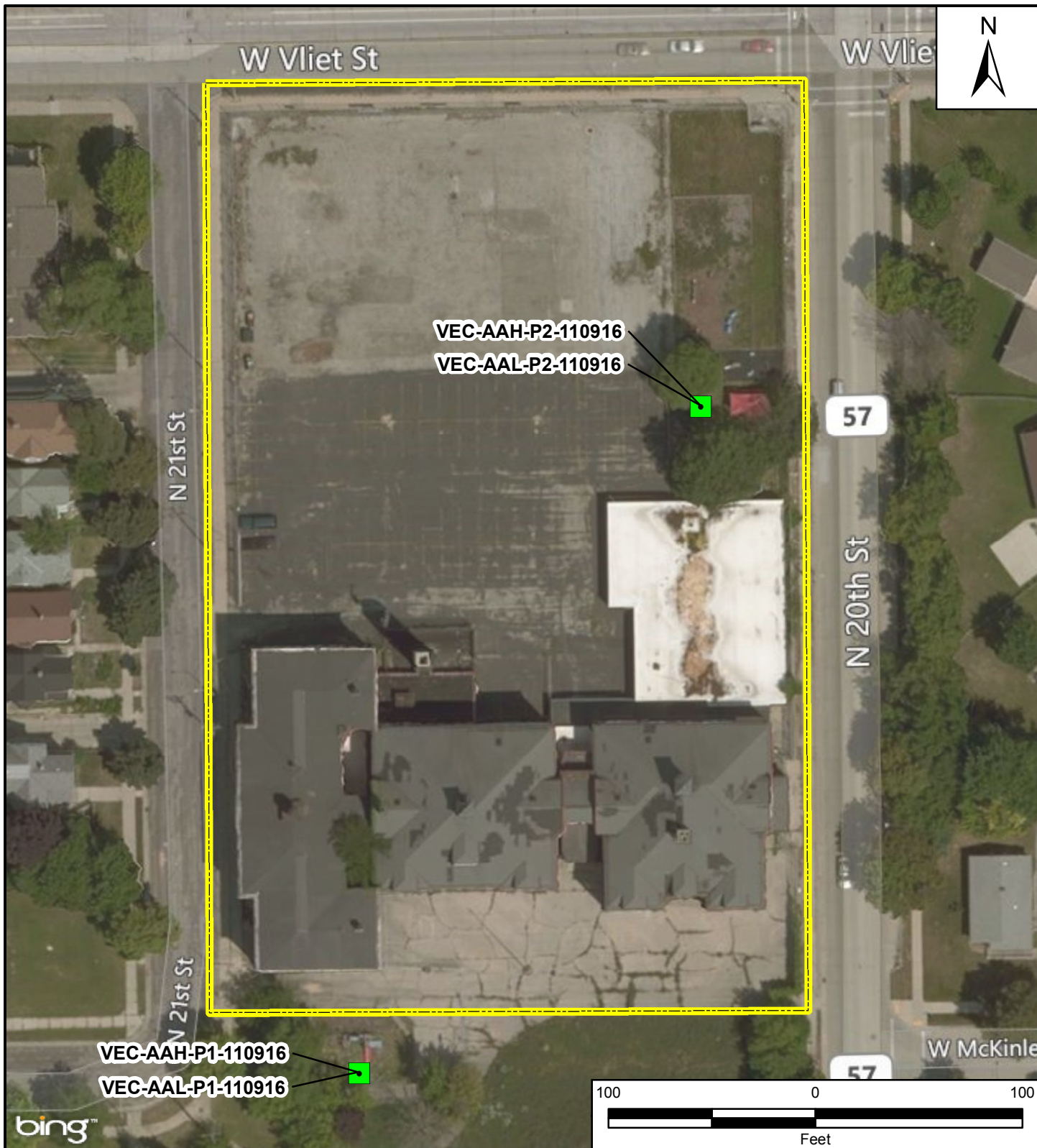
Former VE Carter School
Milwaukee, Wisconsin

Figure 4
Basement Level
Sampling Location Map





Prepared For: USEPA

Prepared By: Tetra Tech, Inc.



Legend

-  Ambient Air Sampling Locations
-  Approximate Site Boundary

Former VE Carter School
Milwaukee, Wisconsin

Figure 5
Ambient Air
Outdoor Sampling Locations



Prepared For: USEPA

Prepared By: Tetra Tech, Inc.

APPENDIX B
TABLES

Table B-1
Non-Bulk Asbestos Sample Locations
VE Carter School
Milwaukee, Milwaukee County, Wisconsin

Sample ID	Location	Description	Laboratory Analysis
VEC-Sump1-110916	B010 (Furnace Room)	Accumulated water in sump located in the boiler room	PCBs, Metals, SVOCs, VOCs, pH
VEC-Waste1-110916	B010 (Furnace Room)	Corrosive 8, (Lakela – CL-5600) found in white 5-gal bucket in boiler room.	pH
VEC-Waste2-110916	B010 (Furnace Room)	One step germicidal detergent and deodorant – All purpose Cleaner	pH
VEC-Waste3-110916	B010 (Furnace Room)	Paint Thinner – 100% Mineral Spirits	Flammability/Combustibility
VEC-Waste4-110916	B010 (Furnace Room)	Jar labeled "Snow Blower Oil"	PCBs, pH, Flammability/Combustibility
VEC-Waste5-110916	B010 (Furnace Room)	Granular material from the furnace	PCBs, TAL Metals
VEC-Waste6-110916	B010 (Furnace Room)	Granular material from the incinerator	PCBs, TAL Metals
VEC-Paint1-110916	1011	Green paint with beige backing	Lead, PCBs
VEC-Paint2-110916	B004	White paint with beige backing	Lead, PCBs
VEC-Paint3-110916	B004	Grey paint peeling off of the basement floor near VEC-AAH-BY-110916	Lead, PCBs
VEC-Paint4-110916	B010 (Furnace Room)	Green paint found on fire door	Lead, PCBs
VEC-AAH-AB-110916	Throughout Building	START Personnel 1 activity-based air samples. Collected while walking around the building documenting building condition and collecting asbestos samples	Asbestos
VEC-AAL-AB-110916			Asbestos
VEC-AAH-MM-110916	Throughout Building	START Personnel 2 activity-based air samples. Collected while walking around the building documenting building condition and collecting asbestos samples	Asbestos
VEC-AAL-MM-110916			Asbestos
VEC-AAH-BY-110916	B004	Sentinal 1 - Located next to a broken window leading to a courtyard in the basement	Asbestos
VE-AAH-BY1-110916	1011	Sentinal 2 - Located next to a broken window leading to a courtyard on 1st floor	Asbestos
VEC-AAL-P1-110916	Northeast Playground	In the center of the playground approximately 3 feet above ground surface affixed to playground equipment	Asbestos
VEC-AAH-P1-110916			Asbestos
VEC-AAH-P2-110916	Southwest Playground	On the northeast corner of the playground approximately 3 feet above ground surface	Asbestos
VEC-AAL-P2-110916			Asbestos

Notes:

PCBs = Polychlorinated Biphenyls

TAL = Target Analyte List

SVOCs = Semi-Volatile Organic Compounds

VOCs = Volatile Organic Compounds

Table B-2
Asbestos Sample Locations
VE Carter School
Milwaukee, Milwaukee County, Wisconsin

Sample ID ¹	Location ²	Description	Laboratory Analysis
VEC-BULK1-110916	Basement	Pipe insulation paper Gray Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK1-110916	Basement	Pipe insulation Gray Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK2-110916	Basement	Pipe Insulation Tan White Black Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK3-110916	Furnace Room	Boiler Room debris comp Brown Gray Tan Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK4-110916	Throughout	2 by 4-foot ceiling tile throughout building, Gray White Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK5-110916	Furnace Room	Boiler Room debris comp Gray Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK6-110916	Throughout	2 by 4-inch Pin dot ceiling tile throughout building, Gray White fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK7-110916	Room 206	Debris composite, Black non-fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK7-110916	Room 206	Debris composite, Brown Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK7-110916	Room 206	Debris composite, Tan Fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK8-110916	Throughout	12 by 12-inch white floor tile, White Non- fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK8-110916	Throughout	12 by 12-inch white floor tile mastic, Tan Non-fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK8-110916	Throughout	12 by 12-inch white floor tile, White Non-fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK9-110916	Throughout	12 by 12-inch dark tan floor tile, Tan non-fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK9-110916	Throughout	12 by 12-inch mastic, Black non fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK10-110916	Room 103	1 by 1-foot ceiling tile, Gray fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK11-110916	East side of 1 st floor	Air Cell pipe insulation, Brown non fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK11-110916	East side of 1 st floor	Air cell pipe insulation, White fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK12-110916	Fire Damaged area	12 by 12-inch red brown floor tile, Brown fibrous	PLM EPA 600/R-93/116 PLM
VEC-BULK12-110916	Fire Damaged area	12 by 12-inch red brown floor tile, Black non fibrous	PLM EPA 600/R-93/116 PLM

Notes:

1 = multiple analysis were performed on one sample due to the presence of different materials

2 = Generalized locations

PLM = Polarized Light Microscopy

Table B-3
Summary of Detected Sump Water Sample Analytes
VE Carter School
Milwaukee, Milwaukee County, Wisconsin

Analyte	Action Level ¹	Units	VEC-SUMP1-110916	
Physical Chemistry				
pH	≤ 2 or ≥ 12.5	S.U.	7.63	J
Metals				
Barium	11,000	ug/L	36.7	
Chromium	100	ug/L	0.82	J
Lead	15	ug/L	21.0	
Mercury	1.9	ug/L	0.15	J+
Selenium	300	ug/L	2.5	
Polychlorinated Biphenyls (PCBs)				
No detections				
Volatile Organic Compounds (VOCs)				
Acetone	42,000	ug/L	11	
Semi-Volatile Organic Compounds (SVOCs)				
Bis(2-ethylhexyl)phthalate	560	ug/L	0.43	J
Carbazole	NL	ug/L	0.33	J
Dimethylphthalate	NL	ug/L	0.56	J
Pentachlorophenol	4.1	ug/L	2.2	J

Notes

Green highlighted cells indicate detection above action level

¹ = Physical Chemistry Action Level are based on 40 CFR 261; Metals, VOCs, and SVOCs based on EPA RML for Residential (HQ = 3, Ca = 10⁻⁴)

Ca = Cancer risk for carcinogens

HQ = Hazard Quotient for Non-carcinogens

J = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J+ = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high

NL = Not listed

ug/L = micrograms per liter

RML = Removal Management Levels

Table B-4
Summary of Detected Solid and Liquid Waste Sample Analytes
VE Carter School
Milwaukee, Milwaukee County, Wisconsin

Analyte	Action Level ¹	Units	VEC-WASTE1- 110916	VEC-WASTE2- 110916	VEC-WASTE3- 110916	VEC-WASTE4- 110916	VEC-WASTE5- 110916	VEC-WASTE6- 110916
Physical Chemistry								
pH	≤ 2 or ≥ 12.5	S.U.	8.52	9.00	NA	7.2	NA	NA
Flashpoint	<140	Deg. F	NA	NA	104.5	>140.0	NA	NA
Metals								
Arsenic	67	mg/kg	NA	NA	NA	NA	28.5	2.3
Barium	46,000	mg/kg	NA	NA	NA	NA	69.8	554
Cadmium	210	mg/kg	NA	NA	NA	NA	2.0	14.5
Chromium	NL	mg/kg	NA	NA	NA	NA	6.9	60.7
Lead	400	mg/kg	NA	NA	NA	NA	119 J+	1,230
Mercury	28	mg/kg	NA	NA	NA	NA	1.4 J-	0.39
Selenium	1,200	mg/kg	NA	NA	NA	NA	10.9	<0.079
Silver	1,200	mg/kg	NA	NA	NA	NA	0.10	0.73
Polychlorinated Biphenyls (PCBs)								
Aroclor-1254	3	mg/kg	NA	NA	NA	ND	0.0847	0.322
Aroclor-1260	24	mg/kg	NA	NA	NA	ND	0.0591	0.279
Total PCBs ²	1	mg/kg	NA	NA	NA	ND	0.1438	0.601

Notes

Green highlighted cells indicate detection above action level

¹ = Physical Chemistry Action Level are based on 40 CFR 261; Total PCBs based on 40 CFR Part 761; PCBs individual Aroclor and Metals based on EPA RML for Residential (HQ = 3, Ca = 10⁻⁴)

² = Total PCBs is the sum of all positive detected Aroclors

Ca = Cancer risk for carcinogens

Deg. = Degrees

F = Fahrenheit

HQ = Hazard Quotient for Non-carcinogens

J = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J+ = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high

J- = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low

mg/kg = milligrams per kilogram

NA = Not analyzed

ND = Not Detected

NL = Not listed

RML = Removal Management Levels

Table B-5
Summary of Detected Paint Chip Sample Analytes
VE Carter School
Milwaukee, Milwaukee County, Wisconsin

Analyte	Action Level ¹	Units	VEC-PAINT1- 110916	VEC-PAINT2- 110916	VEC-PAINT3- 110916	VEC-PAINT4- 110916
Metals						
Lead	5,000	mg/kg	28,000	3,930	203	67,800
Polychlorinated Biphenyls (PCBs)						
Aroclor-1254	50	mg/kg	0.643	0.159 J-	2.23	17.3
Aroclor-1260	50	mg/kg	0.311	0.0913 J-	1.96	13.5
Total PCBs ²	50	mg/kg	0.954	0.250 J-	4.19	30.8

Notes

Green highlighted cells indicate detection above action level

¹ = Lead action level based on lead-based paint hazard as defined by 40 CFR Part 745; PCBs action level based on PCB bulk product waste as defined by 40 CFR Part 761.

² = Total PCBs is the sum of all positive detected Aroclors

Ca = Cancer risk for carcinogens

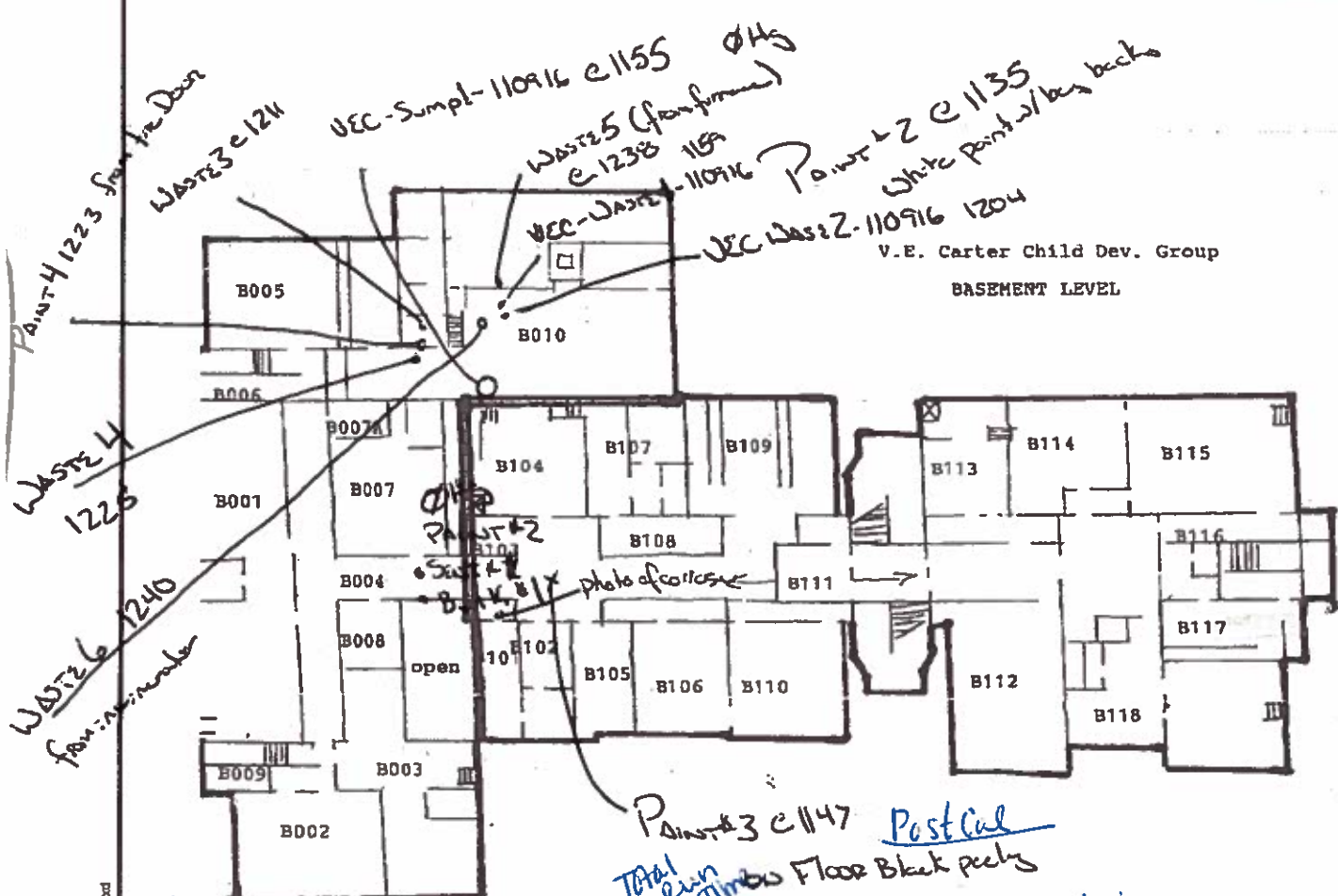
HQ = Hazard Quotient for Non-carcinogens

J = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J- = The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low

mg/kg = milligram per kilogram

APPENDIX C
START FIELD NOTES



Post Cal	W R12336 (27130) 035451 (31091)	Hi Vol. SKC	82.2 min.	5.45 lpm	Andre
		"	174 min.	4.05 lpm	Marsha
	Low Vol Casella		174 min.	2.73 lpm	Marsha ~547 L.
	Gilian Low Vol. Gilian		174 min.	3.10 lpm	Andre
Air Con	AC2-003 (0307602)			10.9 lpm	(Sent #2)
Air Con	201610003			10.2 lpm	(Sent. #1)



Air Con 201610004
st. 928 stp 1520
post cal = 10.2 lpm
VEC-AAH-P2-110916
Low Vol Casella
st. 928 stp 1520
post cal = 3.06 lpm
VEC-AAH-P2-110916
AAL

Former VE Carter School
Milwaukee, Wisconsin

Figure 3
Basement Level Layout Map



Prepared For: USEPA Prepared By: Tetra Tech, Inc.

Air Con 0307605 st 937 stp 1522
Post Cal = 10.0
VEC-AAH-P1-110916
Low Vol Casella
st. 937 stp 1522
5155247 Post Cal = 2 VEC-AAH-P1-110916

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VE CARTER SCHOOL



Rite in the Rain

ALL-WEATHER

LEVEL

TDD 001/S05-0001-1610-

Book 1071

200

SITE ASSESSMENT

Oct 25 →

10-25-16

1000 START (Kondrick) EPA (Halsbury)

Hilary
Katie
Chris & Tony Gadenow

Preparing to enter building. Slightly
overcast, 50s, little wind. Enter PPE C
due to asbestos.

Potentially sample playground for asbestos near

1154

Leave building. EPA will take out H₂ samples
& give to WDDP

Visible trespassing in building based on show
prints

Will sample asbestos in air trespasser
scenario. WDDP will attempt to secure
building. Meet on Nov 10th @ 8:00 AM

8 liquid samples, sump, 2x floor, 2x corners
Acce. Base, Potions

Ash. Floor samples (Pb, PCBs) 2-3, 1-Misc,
Paint PCBs & Pb

Asbestos 2 outside, 2 ground, 2 highest for the
pipe wrap, picks

Photos of building integrity-graphic,
Swann make not recently calibrated-think

DO not

10-25-16

[Signature]

10-25-16

Labum - No readings above background
Moltr Res. - No readings above background

10-25-16

[Signature]

Rite in the Rain

11/9/16 0800

- Removal site assessment
- Halbur met with WMS chmz
- kraco, City delivered
- porta potty for the day?
- TR Reese opened up boarded
- doors for entry

0830 - Lindner Schmidt & Watt
Scallan, WMS Health Dept
on site for site history briefing
& exterior tour of building?
Vazards - at site 9:30

0830 TT (Yardnick, Mewnette, Baker)

Set up asbestos air monitors — yet

0928 Pumps set at school playground
Cassius Tuff 5155266 E 306374/mw
AirCovZ 201610004 E 103224/mw

0937 Pumps set at school playground to SDS
Cassius Tuff 5155247 E 2944/n
AirCovZ 0307605 E 9984/n
VEC-AAH-~~BAK~~ 110916

~~Backlog~~ VEC-AAL-~~BAK~~ 110916

~~11/9/16~~

0928 Backlog VEC-AAH-~~BAK~~ 110916
sample & playground to +1 NSE
~~0920~~ VEC-AAL-~~BAK~~ 110916
sample & playground to +1 NSE

1110 VEC-AAH-~~BAK~~ 110916 of
AirCovZ 201610003 E 1015
VEC-AAL-~~BAK~~ 110916 of Cassius Tuff
5155265
5155049 E 306374/mw, Location of
Sentinel for Trepas Scanner

1110 VEC-AAH-~~BAK~~ 110916 of
AirCovZ 0307602 E 1054
VEC-AAL-~~BAK~~ 110916 of Cassius
Tuff 5155049 E 306374/mw
for Sentinel Location #2

1110 VEC-AAL-AB-110916 of Cassius Tuff
5155280 E 317 on Anderson Baker
VEC-AAH-AB-110916 of SKC
Leland Legacy 27130 C 609
on Anderson Baker

1110 VEC-AAL-MN-110916 of Cassius Tuff
5155268 E 304 E VEC-AAH-MN
110916 SKC 31097 E 585
Return to the Rain

11-9-16

VEC-AA1-AA-110916 pump (Central)
not working switch to G110.5
20070502018 2.921/m

START on 3rd floor - per
AC on several windows and
have been broken on the
3rd floor - Rm 207, 206, 204
All windows in each room
broken - #3

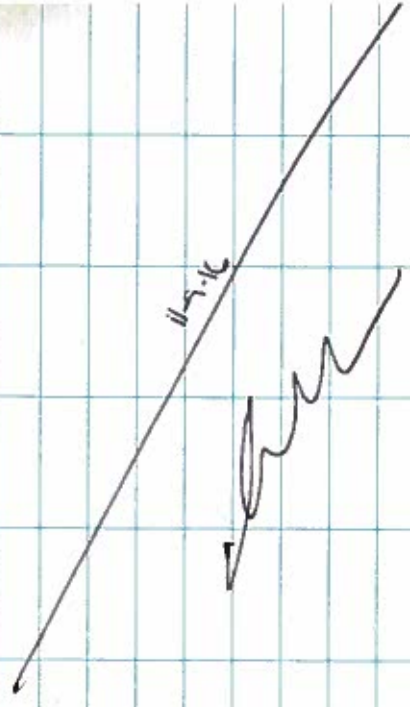
START Entered site starting
the ascent and moving upwards.
In the basement there were lots
of damaged pipes with pipe
insulation fallen down.

START took samples along the way
of Asbestos and 8 mercury switches
4 in the boiler room and 4 in the
Attic Area. Most Asbestos samples
were taken in the 1st and Basement
floors.

Samples VEC-Bulk-1-110916 Time: 11:40 Pipe insulation
VEC-Bulk-2-110916 Time: 12:00 Paper
VEC-Bulk-3-110916 Time: 11:58 Boilers
VEC-Bulk-4-110916 Time: 12:10 2x4 wall
VEC-Bulk-5-110916 Time: 12:08 Boiler room
Central

12:57 VEC-Bulk-6-110916 2x4 pipe
13:03 VEC-Bulk-7-110916 Ceiling tile
14:00 VEC-Bulk-8-110916 12x12 wall tile
12:49 VEC-Bulk-9-110916 12x12 dark tile
14:10 VEC-Bulk-10-110916 Room 103
14:12 VEC-Bulk-11-110916 1x1 ceiling tile
14:15 VEC-Bulk-12-110916 12x12 Red tile

15:20 VEC-AAH-P2-110916 (stop time)
15:20 VEC-AAZ-P2-110916 (stop time)
15:22 VEC-AAH-P1-110916 (stop time)
15:22 VEC-AAZ-P1-110916 (stop time)



Rite in the Rain

APPENDIX D
PHOTOGRAPHIC DOCUMENTATION



Photographic Documentation

Client: U.S. EPA Region 5

Site Name: VE Carter School

Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1610-200

Dates: November 9, 2016

Photograph No. 1

Photographer:

Robert Kondreck

Date: 11/9/2016

Description: (Southwest)
Outdoor ambient air monitoring station at playground located northeast of the school. Sample VEC-AAH-P2-110916 and VEC-AAL-P2-110916 being collected.

Nov 9, 2016, 9:31:28 AM
43.04828290, -87.93791796



Photograph No. 2

Photographer:

Robert Kondreck

Date: 11/9/2016

Description: (West) Outdoor
ambient air monitoring station at playground located in the southwestern portion of the school. Sample VEC-AAH-P1-110916 and VEC-AAL-P1-110916 being collected.

Nov 9, 2016, 9:46:45 AM
VEC-AA-P1-110916
43.04730863, -87.93850092





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: VE Carter School

Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1610-200

Dates: November 9, 2016

Photograph No. 3

Photographer:

Robert Kondreck

Date: 11/9/2016

Description: (West).

Bystander sample (VEC-AAH-BY1-110916) in foreground. The photograph contains erroneous sample identification in the upper left hand corner.

Nov 9, 2016, 11:27:57 AM
VEC-AAH-Sent2-110916
43.04862384, -87.93826736



Photograph No. 4

Photographer:

Robert Kondreck

Date: 11/9/2016

Description: (East).

Bystander sample (VEC-AAH-BY-110916). The photograph contains erroneous sample identification in the upper left hand corner.

Nov 9, 2016, 11:36:57 AM
VEC-AAH-Sent1-110916
43.04791476, -87.93891435





Photographic Documentation

Client: U.S. EPA Region 5
Site Name: VE Carter School
Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.
TDD Number: S05-0001-1610-200
Dates: November 9, 2016

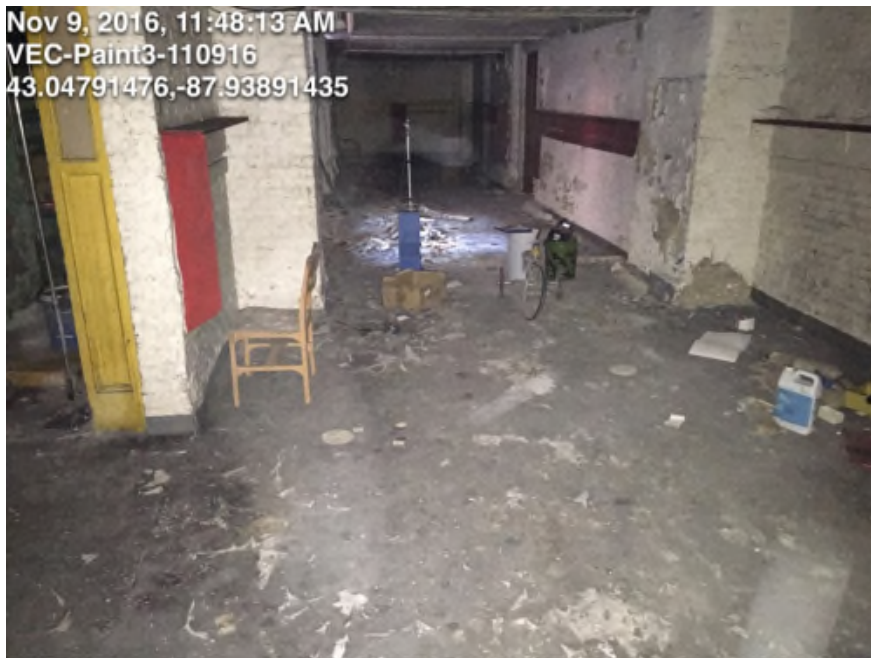
Photograph No. 5

Photographer:
Robert Kondreck

Date: 8/20/2015

Description: (West) Sample
VEC-PAINT-3-110916
collected black peeling floor
material.

Nov 9, 2016, 11:48:13 AM
VEC-Paint3-110916
43.04791476,-87.93891435



Photograph No. 6

Photographer:
Robert Kondreck

Date: 11/9/2016

Description: (West)
Corrosive placard bucket next
to exposed sump in the boiler
room.

Nov 9, 2016, 11:55:11 AM
VEC-Sump1-110916
43.04791476,-87.93891435







Photographic Documentation

Client: U.S. EPA Region 5
Site Name: VE Carter School
Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.
TDD Number: S05-0001-1610-200
Dates: November 9, 2016

<p>Photograph No. 7</p> <p>Photographer: Robert Kondreck</p> <p>Date: 11/9/2016</p> <p>Description: (East) START contractor removing mercury switches in the boiler room.</p>	 <p>Nov 9, 2016, 12:09:52 PM 43.04858306,-87.93829829</p>
<p>Photograph No. 8</p> <p>Photographer: Robert Kondreck</p> <p>Date: 11/9/2016</p> <p>Description: (North) Improperly stored paint, corrosives and flammables side by side as well as other waste found adjacent to the boiler room.</p>	 <p>Nov 9, 2016, 12:15:48 PM 43.04856267,-87.93814155</p>



Photographic Documentation

Client: U.S. EPA Region 5
Site Name: VE Carter School
Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.
TDD Number: S05-0001-1610-200
Dates: November 9, 2016

Photograph No. 9

Photographer:
Robert Kondreck

Date: 9/11/2016

Description: (West) Peeling paint from boiler room door.



Photograph No. 10

Photographer:
Andre Baker

Date: 11/9/2016

Time: 13:10

Description: (West) Evidence of trespassing on second floor.





Photographic Documentation

Client: U.S. EPA Region 5
Site Name: VE Carter School
Location: 2001 Vliet Street, Milwaukee, WI

Prepared by: Tetra Tech, Inc.
TDD Number: S05-0001-1610-200
Dates: November 9, 2016

Photograph No. 11

Photographer:
Andre Baker

Date: 9/11/2016

Time: 13:25

Description: (East) Evidence of trespassing on second floor.



Photograph No. 12

Photographer:
Andre Baker

Date: 9/11/2016

Time: 13:25

Description: (North) Entry into the school and possible Trespasser entry point.



APPENDIX E
LABORATORY REPORTS

ANALYTICAL RESULTS FOR:

**ROB KONDRECK
TETRA TECH
1 S WACKER DRIVE
SUITE 3700
CHICAGO, IL 60606**

PROJECT SITE: VE Carter School; Milwaukee, WI

PROJECT #: 103X90260001S051610200

SDG: 123585

PREPARED: December 6, 2016

TOTAL # OF PAGES IN THIS DOCUMENT: 1585

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAP or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: Brett Szymanski
PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 4602038), MD (WI 00061), LA (NELAP ACC20160002), ISO17025 (A2LA 3806.01), GA EDP Stipulation (Accreditor: LA NELAP, ACC#: ACC20160002, Scope: Non-potable water solid and chemical materials, biological tissue, Effective: 12/10/2014, Expires: annually)

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• 608-356-2760



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PCB ICAL Documents	432
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Client: Tetra Tech

Project: VE Carter School; Milwaukee, WI

Sample Receipt Date: 11/11/2016

SDG #: 123585

One water sample, six waste samples, and four paint chip samples were received for a variety of analytical parameters including VOCs, SVOCs, PCBs, Metals, pH, and Flashpoint. The assigned sample ID numbers, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits unless specifically stated otherwise in this case narrative or in the sample receipt documents.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale". The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Method 8260C (VOC). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method/project specified quality control criteria with following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Compound that may not meet the recommended minimum average response factor (ARF) criteria for 8260C (such as several of the ketones) are analyzed at concentrations 2 to 50 times higher than normal to make up for their lack of response. However, the ARF on the response factor (RF) forms do not reflect this change in concentration. These compounds may be "flagged" on RF forms as a result.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target compounds within the calibration range of the instrument.

VOC (8260C) Water Analysis

Level 8 was not used for carbon disulfide, vinyl acetate, 2-hexanone, and 4-methyl-2-pentanone on the initial calibration curve (W110816) due to loss in linearity. Acetone, chloromethane, vinyl acetate were calibrated using quadratic regression (two ICV's were analyzed for these compounds).

Analytical Run # 132708

CCV1 had low recoveries outside specified criteria for bromomethane and 1,4-dioxane (>20% Dev.). These compounds were qualified with a "Z" flag on all associated samples.

The Laboratory Control Sample (LCS) had a low recovery for 1,4-dioxane. This compound was qualified with a "Q" flag on all associated samples.

Semi-Volatile Analysis:

The samples were analyzed using US EPA Method 8270D (SVOC). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8270D data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target compounds within the calibration range of the instrument.

SVOC (8270D) Analysis

Analytical Run # 132796

Continuing Calibration Verification (CCV) 1CCV259 analyzed on 11/17/2016 at 12:34 had a high response for 3,3'-dichlorobenzidine. This analyte was qualified with a "Z" flag in the associated samples.

The LCS had recoveries outside the QC limits for the following analytes: 2-nitroaniline, 3,3'-dichlorobenzidine, 4-nitroaniline, and 4,6-dinitro-2-methylphenol. These analytes were qualified with a "Q" flag in the associated samples.

The Method Blank (MB) had a low recovery of surrogate 2,4,6-tribromophenol. This surrogate was qualified with an "S" flag.

PCB Analysis:

The samples were analyzed using US EPA Method 8082A (PCB). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target compounds within the calibration range of the instrument.

PCB (8082A) Analysis

Analytical Run # 132740

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 132745

Samples 804619 and 804624 had one or more surrogate recoveries outside the QC limits. Surrogates with recoveries outside the QC limits were qualified with an "S" flag.

Analytical Run # 132700

Sample 804611 was analyzed at a 1:20 dilution due to sample matrix. This sample was qualified with a "V" flag.

Sample 804611 had a low recovery of surrogate TCMX. Surrogates with recoveries outside the QC limits were qualified with an "S" flag.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP), 7470A (Mercury-Aqueous), and 7471B (Mercury-Solid). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification

Blanks Summary

ICP Interference Check Data

Spike Sample Recovery

Duplicates Data

Laboratory Control Sample Data

Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals (6010C) Analysis

CCV standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 132729

The Serial Dilution (L) for sample # 804577 was not applicable because the parent sample raw results were less than 50 times the Limit of Quantitation (LOQ). A Post Digestion Spike (PDS) was analyzed and was acceptable. The parent sample was reported and not qualified.

The Duplicate (DUP) for sample # 804577 was not applicable for selenium, silver, arsenic, cadmium, and chromium because the parent sample results were less than five times the LOQ. A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

Analytical Run # 133031

Cadmium and selenium were detected in the MB greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). The samples were reported and not qualified because the MB was less than 1/10th of the sample results or the sample results were less than the MDL.

Lead was detected in the MB above the MDL and greater than ½ the RL. The samples were reported and not reanalyzed because the MB result was less than 1/10th of the sample results.

The L for sample # 804613 was not applicable for silver, arsenic, cadmium, chromium, and selenium because the parent sample raw results were less than 50 times the LOQ. A PDS was analyzed and was unacceptable for silver and chromium. The parent sample was reported and qualified with an "M" flag for the failing elements.

The L for sample # 804613 was not acceptable for lead because the result exceeded the Relative Percent Difference (RPD) limit. A PDS was analyzed and was acceptable for lead. The parent sample was reported and not qualified.

The DUP for sample # 804613 was not applicable for silver because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The Matrix Spike (MS) and MSD for sample # 804613 exceeded the recovery limit for lead. A PDS was analyzed and was acceptable. The parent sample was reported and not qualified.

CVAA Mercury (7470A/7471B) Analysis

Analytical Run # 133084

The DUP for sample # 804577 was not applicable for mercury because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The MS and MSD for sample # 804577 exceeded the recovery limit for mercury. The parent sample was reported and qualified with an "M" flag for mercury.

Analytical Run # 133129

The MS and MSD for sample # 804613 exceeded the recovery limit for mercury. The parent sample was reported and qualified with an "M" flag for mercury.

Inorganic Analysis:

The samples were analyzed using Methods EPA 9040C/9045D (pH-water/soil) and EPA 1010 (Flashpoint). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

All analysis results met the method specified quality control criteria with the following exceptions:

Flashpoint (1010) Analysis

Analytical Run # 132719

All analytical results for this run met the method/project specified quality control criteria.

pH (9040C/9045D) Analysis

Analytical Run # 132821

All analytical results for this run met the method/project specified quality control criteria.

Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: Data system failed to select the correct peak or missed the peak entirely.

In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.

This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.

For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.

There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.

Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the QA/QC Supervisor will be required.

Sample Delivery Group
123585

TETRA TECH
 ROB KONDRECK
 1 S WACKER DRIVE
 SUITE 3700
 CHICAGO, IL 60606

Project Name: VE CARTER SCHOOL
 Project #: 3X90260001S051610200

CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
804577	123585		VEC-SUMP1-110916	SURFACE WATER	11/09/2016	11/11/2016
804611	123585		VEC-WASTE4-110916	WASTE	11/09/2016	11/11/2016
804612	123585		VEC-WASTE1-110916	WASTE	11/09/2016	11/11/2016
804613	123585		VEC-WASTE5-110916	SOIL	11/09/2016	11/11/2016
804616	123585		VEC-WASTE6-110916	SOIL	11/09/2016	11/11/2016
804617	123585		VEC-WASTE3-110916	WASTE	11/09/2016	11/11/2016
804618	123585		VEC-WASTE2-110916	WASTE	11/09/2016	11/11/2016
804619	123585		VEC-PAINT1-110916	SOIL	11/09/2016	11/11/2016
804624	123585		VEC-PAINT2-110916	SOIL	11/09/2016	11/11/2016
804625	123585		VEC-PAINT3-110916	SOIL	11/09/2016	11/11/2016
804626	123585		VEC-PAINT4-110916	SOIL	11/09/2016	11/11/2016

QC Batch Cross Reference Summary

Page 1 of 2

TETRA TECH
 ROB KONDRECK
 1 S WACKER DRIVE
 SUITE 3700
 CHICAGO, IL 60606

Project Name: VE CARTER SCHOOL
 Project #: 3X90260001S051610200
 Report Date: 12/06/2016
 Date Received: 11/11/2016
 SDG #: 123585

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804613	Solids, Percent	EPA 8000C	SOIL		132648
804616	Solids, Percent	EPA 8000C	SOIL		132648
804619	Solids, Percent	EPA 8000C	SOIL		132648
804624	Solids, Percent	EPA 8000C	SOIL		132648
804625	Solids, Percent	EPA 8000C	SOIL		132648
804626	Solids, Percent	EPA 8000C	SOIL		132648
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	pH	EPA 9040C	SURFACE WATER		132821
804611	pH	EPA 9040C	WASTE		132821
804612	pH	EPA 9040C	WASTE		132821
804618	pH	EPA 9040C	WASTE		132821
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804611	Flashpoint	EPA 1010	WASTE		132719
804617	Flashpoint	EPA 1010	WASTE		132719

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804613	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
804616	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
804619	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
804624	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
804625	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
804626	ICP Metals QSM	EPA 6010C	SOIL	60301	133031



Project Name: VE CARTER SCHOOL
 Project #: 3X90260001S051610200
 SDG #: 123585

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804616	ICP Metals QSM	EPA 6010C	SOIL	60301	133031
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804613	Mercury QSM	EPA 7471B	SOIL	60383	133129
804616	Mercury QSM	EPA 7471B	SOIL	60383	133129
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	ICP Metals, Total QSM	EPA 6010C	SURFACE WATER	60178	132729
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	Mercury, Total QSM	EPA 7470A	SURFACE WATER	60367	133084

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	VOC's by 8260 QSM	EPA 8260C	SURFACE WATER		132708
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	SVOC 8270 QSM	EPA 8270D	SURFACE WATER	60157	132796
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
804577	PCB	EPA 8082A	SURFACE WATER	60169	132740
804611	PCB	EPA 8082A	WASTE	60170	132700
804613	PCB	EPA 8082A	SOIL	60167	132745
804616	PCB	EPA 8082A	SOIL	60167	132745
804619	PCB	EPA 8082A	SOIL	60167	132745
804624	PCB	EPA 8082A	SOIL	60167	132745
804625	PCB	EPA 8082A	SOIL	60167	132745
804626	PCB	EPA 8082A	SOIL	60167	132745

**VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS**



1A

VOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>(g/mL)</u>	CTL Sample ID:	<u>804577</u>
% Solids:	<u></u>	Date Received:	<u>11/11/2016</u>
Soil Extract Vol:	<u>(mL)</u>	Date/Time Prepared:	<u>/</u>
Analytical Method:	<u>EPA 8260C</u>	Analytical Prep Batch #	<u></u>
Analytical Run #:	<u>132708</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 01:48</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):		<u>/</u>	
ICAL Calibration #:	<u>W110816.</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	0.25	U	0.21	0.25	0.50	0.50
79-34-5	1,1,2,2-Tetrachloroethane	0.25	U	0.19	0.25	0.50	0.50
79-00-5	1,1,2-Trichloroethane	0.50	U	0.26	0.50	1.0	1.0
75-34-3	1,1-Dichloroethane	0.25	U	0.20	0.25	0.50	0.50
75-35-4	1,1-Dichloroethene	0.25	U	0.24	0.25	0.50	0.50
87-61-6	1,2,3-Trichlorobenzene	0.50	U	0.30	0.50	1.0	1.0
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.30	0.50	1.0	1.0
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U	0.40	0.50	1.0	1.0
106-93-4	1,2-Dibromoethane	0.25	U	0.16	0.25	0.50	0.50
95-50-1	1,2-Dichlorobenzene	0.25	U	0.23	0.25	0.50	0.50
107-06-2	1,2-Dichloroethane	0.50	U	0.30	0.50	1.0	1.0
78-87-5	1,2-Dichloropropane	0.25	U	0.22	0.25	0.50	0.50
541-73-1	1,3-Dichlorobenzene	0.50	U	0.26	0.50	1.0	1.0
106-46-7	1,4-Dichlorobenzene	0.25	U	0.23	0.25	0.50	0.50
123-91-1	1,4-Dioxane	70	Z,Q	5.0	13	25	25
78-93-3	2-Butanone	2.5	U	2.4	2.5	5.0	5.0
591-78-6	2-Hexanone	5.0	U	4.0	5.0	10	10
108-10-1	4-Methyl-2-pentanone	5.0	U	3.0	5.0	10	10
67-64-1	Acetone	11		5.0	5.0	10	10
71-43-2	Benzene	0.25	U	0.19	0.25	0.50	0.50
74-97-5	Bromochloromethane	0.25	U	0.19	0.25	0.50	0.50
75-27-4	Bromodichloromethane	0.25	U	0.20	0.25	0.50	0.50
75-25-2	Bromoform	0.25	U	0.22	0.25	0.50	0.50
74-83-9	Bromomethane	0.50	U Z	0.50	0.50	1.0	1.0



1A

VOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>(g/mL)</u>	CTL Sample ID:	<u>804577</u>
% Solids:	<u></u>	Date Received:	<u>11/11/2016</u>
Soil Extract Vol:	<u>(mL)</u>	Date/Time Prepared:	<u>/</u>
Analytical Method:	<u>EPA 8260C</u>	Analytical Prep Batch #	<u></u>
Analytical Run #:	<u>132708</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 01:48</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):		<u>/</u>	
ICAL Calibration #:	<u>W110816.</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
75-15-0	Carbon disulfide	0.50	U	0.50	0.50	1.0	1.0
56-23-5	Carbon tetrachloride	0.25	U	0.23	0.25	0.50	0.50
108-90-7	Chlorobenzene	0.25	U	0.24	0.25	0.50	0.50
75-00-3	Chloroethane	0.50	U	0.40	0.50	1.0	1.0
67-66-3	Chloroform	0.25	U	0.15	0.25	0.50	0.50
74-87-3	Chloromethane	0.50	U	0.40	0.50	1.0	1.0
156-59-2	cis-1,2-Dichloroethene	0.25	U	0.25	0.25	0.50	0.50
10061-01-5	cis-1,3-Dichloropropene	0.25	U	0.19	0.25	0.50	0.50
110-82-7	Cyclohexane	0.50	U	0.28	0.50	1.0	1.0
124-48-1	Dibromochloromethane	0.25	U	0.19	0.25	0.50	0.50
75-71-8	Dichlorodifluoromethane	0.50	U	0.26	0.50	1.0	1.0
100-41-4	Ethylbenzene	0.25	U	0.22	0.25	0.50	0.50
76-13-1	Freon 113	0.50	U	0.50	0.50	1.0	1.0
98-82-8	Isopropylbenzene	0.25	U	0.18	0.25	0.50	0.50
179601-23-1	m & p-Xylene	0.50	U	0.50	0.50	1.0	1.0
79-20-9	Methyl Acetate	0.50	U	0.30	0.50	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.50	U	0.29	0.50	1.0	1.0
108-87-2	Methylcyclohexane	0.25	U	0.23	0.25	0.50	0.50
75-09-2	Methylene chloride	0.50	U	0.40	0.50	2.0	2.0
95-47-6	o-Xylene	0.25	U	0.24	0.25	0.50	0.50
100-42-5	Styrene	0.25	U	0.20	0.25	0.50	0.50
127-18-4	Tetrachloroethene	0.50	U	0.30	0.50	1.0	1.0
108-88-3	Toluene	0.25	U	0.22	0.25	0.50	0.50
156-60-5	trans-1,2-Dichloroethene	0.25	U	0.25	0.25	0.50	0.50



1A

VOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>(g/mL)</u>	CTL Sample ID:	<u>804577</u>
% Solids:	<u></u>	Date Received:	<u>11/11/2016</u>
Soil Extract Vol:	<u>(mL)</u>	Date/Time Prepared:	<u>/</u>
Analytical Method:	<u>EPA 8260C</u>	Analytical Prep Batch #	<u></u>
Analytical Run #:	<u>132708</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 01:48</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):		<u>/</u>	
ICAL Calibration #:	<u>W110816.</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
10061-02-6	trans-1,3-Dichloropropene	0.25	U	0.19	0.25	0.50	0.50
79-01-6	Trichloroethene	0.25	U	0.21	0.25	0.50	0.50
75-69-4	Trichlorofluoromethane	0.25	U	0.20	0.25	0.50	0.50
75-01-4	Vinyl chloride	0.25	U	0.18	0.25	0.50	0.50



1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: _____ (g/mL) CTL Sample ID: 807540

% Solids: _____ Date Received: 11/11/2016

Soil Extract Vol: _____ (mL) Date/Time Prepared: /

Analytical Method: EPA 8260C Analytical Prep Batch # 0

Analytical Run #: 132708 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): /

ICAL Calibration #: W110816. Concentration Units: ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
71-55-6	1,1,1-Trichloroethane	11/16/2016	16:44	0.21	U	0.21	0.50	0.25
79-34-5	1,1,2,2-Tetrachloroethane	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
79-00-5	1,1,2-Trichloroethane	11/16/2016	16:44	0.26	U	0.26	1.00	0.50
75-34-3	1,1-Dichloroethane	11/16/2016	16:44	0.20	U	0.20	0.50	0.25
75-35-4	1,1-Dichloroethene	11/16/2016	16:44	0.24	U	0.24	0.50	0.25
87-61-6	1,2,3-Trichlorobenzene	11/16/2016	16:44	0.3	U	0.3	1.0	0.5
120-82-1	1,2,4-Trichlorobenzene	11/16/2016	16:44	0.3	U	0.3	1.0	0.5
96-12-8	1,2-Dibromo-3-chloropropane	11/16/2016	16:44	0.4	U	0.4	1.0	0.5
106-93-4	1,2-Dibromoethane	11/16/2016	16:44	0.16	U	0.16	0.50	0.25
95-50-1	1,2-Dichlorobenzene	11/16/2016	16:44	0.23	U	0.23	0.50	0.25
107-06-2	1,2-Dichloroethane	11/16/2016	16:44	0.3	U	0.3	1.0	0.5
78-87-5	1,2-Dichloropropane	11/16/2016	16:44	0.22	U	0.22	0.50	0.25
541-73-1	1,3-Dichlorobenzene	11/16/2016	16:44	0.26	U	0.26	1.00	0.50
106-46-7	1,4-Dichlorobenzene	11/16/2016	16:44	0.23	U	0.23	0.50	0.25
123-91-1	1,4-Dioxane	11/16/2016	16:44	5	U	5	25	12.5
78-93-3	2-Butanone	11/16/2016	16:44	2.4	U	2.4	5.0	2.5
591-78-6	2-Hexanone	11/16/2016	16:44	4	U	4	10	5
108-10-1	4-Methyl-2-pentanone	11/16/2016	16:44	3	U	3	10	5
67-64-1	Acetone	11/16/2016	16:44	5	U	5	10	5
71-43-2	Benzene	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
74-97-5	Bromochloromethane	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
75-27-4	Bromodichloromethane	11/16/2016	16:44	0.20	U	0.20	0.50	0.25
75-25-2	Bromoform	11/16/2016	16:44	0.22	U	0.22	0.50	0.25



1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: _____ (g/mL) CTL Sample ID: 807540

% Solids: _____ Date Received: 11/11/2016

Soil Extract Vol: _____ (mL) Date/Time Prepared: _____ / _____

Analytical Method: EPA 8260C Analytical Prep Batch # 0

Analytical Run #: 132708 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____ , _____ , _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: W110816. Concentration Units: ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
74-83-9	Bromomethane	11/16/2016	16:44	0.5	U	0.5	1.0	0.5
75-15-0	Carbon disulfide	11/16/2016	16:44	0.5	U	0.5	1.0	0.5
56-23-5	Carbon tetrachloride	11/16/2016	16:44	0.23	U	0.23	0.50	0.25
108-90-7	Chlorobenzene	11/16/2016	16:44	0.24	U	0.24	0.50	0.25
75-00-3	Chloroethane	11/16/2016	16:44	0.4	U	0.4	1.0	0.5
67-66-3	Chloroform	11/16/2016	16:44	0.15	U	0.15	0.50	0.25
74-87-3	Chloromethane	11/16/2016	16:44	0.4	U	0.4	1.0	0.5
156-59-2	cis-1,2-Dichloroethene	11/16/2016	16:44	0.25	U	0.25	0.50	0.25
10061-01-5	cis-1,3-Dichloropropene	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
110-82-7	Cyclohexane	11/16/2016	16:44	0.28	U	0.28	1.00	0.50
124-48-1	Dibromochloromethane	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
75-71-8	Dichlorodifluoromethane	11/16/2016	16:44	0.26	U	0.26	1.00	0.50
100-41-4	Ethylbenzene	11/16/2016	16:44	0.22	U	0.22	0.50	0.25
76-13-1	Freon 113	11/16/2016	16:44	0.5	U	0.5	1.0	0.5
98-82-8	Isopropylbenzene	11/16/2016	16:44	0.18	U	0.18	0.50	0.25
179601-23-1	m & p-Xylene	11/16/2016	16:44	0.5	U	0.5	1.0	0.5
79-20-9	Methyl Acetate	11/16/2016	16:44	0.3	U	0.3	1.0	0.5
1634-04-4	Methyl tert-butyl ether	11/16/2016	16:44	0.29	U	0.29	1.00	0.50
108-87-2	Methylcyclohexane	11/16/2016	16:44	0.23	U	0.23	0.50	0.25
75-09-2	Methylene chloride	11/16/2016	16:44	0.4	U	0.4	2.0	1.0
95-47-6	o-Xylene	11/16/2016	16:44	0.24	U	0.24	0.50	0.25
100-42-5	Styrene	11/16/2016	16:44	0.20	U	0.20	0.50	0.25
127-18-4	Tetrachloroethene	11/16/2016	16:44	0.3	U	0.3	1.0	0.5



1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: _____ (g/mL) CTL Sample ID: 807540

% Solids: _____ Date Received: 11/11/2016

Soil Extract Vol: _____ (mL) Date/Time Prepared: /

Analytical Method: EPA 8260C Analytical Prep Batch # 0

Analytical Run #: 132708 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): /

ICAL Calibration #: W110816 Concentration Units: ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
108-88-3	Toluene	11/16/2016	16:44	0.22	U	0.22	0.50	0.25
156-60-5	trans-1,2-Dichloroethene	11/16/2016	16:44	0.25	U	0.25	0.50	0.25
10061-02-6	trans-1,3-Dichloropropene	11/16/2016	16:44	0.19	U	0.19	0.50	0.25
79-01-6	Trichloroethene	11/16/2016	16:44	0.21	U	0.21	0.50	0.25
75-69-4	Trichlorofluoromethane	11/16/2016	16:44	0.20	U	0.20	0.50	0.25
75-01-4	Vinyl chloride	11/16/2016	16:44	0.18	U	0.18	0.50	0.25

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Analytical Method: EPA 8260C SDG: 123585

Analytical Run #: 132708 ICAL Calibration #: W110816.

CTLab # 804577					
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
1,2 Dichloroethane-d4	100	103	70	120	
Bromofluorobenzene	100	94	75	120	
d8-Toluene	100	98	85	120	
Dibromofluoromethane	100	92	85	115	

CTLab # 807359		Sample Type:		Lab Control Spike	
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
1,2 Dichloroethane-d4	100	101	70	120	
Bromofluorobenzene	100	97.0	75	120	
d8-Toluene	100	98.0	85	120	
Dibromofluoromethane	100	95.0	85	115	

CTLab # 807363		Sample Type:		Normal Field Sample	
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
1,2 Dichloroethane-d4	100	101	70	120	
Bromofluorobenzene	100	97.0	70	120	
d8-Toluene	100	98.0	85	120	
Dibromofluoromethane	100	95.0	85	115	

CTLab # 807540		Sample Type:		Method Blank	
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
1,2 Dichloroethane-d4	100	106	70	120	
Bromofluorobenzene	100	97.0	75	120	
d8-Toluene	100	100	85	120	
Dibromofluoromethane	100	98.0	85	115	

3A

WATER VOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
Sample No.: 807359 SDG No.: 123585
Analytical Method: EPA 8260C Concentration Units: ug/L

Sample No.: 807359 Parent Sample No.: 0
Analytical Prep Batch #: 0 Analytical Preparation Date/Time: _____
Analytical Run #: 132708 ICAL Calibration #: W110816.

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	11/16/2016 15:44	65-130	10.2		10.0	102
1,1,2,2-Tetrachloroethane	11/16/2016 15:44	65-130	10.9		10.0	109
1,1,2-Trichloroethane	11/16/2016 15:44	75-125	10.3		10.0	103
1,1-Dichloroethane	11/16/2016 15:44	70-135	10.4		10.0	104
1,1-Dichloroethene	11/16/2016 15:44	70-130	9.27		10.0	93
1,2,3-Trichlorobenzene	11/16/2016 15:44	55-140	9.01		10.0	90
1,2,4-Trichlorobenzene	11/16/2016 15:44	65-135	9.44		10.0	94
1,2-Dibromo-3-chloropropane	11/16/2016 15:44	50-130	8.48		10.0	85
1,2-Dibromoethane	11/16/2016 15:44	80-120	9.98		10.0	100
1,2-Dichlorobenzene	11/16/2016 15:44	70-120	10.1		10.0	101
1,2-Dichloroethane	11/16/2016 15:44	70-130	9.55		10.0	96
1,2-Dichloropropane	11/16/2016 15:44	75-125	10.3		10.0	103
1,3-Dichlorobenzene	11/16/2016 15:44	75-125	10.3		10.0	103
1,4-Dichlorobenzene	11/16/2016 15:44	75-125	10.4		10.0	104
1,4-Dioxane	11/16/2016 15:44	70-130	279		500	56
2-Butanone	11/16/2016 15:44	30-150	94.3		100	94
2-Hexanone	11/16/2016 15:44	55-130	112		100	112
4-Methyl-2-pentanone	11/16/2016 15:44	60-135	116		100	116
Acetone	11/16/2016 15:44	40-140	95.9		100	96
Benzene	11/16/2016 15:44	80-120	10.6		10.0	106
Bromochloromethane	11/16/2016 15:44	65-130	10.2		10.0	102
Bromodichloromethane	11/16/2016 15:44	75-120	10.5		10.0	105
Bromoform	11/16/2016 15:44	70-130	8.74		10.0	87
Bromomethane	11/16/2016 15:44	30-145	6.63		10.0	66
Carbon disulfide	11/16/2016 15:44	35-160	21.1		20.0	106
Carbon tetrachloride	11/16/2016 15:44	65-140	9.95		10.0	100
Chlorobenzene	11/16/2016 15:44	80-120	10.2		10.0	102
Chloroethane	11/16/2016 15:44	60-135	8.52		10.0	85

FAIL

3A

WATER VOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 807359 SDG No.: 123585
 Analytical Method: EPA 8260C Concentration Units: ug/L

Sample No.: 807359 Parent Sample No.: 0
 Analytical Prep Batch #: 0 Analytical Preparation Date/Time: _____
 Analytical Run #: 132708 ICAL Calibration #: W110816.

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Chloroform	11/16/2016 15:44	65-135	10.3		10.0	103
Chloromethane	11/16/2016 15:44	40-125	9.96		10.0	100
cis-1,2-Dichloroethene	11/16/2016 15:44	70-125	9.88		10.0	99
cis-1,3-Dichloropropene	11/16/2016 15:44	70-130	9.87		10.0	99
Cyclohexane	11/16/2016 15:44	70-130	10.7		10.0	107
Dibromochloromethane	11/16/2016 15:44	60-135	8.74		10.0	87
Dichlorodifluoromethane	11/16/2016 15:44	30-155	10.7		10.0	107
Ethylbenzene	11/16/2016 15:44	75-125	10.8		10.0	108
Freon 113	11/16/2016 15:44	70-130	20.5		20.0	102
Isopropylbenzene	11/16/2016 15:44	75-125	10.6		10.0	106
m & p-Xylene	11/16/2016 15:44	75-130	20.9		20.0	104
Methyl Acetate	11/16/2016 15:44	70-130	9.53		10.0	95
Methyl tert-butyl ether	11/16/2016 15:44	65-125	10.3		10.0	103
Methylcyclohexane	11/16/2016 15:44	70-130	10.1		10.0	101
Methylene chloride	11/16/2016 15:44	55-140	10.3		10.0	103
o-Xylene	11/16/2016 15:44	80-120	10.7		10.0	107
Styrene	11/16/2016 15:44	65-135	10.6		10.0	106
Tetrachloroethene	11/16/2016 15:44	45-150	10.5		10.0	105
Toluene	11/16/2016 15:44	75-120	10.6		10.0	106
trans-1,2-Dichloroethene	11/16/2016 15:44	60-140	10.9		10.0	109
trans-1,3-Dichloropropene	11/16/2016 15:44	55-140	9.17		10.0	92
Trichloroethene	11/16/2016 15:44	70-125	10.2		10.0	102
Trichlorofluoromethane	11/16/2016 15:44	60-145	10.4		10.0	104
Vinyl chloride	11/16/2016 15:44	50-145	10.4		10.0	104



3A

WATER VOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories

Contract TETRA TECH-VE CARTER SCHOOL

Sample No.: 807359

SDG No.: 123585

Analytical Method: EPA 8260C

Concentration Units: ug/L

Spike Recovery: 1 out of 52 outside limits

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Sample ID:	<u>807540</u>	SDG No.:	<u>123585</u>
Matrix:	<u>LIQUID</u>	Date Extracted:	<u></u>
Date Analyzed:	<u>11/16/2016</u>	Time Analyzed:	<u>16:44</u>
Analytical Method:	<u>EPA 8260C</u>	Extraction Method:	<u>NONE</u>
Analytical Run #:	<u>132708</u>	Extraction Batch #:	<u>0</u>
		ICAL Calibration #:	<u>W110816.</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	809281	11/16/2016 15:26	
2	LCSW	807359	11/16/2016 15:44	W110816.
3	CCV	807363	11/16/2016 15:44	W110816.
4	MBW	807540	11/16/2016 16:44	W110816.
5	VEC-SUMP1-110916	804577	11/17/2016 01:48	W110816.

Data File : C:\INSTARCH\Data\NOV0816\BFB1.D
Acq On : 8 Nov 2016 15:49
Sample : BFB Injection
Misc : 25 ng Inj.
Integration File: VOC.P

Vial: 1
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Method : C:\INSTARCH\METHODS\W110816.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.410 to 4.435 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.8	17748	PASS
75	95	30	60	52.9	29505	PASS
95	95	100	100	100.0	55748	PASS
96	95	5	9	6.6	3664	PASS
173	174	0.00	2	1.5	749	PASS
174	95	50	100	89.0	49592	PASS
175	174	5	9	5.9	2937	PASS
176	174	95	101	95.5	47364	PASS
177	176	5	9	6.8	3241	PASS

W110816.M Mon Nov 21 15:35:46 2016

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\NOV0816\BFB1.D
Injection Date : 8 Nov 2016 Log Time Period (hrs) : ALL
Injection Time : 15:49 Total files within period : 15
Sample Directory : C:\INSTARCH\DATA\NOV0816\

Injection Log Summary Table

File ID	Multiplier			Sample Name	Date	Time
	I	S	T	Misc Info		
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.50/5.00 ug/L, 5.0 mL Pu	8 Nov 2016	17:04
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 2.00/20.0 ug/L, 5.0 mL Pu	8 Nov 2016	17:34
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 5.00/50.0 ug/L, 5.0 mL Pu	8 Nov 2016	18:04
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 10.00/100 ug/L, 5.0 mL Pu	8 Nov 2016	18:34
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 20.00/200 ug/L, 5.0 mL Pu	8 Nov 2016	19:04
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 30.00/300 ug/L, 5.0 mL Pu	8 Nov 2016	19:34
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 40.00/400 ug/L, 5.0 mL Pu	8 Nov 2016	20:04
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 80.00/800 ug/L, 5.0 mL Pu	8 Nov 2016	20:34
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF. 10.00/100 ug/L, 5.0 mL Pu	8 Nov 2016	21:33
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF. 30.00/300 ug/L, 5.0 mL Pu	8 Nov 2016	22:03
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK 5.0 mL DI H2O Purged + IS	8 Nov 2016	23:03

Data File : C:\INSTARCH\Data\NOV1616\BFB2.D
Acq On : 16 Nov 2016 15:26
Sample : 132610,BFB,
Misc : 25 ng Inj.
Integration File: VOC.P

Vial: 15
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Method : C:\INSTARCH\METHODS\W110816.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.423 to 4.453 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.4	14507	PASS
75	95	30	60	52.4	25869	PASS
95	95	100	100	100.0	49408	PASS
96	95	5	9	6.5	3232	PASS
173	174	0.00	2	0.6	250	PASS
174	95	50	100	82.6	40825	PASS
175	174	5	9	9.0	3667	PASS
176	174	95	101	98.7	40286	PASS
177	176	5	9	7.1	2843	PASS

W110816.M Mon Nov 21 09:48:29 2016

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
 Title : 8260C Waters Method
 Start (Tune) File ID : C:\INSTARCH\DATA\NOV1616\BFB1.D
 Injection Date : 16 Nov 2016 Log Time Period (hrs) : ALL
 Injection Time : 08:41 Total files within period : 35
 Sample Directory : C:\INSTARCH\DATA\NOV1616\

Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
BFB2	1.00	1.00	1.00	132610,BFB, 25 ng Inj.	16 Nov 2016	15:26
CCV-LCS2	1.00	1.00	1.00	132610,LCSW, 10.00/100 ug/L, 5.0 mL Pu	16 Nov 2016	15:44
MB2-CCB1	1.00	1.00	1.00	132610,MBW, pH<2, 5.0 mL DI H2O Purge	16 Nov 2016	16:44
804577	1.00	1.00	1.00	132708,804577, pH<2, 5.0 mL Purged + IS/	17 Nov 2016	01:48

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): WCAL4.D Date Analyzed : 8 Nov 2016
 Instrument ID : VMS3 Time Analyzed : 18:34
 GC Column : DB-624UI ID : VMS3(mm) Heated Purge (Y:N) : N

		IS1		IS2		IS3	
		Area	# RT	# Area	# RT	# Area	# RT
12 HOUR STD		1340986	7.51	996724	11.41	496672	14.70
UPPER LIMIT		2681972	8.01	1993448	11.91	993344	15.20
LOWER LIMIT		670493	7.01	498362	10.91	248336	14.20
File ID	Sample						
804577	132708,80	1169837	7.51	836945	11.41	431081	14.70
CCV-LCS2	132610,LC	1162832	7.51	838224	11.41	436001	14.70
MB2-CCB1	132610,MB	1133160	7.51	850515	11.41	424708	14.70

IS1 = FLUOROBENZENE**ISTD**
 IS2 = d5-CHLOROBENZENE**ISTD**
 IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

**VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS**

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV1616\804577.D

Vial: 36

Acq On : 17 Nov 2016 1:48

Operator: AGK-RLD

Sample : 132708,804577,

Inst : VMS3

Misc : pH<2, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 17 02:08:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
						Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1169837	20.00	ug/L	0.00
						NA%
68) d5-CHLORO BENZENE**ISTD**	11.41	117	836945	20.00	ug/L	0.00
						NA%
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	431081	20.00	ug/L	0.00
						NA%

System Monitoring Compounds

41) SURRDibrflma	6.66	113	271226	18.497	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 92	%
45) SURR12DCAd4	7.07	102	80739	20.530	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 103	%
61) SURRD8Tolule	9.51	98	1157037	19.524	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 98	%
83) SURR4BrFBenz	13.04	95	373722	18.802	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 94	%

Target Compounds

						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	2.00	50	15778	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.65	64	445966	28.7688	ug/L #	45
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.89	58	64219	16.1801	ug/L #	87
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorothe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	3.89	43	177736	10.9063	ug/L	94
16) Iodomethane	4.00	142	4757	5.2165	ug/L #	41
17) Carbon Dislf	4.10	76	16417	0.4412	ug/L #	74
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.66	59	19072	Below	Cal	88
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorite	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorite	0.00	96	0	N.D.		
33) 2Butanone	6.10	72	6817	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydrofur	6.45	42	11127	N.D.		

(#) = qualifier out of range (m) = manual integration

804577.D W110816.M

Mon Nov 21 10:03:42 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV1616\804577.D

Vial: 36

Acq On : 17 Nov 2016 1:48

Operator: AGK-RLD

Sample : 132708,804577,

Inst : VMS3

Misc : pH<2, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 17 02:08:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.		
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	0.00	119	0	N.D.		
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	0.00	78	0	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	0.00	95	0	N.D.		
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	8.41	88	18478	69.5987	ug/L	91
56) Bromodiclrma	0.00	83	0	N.D.		
57) 2Nitropropane	0.00	43	0	N.D.		
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	9.34	43	7206	Below	Cal #	75
62) Toluene	0.00	92	0	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	10.44	43	12409	Below	Cal #	65
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	0.00	112	0	N.D.		
73) 1Clhexane	0.00	91	0	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	12.93	55	3595	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	13.44	91	2580	N.D.		
89) 2chlorotolue	13.44	91	2580	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	14.21	105	2911	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	0.00	146	0	N.D.		
96) pIsopropylto	14.69	119	3516	N.D.		
97) 14dichlorobe	0.00	146	0	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	0.00	91	0	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#)=qualifier out of range (m)=manual integration

804577.D W110816.M

Mon Nov 21 10:03:42 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV1616\804577.D

Vial: 36

Acq On : 17 Nov 2016 1:48

Operator: AGK-RLD

Sample : 132708,804577,

Inst : VMS3

Misc : pH<2, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 17 02:08:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	17.84	128	5314	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

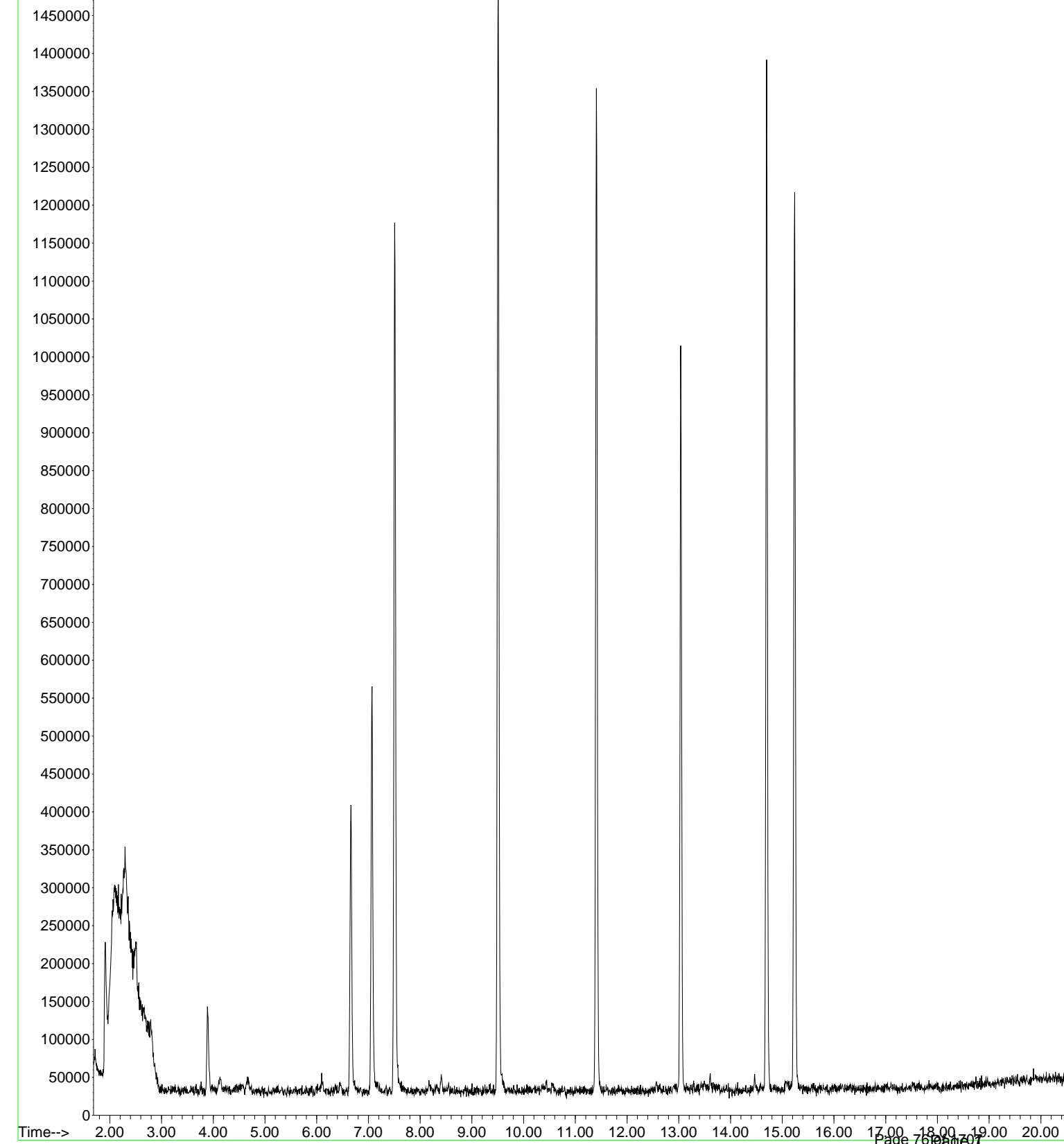
804577.D W110816.M Mon Nov 21 10:03:42 2016

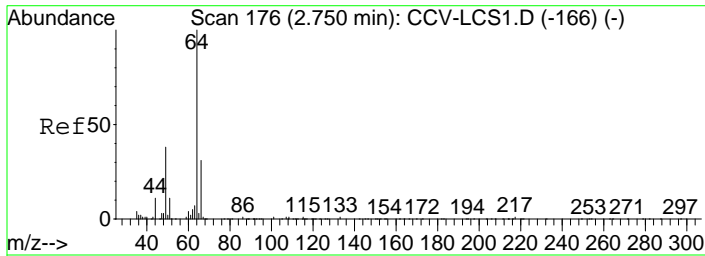
Quantitation Report
Data File : C:\INSTARCH\DATA\NOV1616\804577.D
Acq On : 17 Nov 2016 1:48
Sample : 132708,804577,
Misc : pH<2, 5.0 mL Purged + IS/SS
MS Integration Params: VOC.P

TIC: 804577.D
Vial: 36
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Quant Time: Nov 17 02:08:35 2016 Results File: W110816.RES

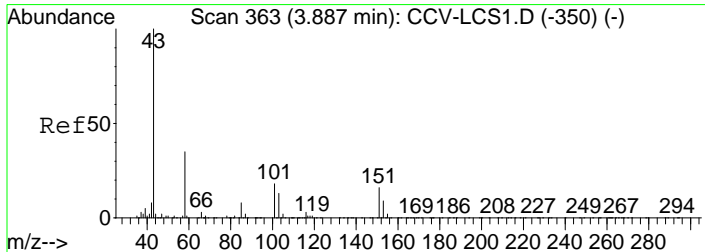
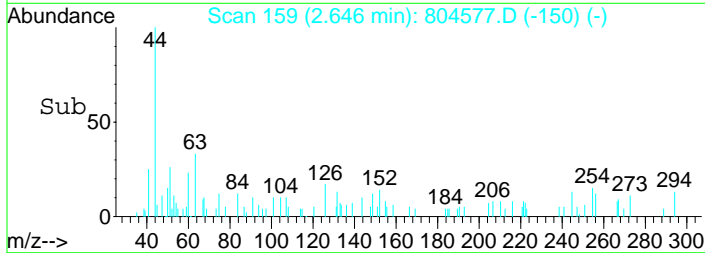
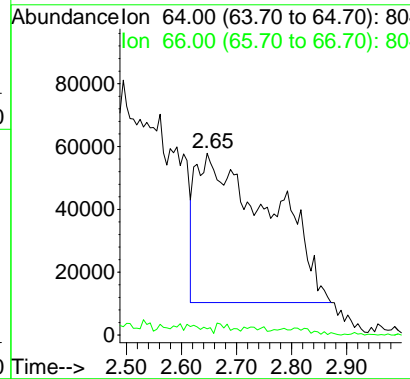
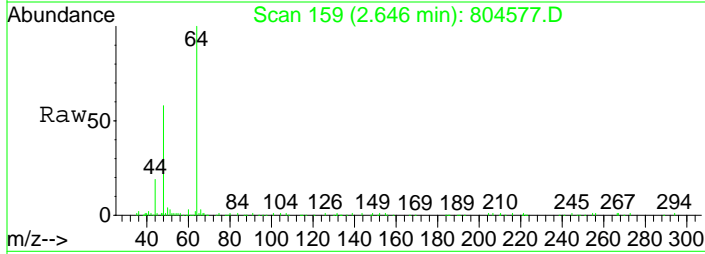
Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sun Nov 13 10:10:19 2016
Response via : Initial Calibration
Data File Meth : W110816.M





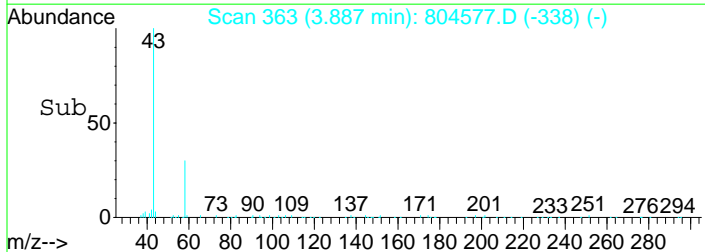
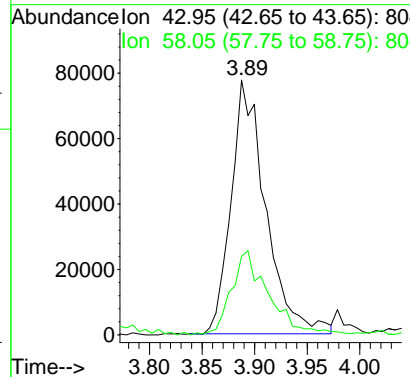
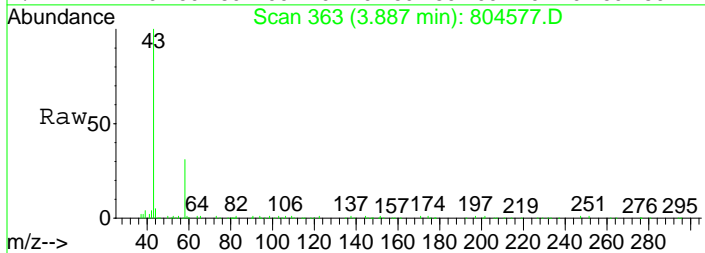
#6
Chloroethane
Concen: 28.77 ug/L
RT: 2.65 min Scan# 159
Delta R.T. -0.10 min
Lab File: 804577.D
Acq: 17 Nov 2016 1:48

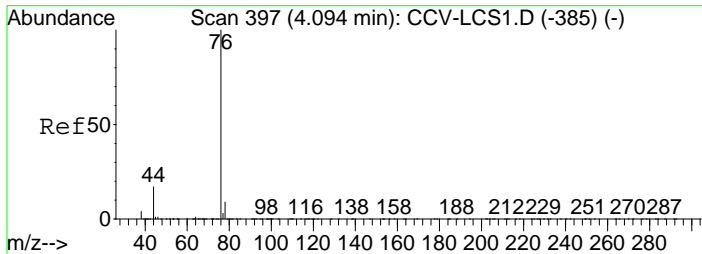
Tgt Ion: 64 Resp: 445966
Ion Ratio Lower Upper
64 100
66 1.4 12.4 52.4#



#15
Acetone
Concen: 10.91 ug/L
RT: 3.89 min Scan# 363
Delta R.T. 0.00 min
Lab File: 804577.D
Acq: 17 Nov 2016 1:48

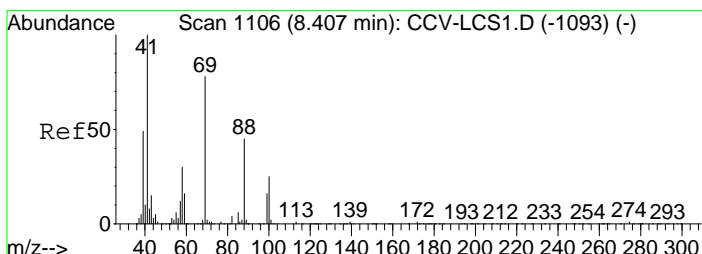
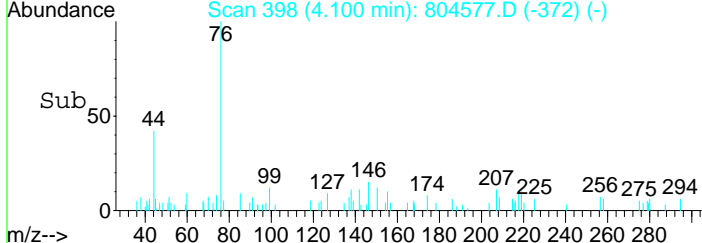
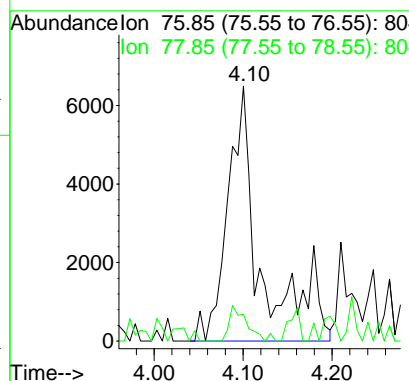
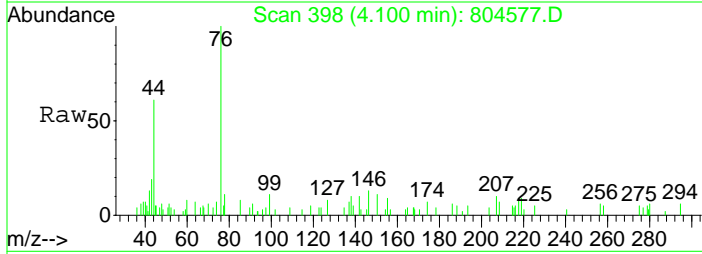
Tgt Ion: 43 Resp: 177736
Ion Ratio Lower Upper
43 100
58 36.1 13.0 53.0





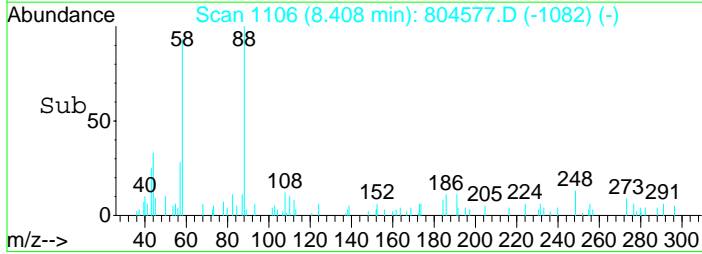
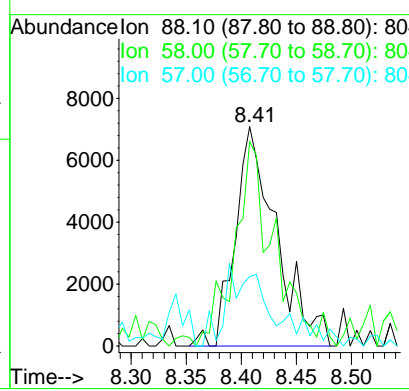
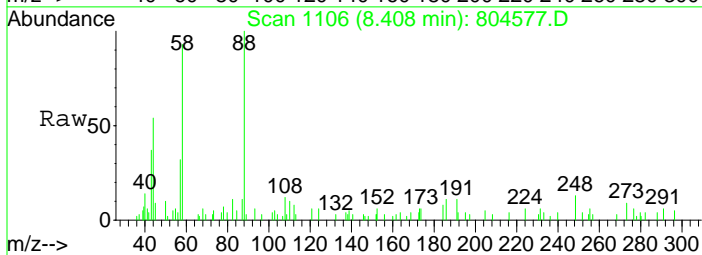
#17
Carbon Dislf
Concen: 0.44 ug/L
RT: 4.10 min Scan# 398
Delta R.T. 0.01 min
Lab File: 804577.D
Acq: 17 Nov 2016 1:48

Tgt Ion:	76	Resp:	16417
Ion Ratio		Lower	Upper
76	100		
78	0.0	0.0	29.4



#55
14dioxane
Concen: 69.60 ug/L
RT: 8.41 min Scan# 1106
Delta R.T. -0.01 min
Lab File: 804577.D
Acq: 17 Nov 2016 1:48

Tgt Ion:	88	Resp:	18478
Ion Ratio		Lower	Upper
88	100		
58	89.8	72.5	112.5
57	41.6	7.1	47.1



**VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS**

Method Path : C:\INSTARCH\METHODS\
 Method File : W110816.M
 Title : 8260C Waters Method
 Last Update : Sun Nov 13 10:10:19 2016
 Response Via : Initial Calibration

Rd 11/21/2016

Calibration Files		ug/L
1	0.5/5.00 =WCAL1.D	2 2.0/20.0 =WCAL2.D
4	10.0/100 =WCAL4.D	5 20.0/200 =WCAL5.D
7	40.0/400 =WCAL7.D	8 80.0/800 =WCAL8.D
		3 5.0/50.0 =WCAL3.D
		6 30.0/300 =WCAL6.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
	8								

1) I FLUOROBENZENE**ISTD**	-----ISTD-----								
2) PT Dichlorodi	0.315	0.316	0.253	0.318	0.300	0.293	0.294	0.294	8.57
	0.260								
3) PT Chloromethan	0.992	0.522	0.544	0.537	0.514	0.511	0.477	-----	
	0.428								
						Q	A= -0.028	R=1.000	
							B= 0.537		
							C= 0.006		
4) PT VinylChlorid	0.506	0.492	0.388	0.461	0.452	0.450	0.448	0.448	9.46
	0.388								
5) PT Bromomethane	0.129	0.134	0.102	0.109	0.115	0.110	0.114	0.117	9.12
	0.120								
6) PT Chloroethane	0.330	0.295	0.257	0.256	0.250	0.252	0.250	0.265	12.02
	0.231								
7) T Dichloroflmetha	0.601	0.517	0.461	0.465	0.479	0.461	0.452	0.480	12.09
	0.404								
8) PT Trichlorofma	0.393	0.340	0.303	0.341	0.330	0.329	0.312	0.330	9.29
	0.293								
9) T Ethylether	0.367	0.308	0.280	0.279	0.281	0.278	0.279	0.291	11.49
	0.258								
10) T dichlorotfluoro	0.345	0.316	0.289	0.306	0.287	0.294	0.278	0.297	8.70
	0.259								
11) T propyleneoxide	0.069	0.083	0.075	0.070	0.068	0.061	0.063	0.068	13.08
	0.054								
12) T Acrolein	0.177	0.133	0.129	0.128	0.132	0.128	0.130	0.134	13.86
	0.113								
13) PT lldichlorothe	0.286	0.252	0.219	0.230	0.222	0.226	0.212	0.231	11.70
	0.199								
14) PT Trichlorotfluor	0.224	0.214	0.183	0.211	0.217	0.210	0.192	0.204	7.66
	0.184								
15) PT Acetone	0.327	0.227	0.241	0.212	0.199	0.178	0.176	-----	
	0.127								
						Q	A= -0.002	R=0.999	
							B= 0.216		
							C= 0.035		
16) T Iodomethane	0.058	0.069	0.069	0.073	0.105	0.132	0.152	-----	
	0.147								
						Q	A= 0.001	R=0.994	
							B= 0.141		
							C= -0.033		
17) PT Carbon Dislfr	0.747	0.707	0.607	0.637	0.612	0.593	0.550	0.636	10.78
18) T allylchloride	0.557	0.544	0.487	0.516	0.496	0.489	0.459	0.488	12.84
	0.354								
19) PT methylacetate	0.170	0.188	0.175	0.153	0.153	0.153	0.158	0.162	8.68
	0.147								
20) PT Methylchlorid	0.301	0.270	0.282	0.256	0.253	0.240	0.245	0.259	9.43
	0.225								
21) T tbutylalcohol	0.134	0.119	0.113	0.093	0.088	0.071	0.067	-----	
	0.046								

								C=	0.239		
22)	T	Acrylonitrile	0.261	0.256	0.258	0.236	0.238	0.217	0.217	0.232	12.40
			0.175								
23)	PT	1,2-dichloroethane	0.252	0.229	0.216	0.229	0.238	0.227	0.230	0.229	5.82
			0.208								
24)	PT	MtBE	0.872	0.771	0.723	0.706	0.729	0.716	0.708	0.730	9.89
			0.615								
25)	T	Hexane	0.568	0.519	0.454	0.534	0.516	0.494	0.471	0.494	10.86
			0.395								
26)	PT	1,1-dichloroethane	0.656	0.591	0.563	0.560	0.559	0.562	0.539	0.563	9.14
			0.471								
27)	T	Vinylacetate	0.994	0.887	0.804	0.645	0.596	0.490	0.404	-----	
								Q	A=	-0.017	R=0.999
									B=	0.747	
									C=	0.119	
28)	T	chloroprene	0.553	0.592	0.550	0.594	0.579	0.565	0.531	0.550	9.55
			0.431								
29)	T	Diisopentyl ether	1.386	1.303	1.242	1.254	1.238	1.125	1.150	1.205	11.20
			0.939								
30)	T	ETBE	1.165	0.998	0.996	0.972	0.972	0.952	0.919	0.970	10.75
			0.786								
31)	T	2,2-dichloropropane	0.383	0.396	0.342	0.375	0.395	0.383	0.369	0.373	6.02
			0.337								
32)	PT	1,1,2-dichloroethane	0.363	0.295	0.295	0.281	0.285	0.270	0.277	0.290	11.34
			0.252								
33)	PT	2-Butanone	0.086	0.073	0.069	0.067	0.071	0.062	0.067	0.069#	11.85
			0.059								
34)	T	propionitrile	0.123	0.111	0.114	0.104	0.110	0.099	0.102	0.106	10.36
			0.087								
35)	T	Ethylacetate	0.020	0.020	0.017	0.015	0.018	0.017	0.018	0.018#	9.24
			0.017								
36)	T	methacrylonitrile	0.201	0.199	0.180	0.191	0.199	0.183	0.190	0.189	5.38
			0.173								
37)	T	Bromochloromethane	0.128	0.125	0.108	0.113	0.110	0.110	0.109	0.113	8.29
			0.099								
38)	T	Tetrahydrofuran	0.245	0.273	0.266	0.237	0.244	0.207	0.198	0.239	11.69
39)	PT	Chloroform	0.523	0.472	0.414	0.442	0.432	0.425	0.426	0.440	9.43
			0.385								
40)	PT	1,1,1-trichloroethane	0.435	0.411	0.357	0.386	0.392	0.395	0.393	0.391	6.53
			0.359								
41)	S	SURRDiethylmalonate	0.253	0.251	0.247	0.244	0.249	0.257	0.248	0.251	1.84
			0.256								
42)	PT	Cyclohexane	0.662	0.690	0.557	0.675	0.671	0.652	0.624	0.638	7.83
			0.570								
43)	PT	Carbontetrachloride	0.347	0.308	0.265	0.303	0.314	0.317	0.318	0.309	7.37
			0.299								
44)	T	1,1-dichloropropane	0.121	0.129	0.112	0.132	0.119	0.120	0.122	0.122	4.95
			0.121								
45)	S	SURR1,2-dichloroethane	0.070	0.064	0.067	0.068	0.065	0.067	0.064	0.067	4.30
			0.072								
46)	PT	Benzene	1.209	1.121	1.014	1.073	1.027	0.993	0.951	1.023	12.01
			0.794								
47)	PT	1,2-dichloroethane	0.530	0.497	0.442	0.426	0.435	0.418	0.413	0.443	10.76
			0.384								
48)	T	TAME	0.804	0.765	0.719	0.728	0.734	0.724	0.725	0.728	6.82
			0.628								
49)	PT	trichloroethylene	0.297	0.250	0.237	0.260	0.254	0.255	0.251	0.255	7.50
			0.234								
50)	PT	methylcyclohexane	0.544	0.459	0.360	0.449	0.447	0.435	0.431	0.441	11.94
			0.401								
51)	PT	1,2-dichloropropane	0.351	0.377	0.355	0.367	0.360	0.355	0.351	0.355	3.97
			0.328								
52)	T	2,3-dichloropropene	0.429	0.397	0.394	0.410	0.408	0.393	0.401	0.400	4.59
			0.364								
53)	T	Dibromomethane	0.197	0.181	0.176	0.164	0.164	0.163	0.168	0.172	7.21
			0.160								
54)	T	methylmethacrylate	0.281	0.293	0.261	0.272	0.279	0.274	0.281	0.276	3.73
			0.263								

55)	T	14dioxane	0.005	0.005	0.005	0.004	0.004	0.004	0.005	#	12.22
			0.004								
56)	PT	Bromodiclrma	0.324	0.335	0.299	0.326	0.328	0.325	0.329	0.321	4.06
			0.303								
57)	T	2Nitropropane	0.229	0.201	0.202	0.191	0.196	0.176	0.170	-----	
			0.125								
								Q	A= -0.002	R=1.000	
									B= 0.213		
									C= -0.013		
58)	T	2CLEVE	0.021	0.024	0.015	0.026	0.032	0.033	0.031	-----	#
			0.023								
								Q	A= -0.001	R=0.996	
									B= 0.040		
									C= -0.016		
59)	PT	c13dicloproe	0.536	0.423	0.443	0.426	0.450	0.442	0.436	0.444	9.32
			0.393								
60)	PT	4Meth2Pentan	0.724	0.693	0.647	0.575	0.485	0.396	0.333	-----	
								Q	A= -0.015	R=0.999	
									B= 0.617		
									C= 0.101		
61)	S	SURRd8Tolule	1.016	1.016	0.973	1.014	1.023	1.021	1.029	1.013	1.69
			1.014								
62)	PT	Toluene	0.708	0.637	0.638	0.642	0.636	0.620	0.623	0.631	7.15
			0.542								
63)	PT	t13Dicloprop	0.447	0.385	0.381	0.378	0.407	0.390	0.393	0.393	6.53
			0.361								
64)	T	ethylmethacryla	0.451	0.424	0.400	0.401	0.410	0.405	0.397	0.404	7.47
			0.344								
65)	PT	112Triclotha	0.264	0.222	0.189	0.204	0.220	0.207	0.213	0.215	10.63
			0.196								
66)	PT	Tetrachlorte	0.292	0.250	0.225	0.267	0.258	0.250	0.254	0.254	7.83
			0.237								
67)	T	13Diclorpropa	0.484	0.462	0.417	0.452	0.444	0.437	0.437	0.442	5.86
			0.400								
68)	I	d5-CHLORO BENZENE**IST	-----	-----	-----	ISTD	-----	-----	-----	-----	
69)	PT	2Hexanone	0.825	0.788	0.730	0.647	0.575	0.470	0.399	-----	
								Q	A= -0.016	R=0.999	
									B= 0.720		
									C= 0.075		
70)	PT	Clorodibrmta	0.385	0.320	0.314	0.290	0.341	0.339	0.324	0.328	8.55
			0.311								
71)	PT	12Dibrometha	0.466	0.337	0.335	0.338	0.355	0.349	0.352	0.356	12.83
			0.319								
72)	PT	Chlorobenzen	1.108	1.012	0.943	0.896	0.904	0.899	0.873	0.923	11.37
			0.749								
73)	T	1Clhexane	0.595	0.549	0.427	0.483	0.507	0.492	0.484	0.498	10.76
			0.447								
74)	T	1112Tetclota	0.366	0.319	0.298	0.290	0.313	0.319	0.314	0.314	7.63
			0.292								
75)	PT	Ethylbenzene	1.975	1.746	1.561	1.614	1.608	1.549	1.465	1.587	14.34
			1.177								
76)	PT	m p-Xylene	0.730	0.671	0.589	0.616	0.619	0.609	0.573	0.612	11.34
			0.493								
77)	PT	o-Xylene	0.670	0.550	0.574	0.585	0.616	0.597	0.598	0.591	6.87
			0.539								
78)	PT	Styrene	1.101	0.942	0.897	0.916	0.983	0.985	0.946	0.949	8.43
			0.825								
79)	PT	Bromoform	0.270	0.221	0.240	0.250	0.255	0.257	0.256	0.250	5.78
			0.253								
80)	PT	Isopropylben	1.585	1.584	1.411	1.455	1.484	1.453	1.372	1.433	10.33
			1.117								
81)	T	cyclohexanone	0.044	0.034	0.036	0.035	0.039	0.034	0.035	0.036	10.21
			0.033								
82)	I	d4-1,4-DICHLORO BENZEN	-----	-----	-----	ISTD	-----	-----	-----	-----	
83)	S	SURR4BrFBenz	0.896	0.947	0.917	0.962	0.915	0.898	0.885	0.922	3.21
			0.957								

84)	T	Bromobenzene	0.741	0.781	0.701	0.707	0.678	0.674	0.639	0.696	6.75
			0.650								
85)	PT	1122Tetrclta	1.485	1.140	1.140	1.128	1.083	1.057	0.982	1.125	14.11
			0.987								
86)	T	123Triclproa	1.469	1.469	1.421	1.445	1.415	1.365	1.314	1.402	4.45
			1.320								
87)	T	14dichloro2bute	0.434	0.445	0.375	0.397	0.433	0.391	0.401	0.412	5.93
			0.420								
88)	T	n-Propylbenz	3.654	3.680	3.395	3.657	3.361	3.176	2.815	3.269	13.84
			2.416								
89)	T	2chlorotolue	2.527	2.179	2.021	2.073	1.932	1.877	1.753	1.998	13.86
			1.625								
90)	T	4chlorotolue	2.553	2.374	2.215	2.354	2.241	2.180	1.968	2.213	10.50
			1.819								
91)	T	135Trimebenz	2.358	2.385	2.266	2.402	2.288	2.216	2.031	2.223	8.84
			1.835								
92)	T	tbutylbenzen	1.688	1.900	1.932	2.019	1.924	1.879	1.710	1.835	7.60
			1.631								
93)	T	124Trimetben	2.499	2.456	2.328	2.464	2.264	2.197	2.022	2.258	10.32
			1.838								
94)	T	sbutylbenzen	2.921	2.954	2.751	2.986	2.887	2.728	2.469	2.732	10.43
			2.162								
95)	PT	13Diclorbenz	1.245	1.186	1.156	1.228	1.185	1.159	1.090	1.162	5.65
			1.050								
96)	T	pIsopropylto	2.483	2.377	2.289	2.438	2.334	2.280	2.039	2.261	9.49
			1.846								
97)	PT	14dichlorobe	1.427	1.272	1.202	1.257	1.147	1.159	1.087	1.202	9.73
			1.065								
98)	PT	12dichlorobe	1.404	1.125	1.118	1.128	1.122	1.105	1.016	1.126	11.06
			0.990								
99)	T	nButylbenzen	2.537	2.437	2.165	2.403	2.245	2.158	1.955	2.212	11.32
			1.795								
100)	PT	12dibromo3cl	0.234	0.215	0.246	0.247	0.275	0.250	0.252	0.249	7.82
			0.272								
101)	T	135Trichloroben	0.883	0.835	0.766	0.854	0.802	0.763	0.719	0.793	7.75
			0.719								
102)	PT	124Trichlobe	0.985	0.711	0.668	0.723	0.703	0.701	0.653	0.725	14.86
			0.661								
103)	T	Hexachlorobu	0.321	0.321	0.315	0.339	0.333	0.332	0.321	0.326	2.54
			0.323								
104)	T	Naphthalene	2.179	2.327	2.183	2.269	2.287	2.123	2.031	2.152	7.77
			1.812								
105)	T	123Trichlben	0.591	0.691	0.608	0.623	0.655	0.620	0.608	0.625	5.27
			0.600								

Total Average %RSD 8.90

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

W110816.M

Mon Nov 21 15:37:43 2016

Data File : C:\INSTARCH\Data\NOV0816\BFB1.D
Acq On : 8 Nov 2016 15:49
Sample : BFB Injection
Misc : 25 ng Inj.
Integration File: VOC.P

Vial: 1
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Method : C:\INSTARCH\METHODS\W110816.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.410 to 4.435 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.8	17748	PASS
75	95	30	60	52.9	29505	PASS
95	95	100	100	100.0	55748	PASS
96	95	5	9	6.6	3664	PASS
173	174	0.00	2	1.5	749	PASS
174	95	50	100	89.0	49592	PASS
175	174	5	9	5.9	2937	PASS
176	174	95	101	95.5	47364	PASS
177	176	5	9	6.8	3241	PASS

W110816.M Mon Nov 21 15:35:46 2016

Quantitation Report
 Data File C:\INSTARCH\DATA\NOV0816\WCAL1.D Vial: 4
 Acq On : 8 Nov 2016 17:04 Operator: AGK-RLD
 Sample : INITIAL CALIB. PT1 Inst : VMS3
 Misc : 0.50/5.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 MS Integration Params: VOC.P

Quant Time: Nov 09 08:13:29 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
 Title : 8260C Waters Method
 Last Update : Wed Nov 09 08:07:19 2016
 Response via : Initial Calibration
 DataAcq Meth : W110816.M
 IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
						Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1283847	20.00	ug/L	0.00
						NA%
68) d5-CHLOROBENZENE**ISTD**	11.41	117	929332	20.00	ug/L	0.00
						NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.70	152	497466	20.00	ug/L	0.00
						NA%

System Monitoring Compounds						
41) SURRDibrflma	6.66	113	325437	20.223	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 101	%
45) SURR12DCAd4	7.07	102	90227	20.905	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 105	%
61) SURRD8Tolule	9.51	98	1303861	20.048	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
83) SURR4BrFBenz	13.04	95	445972	19.443	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 97	%

Target Compounds					Qvalue
2) Dichlorodi	1.76	85	10123	0.5368 ug/L	76
3) Chloromethan	2.00	50	31843m	0.8435 ug/L	96
4) VinylChlorid	2.14	62	16243	0.5647 ug/L	97
5) Bromomethane	2.59	94	4143	0.5528 ug/L #	15
6) Chloroethane	2.74	64	10591	0.6225 ug/L	85
7) Dichloroflmethane	3.04	67	19291	0.6260 ug/L #	77
8) Trichlorofma	3.13	101	12602	0.5948 ug/L #	95
9) Ethylether	3.55	59	11789	0.6302 ug/L	97
10) dichlorotfluoroethan	3.56	67	11058	0.5805 ug/L	89
11) propyleneoxide	3.89	58	44259	10.1609 ug/L	85
12) Acrolein	3.68	56	28347	3.3066 ug/L	92
13) 11dichlorothe	3.84	96	9180	0.6201 ug/L	97
14) Trichlorotfluoroeth	3.88	101	14359	1.0944 ug/L	89
15) Acetone	3.90	43	104882m	7.0033 ug/L	95
16) Iodomethane	4.00	142	3730m	0.5386 ug/L #	81
17) Carbon Dislf	4.09	76	47976m	1.1992 ug/L	93
18) allylchloride	4.31	41	35771	1.1421 ug/L	88
19) methylacetate	4.36	74	5468	0.5252 ug/L #	66
20) Methylchlorid	4.46	84	9663m	0.5566 ug/L #	92
21) tbutylalcohol	4.66	59	215831m	36.3612 ug/L	96
22) Acrylonitrile	4.76	53	41880	2.8102 ug/L	96
23) t12dichlorte	4.85	96	8089m	0.5303 ug/L #	85
24) MtBE	4.86	73	27992	0.5974 ug/L	92
25) Hexane	5.23	57	36465	1.1503 ug/L	98
26) 11dichlorota	5.34	63	21063	0.5832 ug/L	86
27) Vinylacetate	5.44	43	319184	7.8497 ug/L	96
28) chloroprene	5.49	53	35467	1.0054 ug/L	88
29) Diisopether	5.51	45	44482m	0.5629 ug/L	93
30) ETBE	5.96	59	37388	0.6004 ug/L	95
31) 22dichloropr	6.08	77	12307m	0.4909 ug/L	92
32) c12dichlorte	6.07	96	11663	0.6271 ug/L #	83
33) 2Butanone	6.09	72	27742	6.2447 ug/L	98
34) propionitrile	6.12	54	39617	5.8016 ug/L	93
35) Ethylacetate	6.20	88	3249	2.8629 ug/L #	72
36) methacrylonitrile	6.34	67	12922	1.0629 ug/L	92
37) Bromochlorma	6.37	128	4110	0.5678 ug/L #	92
38) Tetrahydofur	6.44	42	78668m	5.2379 ug/L	96

(#) = qualifier out of range (m) = manual integration
 WCAL1.D W110816.M Mon Nov 21 15:41:21 2016

Acq On : 8 Nov 2016 17:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT1

Inst : VMS3

Misc : 0.50/5.00 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:13:29 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:07:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	16777	0.5942	ug/L	95
40) 111trichlota	6.72	97	13963	0.5565	ug/L	97
42) Cyclohexane	6.81	56	21252	0.5193	ug/L	84
43) Carbtetraclo	6.95	119	11124	0.5611	ug/L	85
44) 11dicloprope	6.93	110	3899m	0.4682	ug/L	60
46) Benzene	7.17	78	38799	0.5910	ug/L	80
47) 12dichlorota	7.16	62	17023	0.5982	ug/L #	89
48) TAME	7.33	73	25811	0.5520	ug/L	82
49) trichloroete	7.99	95	9519	0.5823	ug/L	88
50) methylcyclohexane	8.25	83	17476	0.6176	ug/L	88
51) 12dicloropra	8.23	63	11262	0.4936	ug/L #	97
52) 23Dicl1propene	8.29	75	13765	0.5367	ug/L #	67
53) Dibromometha	8.37	93	6321	0.5736	ug/L	93
54) methylmethacrylate	8.40	69	9022	0.5100	ug/L	83
55) 14dioxane	8.41	88	8673	29.7665	ug/L #	80
56) Bromodiclrma	8.57	83	10407	0.5050	ug/L #	77
57) 2Nitropropane	8.82	43	73474	6.1425	ug/L	95
58) 2CLEVE	8.97	63	3387m	1.9704	ug/L #	51
59) c13dicloproe	9.14	75	17213	0.6042	ug/L #	55
60) 4Meth2Pentan	9.34	43	232237m	6.9996	ug/L	91
62) Toluene	9.59	92	22713	0.5609	ug/L #	73
63) t13Dicloprop	9.86	75	14358	0.5696	ug/L	83
64) ethylmethacrylate	10.01	69	28973	1.1168	ug/L	89
65) 112Triclotha	10.09	83	8469	0.6147	ug/L #	78
66) Tetrachlorte	10.31	166	9362	0.5739	ug/L	85
67) 13Diclorpropa	10.31	76	15540	0.5482	ug/L	92
69) 2Hexanone	10.43	43	191602m	6.9849	ug/L	95
70) Clorodibrmta	10.61	129	8943	0.5867	ug/L #	72
71) 12Dibrometha	10.76	107	10825	0.6535	ug/L	99
72) Chlorobenzen	11.46	112	25749	0.6003	ug/L	86
73) 1Clhexane	11.42	91	13819	0.5973	ug/L #	32
74) 1112Tetclota	11.55	131	8496	0.5826	ug/L	91
75) Ethylbenzene	11.61	91	45887	0.6223	ug/L	100
76) m p-Xylene	11.78	106	33903	1.1914	ug/L	92
77) o-Xylene	12.32	106	15559	0.5663	ug/L #	79
78) Styrene	12.34	104	25589	0.5800	ug/L	89
79) Bromoform	12.57	173	6265	0.5392	ug/L	90
80) Isopropylben	12.85	105	36835	0.5534	ug/L	84
81) cyclohexanone	12.93	55	20518	12.1957	ug/L #	84
84) Bromobenzene	13.25	156	9210	0.5317	ug/L #	82
85) 1122Tetrclta	13.22	83	18473	0.6600	ug/L	92
86) 123Tric1proa	13.28	75	18270	0.5238	ug/L	68
87) 14dichloro2butene	13.32	53	5393	0.5261	ug/L #	65
88) n-Propylbenz	13.43	91	45444	0.5588	ug/L	94
89) 2chlorotolue	13.54	91	31424	0.6322	ug/L	88
90) 4chlorotolue	13.69	91	31754	0.5768	ug/L	95
91) 135Trimebenz	13.69	105	29325	0.5304	ug/L	97
92) tbutylbenzen	14.16	119	20998	0.4600	ug/L #	73
93) 124Trimetben	14.23	105	31078	0.5532	ug/L	91
94) sbutylbenzen	14.48	105	36328	0.5345	ug/L	99
95) 13Diclorbenz	14.61	146	15484	0.5356	ug/L	90
96) pIsopropylto	14.69	119	30874	0.5491	ug/L #	94
97) 14dichlorobe	14.73	146	17752	0.5937	ug/L	84
98) 12dichlorobe	15.26	146	17461	0.6235	ug/L	83
99) nButylbenzen	15.28	91	31555	0.5736	ug/L	94
100) 12dibromo3cl	16.36	157	2906	0.4693	ug/L	93
101) 135Trichlorobenzene	16.71	180	10987	0.5572	ug/L	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report
 Data File : C:\INSTARCH\DATA\NOV0816\WCAL1.D Vial: 4
 Acq On : 8 Nov 2016 17:04 Operator: AGK-RLD
 Sample : INITIAL CALIB. PT1 Inst : VMS3
 Misc : 0.50/5.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 MS Integration Params: VOC.P

Quant Time: Nov 09 08:13:29 2016 Results File: W110816.RES

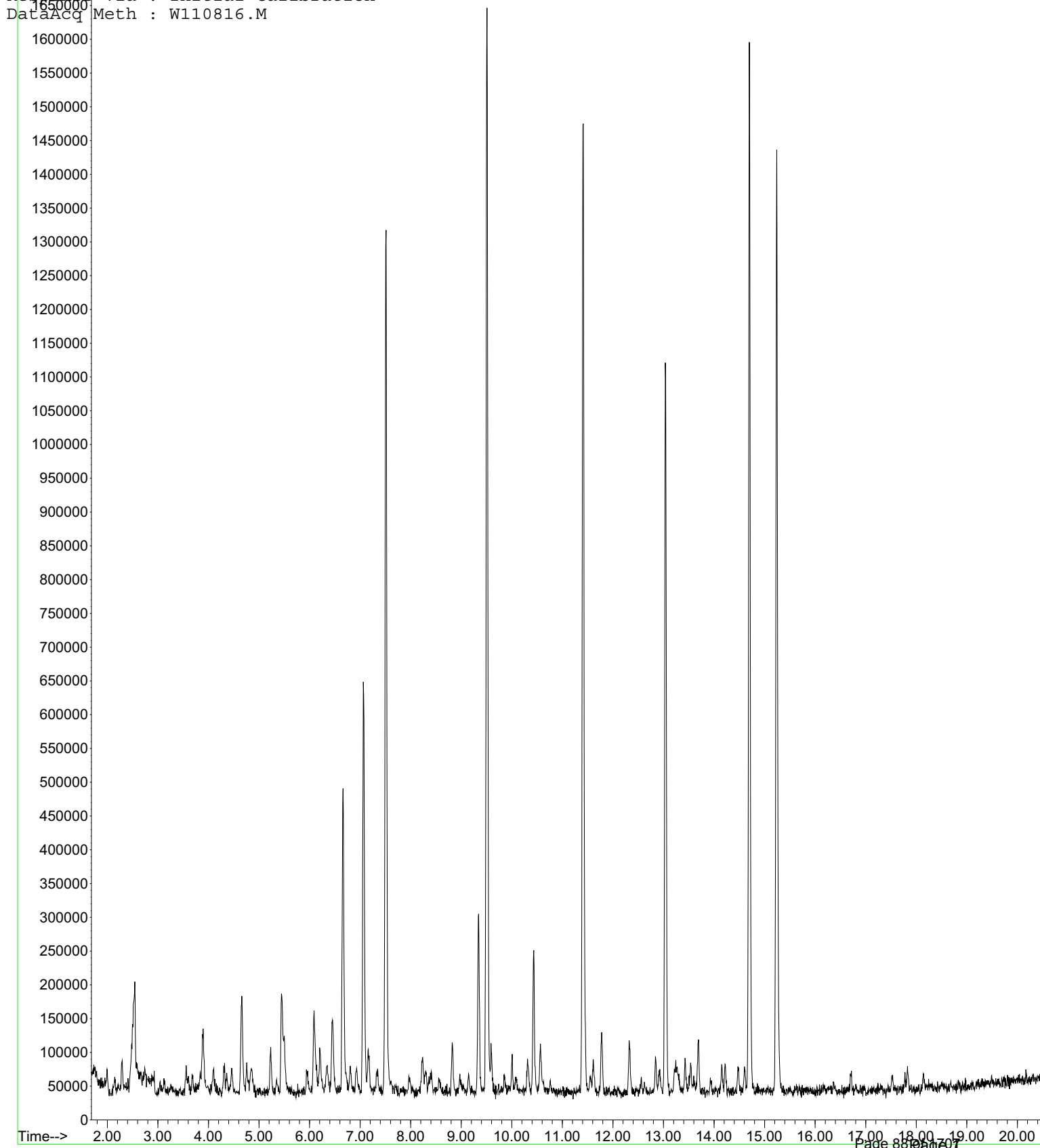
Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
 Title : 8260C Waters Method
 Last Update : Wed Nov 09 08:07:19 2016
 Response via : Initial Calibration
 DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.53	180	12244	0.6786	ug/L #	72
103) Hexachlorobu	17.79	225	3990	0.4926	ug/L #	59
104) Naphthalene	17.82	128	27104	0.5065	ug/L	87
105) 123Trichlben	18.14	180	7355	0.4734	ug/L	84

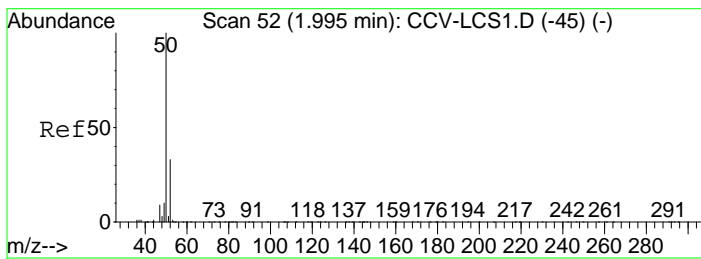
Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL1.D
Acq On : 8 Nov 2016 17:04
Sample : INITIAL CALIB. PT1
Misc : 0.50/5.00 ug/L, 5.0 mL Purged + IS/SS
MS Integration Params: VOC.P
Vial: 4
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Time: Nov 09 08:13:29 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:07:19 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M

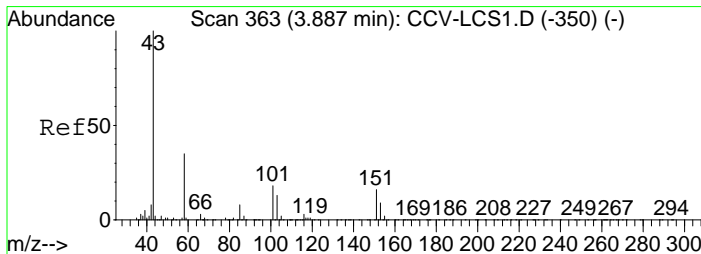
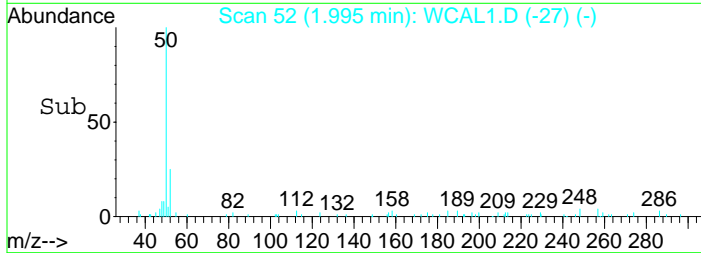
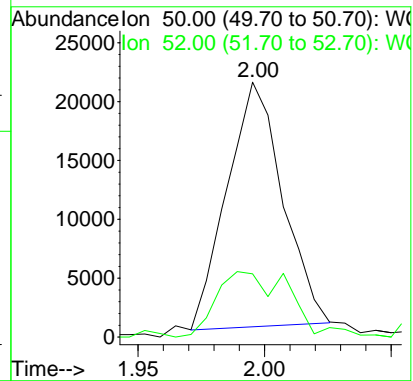
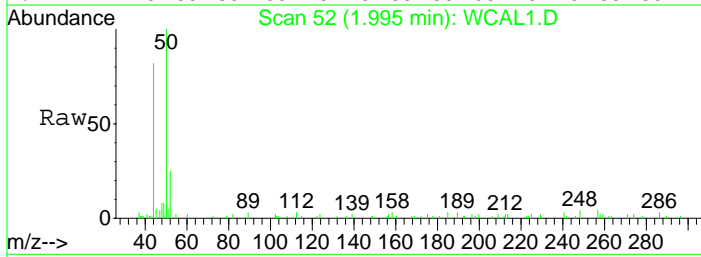


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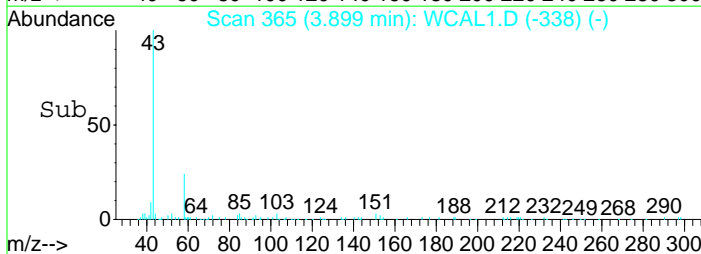
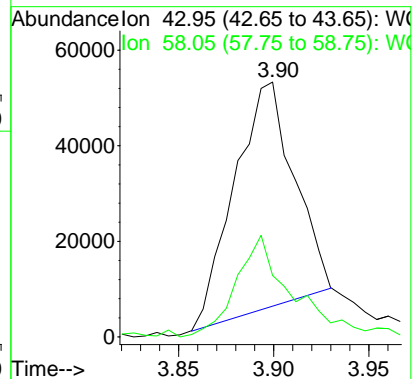
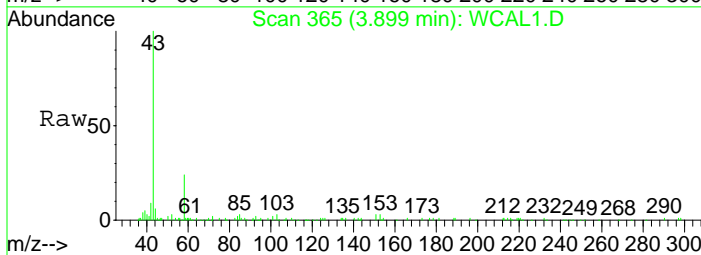
#3
Chloromethan
Concen: 0.84 ug/L m
RT: 2.00 min Scan# 52
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Resp	Lower	Upper
50	100		
52	35.2	13.9	53.9



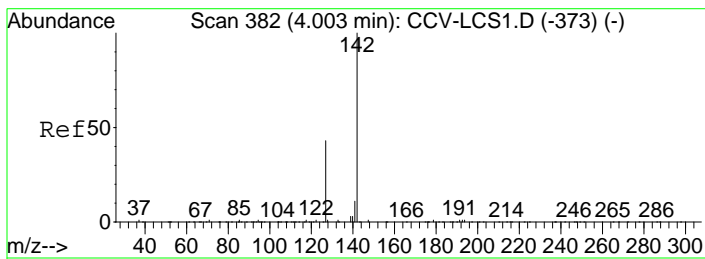
#15
Acetone
Concen: 7.00 ug/L m
RT: 3.90 min Scan# 365
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Resp	Lower	Upper
43	100		
58	42.2	13.0	53.0



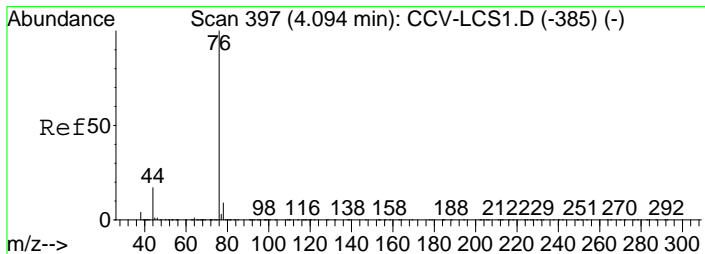
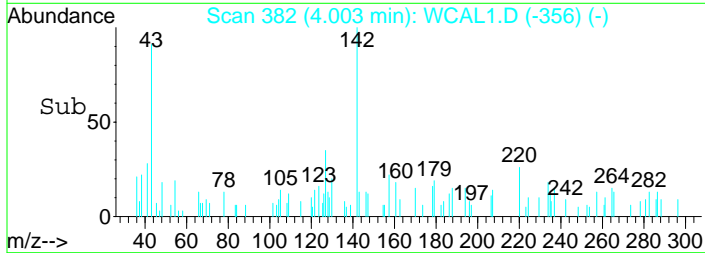
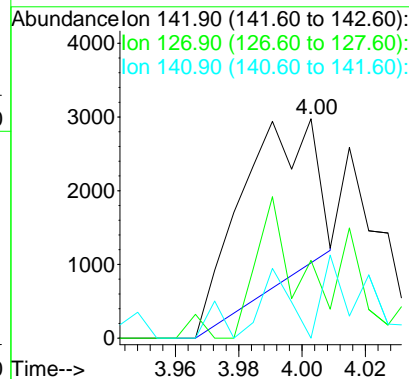
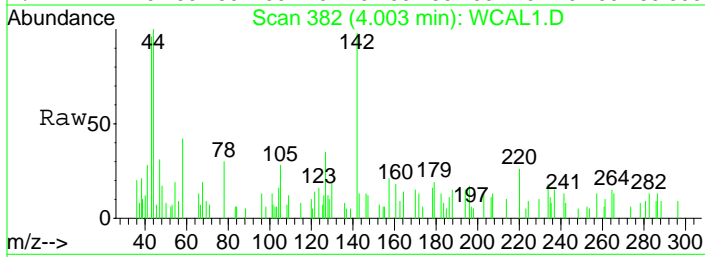
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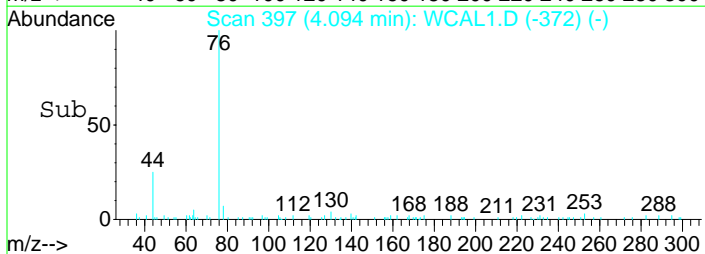
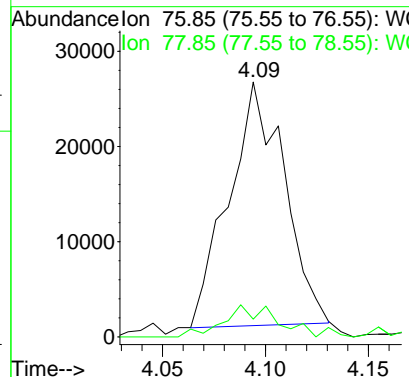
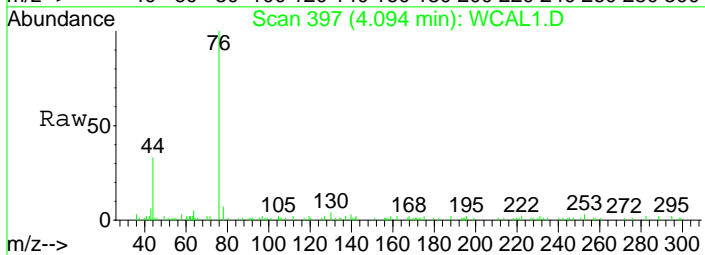
#16
Iodomethane
Concen: 0.54 ug/L m
RT: 4.00 min Scan# 382
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
142	100		
127	70.8	22.9	62.9#
141	0.0	0.0	35.6



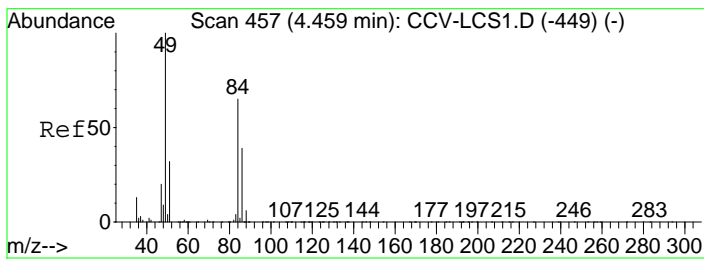
#17
Carbon Dislf
Concen: 1.20 ug/L m
RT: 4.09 min Scan# 397
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
76	100		
78	13.3	0.0	29.4



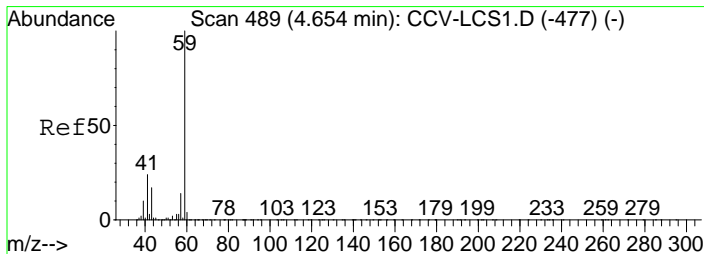
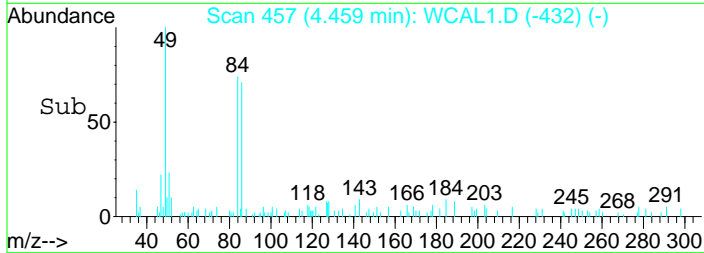
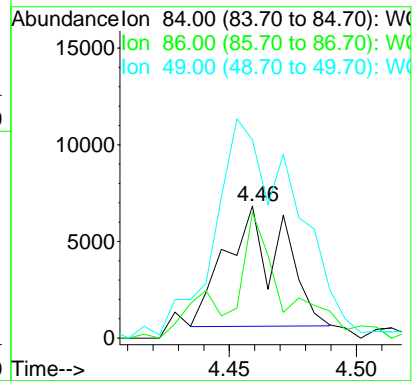
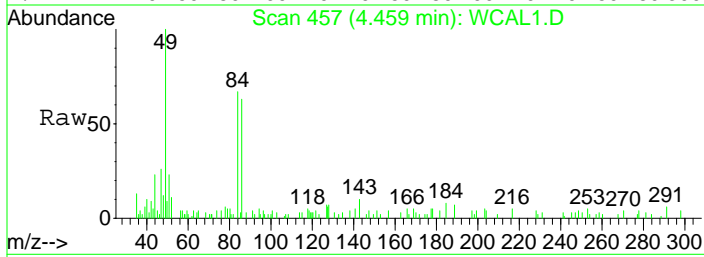
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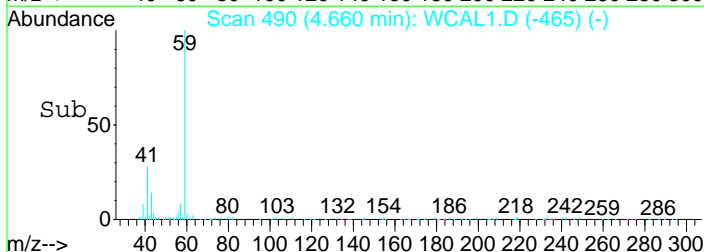
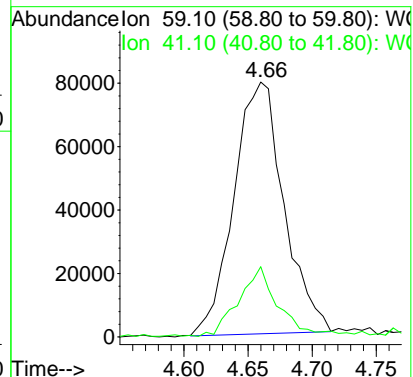
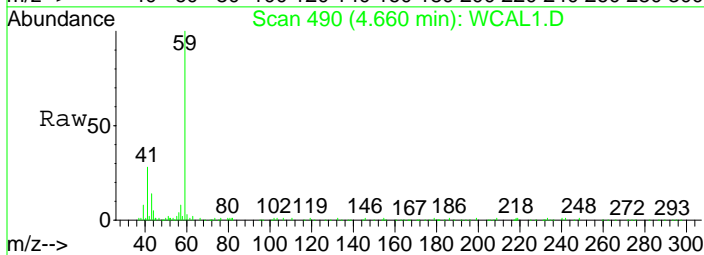
#20
Methylchlorid
Concen: 0.56 ug/L m
RT: 4.46 min Scan# 457
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	84	Resp	9663
Ion Ratio	Lower	Upper	
84	100		
86	102.6	42.4	82.4#
49	273.7	184.8	224.8#



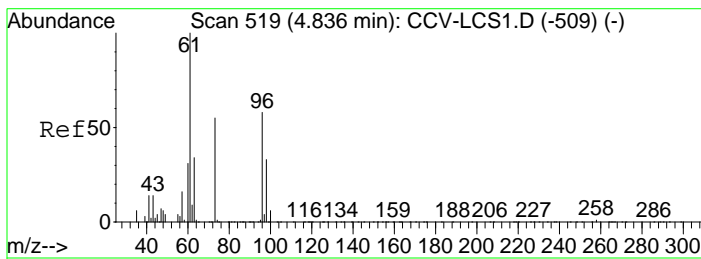
#21
tbutylalcohol
Concen: 36.36 ug/L m
RT: 4.66 min Scan# 490
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	59	Resp	215831
Ion Ratio	Lower	Upper	
59	100		
41	22.3	2.8	42.8



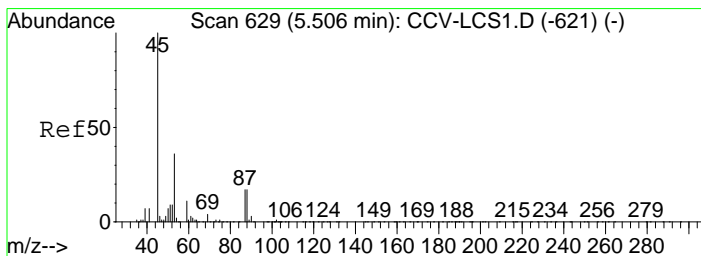
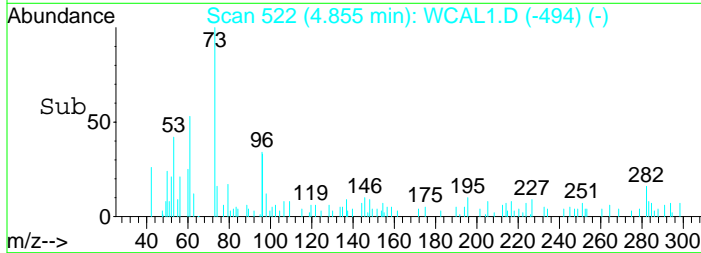
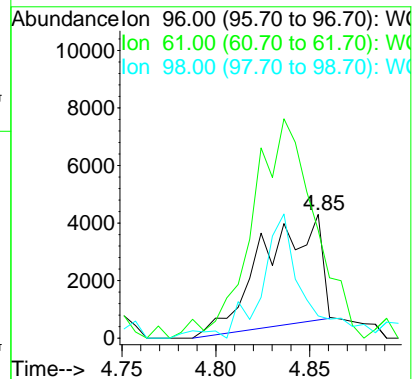
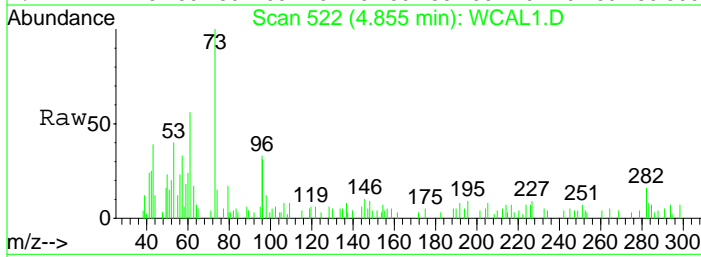
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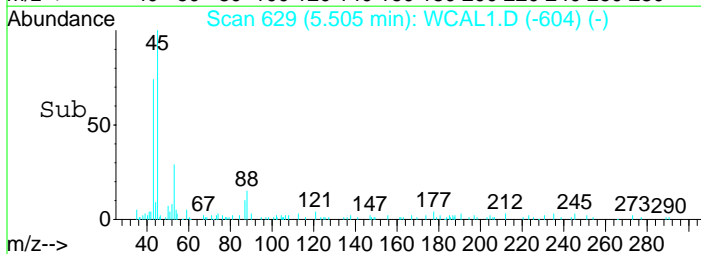
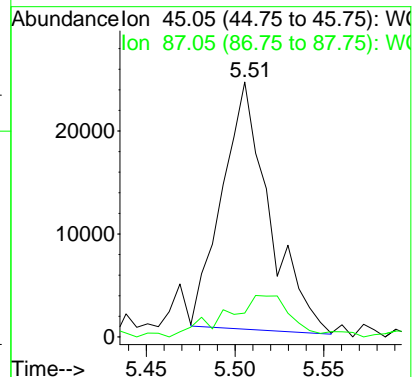
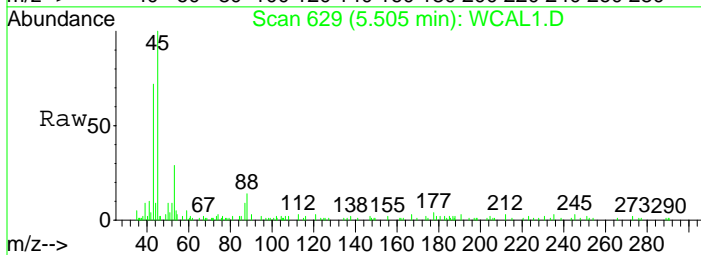
#23
t12dichlorte
Concen: 0.53 ug/L m
RT: 4.85 min Scan# 522
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	96	Resp	8089
Ion Ratio	Lower	Upper	
96	100		
61	218.4	169.2	209.2#
98	68.7	48.0	88.0



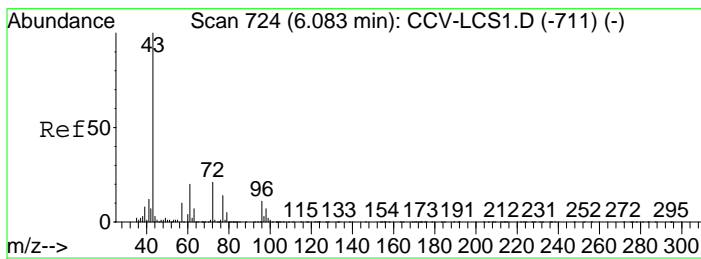
#29
Diisopether
Concen: 0.56 ug/L m
RT: 5.51 min Scan# 629
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	45	Resp	44482
Ion Ratio	Lower	Upper	
45	100		
87	24.7	0.0	38.4



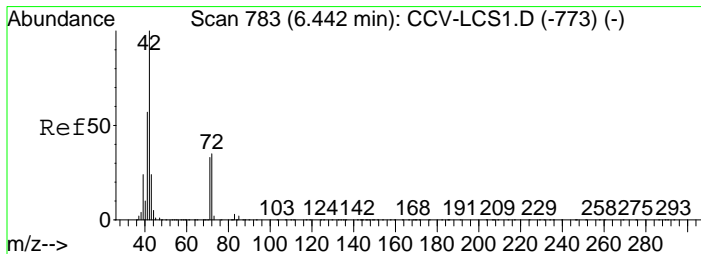
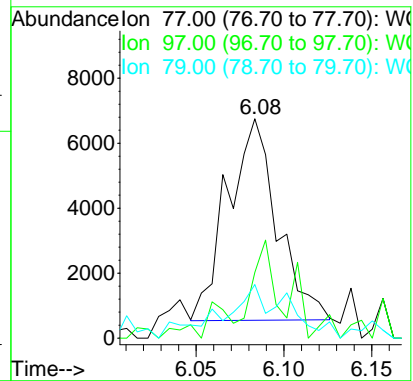
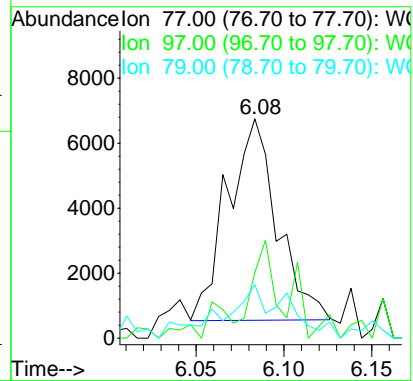
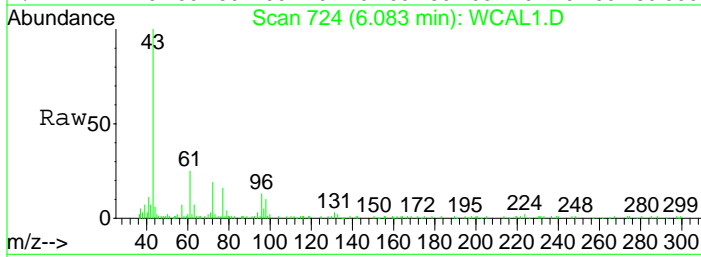
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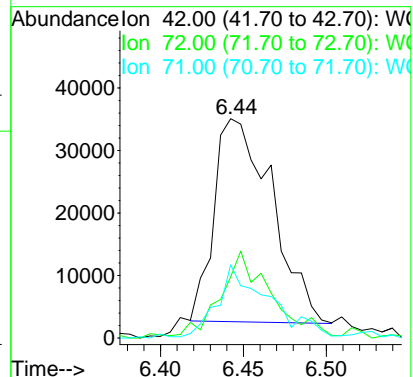
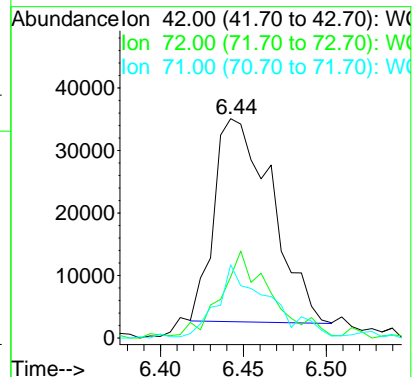
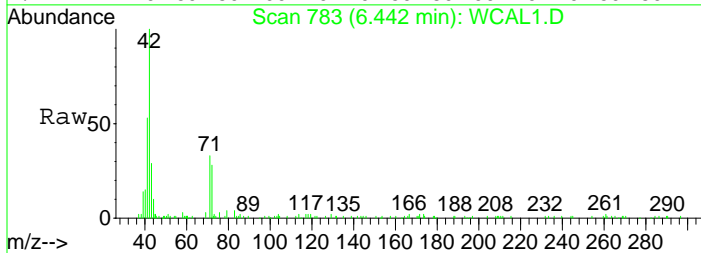
#31
22dichloropr
Concen: 0.49 ug/L m
RT: 6.08 min Scan# 724
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
77	100		
97	31.8	1.8	41.8
79	34.4	11.4	51.4



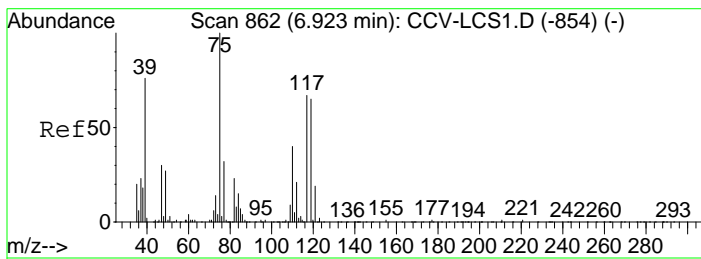
#38
Tetrahydrofur
Concen: 5.24 ug/L m
RT: 6.44 min Scan# 783
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
42	100		
72	38.5	11.0	51.0
71	30.9	9.4	49.4



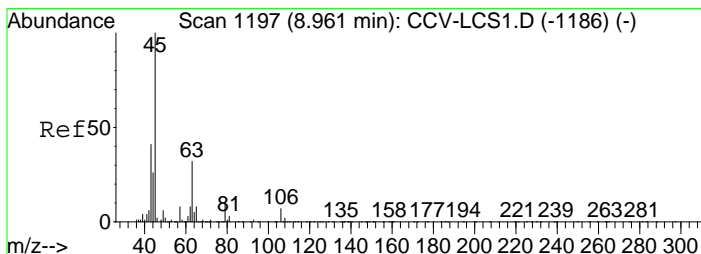
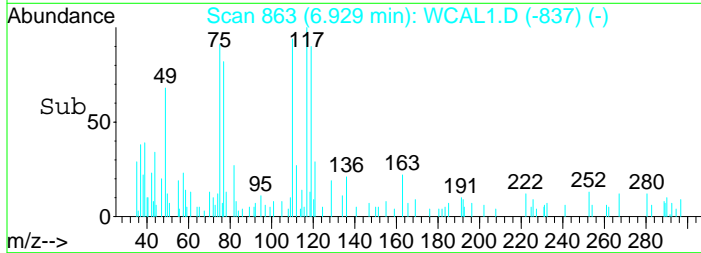
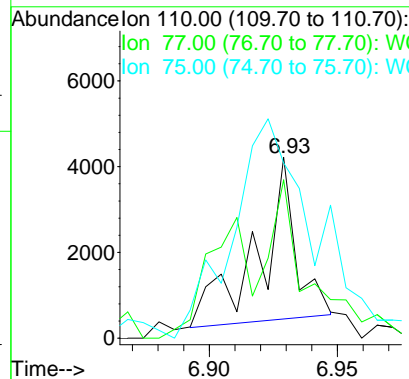
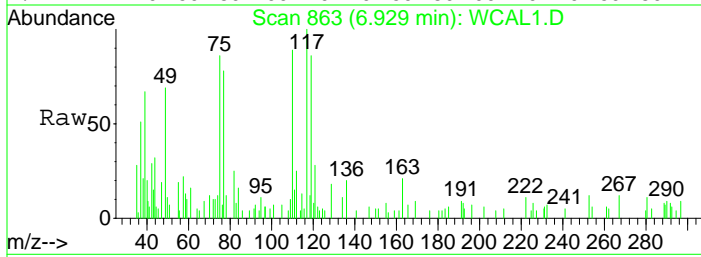
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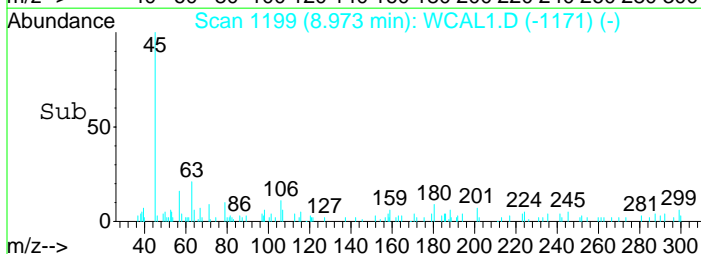
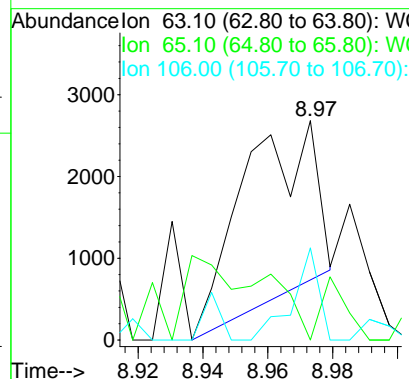
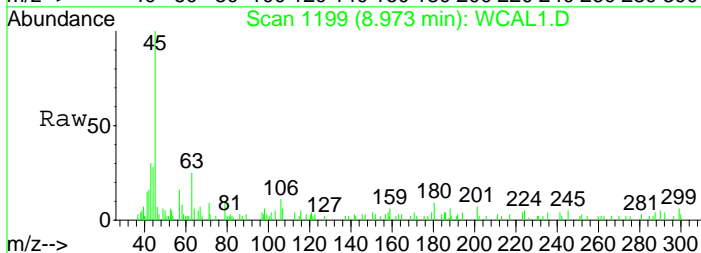
#44
11dicloprope
Concen: 0.47 ug/L m
RT: 6.93 min Scan# 863
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
110	100		
77	101.9	71.6	111.6
75	301.4	262.9	302.9



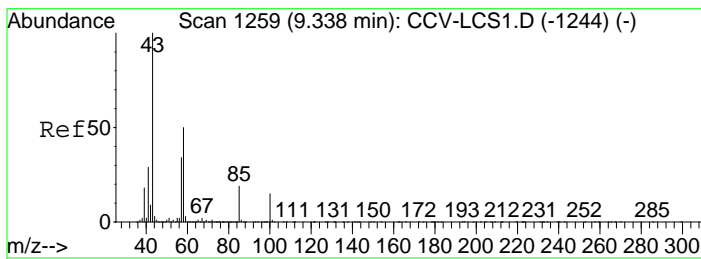
#58
2CLEVE
Concen: 1.97 ug/L m
RT: 8.97 min Scan# 1199
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
63	100		
65	0.0	6.8	46.8#
106	0.0	1.4	41.4#



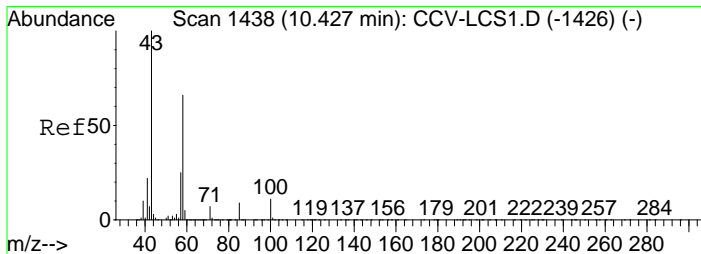
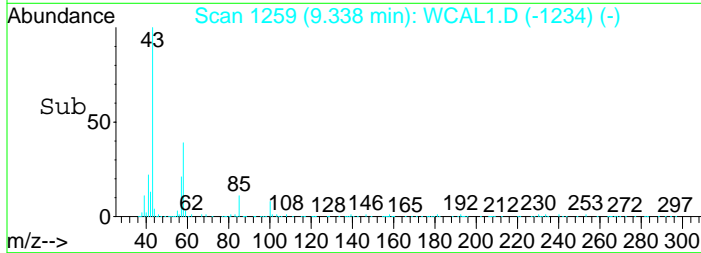
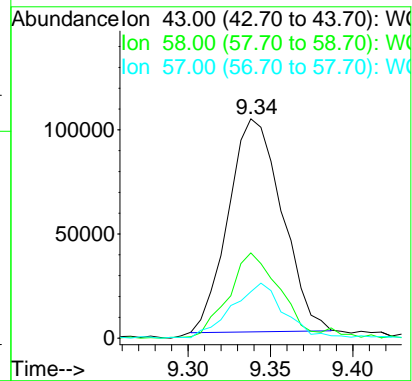
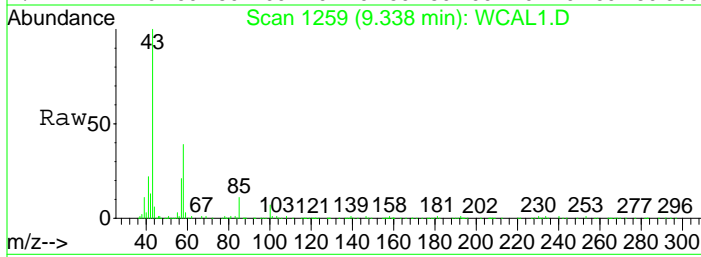
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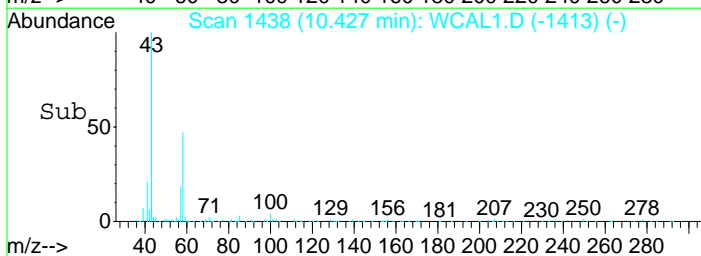
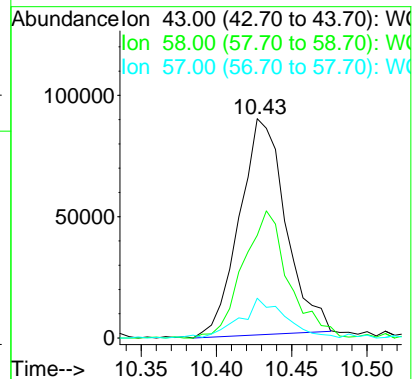
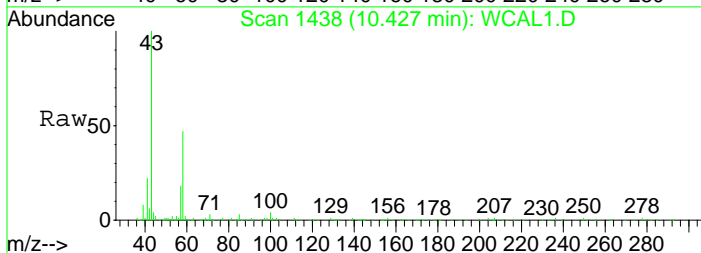
#60
4Meth2Pentan
Concen: 7.00 ug/L m
RT: 9.34 min Scan# 1259
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
43	100		
58	40.3	23.1	63.1
57	26.1	7.0	47.0

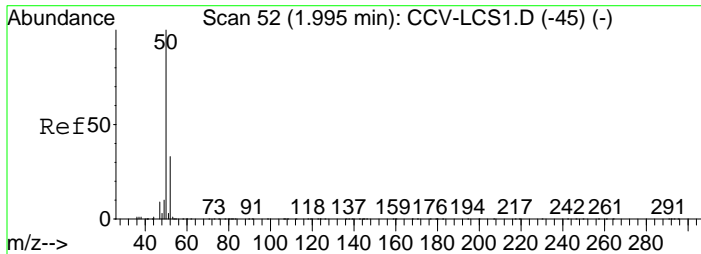


#69
2Hexanone
Concen: 6.98 ug/L m
RT: 10.43 min Scan# 1438
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
43	100		
58	57.7	37.1	77.1
57	18.1	0.5	40.5



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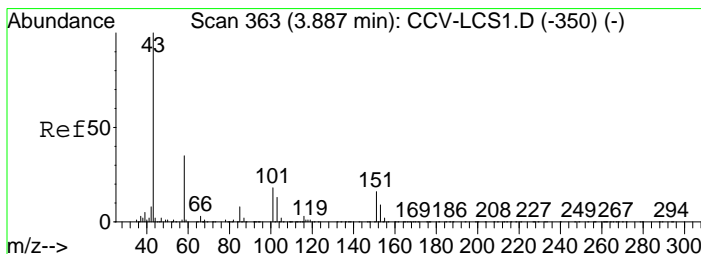
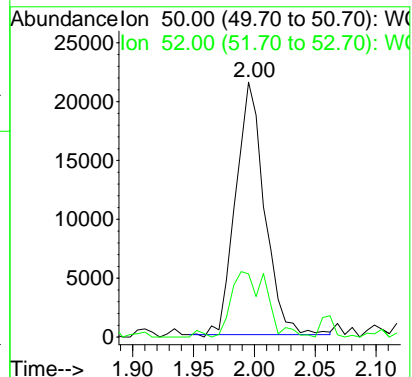
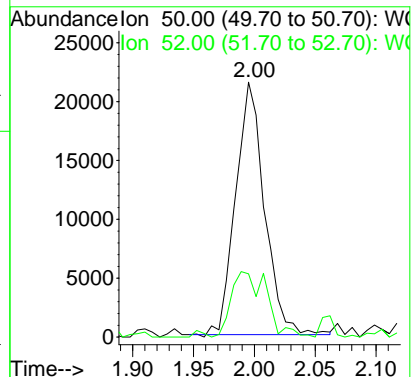
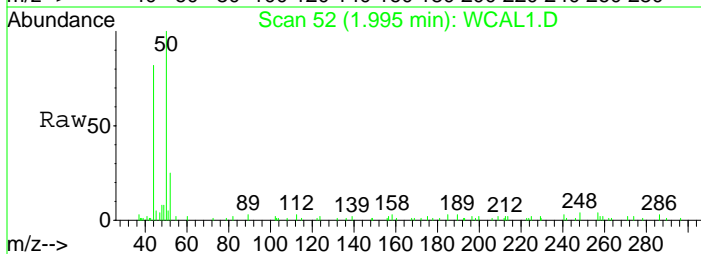


#3
Chloromethan
Concen: 0.81 ug/L
RT: 2.00 min Scan# 52
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Before Manual Integration

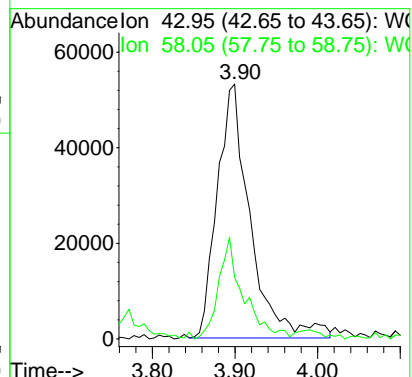
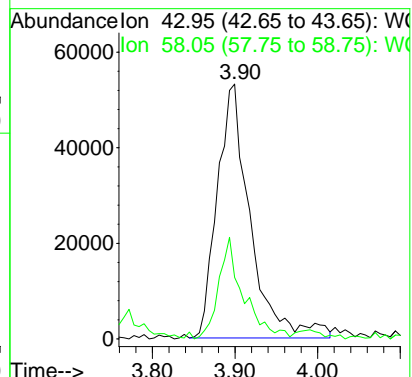
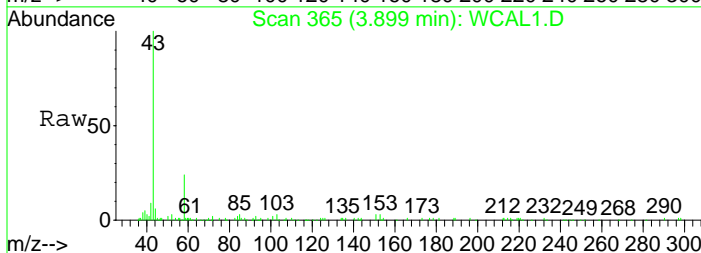
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Tgt Ion: 50 Resp: 35287
Ion Ratio Lower Upper
50 100
52 31.7 13.9 53.9

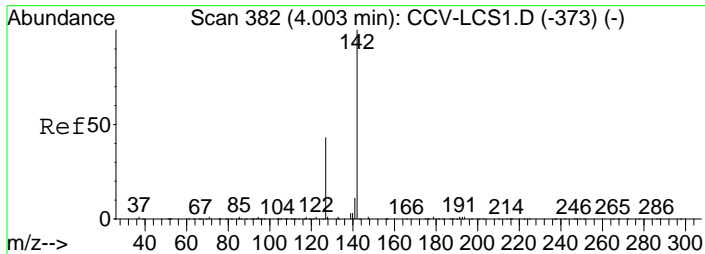


#15
Acetone
Concen: 7.44 ug/L
RT: 3.90 min Scan# 365
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion: 43 Resp: 147477
Ion Ratio Lower Upper
43 100
58 30.0 13.0 53.0



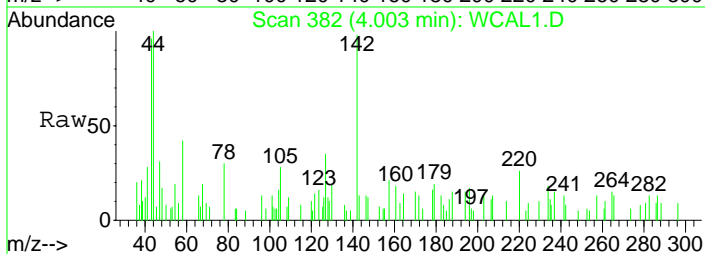
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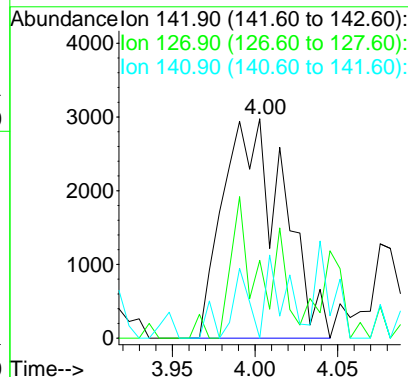
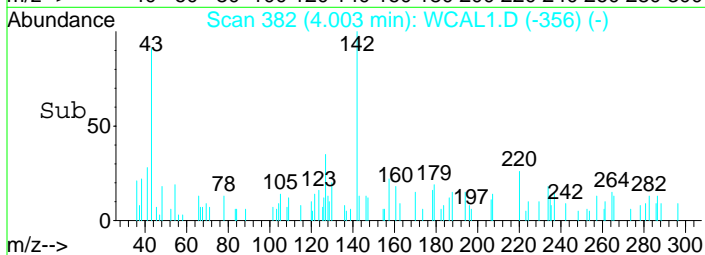
#16
Iodomethane
Concen: 5.47 ug/L
RT: 4.00 min Scan# 382
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Before Manual Integration

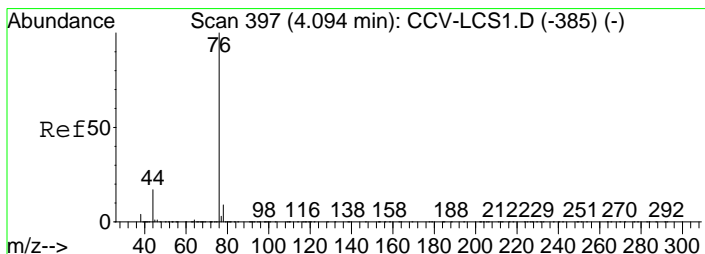
Agk 11/21/16



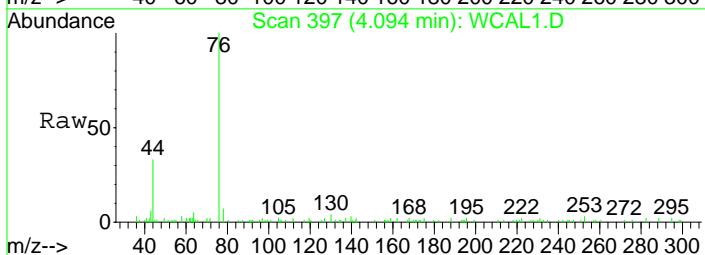
Tgt Ion: 142 Resp: 7557
Ion Ratio Lower Upper
142 100
127 34.9 22.9 62.9
141 0.0 0.0 35.6



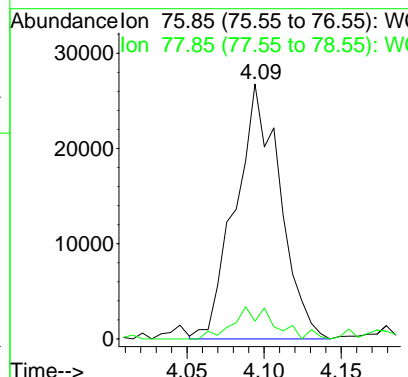
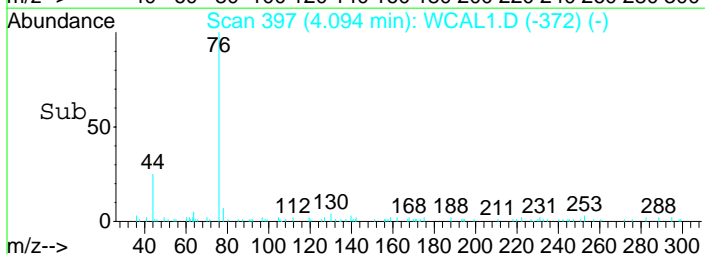
REASON # 2



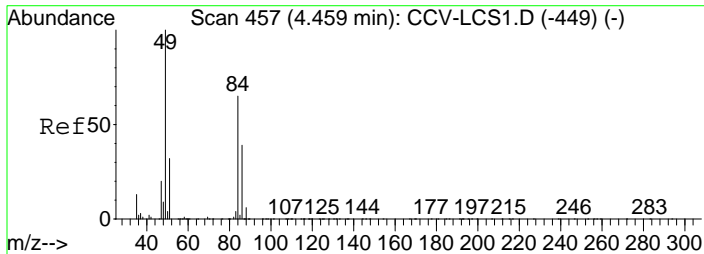
#17
Carbon Dislf
Concen: 1.32 ug/L
RT: 4.09 min Scan# 397
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04



Tgt Ion: 76 Resp: 53771
Ion Ratio Lower Upper
76 100
78 11.9 0.0 29.4



REASON # 2

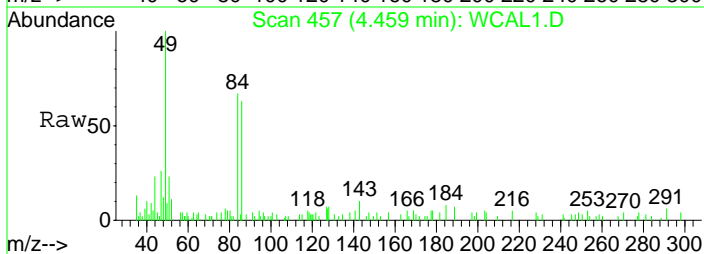


#20
Methylchlorid
Concen: 0.76 ug/L
RT: 4.46 min Scan# 457
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Before Manual Integration

Agk 11/21/16

Tgt Ion: 84 Resp: 12589
Ion Ratio Lower Upper
84 100
86 78.8 42.4 82.4
49 210.1 184.8 224.8

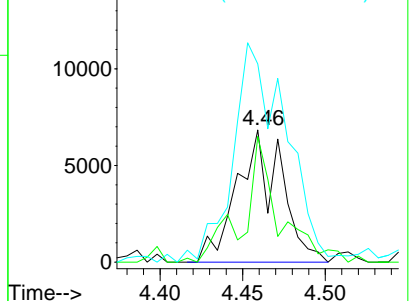
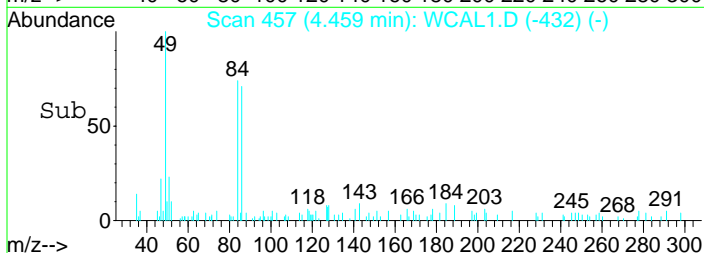


Abundance

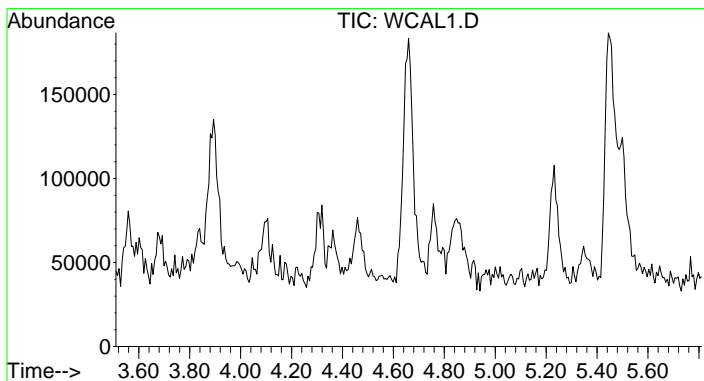
Ion 84.00 (83.70 to 84.70): W

Ion 86.00 (85.70 to 86.70): W

Ion 49.00 (48.70 to 49.70): W

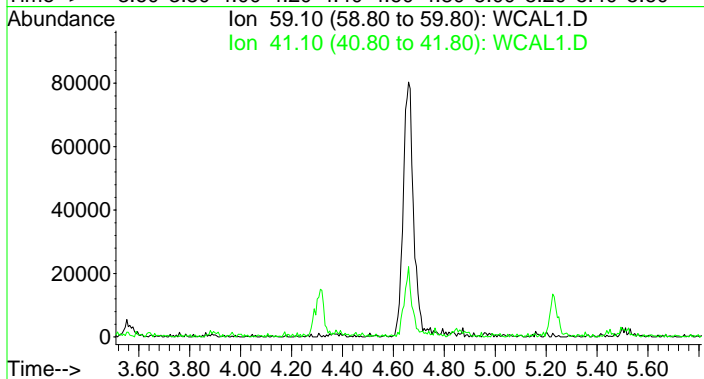


REASON # 2



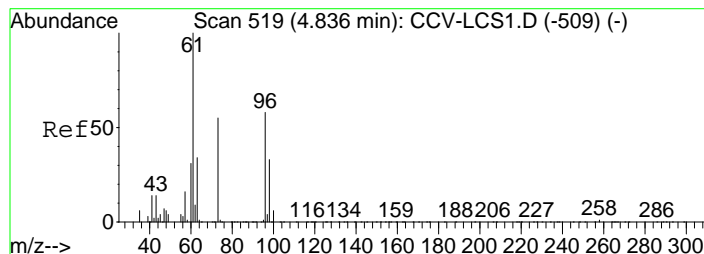
#21
tbutylalcohol
Concen: Below Cal
Expected RT: 4.66 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion: 59
Sig Exp Ratio
59 100
41 22.8



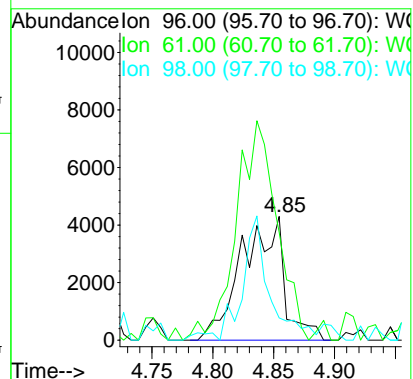
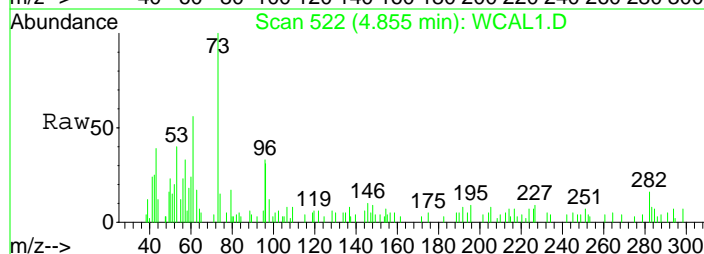
REASON # 1

Agk 11/21/16

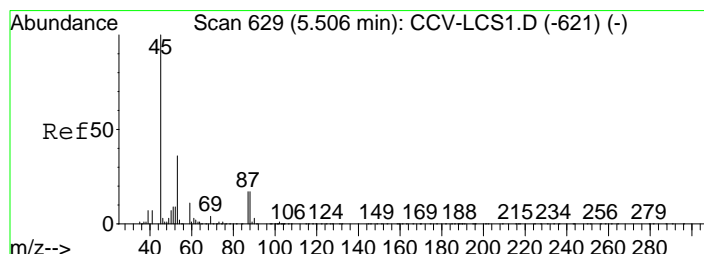


#23
t12dichloro
Concen: 0.71 ug/L
RT: 4.85 min Scan# 522
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	96	Resp	10408
Ion Ratio	Lower	Upper	
96	100		
61	169.7	169.2	209.2
98	53.4	48.0	88.0

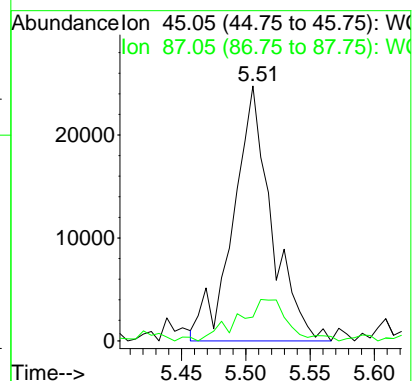
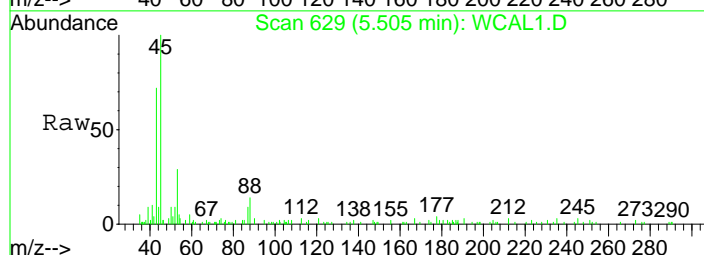


REASON # 2

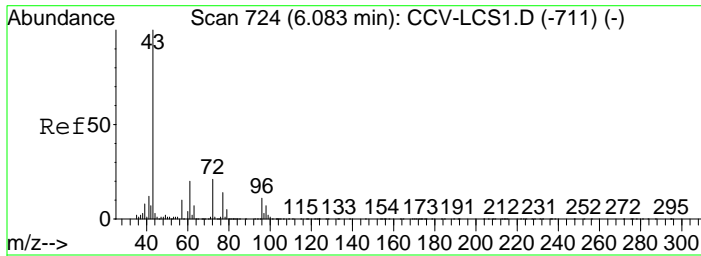


#29
Diisopether
Concen: 0.66 ug/L
RT: 5.51 min Scan# 629
Delta R.T. -0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	45	Resp	51293
Ion Ratio	Lower	Upper	
45	100		
87	21.4	0.0	38.4



REASON # 2

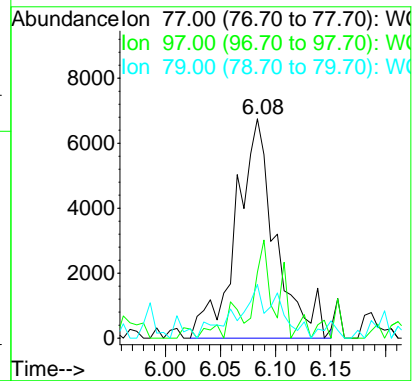
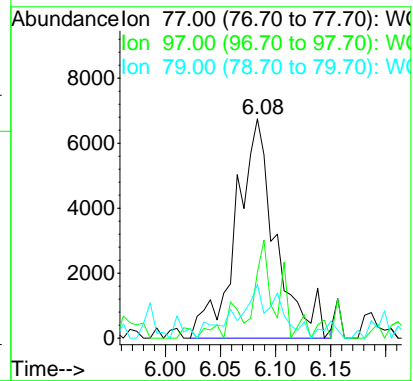
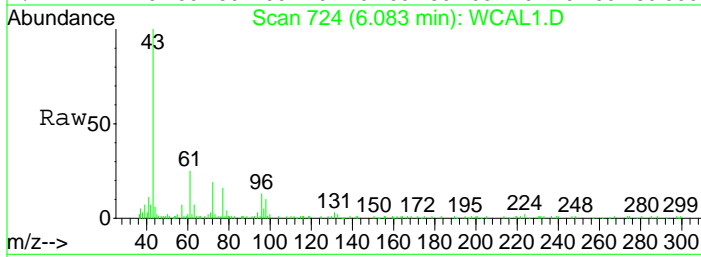


#31
22dichloropr
Concen: 0.71 ug/L
RT: 6.08 min Scan# 724
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

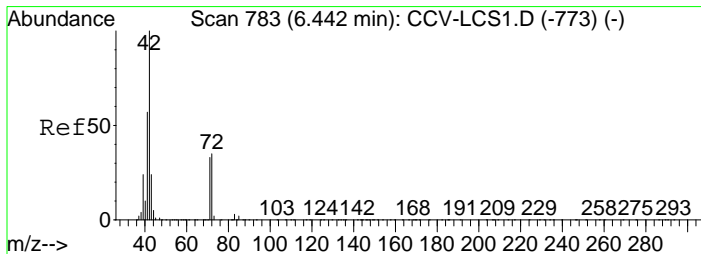
Before Manual Integration

Agk 11/21/16

Tgt Ion: 77 Resp: 16932
Ion Ratio Lower Upper
77 100
97 23.1 1.8 41.8
79 25.0 11.4 51.4

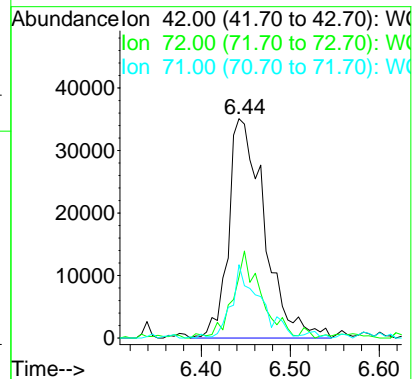
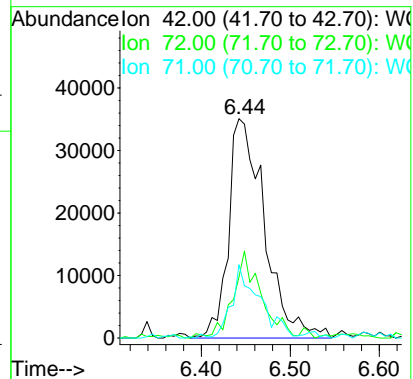
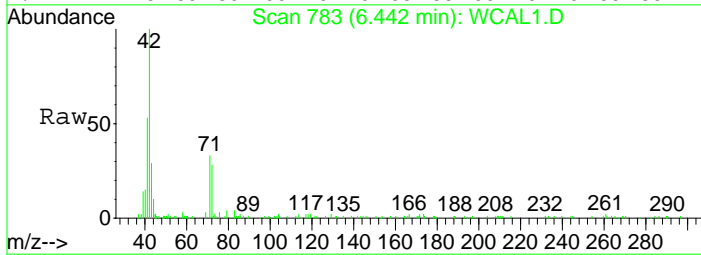


REASON # 2

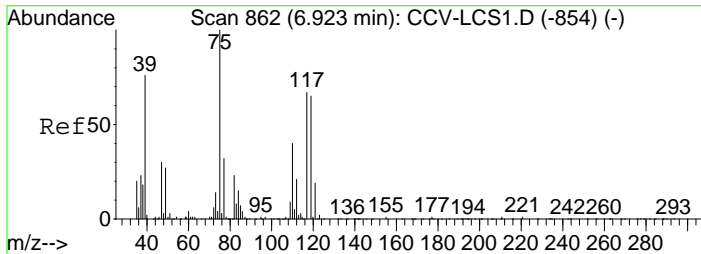


#38
Tetrahydrofur
Concen: 6.42 ug/L
RT: 6.44 min Scan# 783
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion: 42 Resp: 98230
Ion Ratio Lower Upper
42 100
72 30.9 11.0 51.0
71 24.7 9.4 49.4



REASON # 2

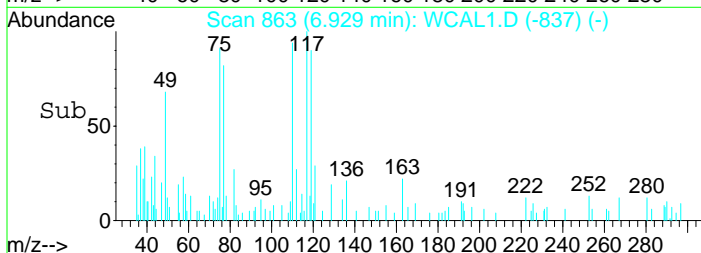
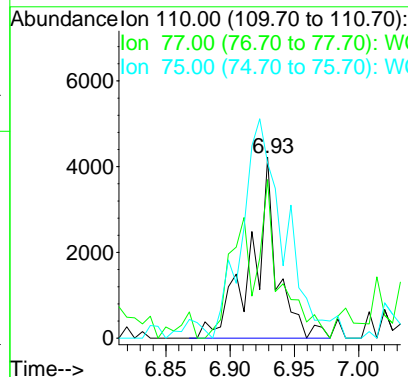
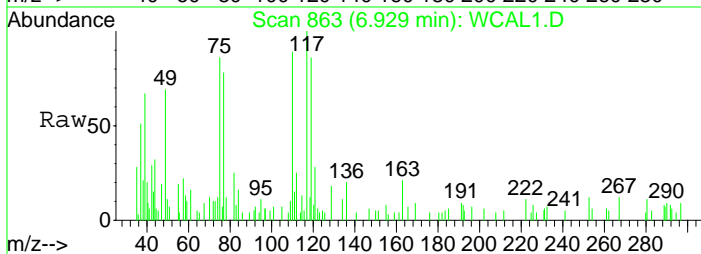


#44
11dicloprope
Concen: 0.76 ug/L
RT: 6.93 min Scan# 863
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

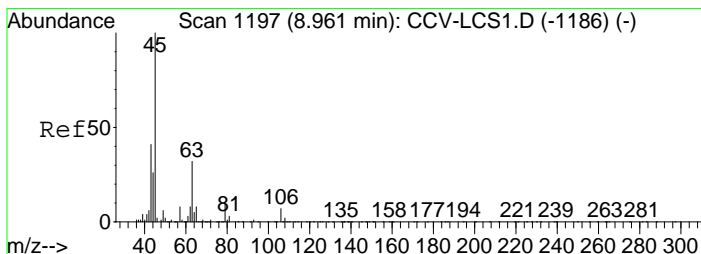
Before Manual Integration

Agk 11/21/16

Tgt Ion	Ratio	Lower	Upper
110	100		
77	67.2	71.6	111.6#
75	198.8	262.9	302.9#

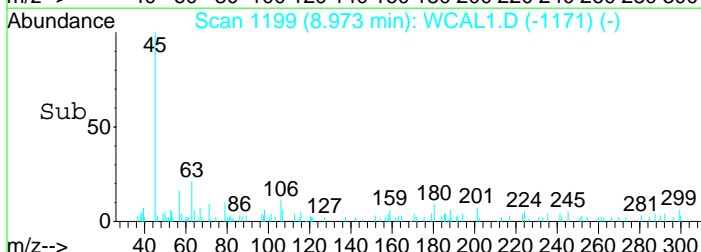
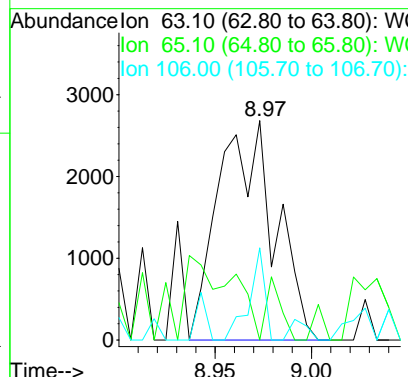
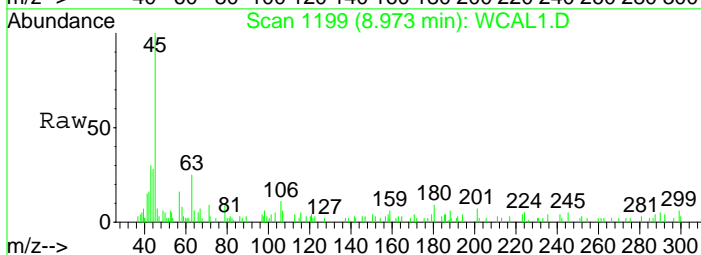


REASON # 2

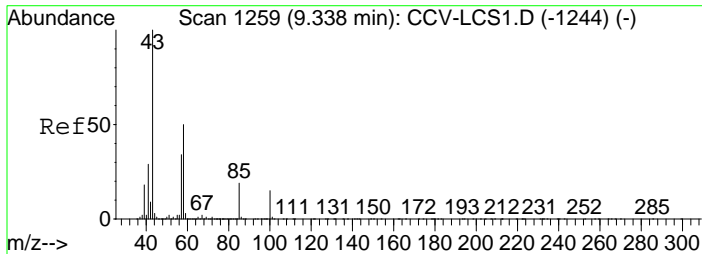


#58
2CLEVE
Concen: 10.39 ug/L
RT: 8.97 min Scan# 1199
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 8 Nov 2016 17:04

Tgt Ion	Ratio	Lower	Upper
63	100		
65	0.0	6.8	46.8#
106	0.0	1.4	41.4#



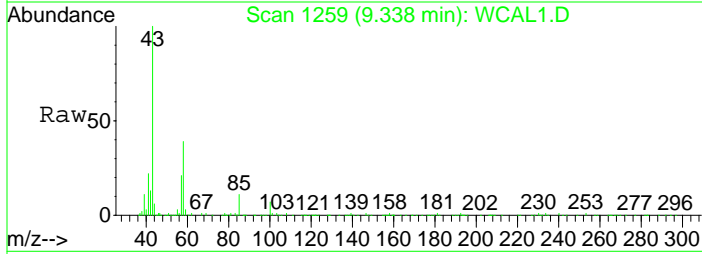
REASON # 2



#60
 4Meth2Pentan
 Concen: 3.29 ug/L
 RT: 9.34 min Scan# 1259
 Delta R.T. 0.00 min
 Lab File: WCAL1.D
 Acq: 8 Nov 2016 17:04

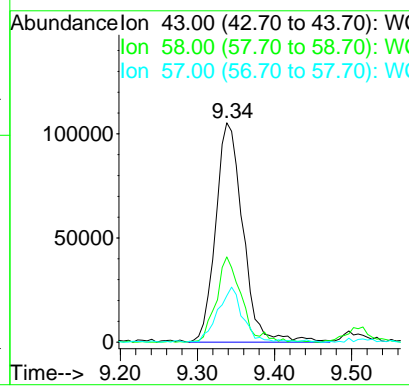
Before Manual Integration

Agk 11/21/16

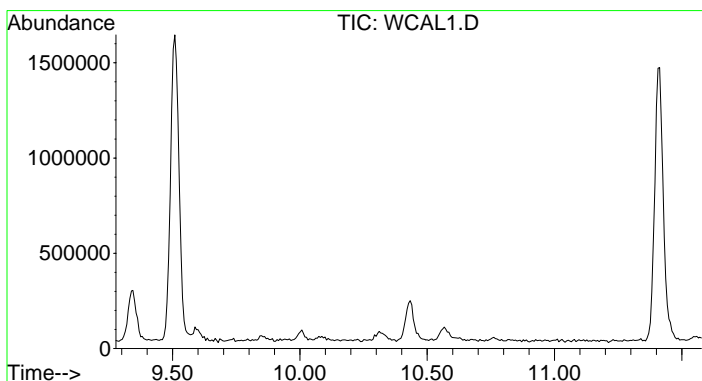


Tgt Ion: 43 Resp: 259103

Ion	Ratio	Lower	Upper
43	100		
58	36.1	23.1	63.1
57	23.4	7.0	47.0



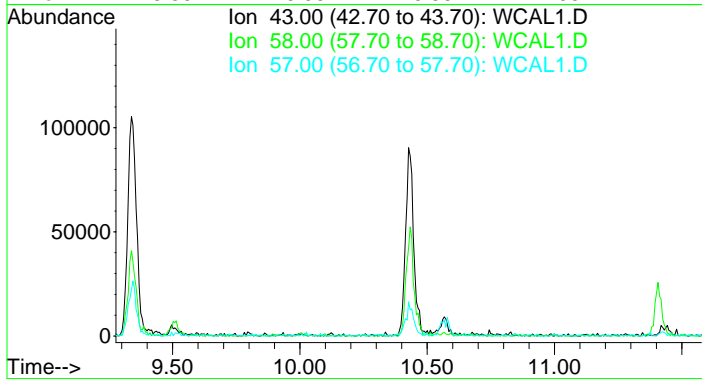
REASON # 2



#69
 2Hexanone
 Concen: Below Cal
 Expected RT: 10.43 min
 Lab File: WCAL1.D
 Acq: 8 Nov 2016 17:04

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	57.1
57	20.5



REASON # 1

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL2.D

Vial: 5

Acq On : 8 Nov 2016 17:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT2

Inst : VMS3

Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:14:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:07:03 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1313919	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	943478	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	476675	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	329329	19.997	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
45) SURR12DCAd4	7.07	102	83899	18.994	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 95	%
61) SURRD8Tolule	9.51	98	1334995	20.057	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
83) SURR4BrFBenz	13.04	95	451413	20.539	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 103	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	41578	2.1542	ug/L	100
3) Chloromethan	2.00	50	68635m	1.7764	ug/L	97
4) VinylChlorid	2.14	62	64651	2.1960	ug/L	91
5) Bromomethane	2.57	94	17631	2.2985	ug/L	97
6) Chloroethane	2.74	64	38801	2.2285	ug/L	89
7) Dichloroflmethane	3.05	67	67986	2.1557	ug/L	99
8) Trichlorofma	3.13	101	44675	2.0604	ug/L	95
9) Ethylether	3.56	59	40461	2.1134	ug/L	92
10) dichlorotfluoroethan	3.57	67	41546	2.1310	ug/L	93
11) propyleneoxide	3.89	58	109140	21.7121	ug/L #	87
12) Acrolein	3.68	56	87460	9.9685	ug/L	95
13) 11dichlorothe	3.82	96	33087	2.1838	ug/L	96
14) Trichlorotfluoroeth	3.88	101	56283	4.1914	ug/L	92
15) Acetone	3.89	43	298277m	19.4611	ug/L	96
16) Iodomethane	4.01	142	18062	2.5485	ug/L	90
17) Carbon Dislf	4.09	76	185909	4.5407	ug/L	99
18) allylchloride	4.31	41	143013	4.4616	ug/L	99
19) methylacetate	4.37	74	24733	2.3211	ug/L	95
20) Methylchlorid	4.47	84	35469	1.9964	ug/L	90
21) tbutylalcohol	4.66	59	784015	129.0605	ug/L	96
22) Acrylonitrile	4.76	53	167913	11.0091	ug/L	99
23) t12dichlorote	4.84	96	30118	1.9293	ug/L	96
24) MtBE	4.87	73	101268	2.1118	ug/L	93
25) Hexane	5.23	57	136396	4.2041	ug/L	94
26) 11dichlorota	5.35	63	77702	2.1020	ug/L	98
27) Vinylacetate	5.44	43	1164895	27.9925	ug/L	97
28) chloroprene	5.48	53	155559	4.3087	ug/L	99
29) Diisopether	5.51	45	171216	2.1170	ug/L	92
30) ETBE	5.96	59	131069	2.0568	ug/L	91
31) 22dichloropr	6.08	77	52093	2.0301	ug/L	96
32) c12dichlorote	6.08	96	38736	2.0352	ug/L	98
33) 2Butanone	6.08	72	95406	20.9844	ug/L	93
34) propionitrile	6.13	54	146089	20.9041	ug/L	97
35) Ethylacetate	6.21	88	13036	11.2241	ug/L #	70
36) methacrylonitrile	6.34	67	52333	4.2063	ug/L	96
37) Bromochloroma	6.35	128	16398	2.2135	ug/L #	86
38) Tetrahydofur	6.45	42	359045	23.3589	ug/L	98

(#) = qualifier out of range (m) = manual integration

WCAL2.D W110816.M

Mon Nov 21 15:41:23 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL2.D

Vial: 5

Acq On : 8 Nov 2016 17:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT2

Inst : VMS3

Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:14:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:07:03 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	62009	2.1458	ug/L	96
40) 111trichlota	6.72	97	53965	2.1015	ug/L	95
42) Cyclohexane	6.81	56	90725	2.1661	ug/L	94
43) Carbtetraclo	6.93	119	40441	1.9932	ug/L	97
44) 11dicloprope	6.92	110	16909	1.9839	ug/L	92
46) Benzene	7.17	78	147332	2.1928	ug/L	98
47) 12dichlorota	7.17	62	65324	2.2431	ug/L	95
48) TAME	7.33	73	100519	2.1004	ug/L	100
49) trichloroete	7.98	95	32887	1.9658	ug/L	92
50) methylcyclohexane	8.24	83	60317	2.0828	ug/L	92
51) 12dicloropra	8.22	63	49522	2.1209	ug/L	94
52) 23Dicl1propene	8.29	75	52140	1.9863	ug/L	94
53) Dibromometha	8.37	93	23732	2.1043	ug/L	97
54) methylmethacrylate	8.40	69	38472	2.1249	ug/L	100
55) 14dioxane	8.41	88	33919	113.7485	ug/L	98
56) Bromodiclma	8.57	83	43977	2.0853	ug/L	93
57) 2Nitropropane	8.83	43	263993	21.5649	ug/L	98
58) 2CLEVE	8.97	63	15831	8.9990	ug/L	75
59) c13dicloproe	9.14	75	55633	1.9082	ug/L	98
60) 4Meth2Pentan	9.34	43	910887	26.8256	ug/L	94
62) Toluene	9.59	92	83739	2.0206	ug/L #	82
63) t13Dicloprop	9.86	75	50533	1.9590	ug/L	93
64) ethylmethacrylate	10.00	69	111382	4.1953	ug/L	98
65) 112Triclotha	10.09	83	29216	2.0721	ug/L	88
66) Tetrachlorte	10.32	166	32784	1.9635	ug/L	91
67) 13Diclorpropa	10.31	76	60688	2.0919	ug/L	99
69) 2Hexanone	10.43	43	743477	26.6972	ug/L	95
70) Clorodibrmta	10.61	129	30172	1.9498	ug/L	82
71) 12Dibrometha	10.76	107	31807	1.8915	ug/L	86
72) Chlorobenzen	11.45	112	95509	2.1933	ug/L	94
73) 1Clhexane	11.44	91	51751	2.2034	ug/L	93
74) 1112Tetclota	11.56	131	30118	2.0345	ug/L	88
75) Ethylbenzene	11.61	91	164761	2.2009	ug/L	96
76) m p-Xylene	11.78	106	126667	4.3844	ug/L	98
77) o-Xylene	12.31	106	51936	1.8620	ug/L #	86
78) Styrene	12.33	104	88868	1.9841	ug/L	94
79) Bromoform	12.54	173	20820	1.7649	ug/L	84
80) Isopropylben	12.84	105	149434	2.2113	ug/L	99
81) cyclohexanone	12.92	55	63396	37.1170	ug/L	94
84) Bromobenzene	13.25	156	37211	2.2419	ug/L #	83
85) 1122Tetrclta	13.23	83	54360	2.0268	ug/L	97
86) 123Tric1proa	13.27	75	70036	2.0957	ug/L	96
87) 14dichloro2butene	13.31	53	21210	2.1595	ug/L	83
88) n-Propylbenz	13.43	91	175430	2.2513	ug/L	98
89) 2chlorotolue	13.54	91	103875	2.1811	ug/L	99
90) 4chlorotolue	13.69	91	113160	2.1452	ug/L	100
91) 135Trimebenz	13.68	105	113678	2.1459	ug/L	92
92) tbutylbenzen	14.15	119	90579	2.0707	ug/L	98
93) 124Trimetben	14.22	105	117068	2.1749	ug/L	93
94) sbutylbenzen	14.47	105	140806	2.1622	ug/L	96
95) 13Diclorbenz	14.61	146	56529	2.0406	ug/L	92
96) pIsopropylto	14.69	119	113288	2.1027	ug/L	99
97) 14dichlorobe	14.73	146	60653	2.1169	ug/L	92
98) 12dichlorobe	15.27	146	53634	1.9987	ug/L	87
99) nButylbenzen	15.29	91	116158	2.2035	ug/L	97
100) 12dibromo3cl	16.35	157	10240	1.7259	ug/L #	75
101) 135Trichlorobenzene	16.71	180	39811	2.1070	ug/L	98

(#) = qualifier out of range (m) = manual integration

WCAL2.D W110816.M

Mon Nov 21 15:41:23 2016

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Page 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL2.D

Vial: 5

Acq On : 8 Nov 2016 17:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT2

Inst : VMS3

Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:14:35 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:07:03 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.51	180	33896	1.9606	ug/L	97
103) Hexachlorobu	17.78	225	15318	1.9737	ug/L	92
104) Naphthalene	17.83	128	110940	2.1635	ug/L	97
105) 123Trichlben	18.14	180	32919	2.2112	ug/L	93

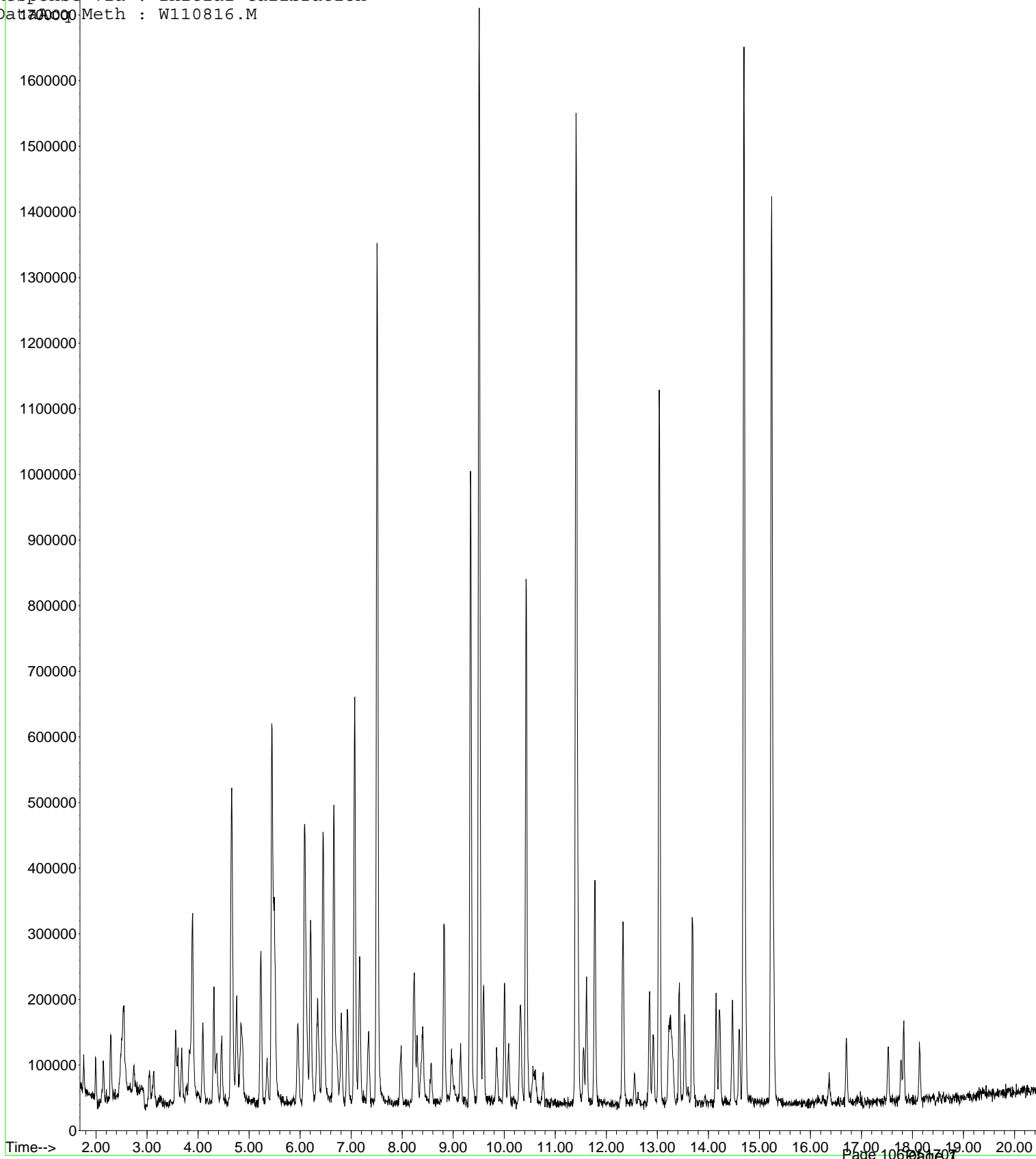
(#) = qualifier out of range (m) = manual integration

WCAL2.D W110816.M Mon Nov 21 15:41:23 2016

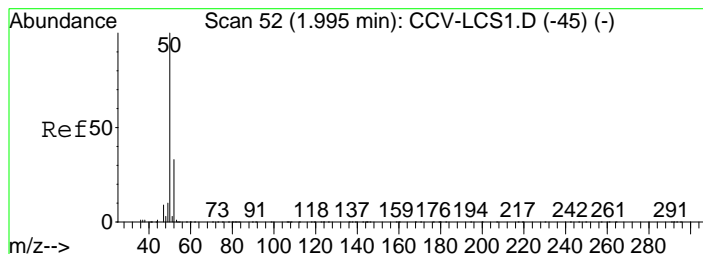
Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL2.D Vial: 5
Acq On : 8 Nov 2016 17:34 Operator: AGK-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:14:35 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:07:03 2016
Response via : Initial Calibration
Data File : W110816.M

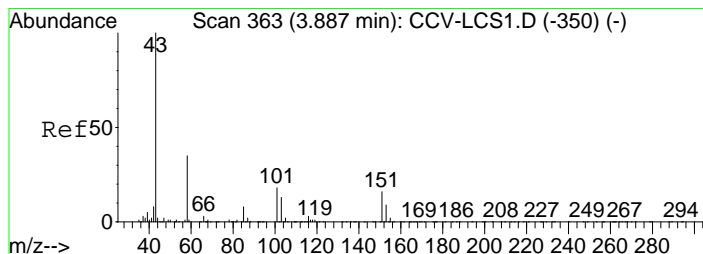
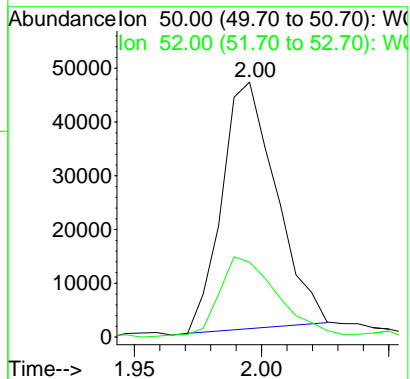
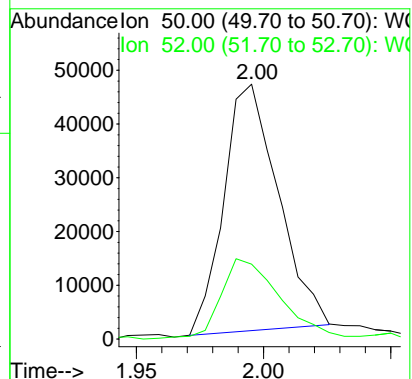
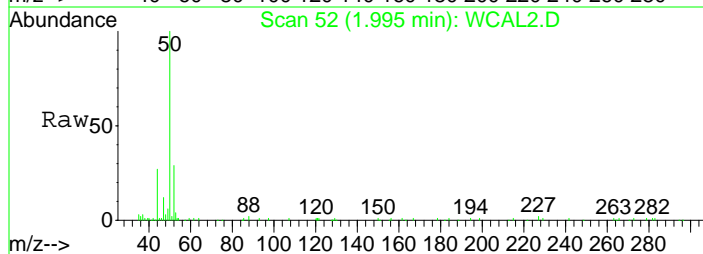


Agk 11/21/16



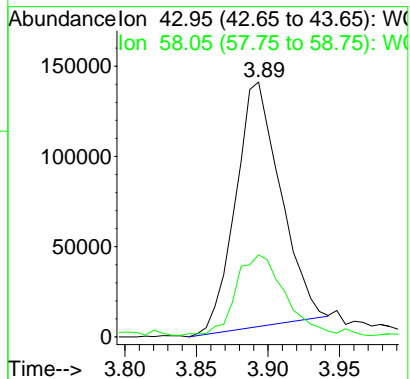
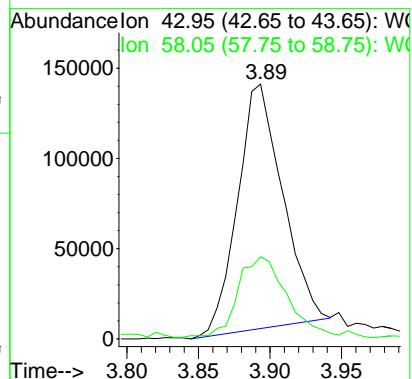
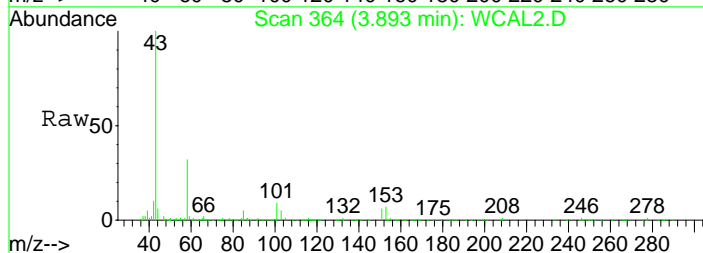
#3
Chloromethan
Concen: 1.78 ug/L m
RT: 2.00 min Scan# 52
Delta R.T. 0.00 min
Lab File: WCAL2.D
Acq: 8 Nov 2016 17:34

Tgt Ion	Resp	Lower	Upper
50	100		
52	36.4	13.9	53.9



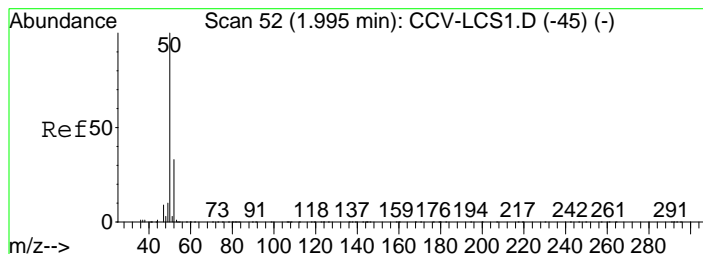
#15
Acetone
Concen: 19.46 ug/L m
RT: 3.89 min Scan# 364
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 8 Nov 2016 17:34

Tgt Ion	Resp	Lower	Upper
43	100		
58	36.6	13.0	53.0



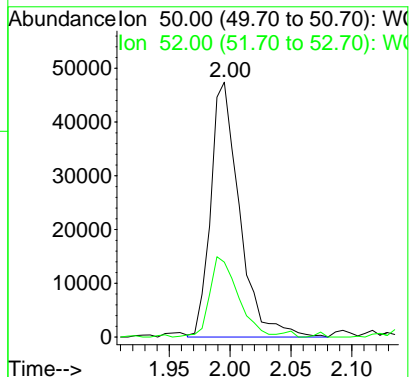
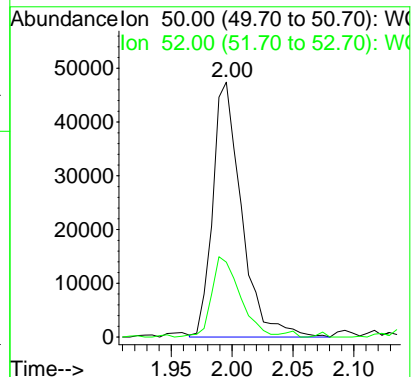
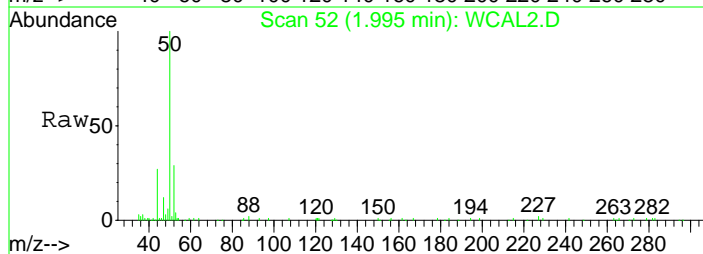
Rd 11/21/2016

Agk 11/21/16

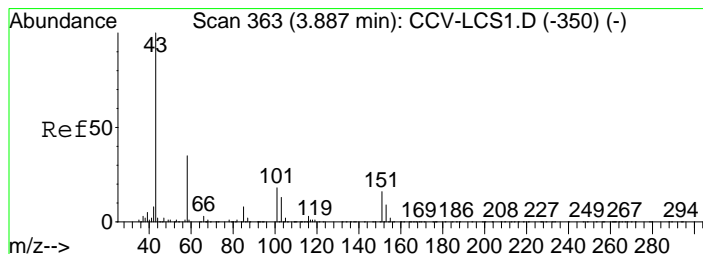


#3
Chloromethan
Concen: 2.01 ug/L
RT: 2.00 min Scan# 52
Delta R.T. 0.00 min
Lab File: WCAL2.D
Acq: 8 Nov 2016 17:34

Tgt Ion	50	Resp	78141
Ion Ratio	Lower	Upper	
50	100		
52	32.0	13.9	53.9

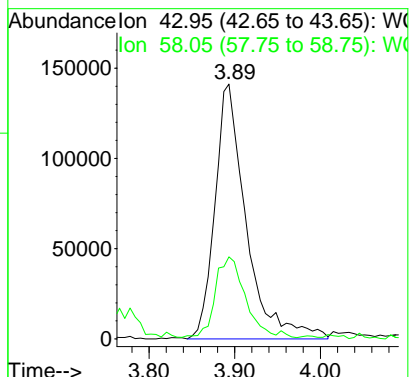
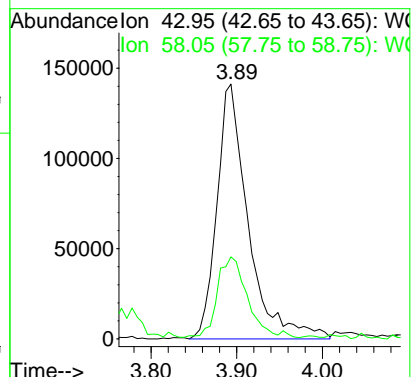
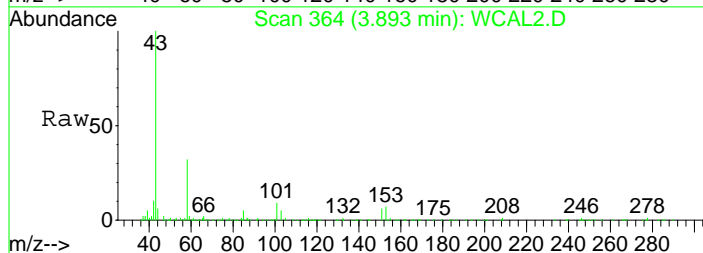


REASON # 2



#15
Acetone
Concen: 22.27 ug/L
RT: 3.89 min Scan# 364
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 8 Nov 2016 17:34

Tgt Ion	43	Resp	358200
Ion Ratio	Lower	Upper	
43	100		
58	30.5	13.0	53.0



REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL3.D

Vial: 6

Acq On : 8 Nov 2016 18:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT3

Inst : VMS3

Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:21 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:08 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1347090	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	987387	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	497067	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	332569	19.807	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 99	%
45) SURR12DCAd4	7.07	102	89721	19.735	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 99	%
61) SURRD8Tolule	9.51	98	1310457	19.169	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 96	%
83) SURR4BrFBenz	13.04	95	455999	19.619	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 98	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	85126	3.9897	ug/L	92
3) Chloromethan	2.00	50	183129	3.6565	ug/L	95
4) VinylChlorid	2.15	62	130827	3.9934	ug/L	98
5) Bromomethane	2.58	94	34355	4.1073	ug/L	94
6) Chloroethane	2.74	64	86409	4.3652	ug/L	99
7) Dichloroflmethane	3.05	67	155332	4.3686	ug/L	99
8) Trichlorofma	3.12	101	101892	4.2256	ug/L	97
9) Ethylether	3.55	59	94445	4.4079	ug/L	95
10) dichlorofluoroethan	3.56	67	97362	4.4837	ug/L	91
11) propyleneoxide	3.89	58	253019	38.7169	ug/L	91
12) Acrolein	3.68	56	217090	22.1008	ug/L	94
13) 11dichlorothe	3.83	96	73700	4.2757	ug/L	95
14) Trichlorotfluoroeth	3.87	101	123552	8.4777	ug/L	99
15) Acetone	3.89	43	810519	38.2312	ug/L	97
16) Iodomethane	4.00	142	46144	7.9322	ug/L	81
17) Carbon Dislf	4.09	76	408953	8.3469	ug/L	99
18) allylchloride	4.30	41	327880	9.0286	ug/L	97
19) methylacetate	4.36	74	58778	5.1134	ug/L	98
20) Methylchlorid	4.47	84	95117	4.6158	ug/L	92
21) tbutylalcohol	4.65	59	1910542	239.7659	ug/L	100
22) Acrylonitrile	4.75	53	434002	25.6839	ug/L	98
23) t12dichlorote	4.84	96	72757	4.1411	ug/L	95
24) MtBE	4.85	73	243452	4.6156	ug/L	98
25) Hexane	5.23	57	305578	8.3942	ug/L	96
26) 11dichlorota	5.35	63	189562	4.6713	ug/L	97
27) Vinylacetate	5.44	43	2708567	47.7612	ug/L	99
28) chloroprene	5.49	53	370679	9.4945	ug/L	99
29) Diisopether	5.51	45	418300	4.4840	ug/L	98
30) ETBE	5.96	59	335592	4.7692	ug/L	97
31) 22dichloropr	6.08	77	115095	3.9460	ug/L	95
32) c12dichlorote	6.08	96	99241	4.7074	ug/L	93
33) 2Butanone	6.09	72	231073	45.6493	ug/L	98
34) propionitrile	6.13	54	385455	50.7549	ug/L	98
35) Ethylacetate	6.21	88	29097	23.3954	ug/L	# 86
36) methacrylonitrile	6.34	67	121205	9.1319	ug/L	89
37) Bromochloroma	6.36	128	36362	4.4233	ug/L	94
38) Tetrahydofur	6.45	42	895932	48.9060	ug/L	98

(#) = qualifier out of range (m) = manual integration

WCAL3.D W110816.M

Mon Nov 21 15:41:30 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL3.D

Vial: 6

Acq On : 8 Nov 2016 18:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT3

Inst : VMS3

Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:21 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:08 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	139563	4.3263	ug/L	98
40) 111trichlota	6.72	97	120253	4.3500	ug/L	98
42) Cyclohexane	6.81	56	187460	4.1172	ug/L	96
43) Carbtetraclo	6.94	119	89388	4.1570	ug/L	98
44) 11dicloroprope	6.92	110	37794	3.7855	ug/L	90
46) Benzene	7.17	78	341521	4.4694	ug/L	97
47) 12dichlorota	7.17	62	148943	4.5628	ug/L	98
48) TAME	7.34	73	242224	4.6965	ug/L	96
49) trichloroete	7.97	95	79851	4.4099	ug/L	97
50) methylcyclohexane	8.24	83	121218	3.7178	ug/L	93
51) 12dicloropra	8.22	63	119508	4.8632	ug/L	94
52) 23Dicl1propene	8.29	75	132798	4.7882	ug/L	98
53) Dibromometha	8.36	93	59249	4.8741	ug/L	95
54) methylmethacrylate	8.40	69	88047	4.6346	ug/L	96
55) 14dioxane	8.41	88	82403	250.1382	ug/L	93
56) Bromodiclma	8.57	83	100573	4.5460	ug/L	100
57) 2Nitropropane	8.82	43	681480	48.9249	ug/L	97
58) 2CLEVE	8.97	63	25870	15.3612	ug/L	84
59) c13diclorproe	9.15	75	149196	4.7938	ug/L	99
60) 4Meth2Pentan	9.34	43	2179426	46.7794	ug/L	97
62) Toluene	9.60	92	214908	4.8174	ug/L	99
63) t13Dicloroprop	9.86	75	128331	4.7223	ug/L	96
64) ethylmethacrylate	10.01	69	269683	9.4094	ug/L	97
65) 112Triclotha	10.09	83	63749	4.1117	ug/L	91
66) Tetrachlorte	10.32	166	75752	4.1731	ug/L	93
67) 13Diclorpropa	10.31	76	140422	4.4736	ug/L	98
69) 2Hexanone	10.43	43	1800993	47.3979	ug/L	99
70) Clorodibrmta	10.61	129	77399	4.7259	ug/L	93
71) 12Dibromometha	10.76	107	82805	4.4107	ug/L	95
72) Chlorobenzen	11.45	112	232720	4.6874	ug/L	98
73) 1Clhexane	11.44	91	105384	3.9371	ug/L	89
74) 1112Tetclota	11.55	131	73592	4.5852	ug/L	92
75) Ethylbenzene	11.61	91	385313	4.3884	ug/L	99
76) m p-Xylene	11.78	106	290982	8.7684	ug/L	98
77) o-Xylene	12.32	106	141813	4.7728	ug/L	96
78) Styrene	12.33	104	221370	4.5454	ug/L	97
79) Bromoform	12.56	173	59252	4.8655	ug/L	95
80) Isopropylben	12.84	105	348325	4.5775	ug/L	97
81) cyclohexanone	12.92	55	178689	96.4256	ug/L	98
84) Bromobenzene	13.24	156	87170	4.7214	ug/L	94
85) 1122Tetrclta	13.22	83	141646	4.5544	ug/L	97
86) 123Triclproa	13.28	75	176541	4.8621	ug/L	95
87) 14dichloro2butene	13.31	53	46638	4.4126	ug/L	97
88) n-Propylbenz	13.43	91	421870	4.6328	ug/L	100
89) 2chlorotolue	13.54	91	251101	4.4712	ug/L	100
90) 4chlorotolue	13.69	91	275247	4.5628	ug/L	97
91) 135Trimebenz	13.69	105	281596	4.7575	ug/L	95
92) tbutylbenzen	14.15	119	240084	5.1680	ug/L	97
93) 124Trimetben	14.22	105	289347	4.7081	ug/L	97
94) sbutylbenzen	14.47	105	341904	4.6575	ug/L	99
95) 13Diclorbenz	14.60	146	143696	4.7408	ug/L	99
96) pIsopropylto	14.69	119	284454	4.7051	ug/L	97
97) 14dichlorobe	14.73	146	149409	4.5579	ug/L	93
98) 12dichlorobe	15.26	146	138912	4.5848	ug/L	95
99) nButylbenzen	15.28	91	269060	4.4027	ug/L	98
100) 12dibromo3cl	16.36	157	30602	5.3078	ug/L	87
101) 135Trichlorobenzene	16.71	180	95223	4.4672	ug/L	95

(#)=qualifier out of range (m)=manual integration

WCAL3.D W110816.M

Mon Nov 21 15:41:30 2016

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Page 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL3.D Vial: 6
Acq On : 8 Nov 2016 18:04 Operator: AGK-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:21 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:08 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	82968	4.1413	ug/L	99
103) Hexachlorobu	17.78	225	39107	4.8109	ug/L	91
104) Naphthalene	17.82	128	271312	4.8331	ug/L	99
105) 123Trichlben	18.14	180	75566	4.7869	ug/L	97

(#) = qualifier out of range (m) = manual integration

WCAL3.D W110816.M Mon Nov 21 15:41:30 2016

TIC: WCAL3.D

Data File : C:\INSTARCH\DATA\NOV0816\WCAL3.D

Vial: 6

Acq. On : 8 Nov 2016 18:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT3

Inst : VMS3

Misc	: 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS
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Multiplr: 1.00

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MS27000 Migration Params: VOC.P
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Quant Time: Nov 09 08:05:21 2016

Results File: W110816.RES

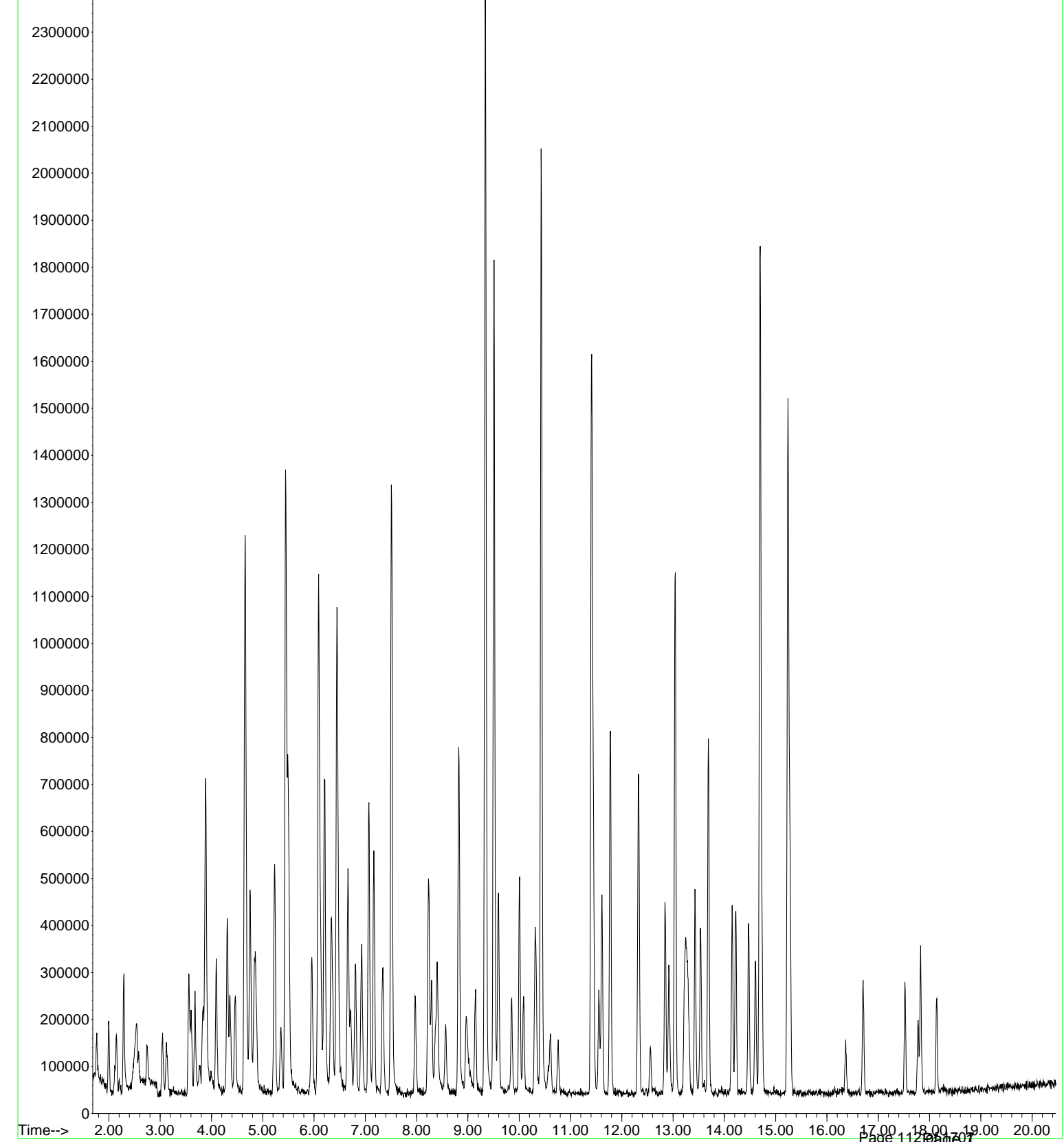
Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title: 8260C Waters Method

Last Update : Wed Nov 09 08:05:08 2016

Response via : Initial Calibration

2400000
DataAcq Meth : W110816.M



Time-->

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL4.D

Vial: 7

Acq On : 8 Nov 2016 18:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT4

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:36 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:28 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1340986	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	996724	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	496672	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	326828	19.601	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 98	%
45) SURR12DCAd4	7.07	102	91669	20.323	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 102	%
61) SURRD8Tolule	9.51	98	1359106	20.181	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 101	%
83) SURR4BrFBenz	13.04	95	477812	20.673	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 103	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	213543	10.5889	ug/L	100
3) Chloromethan	2.00	50	359791	7.7362	ug/L	100
4) VinylChlorid	2.15	62	309140	9.9816	ug/L	100
5) Bromomethane	2.57	94	73277	9.2116	ug/L	100
6) Chloroethane	2.74	64	171907	9.0099	ug/L	100
7) Dichloroflmethane	3.04	67	311938	9.1003	ug/L	100
8) Trichlorofma	3.12	101	228874	9.9190	ug/L	100
9) Ethylether	3.55	59	187133	9.0412	ug/L	100
10) dichlorotfluoroethan	3.56	67	205469	9.7573	ug/L	100
11) propyleneoxide	3.89	58	470131	76.5875	ug/L	100
12) Acrolein	3.67	56	428252	45.1042	ug/L	100
13) 11dichlorothe	3.83	96	154146	9.3211	ug/L	100
14) Trichlorotfluoroeth	3.88	101	283293	20.2995	ug/L	100
15) Acetone	3.89	43	1422610	71.6228	ug/L	100
16) Iodomethane	4.00	142	97420	17.7399	ug/L	100
17) Carbon Dislf	4.09	76	854379	18.2728	ug/L	100
18) allylchloride	4.31	41	692017	19.6187	ug/L	100
19) methylacetate	4.36	74	102844	8.9370	ug/L	100
20) Methylchlorid	4.46	84	171417	8.5200	ug/L	100
21) tbutylalcohol	4.66	59	3107717	395.8332	ug/L	100
22) Acrylonitrile	4.75	53	791448	46.7309	ug/L	100
23) t12dichlorite	4.84	96	153581	9.1751	ug/L	100
24) MtBE	4.86	73	473652	9.1977	ug/L	100
25) Hexane	5.23	57	716527	20.5995	ug/L	100
26) 11dichlorota	5.35	63	375353	9.4471	ug/L	100
27) Vinylacetate	5.44	43	4323837	77.4580	ug/L	100
28) chloroprene	5.48	53	797141	20.7733	ug/L	100
29) Diisopether	5.51	45	840685	9.2926	ug/L	100
30) ETBE	5.96	59	651566	9.4103	ug/L	100
31) 22dichloropr	6.08	77	251519	9.1444	ug/L	100
32) c12dichlorite	6.08	96	188277	9.1046	ug/L	100
33) 2Butanone	6.10	72	447174	90.7163	ug/L	100
34) propionitrile	6.13	54	694913	91.5737	ug/L	100
35) Ethylacetate	6.21	88	51316	42.1243	ug/L	100
36) methacrylonitrile	6.34	67	255756	19.7865	ug/L	100
37) Bromochloroma	6.36	128	75961	9.5581	ug/L	100
38) Tetrahydofur	6.44	42	1586698	87.4854	ug/L	100

(#) = qualifier out of range (m) = manual integration

WCAL4.D W110816.M

Mon Nov 21 15:41:32 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL4.D

Vial: 7

Acq On : 8 Nov 2016 18:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT4

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:36 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:28 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	296480	9.5543	ug/L	100
40) 111trichlota	6.71	97	258492	9.7088	ug/L	100
42) Cyclohexane	6.81	56	452801	10.4516	ug/L	100
43) Carbtetraclo	6.94	119	203415	9.9211	ug/L	100
44) 11dicloprope	6.92	110	88367	9.4662	ug/L	100
46) Benzene	7.17	78	719672	9.7188	ug/L	100
47) 12dichlorota	7.16	62	285884	8.9944	ug/L	100
48) TAME	7.34	73	488116	9.6537	ug/L	100
49) trichloroete	7.98	95	174079	9.9512	ug/L	100
50) methylcyclohexane	8.24	83	300825	9.9034	ug/L	100
51) 12dicloropra	8.23	63	245905	10.1215	ug/L	100
52) 23Dicl1propene	8.29	75	274635	10.0539	ug/L	100
53) Dibromometha	8.36	93	109872	9.1373	ug/L	100
54) methylmethacrylate	8.40	69	182559	9.8329	ug/L	100
55) 14dioxane	8.41	88	138349	421.8183	ug/L	100
56) Bromodiclma	8.57	83	218879	10.1694	ug/L	100
57) 2Nitropropane	8.82	43	1277763	92.6488	ug/L	100
58) 2CLEVE	8.96	63	56585	37.3525	ug/L	100
59) c13dicloproe	9.15	75	285964	9.3263	ug/L	100
60) 4Meth2Pentan	9.34	43	3852546	84.4273	ug/L	100
62) Toluene	9.59	92	430458	9.7824	ug/L	100
63) t13Dicloprop	9.85	75	253755	9.5123	ug/L	100
64) ethylmethacrylate	10.00	69	538229	19.1474	ug/L	100
65) 112Triclotha	10.08	83	137011	9.2898	ug/L	100
66) Tetrachlorte	10.32	166	179234	10.3466	ug/L	100
67) 13Diclorpropa	10.31	76	303086	9.9619	ug/L	100
69) 2Hexanone	10.43	43	3224363	85.1708	ug/L	100
70) Clorodibrmta	10.60	129	144767	8.8782	ug/L	100
71) 12Dibrometha	10.76	107	168320	9.1515	ug/L	100
72) Chlorobenzen	11.45	112	446707	9.0547	ug/L	100
73) 1Clhexane	11.43	91	240815	9.4128	ug/L	100
74) 1112Tetclota	11.56	131	144718	9.1215	ug/L	100
75) Ethylbenzene	11.61	91	804412	9.3620	ug/L	100
76) m p-Xylene	11.78	106	613634	18.8999	ug/L	100
77) o-Xylene	12.32	106	291728	9.8381	ug/L	100
78) Styrene	12.34	104	456555	9.5027	ug/L	100
79) Bromoform	12.56	173	124435	10.1908	ug/L	100
80) Isopropylben	12.84	105	724987	9.6418	ug/L	100
81) cyclohexanone	12.92	55	347404	187.3873	ug/L	100
84) Bromobenzene	13.24	156	175680	9.6574	ug/L	100
85) 1122Tetrclta	13.22	83	280213	9.2224	ug/L	100
86) 123Tric1proa	13.28	75	358742	9.9565	ug/L	100
87) 14dichloro2butene	13.30	53	98638	9.6226	ug/L	100
88) n-Propylbenz	13.43	91	908278	10.1690	ug/L	100
89) 2chlorotolue	13.54	91	514795	9.4231	ug/L	100
90) 4chlorotolue	13.69	91	584694	9.9170	ug/L	100
91) 135Trimebenz	13.69	105	596481	10.2092	ug/L	100
92) tbutylbenzen	14.15	119	501390	10.7114	ug/L	100
93) 124Trimetben	14.22	105	611799	10.1103	ug/L	100
94) sbutylbenzen	14.47	105	741576	10.2861	ug/L	100
95) 13Diclorbenz	14.61	146	304901	10.1995	ug/L	100
96) pIsopropylto	14.69	119	605543	10.1742	ug/L	100
97) 14dichlorobe	14.73	146	312172	9.7461	ug/L	100
98) 12dichlorobe	15.26	146	280148	9.4498	ug/L	100
99) nButylbenzen	15.28	91	596655	10.0718	ug/L	100
100) 12dibromo3cl	16.36	157	61452	10.5054	ug/L	100
101) 135Trichlorobenzene	16.71	180	212177	10.2344	ug/L	100

(#)=qualifier out of range (m)=manual integration

WCAL4.D W110816.M

Mon Nov 21 15:41:32 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL4.D

Vial: 7

Acq On : 8 Nov 2016 18:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT4

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:36 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:28 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	179472	9.3676	ug/L	100
103) Hexachlorobu	17.78	225	84194	10.4647	ug/L	100
104) Naphthalene	17.82	128	563551	10.1316	ug/L	100
105) 123Trichlben	18.14	180	154834	9.9219	ug/L	100

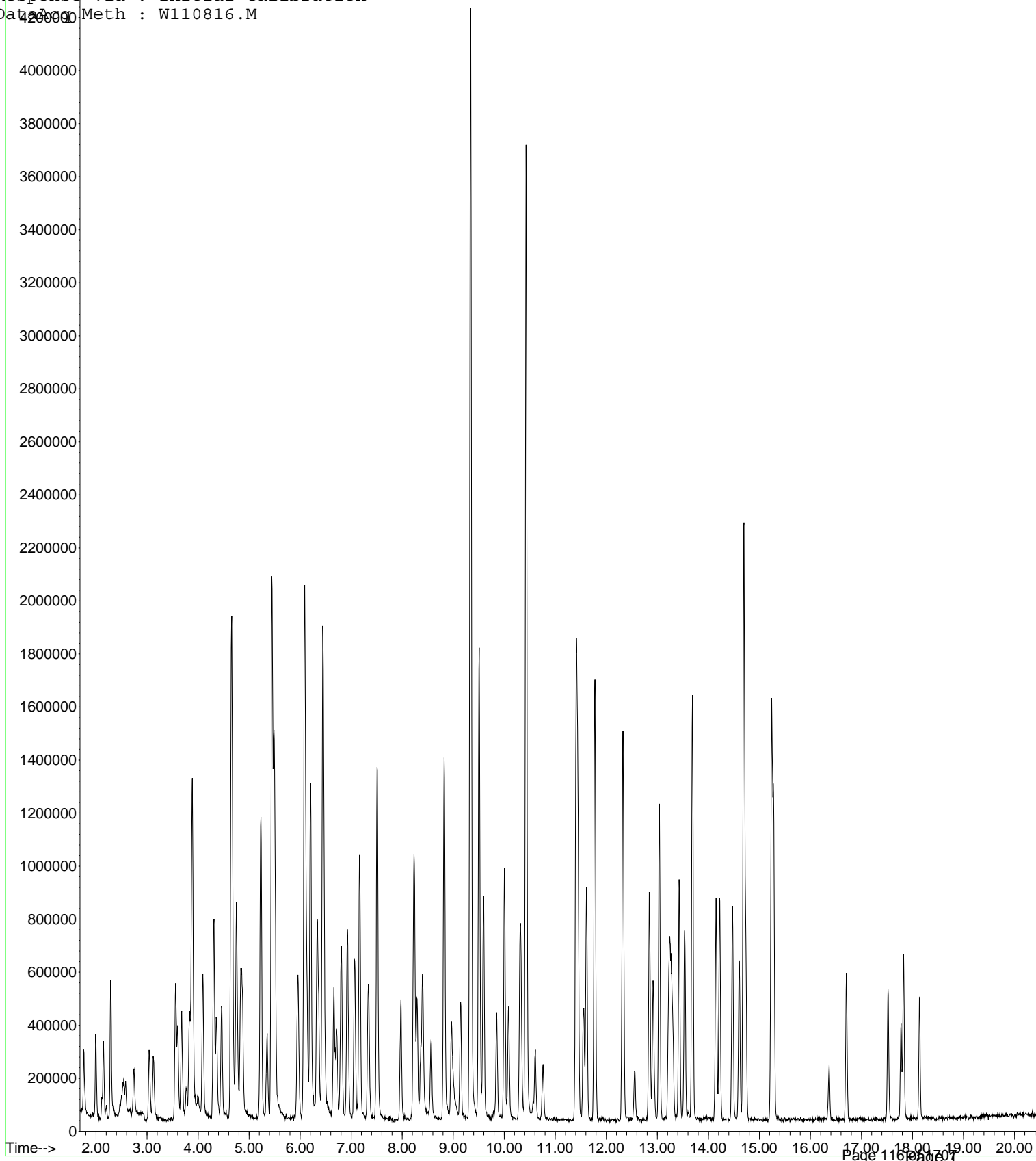
(#) = qualifier out of range (m) = manual integration

WCAL4.D W110816.M Mon Nov 21 15:41:32 2016

Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL4.D Vial: 7
Acq On : 8 Nov 2016 18:34 Operator: AGK-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:36 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:05:28 2016
Response via : Initial Calibration
Data Meth : W110816.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL5.D

Vial: 8

Acq On : 8 Nov 2016 19:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT5

Inst : VMS3

Misc : 20.00/200 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:49 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:42 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1413252	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1031514	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	554580	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	352538	20.062	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
45) SURR12DCAd4	7.06	102	92211	19.398	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 97	%
61) SURRD8Tolule	9.51	98	1446236	20.375	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 102	%
83) SURR4BrFBenz	13.04	95	507367	19.659	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 98	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	424022	19.9507	ug/L	100
3) Chloromethan	2.00	50	726546	14.8234	ug/L	97
4) VinylChlorid	2.15	62	638325	19.5565	ug/L	98
5) Bromomethane	2.57	94	161917	19.3137	ug/L	93
6) Chloroethane	2.74	64	352779	17.5442	ug/L	97
7) Dichloroflmethane	3.04	67	676925	18.7383	ug/L	97
8) Trichlorofma	3.13	101	466001	19.1630	ug/L	98
9) Ethylether	3.55	59	397687	18.2314	ug/L	99
10) dichlorotfluoroethan	3.56	67	404947	18.2467	ug/L	95
11) propyleneoxide	3.89	58	956946	147.9214	ug/L	96
12) Acrolein	3.68	56	931295	93.0699	ug/L	100
13) 11dichlorothe	3.83	96	313314	17.9771	ug/L	97
14) Trichlorotfluoroeth	3.88	101	612216	41.6255	ug/L	99
15) Acetone	3.89	43	2814166	134.4373	ug/L	98
16) Iodomethane	4.00	142	296182	51.1759	ug/L	95
17) Carbon Dislf	4.09	76	1729867	35.1052	ug/L	100
18) allylchloride	4.31	41	1401856	37.7105	ug/L	98
19) methylacetate	4.36	74	216172	17.8245	ug/L	98
20) Methylchlorid	4.47	84	357788	16.8740	ug/L	96
21) tbutylalcohol	4.66	59	6201536	748.7454	ug/L	95
22) Acrylonitrile	4.75	53	1680820	94.1689	ug/L	99
23) t12dichlorote	4.83	96	336384	19.0685	ug/L	91
24) MtBE	4.86	73	1030744	18.9922	ug/L	99
25) Hexane	5.23	57	1457831	39.7681	ug/L	98
26) 11dichlorota	5.35	63	790212	18.8715	ug/L	97
27) Vinylacetate	5.44	43	8429644	143.2883	ug/L	94
28) chloroprene	5.49	53	1637036	40.4793	ug/L	99
29) Diisopether	5.51	45	1748987	18.3441	ug/L	96
30) ETBE	5.96	59	1374282	18.8332	ug/L	99
31) 22dichloropr	6.08	77	558044	19.2512	ug/L	99
32) c12dichlorote	6.08	96	403329	18.5067	ug/L	95
33) 2Butanone	6.09	72	999724	192.2569	ug/L	98
34) propionitrile	6.13	54	1558197	194.8352	ug/L	99
35) Ethylacetate	6.20	88	124368	96.8708	ug/L #	83
36) methacrylonitrile	6.33	67	561290	41.2035	ug/L	96
37) Bromochloroma	6.36	128	155137	18.5225	ug/L #	90
38) Tetrahydofur	6.44	42	3441478	180.0491	ug/L	98

(#) = qualifier out of range (m) = manual integration

WCAL5.D W110816.M

Mon Nov 21 15:41:35 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL5.D

Vial: 8

Acq On : 8 Nov 2016 19:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT5

Inst : VMS3

Misc : 20.00/200 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:49 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:42 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	610318	18.6622	ug/L	97
40) 111trichlota	6.72	97	553739	19.7346	ug/L	98
42) Cyclohexane	6.81	56	947681	20.7559	ug/L	99
43) Carbtetraclo	6.93	119	443643	20.5312	ug/L	96
44) 11dicloprope	6.92	110	167524	17.0281	ug/L #	85
46) Benzene	7.17	78	1451486	18.5993	ug/L	97
47) 12dichlorota	7.16	62	614872	18.3558	ug/L	100
48) TAME	7.34	73	1037410	19.4681	ug/L	100
49) trichloroete	7.97	95	358977	19.4715	ug/L	97
50) methylcyclohexane	8.24	83	631434	19.7244	ug/L	98
51) 12dicloropra	8.22	63	509046	19.8810	ug/L	92
52) 23Dicl1propene	8.29	75	576874	20.0385	ug/L	96
53) Dibromometha	8.36	93	232334	18.3336	ug/L	99
54) methylmethacrylate	8.40	69	393946	20.1334	ug/L	98
55) 14dioxane	8.41	88	317746	918.2543	ug/L	97
56) Bromodiclma	8.57	83	463805	20.4471	ug/L	97
57) 2Nitropropane	8.82	43	2769406	190.5377	ug/L	99
58) 2CLEVE	8.95	63	224994	140.9271	ug/L	94
59) c13dicloproe	9.14	75	636168	19.6868	ug/L	96
60) 4Meth2Pentan	9.34	43	6851329	142.4672	ug/L	91
62) Toluene	9.59	92	899002	19.3857	ug/L	97
63) t13Dicloprop	9.85	75	574503	20.4346	ug/L	98
64) ethylmethacrylate	10.01	69	1158503	39.1061	ug/L	99
65) 112Triclotha	10.09	83	311072	20.0133	ug/L	96
66) Tetrachlorte	10.33	166	365163	20.0017	ug/L	97
67) 13Diclorpropa	10.31	76	627226	19.5616	ug/L	100
69) 2Hexanone	10.43	43	5928479	151.3178	ug/L	91
70) Clorodibrmta	10.61	129	351781	20.8463	ug/L	89
71) 12Dibrometha	10.76	107	366483	19.2535	ug/L	97
72) Chlorobenzen	11.45	112	932029	18.2550	ug/L	97
73) 1Clhexane	11.44	91	522750	19.7436	ug/L	94
74) 1112Tetclota	11.56	131	322533	19.6434	ug/L	92
75) Ethylbenzene	11.61	91	1658933	18.6561	ug/L	98
76) m p-Xylene	11.78	106	1277987	38.0343	ug/L	97
77) o-Xylene	12.33	106	634943	20.6903	ug/L	96
78) Styrene	12.33	104	1014015	20.3938	ug/L	100
79) Bromoform	12.56	173	263014	20.8135	ug/L	91
80) Isopropylben	12.85	105	1530494	19.6679	ug/L	96
81) cyclohexanone	12.92	55	800321	417.1280	ug/L	99
84) Bromobenzene	13.25	156	375980	18.5101	ug/L	95
85) 1122Tetrclta	13.22	83	600721	17.7066	ug/L	94
86) 123Tric1proa	13.28	75	784622	19.5026	ug/L	98
87) 14dichloro2butene	13.30	53	240282	20.9930	ug/L	98
88) n-Propylbenz	13.43	91	1864101	18.6911	ug/L	99
89) 2chlorotolue	13.54	91	1071291	17.5620	ug/L	96
90) 4chlorotolue	13.69	91	1243045	18.8818	ug/L	99
91) 135Trimebenz	13.69	105	1268956	19.4513	ug/L	96
92) tbutylbenzen	14.15	119	1067024	20.4150	ug/L	98
93) 124Trimetben	14.22	105	1255728	18.5847	ug/L	96
94) sbutylbenzen	14.47	105	1601242	19.8910	ug/L	100
95) 13Diclorbenz	14.61	146	657247	19.6903	ug/L	96
96) pIsopropylto	14.69	119	1294263	19.4753	ug/L	96
97) 14dichlorobe	14.73	146	635999	17.7828	ug/L	97
98) 12dichlorobe	15.27	146	621964	18.7891	ug/L	92
99) nButylbenzen	15.28	91	1244964	18.8212	ug/L	97
100) 12dibromo3cl	16.36	157	152657	23.3722	ug/L	86
101) 135Trichlorobenzene	16.71	180	444851	19.2170	ug/L	96

(#) = qualifier out of range (m) = manual integration

WCAL5.D W110816.M

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Page 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL5.D

Vial: 8

Acq On : 8 Nov 2016 19:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT5

Inst : VMS3

Misc : 20.00/200 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:05:49 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:05:42 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	390009	18.2310	ug/L	98
103) Hexachlorobu	17.78	225	184886	20.5804	ug/L	97
104) Naphthalene	17.82	128	1268225	20.4195	ug/L	98
105) 123Trichlben	18.14	180	363449	20.8582	ug/L	98

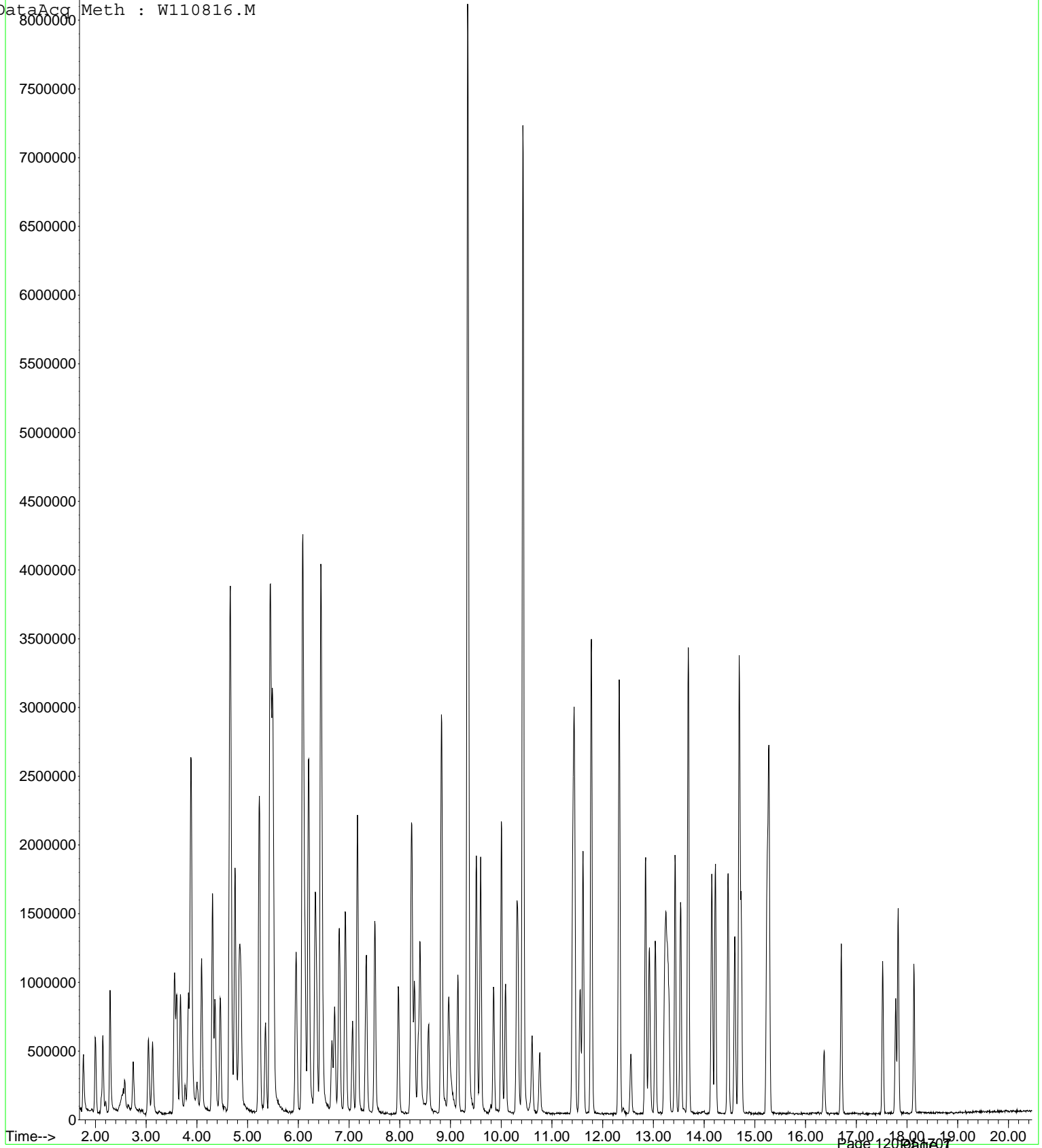
(#) = qualifier out of range (m) = manual integration

WCAL5.D W110816.M Mon Nov 21 15:41:35 2016

Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL5.D Vial: 8
Acq On : 8 Nov 2016 19:04 Operator: AGK-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 20.00/200 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

9000000
Quant Time: Nov 09 08:05:49 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Time : 8260C Waters Method
Last Update : Wed Nov 09 08:05:42 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL6.D

Vial: 9

Acq On : 8 Nov 2016 19:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT6

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:27 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:21 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1428421	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1043561	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	578108	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	367499	20.678	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 103	%
45) SURR12DCAd4	7.07	102	95937	20.088	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 100	%
61) SURRD8Tolule	9.51	98	1458207	20.250	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 101	%
83) SURR4BrFBenz	13.04	95	519328	19.370	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 97	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	628612	29.2773	ug/L	96
3) Chloromethan	2.00	50	1094132	23.2917	ug/L	99
4) VinylChlorid	2.15	62	963197	29.3264	ug/L	98
5) Bromomethane	2.57	94	236575	28.1122	ug/L	100
6) Chloroethane	2.74	64	539809	27.2291	ug/L	98
7) Dichloroflmethane	3.04	67	987182	27.3820	ug/L	98
8) Trichlorofma	3.12	101	705066	28.9282	ug/L	98
9) Ethylether	3.56	59	595998	27.5193	ug/L	98
10) dichlorotfluoroethan	3.56	67	629044	28.5438	ug/L	97
11) propyleneoxide	3.89	58	1303566	210.3137	ug/L	95
12) Acrolein	3.67	56	1368882	137.2502	ug/L	99
13) 11dichlorothe	3.83	96	483597	28.0196	ug/L	97
14) Trichlorotfluoroeth	3.87	101	901310	60.1419	ug/L	99
15) Acetone	3.89	43	3822308	193.3344	ug/L	98
16) Iodomethane	4.00	142	566847	91.7744	ug/L	98
17) Carbon Dislf	4.09	76	2539301	52.2634	ug/L	97
18) allylchloride	4.31	41	2097248	56.4641	ug/L	98
19) methylacetate	4.36	74	327198	27.2862	ug/L	98
20) Methylchlorid	4.47	84	514160	24.7654	ug/L	96
21) tbutylalcohol	4.65	59	7584768	953.9634	ug/L	92
22) Acrylonitrile	4.75	53	2320473	130.1430	ug/L	97
23) t12dichlorote	4.84	96	485913	27.5085	ug/L	98
24) MtBE	4.86	73	1533382	28.2382	ug/L	99
25) Hexane	5.23	57	2115572	57.1641	ug/L	97
26) 11dichlorota	5.35	63	1204025	28.7734	ug/L	99
27) Vinylacetate	5.44	43	10491882	187.0570	ug/L	90
28) chloroprene	5.48	53	2423197	59.1408	ug/L	97
29) Diisopether	5.51	45	2410213	25.4319	ug/L	97
30) ETBE	5.96	59	2039843	27.9837	ug/L	98
31) 22dichloropr	6.08	77	820991	28.2329	ug/L	99
32) c12dichlorote	6.08	96	578187	26.6462	ug/L	99
33) 2Butanone	6.09	72	1331892	255.3937	ug/L	98
34) propionitrile	6.12	54	2113220	262.7858	ug/L	99
35) Ethylacetate	6.20	88	179886	139.4991	ug/L	# 83
36) methacrylonitrile	6.33	67	782141	56.4663	ug/L	97
37) Bromochloroma	6.36	128	235432	28.2278	ug/L	# 89
38) Tetrahydrofur	6.44	42	4425544	233.7374	ug/L	96

(#) = qualifier out of range (m) = manual integration

WCAL6.D W110816.M

Mon Nov 21 15:41:38 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL6.D

Vial: 9

Acq On : 8 Nov 2016 19:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT6

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:27 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:21 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	911280	27.9429	ug/L	96
40) 111trichlota	6.72	97	845825	29.9034	ug/L	99
42) Cyclohexane	6.81	56	1396404	30.0319	ug/L	99
43) Carbtetraclo	6.93	119	678966	30.9237	ug/L	97
44) 11dicloprope	6.92	110	256130	26.5470	ug/L #	89
46) Benzene	7.17	78	2126647	27.3444	ug/L	97
47) 12dichlorota	7.16	62	895661	26.8965	ug/L	98
48) TAME	7.34	73	1552192	28.9733	ug/L	98
49) trichloroete	7.97	95	546028	29.4586	ug/L	97
50) methylcyclohexane	8.24	83	932853	28.9102	ug/L	97
51) 12dicloropra	8.22	63	759614	29.3870	ug/L	99
52) 23Dicl1propene	8.29	75	842297	28.9364	ug/L	94
53) Dibromometha	8.36	93	350204	27.8046	ug/L	98
54) methylmethacrylate	8.40	69	587394	29.6616	ug/L	97
55) 14dioxane	8.41	88	416863	1211.7098	ug/L	93
56) Bromodiclma	8.57	83	695744	30.2114	ug/L	97
57) 2Nitropropane	8.82	43	3774053	259.3551	ug/L	99
58) 2CLEVE	8.96	63	260437	149.1835	ug/L	98
59) c13dicloproe	9.14	75	947259	29.0937	ug/L	99
60) 4Meth2Pentan	9.34	43	8489554	185.3199	ug/L	84
62) Toluene	9.59	92	1328988	28.5287	ug/L	99
63) t13Dicloprop	9.85	75	835132	29.2623	ug/L	99
64) ethylmethacrylate	10.01	69	1737340	58.2828	ug/L	99
65) 112Triclotha	10.08	83	444366	28.2816	ug/L	95
66) Tetrachlorte	10.32	166	536454	29.0716	ug/L	94
67) 13Diclorpropa	10.31	76	935440	28.9913	ug/L	97
69) 2Hexanone	10.43	43	7359425	195.1742	ug/L	86
70) Clorodibrmta	10.61	129	530536	30.8155	ug/L	87
71) 12Dibrometha	10.76	107	546784	28.6077	ug/L	98
72) Chlorobenzen	11.45	112	1407754	27.7384	ug/L	99
73) 1Clhexane	11.44	91	769646	28.8069	ug/L	96
74) 1112Tetclota	11.55	131	499023	30.1489	ug/L	93
75) Ethylbenzene	11.61	91	2424671	27.3198	ug/L	94
76) m p-Xylene	11.78	106	1905473	56.6108	ug/L	93
77) o-Xylene	12.32	106	934978	29.9091	ug/L	98
78) Styrene	12.33	104	1541767	30.5297	ug/L	99
79) Bromoform	12.56	173	402586	31.2365	ug/L	93
80) Isopropylben	12.84	105	2273662	28.9771	ug/L	96
81) cyclohexanone	12.92	55	1071221	547.1899	ug/L	99
84) Bromobenzene	13.24	156	584733	28.0334	ug/L	95
85) 1122Tetrclta	13.22	83	916830	26.5328	ug/L	97
86) 123Triclproa	13.28	75	1183730	28.3665	ug/L	98
87) 14dichloro2butene	13.30	53	339241	28.1531	ug/L	98
88) n-Propylbenz	13.43	91	2754099	26.8425	ug/L	96
89) 2chlorotolue	13.54	91	1627320	26.2310	ug/L	98
90) 4chlorotolue	13.69	91	1890689	27.8622	ug/L	99
91) 135Trimebenz	13.69	105	1921759	28.4149	ug/L	96
92) tbutylbenzen	14.15	119	1629414	29.7827	ug/L	99
93) 124Trimetben	14.22	105	1905061	27.4357	ug/L	93
94) sbutylbenzen	14.47	105	2365496	28.2196	ug/L	98
95) 13Diclorbenz	14.61	146	1004936	28.9711	ug/L	98
96) pIsopropylto	14.69	119	1976885	28.6869	ug/L	99
97) 14dichlorobe	14.73	146	1005035	27.5688	ug/L	99
98) 12dichlorobe	15.26	146	958477	28.1170	ug/L	96
99) nButylbenzen	15.28	91	1870975	27.4577	ug/L	97
100) 12dibromo3cl	16.36	157	216678	30.7857	ug/L	89
101) 135Trichlorobenzene	16.71	180	661508	27.6297	ug/L	95

(#)=qualifier out of range (m)=manual integration

WCAL6.D W110816.M

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Page 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL6.D

Vial: 9

Acq On : 8 Nov 2016 19:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT6

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:27 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:21 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	607654	27.7395	ug/L	96
103) Hexachlorobu	17.78	225	288200	30.5975	ug/L	97
104) Naphthalene	17.82	128	1841386	28.3225	ug/L	98
105) 123Trichlben	18.14	180	537511	29.3403	ug/L	98

(#) = qualifier out of range (m) = manual integration

WCAL6.D W110816.M Mon Nov 21 15:41:38 2016

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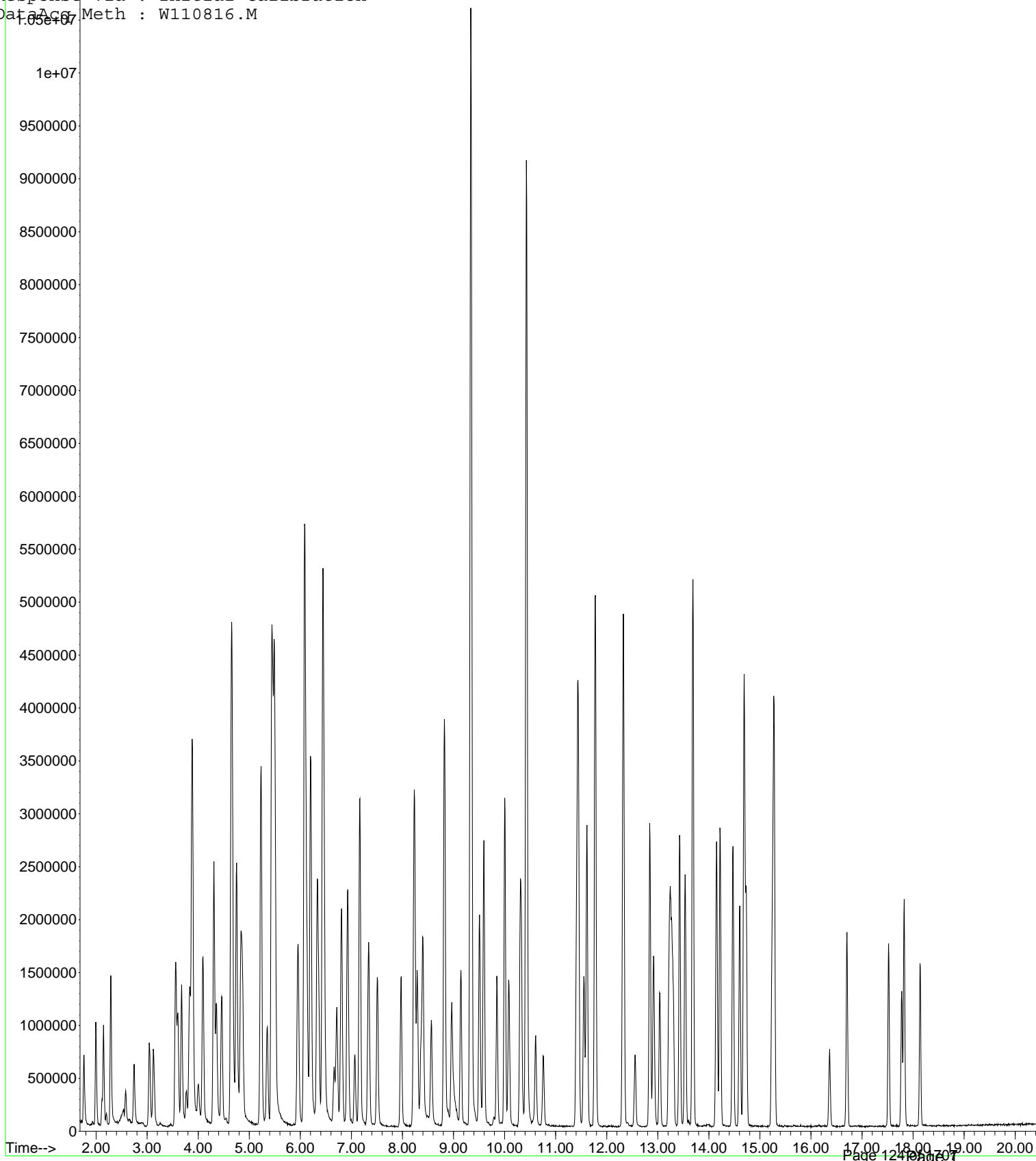
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Page 3

Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL6.D Vial: 9
Acq On : 8 Nov 2016 19:34 Operator: AGK-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:27 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:06:21 2016
Response via : Initial Calibration
Data Acq Meth : W110816.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL7.D

Vial: 10

Acq On : 8 Nov 2016 20:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT7

Inst : VMS3

Misc : 40.00/400 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:43 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:36 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
						Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1525002	20.00	ug/L	0.00
						NA%
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1139538	20.00	ug/L	0.00
						NA%
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	658147	20.00	ug/L	0.00
						NA%

System Monitoring Compounds

41) SURRDibrflma	6.66	113	378422	19.832	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 99	%
45) SURR12DCAd4	7.07	102	98060	19.218	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 96	%
61) SURRD8Tolule	9.51	98	1569315	20.370	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 102	%
83) SURR4BrFBenz	13.04	95	582162	19.173	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 96	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	895474	39.2224	ug/L	99
3) Chloromethan	2.00	50	1455866	30.1532	ug/L	99
4) VinylChlorid	2.15	62	1365378	39.0850	ug/L	99
5) Bromomethane	2.58	94	348005	39.1450	ug/L	94
6) Chloroethane	2.74	64	761548	36.5438	ug/L	96
7) Dichloroflmethane	3.04	67	1377928	36.3281	ug/L	97
8) Trichlorofma	3.13	101	950818	36.7594	ug/L	96
9) Ethylether	3.56	59	850466	37.2960	ug/L	98
10) dichlorotfluoroethan	3.56	67	849059	36.3817	ug/L	98
11) propyleneoxide	3.89	58	1931767	307.2358	ug/L #	88
12) Acrolein	3.67	56	1977720	188.4057	ug/L	98
13) 11dichlorothe	3.83	96	645436	35.4179	ug/L	97
14) Trichlorotfluoroeth	3.87	101	1169014	73.0361	ug/L	97
15) Acetone	3.89	43	5383084	271.1004	ug/L	95
16) Iodomethane	4.00	142	925003	128.8995	ug/L	99
17) Carbon Dislf	4.09	76	3353383	66.0674	ug/L	96
18) allylchloride	4.31	41	2801513	71.3490	ug/L	97
19) methylacetate	4.36	74	482179	38.2406	ug/L	97
20) Methylchlorid	4.47	84	746194	34.6739	ug/L	92
21) tbutylalcohol	4.66	59	10179714	1276.7120	ug/L	88
22) Acrylonitrile	4.75	53	3314616	178.0544	ug/L	97
23) t12dichlorote	4.84	96	701078	37.6976	ug/L	94
24) MtBE	4.86	73	2157948	37.5911	ug/L	100
25) Hexane	5.23	57	2873329	73.2995	ug/L	98
26) 11dichlorota	5.35	63	1642820	37.0255	ug/L	98
27) Vinylacetate	5.44	43	12331810	219.7232	ug/L	86
28) chloroprene	5.49	53	3240223	74.2501	ug/L	96
29) Diisopether	5.51	45	3508065	35.5747	ug/L	99
30) ETBE	5.95	59	2802100	36.4142	ug/L	95
31) 22dichloropr	6.08	77	1124385	36.5766	ug/L	98
32) c12dichlorote	6.08	96	844195	37.1333	ug/L	95
33) 2Butanone	6.09	72	2047726	377.1349	ug/L	96
34) propionitrile	6.13	54	3120378	371.1276	ug/L	97
35) Ethylacetate	6.20	88	268428	197.2808	ug/L #	78
36) methacrylonitrile	6.33	67	1157829	79.0713	ug/L	99
37) Bromochlorma	6.36	128	332348	37.6953	ug/L #	87
38) Tetrahydofur	6.44	42	6053110	310.8960	ug/L	90

(#) = qualifier out of range (m) = manual integration

WCAL7.D W110816.M

Mon Nov 21 15:41:41 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL7.D

Vial: 10

Acq On : 8 Nov 2016 20:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT7

Inst : VMS3

Misc : 40.00/400 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:43 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:36 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	1298454	37.7245	ug/L	97
40) 111trichlota	6.72	97	1199298	39.7362	ug/L	98
42) Cyclohexane	6.80	56	1902731	38.3229	ug/L	97
43) Carbtetraclo	6.94	119	970526	41.1920	ug/L	100
44) 11dicloprope	6.92	110	370982	36.7202	ug/L	96
46) Benzene	7.17	78	2900343	35.4539	ug/L	96
47) 12dichlorota	7.16	62	1260414	36.0748	ug/L	98
48) TAME	7.34	73	2210345	38.8672	ug/L	100
49) trichloroete	7.97	95	765116	38.7810	ug/L	95
50) methylcyclohexane	8.24	83	1314088	38.3783	ug/L	100
51) 12dicloropra	8.22	63	1070746	38.9328	ug/L	91
52) 23Dicl1propene	8.29	75	1223922	39.6180	ug/L	95
53) Dibromometha	8.36	93	513835	38.6843	ug/L	94
54) methylmethacrylate	8.40	69	857855	40.6521	ug/L	98
55) 14dioxane	8.41	88	651864	1833.5265	ug/L	95
56) Bromodiclma	8.57	83	1002023	40.7076	ug/L	98
57) 2Nitropropane	8.82	43	5197064	342.2548	ug/L	97
58) 2CLEVE	8.96	63	677339	363.7510	ug/L	95
59) c13dicloproe	9.14	75	1329958	38.4544	ug/L	97
60) 4Meth2Pentan	9.34	43	10167269	222.0329	ug/L	72
62) Toluene	9.59	92	1900681	38.5319	ug/L	95
63) t13Dicloprop	9.85	75	1197145	39.4521	ug/L	98
64) ethylmethacrylate	10.00	69	2422232	76.4776	ug/L	99
65) 112Triclotha	10.09	83	650157	39.1321	ug/L	98
66) Tetrachlorte	10.33	166	773333	39.4580	ug/L	95
67) 13Diclorpropa	10.31	76	1332900	38.9113	ug/L	97
69) 2Hexanone	10.43	43	9093278	234.5018	ug/L	78
70) Clorodibrmta	10.61	129	738780	39.1197	ug/L	93
71) 12Dibromometha	10.76	107	802936	38.7712	ug/L	98
72) Chlorobenzen	11.45	112	1989466	36.3556	ug/L	99
73) 1Clhexane	11.43	91	1102971	38.0580	ug/L	94
74) 1112Tetclota	11.55	131	714522	39.5000	ug/L	95
75) Ethylbenzene	11.61	91	3339669	34.9810	ug/L	93
76) m p-Xylene	11.78	106	2611028	71.7141	ug/L	90
77) o-Xylene	12.32	106	1363899	39.9754	ug/L	89
78) Styrene	12.33	104	2156915	38.9987	ug/L	97
79) Bromoform	12.56	173	582699	41.1211	ug/L	91
80) Isopropylben	12.84	105	3125824	36.6908	ug/L	93
81) cyclohexanone	12.92	55	1600046	759.6238	ug/L	99
84) Bromobenzene	13.25	156	841316	35.8208	ug/L	93
85) 1122Tetrclta	13.22	83	1291980	33.4875	ug/L	98
86) 123Tric1proa	13.27	75	1729301	36.7340	ug/L	100
87) 14dichloro2butene	13.30	53	528479	38.9234	ug/L	98
88) n-Propylbenz	13.43	91	3705884	32.2929	ug/L	93
89) 2chlorotolue	13.54	91	2307961	33.3769	ug/L	99
90) 4chlorotolue	13.69	91	2590925	33.9410	ug/L	96
91) 135Trimebenz	13.69	105	2673976	35.0374	ug/L	99
92) tbutylbenzen	14.15	119	2250449	36.1753	ug/L	99
93) 124Trimetben	14.22	105	2661033	34.1487	ug/L	94
94) sbutylbenzen	14.47	105	3249841	34.3949	ug/L	97
95) 13Diclorbenz	14.61	146	1434312	36.5297	ug/L	97
96) pIsopropylto	14.69	119	2683661	34.4584	ug/L	94
97) 14dichlorobe	14.73	146	1430990	34.9515	ug/L	99
98) 12dichlorobe	15.27	146	1337278	34.8227	ug/L	95
99) nButylbenzen	15.28	91	2573640	33.6518	ug/L	94
100) 12dibromo3cl	16.36	157	331605	41.2050	ug/L	95
101) 135Trichlorobenzene	16.71	180	946380	35.1843	ug/L	95

(#)=qualifier out of range (m)=manual integration

WCAL7.D W110816.M

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Page 2

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL7.D

Vial: 10

Acq On : 8 Nov 2016 20:04

Operator: AGK-RLD

Sample : INITIAL CALIB. PT7

Inst : VMS3

Misc : 40.00/400 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:43 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:36 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	858997	34.8826	ug/L	95
103) Hexachlorobu	17.78	225	422358	39.2572	ug/L	96
104) Naphthalene	17.82	128	2673187	36.4559	ug/L	96
105) 123Trichlben	18.14	180	800681	38.5317	ug/L	99

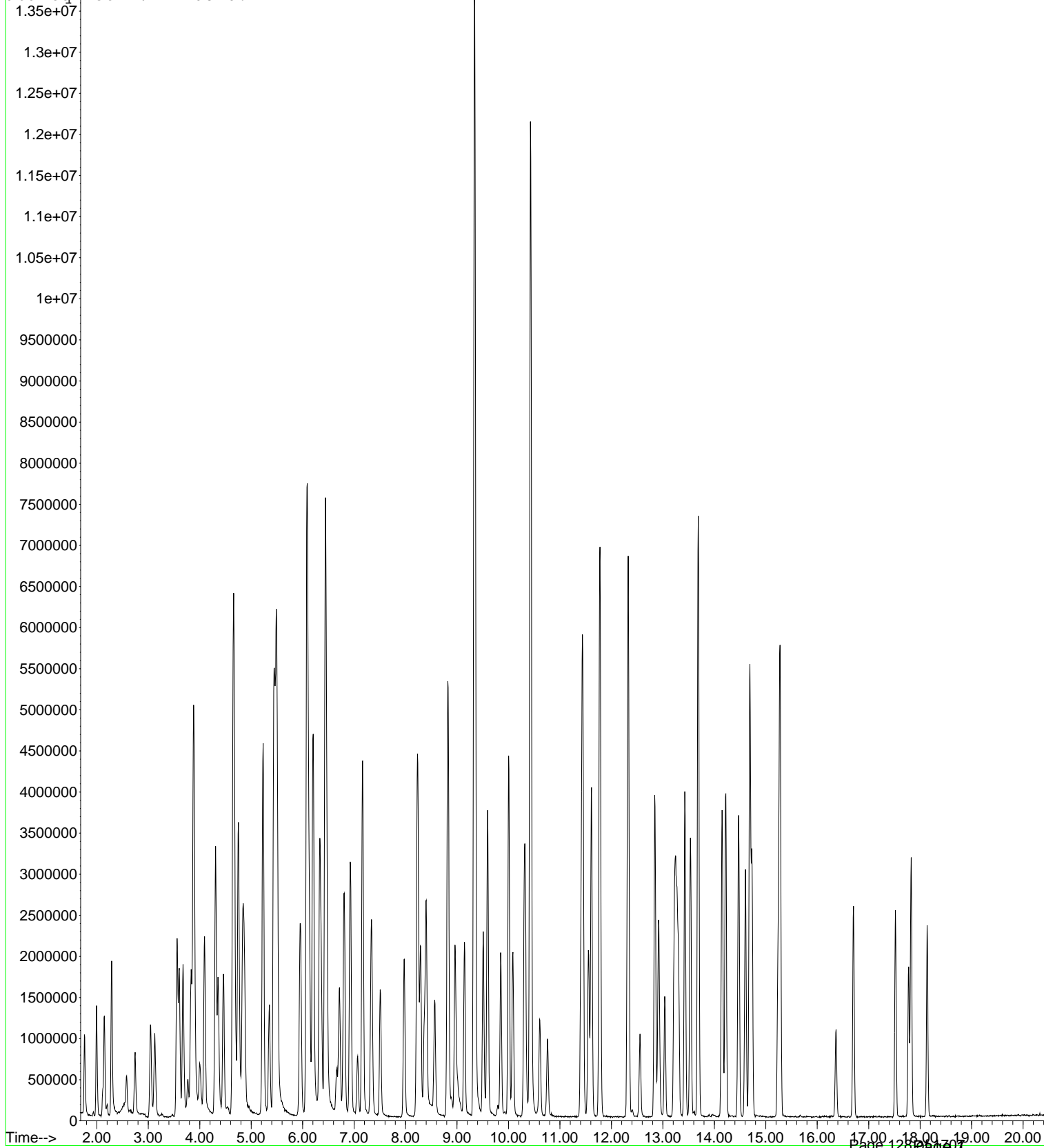
(#) = qualifier out of range (m) = manual integration

WCAL7.D W110816.M Mon Nov 21 15:41:41 2016

Abundance
1.65e+07
Data File : C:\INSTARCH\DATA\NOV0816\WCAL7.D Vial: 10
Acq On : 8 Nov 2016 20:04 Operator: AGK-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 40.00/400 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS1 Integration Params: VOC.P

Quant. Time: Nov 09 08:06:43 2016 Results File: W110816.RES

Quant. Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:06:36 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL8.D

Vial: 11

Acq On : 8 Nov 2016 20:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT8

Inst : VMS3

Misc : 80.00/800 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:56 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:50 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
						Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1740581	20.00	ug/L	0.00
						NA%
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1287759	20.00	ug/L	0.00
						NA%
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	678497	20.00	ug/L	0.00
						NA%

System Monitoring Compounds

41) SURRDibrflma	6.67	113	445367	20.474	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 102	%
45) SURR12DCAd4	7.07	102	125472	21.666	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 108	%
61) SURRD8Tolule	9.51	98	1765079	20.021	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
83) SURR4BrFBenz	13.04	95	649144	20.861	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 104	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	1812065	69.7331	ug/L	96
3) Chloromethan	2.00	50	2982262	56.0895	ug/L	94
4) VinylChlorid	2.15	62	2704403	68.0497	ug/L	94
5) Bromomethane	2.57	94	838441	82.8835	ug/L	93
6) Chloroethane	2.74	64	1606128	68.3702	ug/L	98
7) Dichloroflmethane	3.04	67	2812568	65.8307	ug/L	98
8) Trichlorofma	3.12	101	2042055	69.9794	ug/L	95
9) Ethylether	3.55	59	1797429	69.7345	ug/L	98
10) dichlorotfluoroethan	3.57	67	1805460	68.6685	ug/L	98
11) propyleneoxide	3.89	58	3761015	542.0387	ug/L #	67
12) Acrolein	3.67	56	3923436	330.2050	ug/L	97
13) 11dichlorothe	3.83	96	1388117	67.8480	ug/L	95
14) Trichlorotfluoroeth	3.87	101	2562933	142.0580	ug/L	98
15) Acetone	3.89	43	8872091	410.3637	ug/L	83
16) Iodomethane	4.00	142	2043182	229.4213	ug/L	98
17) Carbon Dislf	4.09	76	6154338	108.9440	ug/L	90
18) allylchloride	4.31	41	4934539	111.8354	ug/L	94
19) methylacetate	4.36	74	1025692	71.7211	ug/L	99
20) Methylchlorid	4.46	84	1569638	65.1428	ug/L #	87
21) tbutylalcohol	4.67	59	15867246	1838.5379	ug/L	74
22) Acrylonitrile	4.75	53	6095749	291.4636	ug/L	93
23) t12dichlorote	4.83	96	1446031	68.6890	ug/L	94
24) MtBE	4.87	73	4280442	65.8963	ug/L	92
25) Hexane	5.23	57	5502058	124.4643	ug/L #	91
26) 11dichlorota	5.35	63	3281536	65.4942	ug/L	93
27) Vinylacetate	5.44	43	17188338	286.7885	ug/L	68
28) chloroprene	5.49	53	6006115	121.8356	ug/L	90
29) Diisopether	5.51	45	6535764	59.0018	ug/L	93
30) ETBE	5.96	59	5473974	63.1340	ug/L	91
31) 22dichloropr	6.08	77	2347184	67.7257	ug/L	96
32) c12dichlorote	6.08	96	1754331	68.3090	ug/L	93
33) 2Butanone	6.09	72	4125367	671.1579	ug/L	94
34) propionitrile	6.13	54	6064855	638.5782	ug/L	91
35) Ethylacetate	6.21	88	583540	376.4853	ug/L #	70
36) methacrylonitrile	6.33	67	2409265	144.3963	ug/L	92
37) Bromochloroma	6.36	128	692040	69.3412	ug/L #	85
38) Tetrahydofur	6.44	42	9832868	457.0230	ug/L	75

(#) = qualifier out of range (m) = manual integration

WCAL8.D W110816.M

Mon Nov 21 15:41:44 2016

Data File : C:\INSTARCH\DATA\NOV0816\WCAL8.D

Vial: 11

Acq On : 8 Nov 2016 20:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT8

Inst : VMS3

Misc : 80.00/800 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:56 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:50 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	2679668	68.7698	ug/L	95
40) 111trichlota	6.71	97	2498994	72.6123	ug/L	97
42) Cyclohexane	6.80	56	3966520	70.4167	ug/L	94
43) Carbtetraclo	6.94	119	2078286	76.9560	ug/L	96
44) 11dicloroprope	6.92	110	844307	74.0877	ug/L	97
46) Benzene	7.17	78	5525874	60.1590	ug/L	90
47) 12dichlorota	7.16	62	2671373	67.9412	ug/L	96
48) TAME	7.34	73	4373588	67.6546	ug/L	96
49) trichloroete	7.97	95	1628694	72.6443	ug/L	97
50) methylcyclohexane	8.24	83	2794378	71.9192	ug/L	98
51) 12dicloropra	8.23	63	2285072	73.0742	ug/L	90
52) 23Dicl1propene	8.29	75	2536830	72.0443	ug/L	92
53) Dibromometha	8.36	93	1111506	73.6622	ug/L	97
54) methylmethacrylate	8.40	69	1831085	75.8478	ug/L	97
55) 14dioxane	8.41	88	1413939	3526.4049	ug/L	96
56) Bromodiclma	8.57	83	2106974	74.8061	ug/L	96
57) 2Nitropropane	8.83	43	8734982	514.6120	ug/L	90
58) 2CLEVE	8.96	63	810479	341.4102	ug/L	96
59) c13diclorproe	9.14	75	2734341	69.6531	ug/L	94
60) 4Meth2Pentan	9.34	43	13804892	282.0604	ug/L #	53
62) Toluene	9.59	92	3772827	67.3655	ug/L	88
63) t13Dicloroprop	9.85	75	2513188	72.7068	ug/L	98
64) ethylmethacrylate	10.00	69	4785599	133.2205	ug/L	95
65) 112Triclotha	10.09	83	1367908	72.3596	ug/L	96
66) Tetrachlorte	10.33	166	1652956	74.0367	ug/L	95
67) 13Diclorpropa	10.31	76	2787401	71.5725	ug/L	93
69) 2Hexanone	10.43	43	12376232	300.1704	ug/L #	63
70) Clorodibrmta	10.61	129	1603770	75.3848	ug/L	93
71) 12Dibromometha	10.76	107	1641015	70.4280	ug/L	94
72) Chlorobenzen	11.45	112	3858644	63.2198	ug/L	93
73) 1Clhexane	11.43	91	2303374	70.8213	ug/L	93
74) 1112Tetrclota	11.56	131	1504679	73.7387	ug/L	97
75) Ethylbenzene	11.61	91	6060243	57.1964	ug/L	84
76) m p-Xylene	11.78	106	5074047	125.1745	ug/L #	74
77) o-Xylene	12.32	106	2775397	71.9893	ug/L #	83
78) Styrene	12.33	104	4250744	68.2546	ug/L	92
79) Bromoform	12.56	173	1301205	80.9328	ug/L	90
80) Isopropylben	12.85	105	5755147	60.4933	ug/L	84
81) cyclohexanone	12.92	55	3372559	1427.1265	ug/L	96
84) Bromobenzene	13.24	156	1763419	73.9328	ug/L	93
85) 1122Tetrclta	13.22	83	2677456	68.9200	ug/L	93
86) 123Triclproa	13.27	75	3582799	74.6949	ug/L	97
87) 14dichloro2butene	13.30	53	1139069	81.6922	ug/L	95
88) n-Propylbenz	13.43	91	6557717	56.9986	ug/L	83
89) 2chlorotolue	13.54	91	4409479	63.3543	ug/L	91
90) 4chlorotolue	13.69	91	4937997	64.1353	ug/L	89
91) 135Trimebenz	13.69	105	4979211	64.4282	ug/L	94
92) tbutylbenzen	14.15	119	4425875	69.9665	ug/L	96
93) 124Trimetben	14.22	105	4987922	63.4148	ug/L	87
94) sbutylbenzen	14.47	105	5867224	61.4641	ug/L	88
95) 13Diclorbenz	14.61	146	2848670	71.2583	ug/L	95
96) pIsopropylto	14.69	119	5009188	63.6490	ug/L	88
97) 14dichlorobe	14.73	146	2890114	69.7302	ug/L	96
98) 12dichlorobe	15.27	146	2685608	69.1136	ug/L	98
99) nButylbenzen	15.28	91	4871121	63.2155	ug/L	88
100) 12dibromo3cl	16.36	157	738746	88.6612	ug/L	92
101) 135Trichlorobenzene	16.71	180	1950797	71.5822	ug/L	94

(#) = qualifier out of range (m) = manual integration

WCAL8.D W110816.M

Mon Nov 21 15:41:44 2016

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0816\WCAL8.D

Vial: 11

Acq On : 8 Nov 2016 20:34

Operator: AGK-RLD

Sample : INITIAL CALIB. PT8

Inst : VMS3

Misc : 80.00/800 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:56 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:06:50 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	1792770	71.9328	ug/L	96
103) Hexachlorobu	17.78	225	875298	79.1268	ug/L	97
104) Naphthalene	17.82	128	4916509	65.8723	ug/L	92
105) 123Trichlben	18.14	180	1628191	76.4051	ug/L	98

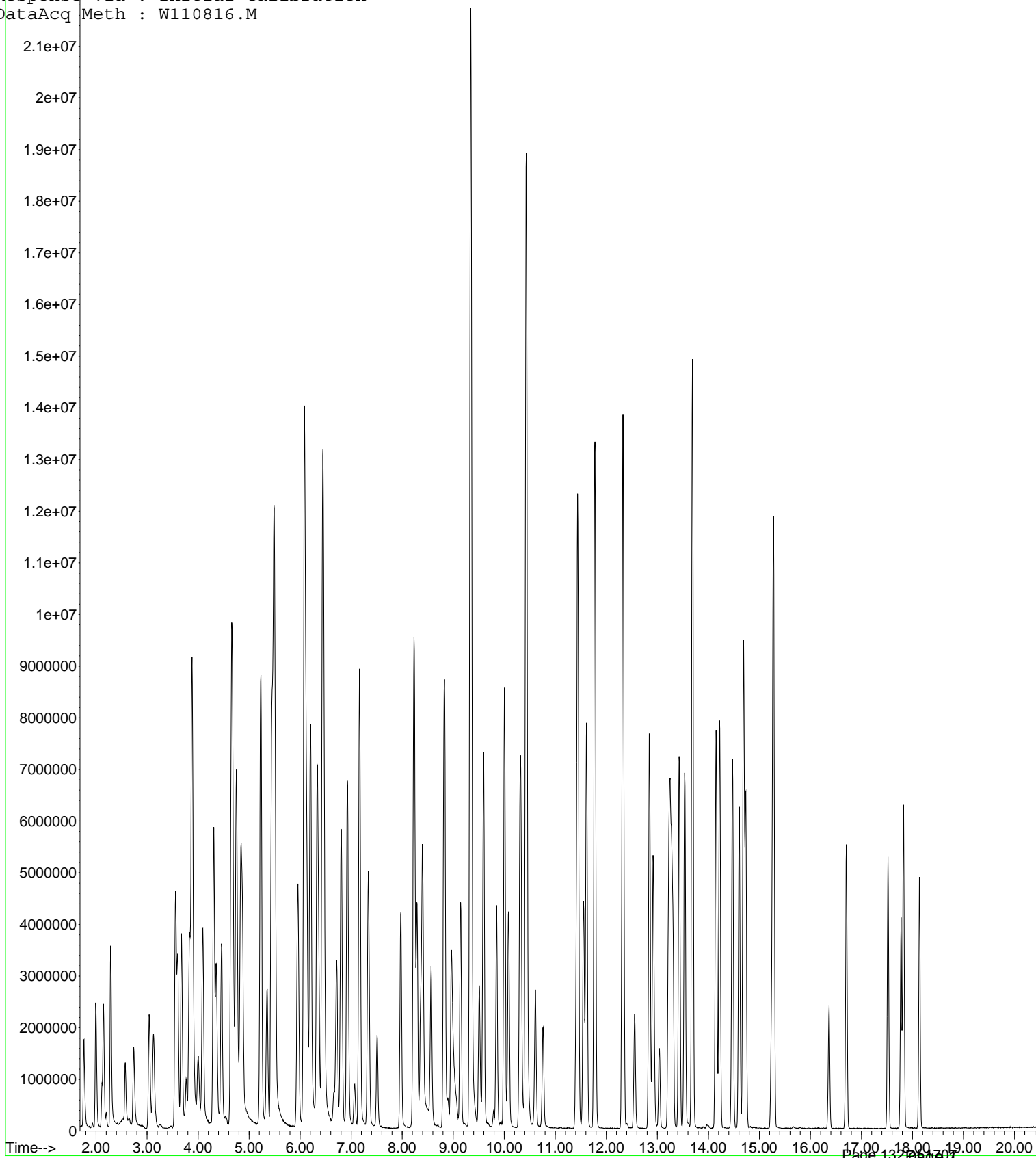
(#) = qualifier out of range (m) = manual integration

WCAL8.D W110816.M Mon Nov 21 15:41:45 2016

Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0816\WCAL8.D Vial: 11
Acq On : 8 Nov 2016 20:34 Operator: AGK-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 80.00/800 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:06:56 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:06:50 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



Data File : C:\INSTARCH\Data\NOV0816\ICV1.D Vial: 13
 Acq On : 8 Nov 2016 21:33 Operator: AGK-RLD
 Sample : INITIAL CALIB. VERIF. Inst : VMS3
 Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 Integrator: RTE

Quant Time: Nov 09 08:21:11 2016

Quant Method : C:\INSTARCH\METHODS\W110816.M
 Quant Title : 8260C Waters Method
 Response via : Initial Calibration
 DataAcq Meth:W110816.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	124	0.00
2 PT	Dichlorodi	0.2938	0.3114	-5.99	122	0.00
3 PT	Chloromethan	0.5657	0.5652	0.09	131	0.00
4 PT	VinylChlorid	0.4481	0.4636	-3.46	125	0.00
5 PT	Bromomethane	0.1168	0.1388	-18.84	158	0.00
6 PT	Chloroethane	0.2650	0.2739	-3.36	133	0.00
7 T	Dichloroflmethane	0.4801	0.4978	-3.69	133	0.00
8 PT	Trichlorofma	0.3300	0.3366	-2.00	123	0.00
9 T	Ethylether	0.2914	0.2926	-0.41	130	0.00
10 T	dichlorotfluoroethan	0.2968	0.2830	4.65	115	0.00
11 T	propyleneoxide	0.0679	0.0711	-4.71	126	0.00
12 T	Acrolein	0.1335	0.1425	-6.74	139	0.00
13 PT	1ldichlorth	0.2306	0.2130	7.63	115	0.00
14 PT	Trichlorotfluoroeth	0.2044	0.2101	-2.79	124	0.00
15 PT	Acetone	0.2110	0.2198	-4.17	129	0.00
16 T	Iodomethane	0.1004	0.1338	-33.27#	229#	0.01
17 PT	Carbon Dislf	0.6362	0.6223	2.18	122	0.00
18 T	allylchloride	0.4879	0.4941	-1.27	119	0.00
19 PT	methylacetate	0.1622	0.1797	-10.79	146	0.00
20 PT	Methylchlorid	0.2590	0.2364	8.73	115	0.00
21 T	tbutylalcohol	0.0914	0.0998	-9.19	134	0.00
22 T	Acrylonitrile	0.2322	0.2434	-4.82	128	0.00
23 PT	tl2dichlorte	0.2286	0.2351	-2.84	128	0.00
24 PT	MtBE	0.7299	0.7316	-0.23	129	0.00
25 T	Hexane	0.4938	0.5044	-2.15	117	0.00
26 PT	1ldichlorota	0.5627	0.5530	1.72	123	0.00
27 T	Vinylacetate	0.6887	0.6799	1.28	131	0.00
28 T	chloroprene	0.5496	0.5925	-7.81	124	0.00
29 T	Diisopether	1.2045	1.1379	5.53	113	0.00
30 T	ETBE	0.9700	0.9828	-1.32	126	0.00
31 T	22dichloropr	0.3726	0.3584	3.81	119	0.01
32 PT	cl2dichlorte	0.2897	0.2732	5.70	121	0.00
33 PT	2Butanone	0.0692	0.0675#	2.46	126	0.00
34 T	propionitrile	0.1064	0.1115	-4.79	134	0.00
35 T	Ethylacetate	0.0177	0.0184#	-3.95	149	0.00
36 T	methacrylonitrile	0.1894	0.1840	2.85	120	-0.01
37 T	Bromochloroma	0.1128	0.1078	4.43	118	0.00
38 T	Tetrahydofur	0.2385	0.2407	-0.92	127	0.00
39 PT	Chloroform	0.4399	0.4352	1.07	122	0.00
40 PT	11ltrichlota	0.3909	0.3867	1.07	125	0.00
41 S	SURRDibrflma	0.2507	0.2562	-2.19	131	0.00
42 PT	Cyclohexane	0.6376	0.6411	-0.55	118	0.00
43 PT	Carbtetracl	0.3088	0.3074	0.45	126	0.00
44 T	1ldicloprope	0.1219	0.1204	1.23	114	0.00
45 S	SURR12DCAd4	0.0672	0.0685	-1.93	125	0.00
46 PT	Benzene	1.0227	1.0243	-0.16	119	0.00
47 PT	12dichlorota	0.4433	0.4221	4.78	123	0.00
48 T	TAME	0.7285	0.7241	0.60	124	0.00

49	PT	trichloroete	0.2547	0.2397	5.89	115	0.00
50	PT	methylcyclohexane	0.4408	0.4213	4.42	117	0.00
51	PT	12dicloropra	0.3554	0.3527	0.76	120	0.00
52	T	23Dicl1propene	0.3996	0.4088	-2.30	124	0.00
53	T	Dibromometha	0.1717	0.1592	7.28	121	0.00
54	T	methylmethacrylate	0.2756	0.2888	-4.79	132	0.00
55	T	14dioxane	0.0045	0.0047#	-4.44	142	0.00
56	PT	Bromodiclrma	0.3210	0.3188	0.69	122	0.00
57	T	2Nitropropane	0.1863	0.2004	-7.57	131	0.00
58	T	2CLEVE	0.0257	0.0139#	45.91#	67	0.00
59	PT	cl3dicloproe	0.4438	0.4147	6.56	121	0.00
60	PT	4Meth2Pentan	0.5504	0.5493	0.20	119	0.00
61	S	SURRd8Tolule	1.0132	1.0053	0.78	123	0.00
62	PT	Toluene	0.6308	0.6364	-0.89	123	0.00
63	PT	t13Dicloprop	0.3927	0.3801	3.21	125	0.00
64	T	ethylmethacrylate	0.4041	0.4114	-1.81	128	0.00
65	PT	112Triclotha	0.2146	0.2017	6.01	123	0.00
66	PT	Tetrachlorte	0.2541	0.2409	5.19	112	0.00
67	T	13Dicloropropa	0.4416	0.4354	1.40	120	0.00
68	I	d5-CHLORO BENZENE**ISTD**	1.0000	1.0000	0.00	120	0.00
69	PT	2Hexanone	0.6333	0.6430	-1.53	120	0.00
70	PT	Clorodibrmta	0.3280	0.3106	5.30	129	0.00
71	PT	12Dibrometha	0.3565	0.3423	3.98	122	0.00
72	PT	Chlorobenzen	0.9231	0.8773	4.96	118	0.00
73	T	1Clhexane	0.4979	0.4962	0.34	124	0.00
74	T	1112Tetclota	0.3138	0.2951	5.96	122	0.00
75	PT	Ethylbenzene	1.5869	1.6039	-1.07	120	0.00
76	PT	m p-Xylene	0.6124	0.6046	1.27	118	0.00
77	PT	o-Xylene	0.5913	0.5778	2.28	119	0.00
78	PT	Styrene	0.9495	0.9284	2.22	122	0.00
79	PT	Bromoform	0.2501	0.2284	8.68	110	0.00
80	PT	Isopropylben	1.4325	1.4719	-2.75	122	0.00
81	T	cyclohexanone	0.0362	0.0428	-18.23	148	0.00
82	I	d4-1,4-DICHLORO BENZENE**IS	1.0000	1.0000	0.00	127	0.00
83	S	SURR4BrFBenz	0.9222	0.9404	-1.97	124	0.00
84	T	Bromobenzene	0.6964	0.6915	0.70	124	0.00
85	PT	1122Tetrclta	1.1253	1.0886	3.26	122	0.00
86	T	123Triclproa	1.4022	1.3717	2.18	120	0.00
87	T	14dichloro2butene	0.4121	0.3883	5.78	124	0.01
88	T	n-Propylbenz	3.2694	3.3600	-2.77	117	0.00
89	T	2chlorotolue	1.9982	1.9787	0.98	121	0.00
90	T	4chlorotolue	2.2133	2.2527	-1.78	121	0.00
91	T	135Trimebenz	2.2226	2.2069	0.71	117	0.00
92	T	tbutylbenzen	1.8354	1.8819	-2.53	118	0.00
93	T	124Trimetben	2.2584	2.2909	-1.44	118	0.00
94	T	sbutylbenzen	2.7323	2.8477	-4.22	121	0.00
95	PT	13Diclorbenz	1.1623	1.1457	1.43	118	0.00
96	T	pIsopropylto	2.2606	2.2143	2.05	115	0.00
97	PT	14dichlorobe	1.2021	1.1881	1.16	120	0.00
98	PT	12dichlorobe	1.1259	1.1200	0.52	126	0.00
99	T	nButylbenzen	2.2118	2.1049	4.83	111	0.00
100	PT	12dibromo3cl	0.2489	0.2466	0.92	126	0.00
101	T	135Trichlorobenzene	0.7928	0.7806	1.54	116	0.00
102	PT	124Trichlobe	0.7254	0.6735	7.15	118	0.00
103	T	Hexachlorobu	0.3256	0.3075	5.56	115	0.00
104	T	Naphthalene	2.1515	2.2733	-5.66	127	0.00
105	T	123Trichlben	0.6246	0.6336	-1.44	129	0.00

(#) = Out of Range

SPCC's out = 1 CCC's out = 0

W110816.M Mon Nov 21 15:36:57 2016

Data File : C:\INSTARCH\Data\NOV0816\ICV1.D Vial: 13
 Acq On : 8 Nov 2016 21:33 Operator: AGK-RLD
 Sample : INITIAL CALIB. VERIF. Inst : VMS3
 Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 Integrator: RTE

Quant Time: Nov 09 08:21:11 2016

Quant Method : C:\INSTARCH\METHODS\W110816.M
 Quant Title : 8260C Waters Method
 Response via : Initial Calibration
 DataAcq Meth:W110816.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	124	0.00
2 PT	Dichlorodi	10.0000	10.6006	-6.01	122	0.00
3 PT	Chloromethan	10.0000	10.6007	-6.01	131	0.00
4 PT	VinylChlorid	10.0000	10.3453	-3.45	125	0.00
5 PT	Bromomethane	10.0000	11.8849	-18.85	158	0.00
6 PT	Chloroethane	10.0000	10.3332	-3.33	133	0.00
7 T	Dichloroflmethane	10.0000	10.3701	-3.70	133	0.00
8 PT	Trichlorofma	10.0000	10.1984	-1.98	123	0.00
9 T	Ethylether	10.0000	10.0406	-0.41	130	0.00
10 T	dichlorotfluoroethan	10.0000	9.5376	4.62	115	0.00
11 T	propyleneoxide	100.0000	104.7622	-4.76	126	0.00
12 T	Acrolein	50.0000	53.3612	-6.72	139	0.00
13 PT	1ldichlorothe	10.0000	9.2372	7.63	115	0.00
14 PT	Trichlorotfluoroeth	20.0000	20.5627	-2.81	124	0.00
15 PT	Acetone	100.0000	104.1073	-4.11	129	0.00
16 T	Iodomethane	20.0000	23.3792	-16.90	229	0.01
17 PT	Carbon Dislf	20.0000	19.5619	2.19	122	0.00
18 T	allylchloride	20.0000	20.2528	-1.26	119	0.00
19 PT	methylacetate	10.0000	11.0798	-10.80	146	0.00
20 PT	Methylchlorid	10.0000	9.1257	8.74	115	0.00
21 T	tbutylalcohol	500.0000	560.2775	-12.06	134	0.00
22 T	Acrylonitrile	50.0000	52.4239	-4.85	128	0.00
23 PT	tl2dichlorte	10.0000	10.2851	-2.85	128	0.00
24 PT	MtBE	10.0000	10.0222	-0.22	129	0.00
25 T	Hexane	20.0000	20.4256	-2.13	117	0.00
26 PT	1ldichlorota	10.0000	9.8281	1.72	123	0.00
27 T	Vinylacetate	100.0000	99.3664	0.63	131	0.00
28 T	chloroprene	20.0000	21.5644	-7.82	124	0.00
29 T	Diisopether	10.0000	9.4472	5.53	113	0.00
30 T	ETBE	10.0000	10.1316	-1.32	126	0.00
31 T	22dichloropr	10.0000	9.6204	3.80	119	0.01
32 PT	cl2dichlorte	10.0000	9.4295	5.70	121	0.00
33 PT	2Butanone	100.0000	97.4839	2.52	126	0.00
34 T	propionitrile	100.0000	104.8261	-4.83	134	0.00
35 T	Ethylacetate	50.0000	51.9864	-3.97	149	0.00
36 T	methacrylonitrile	20.0000	19.4267	2.87	120	-0.01
37 T	Bromochlorma	10.0000	9.5592	4.41	118	0.00
38 T	Tetrahydrofur	100.0000	100.9354	-0.94	127	0.00
39 PT	Chloroform	10.0000	9.8931	1.07	122	0.00
40 PT	11ltrichlota	10.0000	9.8928	1.07	125	0.00
41 S	SURRDibrflma	20.0000	20.4402	-2.20	131	0.00
42 PT	Cyclohexane	10.0000	10.0560	-0.56	118	0.00
43 PT	Carbtetracl	10.0000	9.9532	0.47	126	0.00
44 T	1ldicloprope	10.0000	9.8794	1.21	114	0.00
45 S	SURR12DCAd4	20.0000	20.3886	-1.94	125	0.00
46 PT	Benzene	10.0000	10.0153	-0.15	119	0.00
47 PT	12dichlorota	10.0000	9.5225	4.77	123	0.00
48 T	TAME	10.0000	9.9399	0.60	124	0.00

49	PT	trichloroete	10.0000	9.4111	5.89	115	0.00
50	PT	methylcyclohexane	10.0000	9.5569	4.43	117	0.00
51	PT	12dicloropra	10.0000	9.9238	0.76	120	0.00
52	T	23Dicl1propene	10.0000	10.2304	-2.30	124	0.00
53	T	Dibromometha	10.0000	9.2721	7.28	121	0.00
54	T	methylmethacrylate	10.0000	10.4808	-4.81	132	0.00
55	T	14dioxane	500.0000	519.6386	-3.93	142	0.00
56	PT	Bromodiclrma	10.0000	9.9310	0.69	122	0.00
57	T	2Nitropropane	100.0000	100.2198	-0.22	131	0.00
58	T	2CLEVE	50.0000	26.1083	47.78#	67	0.00
59	PT	cl3dicloproe	10.0000	9.3441	6.56	121	0.00
60	PT	4Meth2Pentan	100.0000	96.8500	3.15	119	0.00
61	S	SURRd8Tolule	20.0000	19.8443	0.78	123	0.00
62	PT	Toluene	10.0000	10.0878	-0.88	123	0.00
63	PT	tl3Dicloprop	10.0000	9.6799	3.20	125	0.00
64	T	ethylmethacrylate	20.0000	20.3587	-1.79	128	0.00
65	PT	112Triclotha	10.0000	9.3985	6.01	123	0.00
66	PT	Tetrachlorte	10.0000	9.4772	5.23	112	0.00
67	T	13Dicloropropa	10.0000	9.8606	1.39	120	0.00
68	I	d5-CHLORO BENZENE**ISTD**	20.0000	20.0000	0.00	120	0.00
69	PT	2Hexanone	100.0000	98.1399	1.86	120	0.00
70	PT	Clorodibrmta	10.0000	9.4688	5.31	129	0.00
71	PT	12Dibrometha	10.0000	9.6018	3.98	122	0.00
72	PT	Chlorobenzen	10.0000	9.5044	4.96	118	0.00
73	T	1Clhexane	10.0000	9.9661	0.34	124	0.00
74	T	1112Tetclota	10.0000	9.4048	5.95	122	0.00
75	PT	Ethylbenzene	10.0000	10.1067	-1.07	120	0.00
76	PT	m p-Xylene	20.0000	19.7437	1.28	118	0.00
77	PT	o-Xylene	10.0000	9.7723	2.28	119	0.00
78	PT	Styrene	10.0000	9.7776	2.22	122	0.00
79	PT	Bromoform	10.0000	9.1318	8.68	110	0.00
80	PT	Isopropylben	10.0000	10.2749	-2.75	122	0.00
81	T	cyclohexanone	200.0000	236.6104	-18.31	148	0.00
82	I	d4-1,4-DICHLORO BENZENE**IS	20.0000	20.0000	0.00	127	0.00
83	S	SURR4BrFBenz	20.0000	20.3948	-1.97	124	0.00
84	T	Bromobenzene	10.0000	9.9297	0.70	124	0.00
85	PT	1122Tetrclta	10.0000	9.6734	3.27	122	0.00
86	T	123Triclproa	10.0000	9.7831	2.17	120	0.00
87	T	14dichloro2butene	10.0000	9.4234	5.77	124	0.01
88	T	n-Propylbenz	10.0000	10.2770	-2.77	117	0.00
89	T	2chlorotolue	10.0000	9.9021	0.98	121	0.00
90	T	4chlorotolue	10.0000	10.1779	-1.78	121	0.00
91	T	135Trimebenz	10.0000	9.9292	0.71	117	0.00
92	T	tbutylbenzen	10.0000	10.2535	-2.54	118	0.00
93	T	124Trimetben	10.0000	10.1437	-1.44	118	0.00
94	T	sbutylbenzen	10.0000	10.4222	-4.22	121	0.00
95	PT	13Diclorbenz	10.0000	9.8571	1.43	118	0.00
96	T	pIsopropylto	10.0000	9.7952	2.05	115	0.00
97	PT	14dichlorobe	10.0000	9.8830	1.17	120	0.00
98	PT	12dichlorobe	10.0000	9.9470	0.53	126	0.00
99	T	nButylbenzen	10.0000	9.5168	4.83	111	0.00
100	PT	12dibromo3cl	10.0000	9.9078	0.92	126	0.00
101	T	135Trichlorobenzene	10.0000	9.8462	1.54	116	0.00
102	PT	124Trichlobe	10.0000	9.2845	7.16	118	0.00
103	T	Hexachlorobu	10.0000	9.4436	5.56	115	0.00
104	T	Naphthalene	10.0000	10.5660	-5.66	127	0.00
105	T	123Trichlben	10.0000	10.1430	-1.43	129	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

W110816.M Mon Nov 21 15:36:44 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV1.D

Vial: 13

Acq On : 8 Nov 2016 21:33

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:21:11 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:07 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1668832	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1199527	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	630223	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	427560	20.440	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 102	%
45) SURR12DCAd4	7.08	102	114387	20.389	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 102	%
61) SURRD8Tolule	9.51	98	1677633	19.844	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 99	%
83) SURR4BrFBenz	13.04	95	592646	20.395	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 102	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	259873	10.6006	ug/L	99
3) Chloromethan	2.00	50	471611	10.6007	ug/L	94
4) VinylChlorid	2.15	62	386830	10.3453	ug/L	97
5) Bromomethane	2.57	94	115790	11.8849	ug/L	93
6) Chloroethane	2.74	64	228508	10.3332	ug/L	92
7) Dichloroflmethane	3.05	67	415386	10.3701	ug/L	98
8) Trichlorofma	3.13	101	280863	10.1984	ug/L	96
9) Ethylether	3.55	59	244151	10.0406	ug/L	97
10) dichlorotfluoroethan	3.56	67	236173	9.5376	ug/L	98
11) propyleneoxide	3.89	58	593162	104.7622	ug/L	96
12) Acrolein	3.68	56	594634	53.3612	ug/L	96
13) 11dichlorothe	3.83	96	177756	9.2372	ug/L	89
14) Trichlorotfluoroeth	3.88	101	350703	20.5627	ug/L	97
15) Acetone	3.89	43	1833686	104.1073	ug/L	99
16) Iodomethane	4.01	142	223357	23.3792	ug/L	96
17) Carbon Dislf	4.09	76	1038463	19.5619	ug/L	99
18) allylchloride	4.31	41	824542	20.2528	ug/L	97
19) methylacetate	4.36	74	149957	11.0798	ug/L	99
20) Methylchlorid	4.47	84	197251	9.1257	ug/L	98
21) tbutylalcohol	4.65	59	4163218	560.2775	ug/L	99
22) Acrylonitrile	4.75	53	1015558	52.4239	ug/L	99
23) t12dichlorote	4.84	96	196175	10.2851	ug/L	90
24) MtBE	4.87	73	610421	10.0222	ug/L	97
25) Hexane	5.23	57	841679	20.4256	ug/L	98
26) 11dichlorota	5.35	63	461430	9.8281	ug/L	100
27) Vinylacetate	5.44	43	5673185	99.3664	ug/L	98
28) chloroprene	5.48	53	988846	21.5644	ug/L	100
29) Diisopether	5.51	45	949523	9.4472	ug/L	94
30) ETBE	5.96	59	820042	10.1316	ug/L	99
31) 22dichloropr	6.09	77	299082	9.6204	ug/L	99
32) c12dichlorote	6.08	96	227948	9.4295	ug/L	97
33) 2Butanone	6.09	72	562933	97.4839	ug/L	97
34) propionitrile	6.13	54	930464	104.8261	ug/L	99
35) Ethylacetate	6.21	88	76688	51.9864	ug/L	# 73
36) methacrylonitrile	6.33	67	306986	19.4267	ug/L	92
37) Bromochloroma	6.36	128	89947	9.5592	ug/L	96
38) Tetrahydofur	6.44	42	2008781	100.9354	ug/L	98

(#) = qualifier out of range (m) = manual integration

ICV1.D W110816.M Mon Nov 21 15:36:40 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV1.D

Vial: 13

Acq On : 8 Nov 2016 21:33

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:21:11 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:07 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	363116	9.8931	ug/L	100
40) 111trichlota	6.72	97	322665	9.8928	ug/L	98
42) Cyclohexane	6.81	56	534965	10.0560	ug/L	99
43) Carbtetraclo	6.94	119	256493	9.9532	ug/L	94
44) 11dicloroprope	6.92	110	100485	9.8794	ug/L	96
46) Benzene	7.17	78	854687	10.0153	ug/L	99
47) 12dichlorota	7.16	62	352217	9.5225	ug/L	98
48) TAME	7.34	73	604204	9.9399	ug/L	98
49) trichloroete	7.97	95	199975	9.4111	ug/L	96
50) methylcyclohexane	8.24	83	351527	9.5569	ug/L	96
51) 12dicloropra	8.22	63	294312	9.9238	ug/L	92
52) 23Dicl1propene	8.29	75	341090	10.2304	ug/L	98
53) Dibromometha	8.36	93	132814	9.2721	ug/L	96
54) methylmethacrylate	8.40	69	241020	10.4808	ug/L	97
55) 14dioxane	8.41	88	196808	519.6386	ug/L	97
56) Bromodiclma	8.57	83	266008	9.9310	ug/L	97
57) 2Nitropropane	8.82	43	1671772	100.2198	ug/L	99
58) 2CLEVE	8.96	63	57911	26.1083	ug/L	94
59) c13diclorproe	9.14	75	346012	9.3441	ug/L	99
60) 4Meth2Pentan	9.34	43	4583399	96.8500	ug/L	97
62) Toluene	9.59	92	530989	10.0878	ug/L	98
63) t13Dicloroprop	9.86	75	317147	9.6799	ug/L	97
64) ethylmethacrylate	10.01	69	686518	20.3587	ug/L	98
65) 112Triclotha	10.09	83	168314	9.3985	ug/L	97
66) Tetrachlorte	10.33	166	200977	9.4772	ug/L	97
67) 13Diclorpropa	10.31	76	363345	9.8606	ug/L	97
69) 2Hexanone	10.43	43	3856570	98.1399	ug/L	97
70) Clorodibrmta	10.60	129	186289	9.4688	ug/L	92
71) 12Dibromometha	10.76	107	205281	9.6018	ug/L	100
72) Chlorobenzen	11.45	112	526188	9.5044	ug/L	97
73) 1Clhexane	11.43	91	297598	9.9661	ug/L	98
74) 1112Tetclota	11.56	131	177012	9.4048	ug/L	98
75) Ethylbenzene	11.61	91	961940	10.1067	ug/L	100
76) m p-Xylene	11.77	106	725209	19.7437	ug/L	97
77) o-Xylene	12.33	106	346545	9.7723	ug/L	96
78) Styrene	12.33	104	556795	9.7776	ug/L	98
79) Bromoform	12.56	173	136957	9.1318	ug/L	89
80) Isopropylben	12.85	105	882790	10.2749	ug/L	99
81) cyclohexanone	12.92	55	513808	236.6104	ug/L	97
84) Bromobenzene	13.25	156	217903	9.9297	ug/L	92
85) 1122Tetrclta	13.23	83	343019	9.6734	ug/L	100
86) 123Triclproa	13.27	75	432254	9.7831	ug/L	99
87) 14dichloro2butene	13.32	53	122369	9.4234	ug/L	97
88) n-Propylbenz	13.43	91	1058774	10.2770	ug/L	99
89) 2chlorotolue	13.54	91	623504	9.9021	ug/L	99
90) 4chlorotolue	13.69	91	709837	10.1779	ug/L	99
91) 135Trimetbenz	13.69	105	695418	9.9292	ug/L	97
92) tbutylbenzen	14.15	119	593012	10.2535	ug/L	99
93) 124Trimetben	14.22	105	721884	10.1437	ug/L	99
94) sbutylbenzen	14.47	105	897333	10.4222	ug/L	100
95) 13Diclorbenz	14.61	146	361017	9.8571	ug/L	97
96) pIsopropylto	14.69	119	697744	9.7952	ug/L	97
97) 14dichlorobe	14.73	146	374374	9.8830	ug/L	99
98) 12dichlorobe	15.26	146	352912	9.9470	ug/L	93
99) nButylbenzen	15.28	91	663287	9.5168	ug/L	99
100) 12dibromo3cl	16.36	157	77718	9.9078	ug/L	93
101) 135Trichlorobenzene	16.71	180	245965	9.8462	ug/L	97

(#)=qualifier out of range (m)=manual integration

ICV1.D W110816.M Mon Nov 21 15:36:41 2016

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Page 2

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV1.D Vial: 13
Acq On : 8 Nov 2016 21:33 Operator: AGK-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:21:11 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:07 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	212224	9.2845	ug/L	96
103) Hexachlorobu	17.78	225	96900	9.4436	ug/L	96
104) Naphthalene	17.82	128	716337	10.5660	ug/L	99
105) 123Trichlben	18.14	180	199641	10.1430	ug/L	95

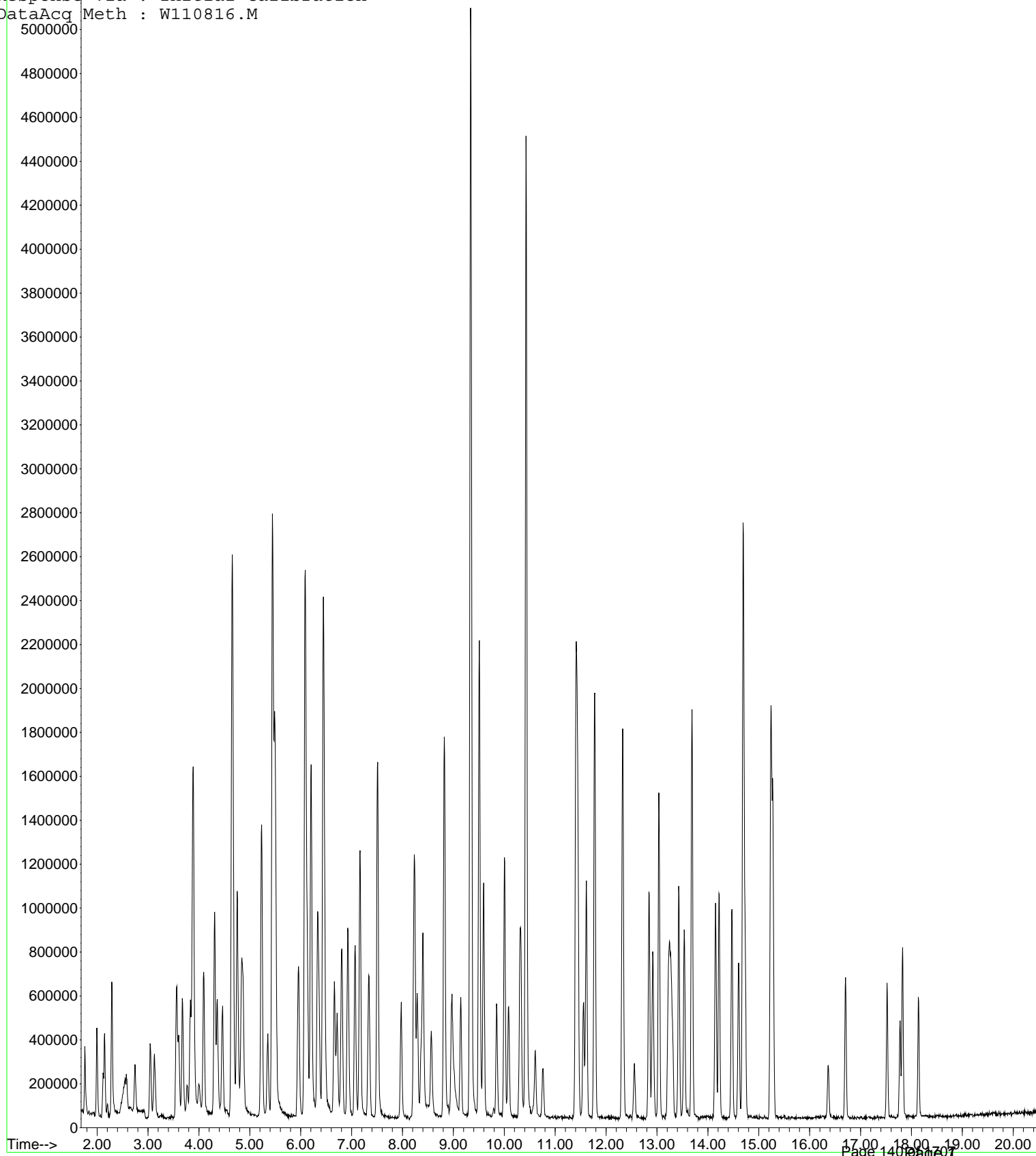
(#) = qualifier out of range (m) = manual integration

ICV1.D W110816.M Mon Nov 21 15:36:41 2016

Abundance
Data File : C:\INSTARCH\Data\NOV0816\ICV1.D Vial: 13
Acq On : 8 Nov 2016 21:33 Operator: AGK-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Miss : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 09 08:21:11 2016 Results File: W110816.RES

Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:21:07 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



Data File : C:\INSTARCH\Data\NOV0816\ICV2.D

Vial: 14

Acq On : 8 Nov 2016 22:03

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 09 08:22:10 2016

Quant Method : C:\INSTARCH\METHODS\W110816.M

Quant Title : 8260C Waters Method

Response via : Initial Calibration

DataAcq Meth:W110816.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min

Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	116	0.00
2 PT	Dichlorodi	30.0000	31.3882	-4.63	121	0.00
3 PT	Chloromethan	30.0000	27.6941	7.69	105	0.00
4 PT	VinylChlorid	30.0000	30.4528	-1.51	117	0.00
5 PT	Bromomethane	30.0000	34.8468	-16.16	142	0.00
6 PT	Chloroethane	30.0000	28.8658	3.78	117	0.00
7 T	Dichloroflmethane	30.0000	29.2444	2.52	118	0.00
8 PT	Trichlorofma	30.0000	30.4786	-1.60	118	0.00
9 T	Ethylether	30.0000	29.4826	1.72	119	0.00
10 T	dichlorotfluoroethan	30.0000	28.6133	4.62	112	0.00
11 T	propyleneoxide	300.0000	297.1293	0.96	128	0.00
12 T	Acrolein	150.0000	154.4765	-2.98	125	0.00
13 PT	1ldichlorothe	30.0000	27.9654	6.78	110	0.00
14 PT	Trichlorotfluoroeth	60.0000	61.3027	-2.17	115	0.00
15 PT	Acetone	300.0000	304.1580	-1.39	121	0.00
16 T	Iodomethane	60.0000	70.1947	-16.99	140	0.00
17 PT	Carbon Dislf	60.0000	53.6185	10.64	111	0.00
18 T	allylchloride	60.0000	57.6386	3.94	111	0.00
19 PT	methylacetate	30.0000	30.6825	-2.28	126	0.00
20 PT	Methylchlorid	30.0000	28.2547	5.82	118	0.00
21 T	tbutylalcohol	1500.0000	1590.5229	-6.03	126	0.00
22 T	Acrylonitrile	150.0000	147.1127	1.92	122	0.00
23 PT	tl2dichlorte	30.0000	29.6761	1.08	115	0.00
24 PT	MtBE	30.0000	29.9675	0.11	118	0.00
25 T	Hexane	60.0000	59.2130	1.31	114	0.00
26 PT	1ldichlorota	30.0000	28.7553	4.15	111	0.00
27 T	Vinylacetate	300.0000	257.2443	14.25	108	0.00
28 T	chloroprene	60.0000	60.7236	-1.21	114	0.00
29 T	Diisopether	30.0000	26.7184	10.94	110	0.00
30 T	ETBE	30.0000	29.1629	2.79	115	0.00
31 T	22dichloropr	30.0000	28.9103	3.63	108	0.00
32 PT	cl2dichlorte	30.0000	27.9563	6.81	116	0.00
33 PT	2Butanone	300.0000	293.4611	2.18	126	0.00
34 T	propionitrile	300.0000	305.7024	-1.90	127	0.00
35 T	Ethylacetate	150.0000	154.2332	-2.82	125	0.00
36 T	methacrylonitrile	60.0000	60.1989	-0.33	121	0.00
37 T	Bromochlorma	30.0000	28.1619	6.13	112	0.00
38 T	Tetrahydrofur	300.0000	268.9127	10.36	120	0.00
39 PT	Chloroform	30.0000	29.3612	2.13	117	0.00
40 PT	11ltrichlota	30.0000	30.0572	-0.19	115	0.00
41 S	SURRDibrflma	20.0000	20.5356	-2.68	116	0.00
42 PT	Cyclohexane	30.0000	31.2168	-4.06	118	0.00
43 PT	Carbtetracl	30.0000	30.6956	-2.32	115	0.00
44 T	1ldicloprope	30.0000	30.0503	-0.17	118	0.00
45 S	SURR12DCAd4	20.0000	20.5315	-2.66	119	0.00
46 PT	Benzene	30.0000	28.2546	5.82	112	0.00
47 PT	12dichlorota	30.0000	28.2112	5.96	115	0.00
48 T	TAME	30.0000	28.8329	3.89	112	0.00

49	PT	trichloroete	30.0000	30.2460	-0.82	117	0.00
50	PT	methylcyclohexane	30.0000	30.0131	-0.04	117	0.00
51	PT	12dicloropra	30.0000	28.9413	3.53	112	0.00
52	T	23Dicl1propene	30.0000	30.0281	-0.09	118	0.00
53	T	Dibromometha	30.0000	29.3057	2.31	119	0.00
54	T	methylmethacrylate	30.0000	30.8320	-2.77	120	0.00
55	T	14dioxane	1500.0000	1742.7577	-16.18	157	0.00
56	PT	Bromodiclrma	30.0000	30.4369	-1.46	116	0.00
57	T	2Nitropropane	300.0000	301.4363	-0.48	119	0.00
58	T	2CLEVE	150.0000	51.9864	65.34#	39	0.00
59	PT	cl3dicloproe	30.0000	29.1209	2.93	113	0.00
60	PT	4Meth2Pentan	300.0000	256.6174	14.46	109	0.00
61	S	SURRd8Tolule	20.0000	20.6394	-3.20	119	0.00
62	PT	Toluene	30.0000	29.5533	1.49	116	0.00
63	PT	tl3Dicloprop	30.0000	29.2221	2.59	114	0.00
64	T	ethylmethacrylate	60.0000	60.4095	-0.68	116	0.00
65	PT	112Triclotha	30.0000	28.5844	4.72	114	0.00
66	PT	Tetrachlorte	30.0000	29.8868	0.38	117	0.00
67	T	13Dicloropropa	30.0000	29.7144	0.95	116	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	117	0.00
69	PT	2Hexanone	300.0000	258.2226	13.93	110	0.00
70	PT	Clorodibrmta	30.0000	30.9471	-3.16	117	0.00
71	PT	12Dibromometha	30.0000	28.4749	5.08	113	0.00
72	PT	Chlorobenzen	30.0000	27.9784	6.74	112	0.00
73	T	1Clhexane	30.0000	29.9604	0.13	118	0.00
74	T	1112Tetclota	30.0000	28.6737	4.42	110	0.00
75	PT	Ethylbenzene	30.0000	28.5483	4.84	114	0.00
76	PT	m p-Xylene	60.0000	57.3718	4.38	113	0.00
77	PT	o-Xylene	30.0000	29.3984	2.01	114	0.00
78	PT	Styrene	30.0000	29.7996	0.67	112	0.00
79	PT	Bromoform	30.0000	29.5300	1.57	112	0.00
80	PT	Isopropylben	30.0000	29.3444	2.19	113	0.00
81	T	cyclohexanone	600.0000	641.4938	-6.92	132	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	116	0.00
83	S	SURR4BrFBenz	20.0000	19.9549	0.23	119	0.00
84	T	Bromobenzene	30.0000	28.7259	4.25	115	0.00
85	PT	1122Tetrclta	30.0000	26.7689	10.77	110	0.00
86	T	123Triclproa	30.0000	28.8744	3.75	115	0.00
87	T	14dichloro2butene	30.0000	29.3294	2.24	120	0.00
88	T	n-Propylbenz	30.0000	27.4576	8.47	109	0.00
89	T	2chlorotolue	30.0000	27.7343	7.55	114	0.00
90	T	4chlorotolue	30.0000	28.1651	6.12	111	0.00
91	T	135Trimebenz	30.0000	28.8655	3.78	112	0.00
92	T	tbutylbenzen	30.0000	29.9599	0.13	113	0.00
93	T	124Trimetben	30.0000	28.0547	6.48	112	0.00
94	T	sbutylbenzen	30.0000	28.4924	5.03	111	0.00
95	PT	13Diclorbenz	30.0000	28.1570	6.14	109	0.00
96	T	pIsopropylto	30.0000	28.5543	4.82	110	0.00
97	PT	14dichlorobe	30.0000	27.5028	8.32	110	0.00
98	PT	12dichlorobe	30.0000	27.7841	7.39	110	0.00
99	T	nButylbenzen	30.0000	27.3680	8.77	109	0.00
100	PT	12dibromo3cl	30.0000	31.1530	-3.84	120	0.01
101	T	135Trichlorobenzene	30.0000	27.8677	7.11	112	0.00
102	PT	124Trichlobe	30.0000	27.0538	9.82	108	0.00
103	T	Hexachlorobu	30.0000	29.0194	3.27	110	0.00
104	T	Naphthalene	30.0000	29.1449	2.85	114	0.00
105	T	123Trichlben	30.0000	28.9506	3.50	113	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV2.D

Vial: 14

Acq On : 8 Nov 2016 22:03

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:22:10 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1653598	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1221354	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	671526	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	425634	20.536	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 103	%
45) SURR12DCAd4	7.07	102	114137	20.531	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 103	%
61) SURRD8Tolule	9.51	98	1728917	20.639	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 103	%
83) SURR4BrFBenz	13.04	95	617867	19.955	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 100	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	762455	31.3882	ug/L	99
3) Chloromethan	2.00	50	1151374	27.6941	ug/L	100
4) VinylChlorid	2.15	62	1128294	30.4528	ug/L	97
5) Bromomethane	2.57	94	336400	34.8468	ug/L	94
6) Chloroethane	2.74	64	632510	28.8658	ug/L	97
7) Dichloroflmethane	3.05	67	1160725	29.2444	ug/L	97
8) Trichlorofma	3.13	101	831714	30.4786	ug/L	95
9) Ethylether	3.55	59	710367	29.4826	ug/L	97
10) dichlorotfluoroethan	3.56	67	702061	28.6133	ug/L	98
11) propyleneoxide	3.89	58	1666984	297.1293	ug/L #	88
12) Acrolein	3.67	56	1705705	154.4765	ug/L	98
13) 11dichlorothe	3.83	96	533236	27.9654	ug/L	96
14) Trichlorotfluoroeth	3.88	101	1035992	61.3027	ug/L	98
15) Acetone	3.89	43	4635921	304.1580	ug/L	95
16) Iodomethane	4.00	142	791824	70.1947	ug/L	98
17) Carbon Dislf	4.09	76	2820412	53.6185	ug/L	97
18) allylchloride	4.31	41	2325194	57.6386	ug/L	98
19) methylacetate	4.36	74	411474	30.6825	ug/L	99
20) Methylchlorid	4.46	84	605148	28.2547	ug/L	92
21) tbutylalcohol	4.66	59	9554918	1590.5229	ug/L	90
22) Acrylonitrile	4.75	53	2823857	147.1127	ug/L	98
23) t12dichlorote	4.83	96	560867	29.6761	ug/L	95
24) MtBE	4.87	73	1808571	29.9675	ug/L	98
25) Hexane	5.23	57	2417718	59.2130	ug/L	97
26) 11dichlorota	5.35	63	1337739	28.7553	ug/L	99
27) Vinylacetate	5.44	43	11309958	257.2443	ug/L	88
28) chloroprene	5.48	53	2759097	60.7236	ug/L	97
29) Diisopether	5.51	45	2660902	26.7184	ug/L	93
30) ETBE	5.96	59	2338876	29.1629	ug/L	96
31) 22dichloropr	6.08	77	890570	28.9103	ug/L	97
32) c12dichlorote	6.08	96	669642	27.9563	ug/L	97
33) 2Butanone	6.09	72	1679159	293.4611	ug/L	96
34) propionitrile	6.13	54	2688726	305.7024	ug/L	97
35) Ethylacetate	6.20	88	225441	154.2332	ug/L #	77
36) methacrylonitrile	6.33	67	942597	60.1989	ug/L	99
37) Bromochloroma	6.36	128	262569	28.1619	ug/L #	90
38) Tetrahydofur	6.44	42	5302951	268.9127	ug/L	92

(#) = qualifier out of range (m) = manual integration

ICV2.D W110816.M Mon Nov 21 15:37:10 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV2.D

Vial: 14

Acq On : 8 Nov 2016 22:03

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:22:10 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	1067835	29.3612	ug/L	99
40) 111trichlota	6.72	97	971398	30.0572	ug/L	99
42) Cyclohexane	6.81	56	1645532	31.2168	ug/L	99
43) Carbtetraclo	6.94	119	783797	30.6956	ug/L	100
44) 11dicloroprope	6.93	110	302857	30.0503	ug/L	92
46) Benzene	7.17	78	2389175	28.2546	ug/L	96
47) 12dichlorota	7.16	62	1033947	28.2112	ug/L	100
48) TAME	7.34	73	1736619	28.8329	ug/L	99
49) trichloroete	7.98	95	636827	30.2460	ug/L	95
50) methylcyclohexane	8.24	83	1093877	30.0131	ug/L	99
51) 12dicloropra	8.22	63	850481	28.9413	ug/L	100
52) 23Dicl1propene	8.29	75	992025	30.0281	ug/L	94
53) Dibromometha	8.36	93	415942	29.3057	ug/L	97
54) methylmethacrylate	8.40	69	702549	30.8320	ug/L	98
55) 14dioxane	8.41	88	654027	1742.7577	ug/L	96
56) Bromodiclma	8.57	83	807830	30.4369	ug/L	97
57) 2Nitropropane	8.82	43	4475705	301.4363	ug/L	98
58) 2CLEVE	8.96	63	136708	51.9864	ug/L	94
59) c13diclorproe	9.14	75	1068498	29.1209	ug/L	96
60) 4Meth2Pentan	9.34	43	9286789	256.6174	ug/L	78
62) Toluene	9.59	92	1541388	29.5533	ug/L	97
63) t13Dicloroprop	9.85	75	948681	29.2221	ug/L	97
64) ethylmethacrylate	10.00	69	2018477	60.4095	ug/L	98
65) 112Triclotha	10.09	83	507235	28.5844	ug/L	95
66) Tetrachlorte	10.33	166	628005	29.8868	ug/L	95
67) 13Diclorpropa	10.31	76	1084923	29.7144	ug/L	96
69) 2Hexanone	10.43	43	8113943	258.2226	ug/L	81
70) Clorodibrmta	10.61	129	619929	30.9471	ug/L	89
71) 12Dibromometha	10.76	107	619858	28.4749	ug/L	97
72) Chlorobenzen	11.45	112	1577147	27.9784	ug/L	98
73) 1Clhexane	11.43	91	910922	29.9604	ug/L	92
74) 1112Tetclota	11.56	131	549501	28.6737	ug/L	96
75) Ethylbenzene	11.61	91	2766633	28.5483	ug/L	96
76) m p-Xylene	11.78	106	2145677	57.3718	ug/L	92
77) o-Xylene	12.32	106	1061496	29.3984	ug/L	97
78) Styrene	12.33	104	1727853	29.7996	ug/L	98
79) Bromoform	12.56	173	450946	29.5300	ug/L	91
80) Isopropylben	12.84	105	2567075	29.3444	ug/L	96
81) cyclohexanone	12.92	55	1418375	641.4938	ug/L	99
84) Bromobenzene	13.25	156	671692	28.7259	ug/L	91
85) 1122Tetrclta	13.22	83	1011436	26.7689	ug/L	93
86) 123Triclproa	13.27	75	1359391	28.8744	ug/L	99
87) 14dichloro2butene	13.30	53	405820	29.3294	ug/L	97
88) n-Propylbenz	13.43	91	3014183	27.4576	ug/L	94
89) 2chlorotolue	13.54	91	1860797	27.7343	ug/L	98
90) 4chlorotolue	13.69	91	2093044	28.1651	ug/L	97
91) 135Trimebenz	13.69	105	2154175	28.8655	ug/L	98
92) tbutylbenzen	14.15	119	1846298	29.9599	ug/L	99
93) 124Trimetben	14.22	105	2127391	28.0547	ug/L	95
94) sbutylbenzen	14.47	105	2613919	28.4924	ug/L	97
95) 13Diclorbenz	14.61	146	1098841	28.1570	ug/L	96
96) pIsopropylto	14.69	119	2167321	28.5543	ug/L	95
97) 14dichlorobe	14.73	146	1110096	27.5028	ug/L	98
98) 12dichlorobe	15.27	146	1050363	27.7841	ug/L	94
99) nButylbenzen	15.28	91	2032457	27.3680	ug/L	95
100) 12dibromo3cl	16.37	157	260384	31.1530	ug/L	90
101) 135Trichlorobenzene	16.71	180	741776	27.8677	ug/L	95

(#)=qualifier out of range (m)=manual integration

ICV2.D W110816.M Mon Nov 21 15:37:10 2016

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Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICV2.D

Vial: 14

Acq On : 8 Nov 2016 22:03

Operator: AGK-RLD

Sample : INITIAL CALIB. VERIF.

Inst : VMS3

Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:22:10 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	658919	27.0538	ug/L	94
103) Hexachlorobu	17.78	225	317280	29.0194	ug/L	98
104) Naphthalene	17.82	128	2105415	29.1449	ug/L	100
105) 123Trichlben	18.14	180	607169	28.9506	ug/L	97

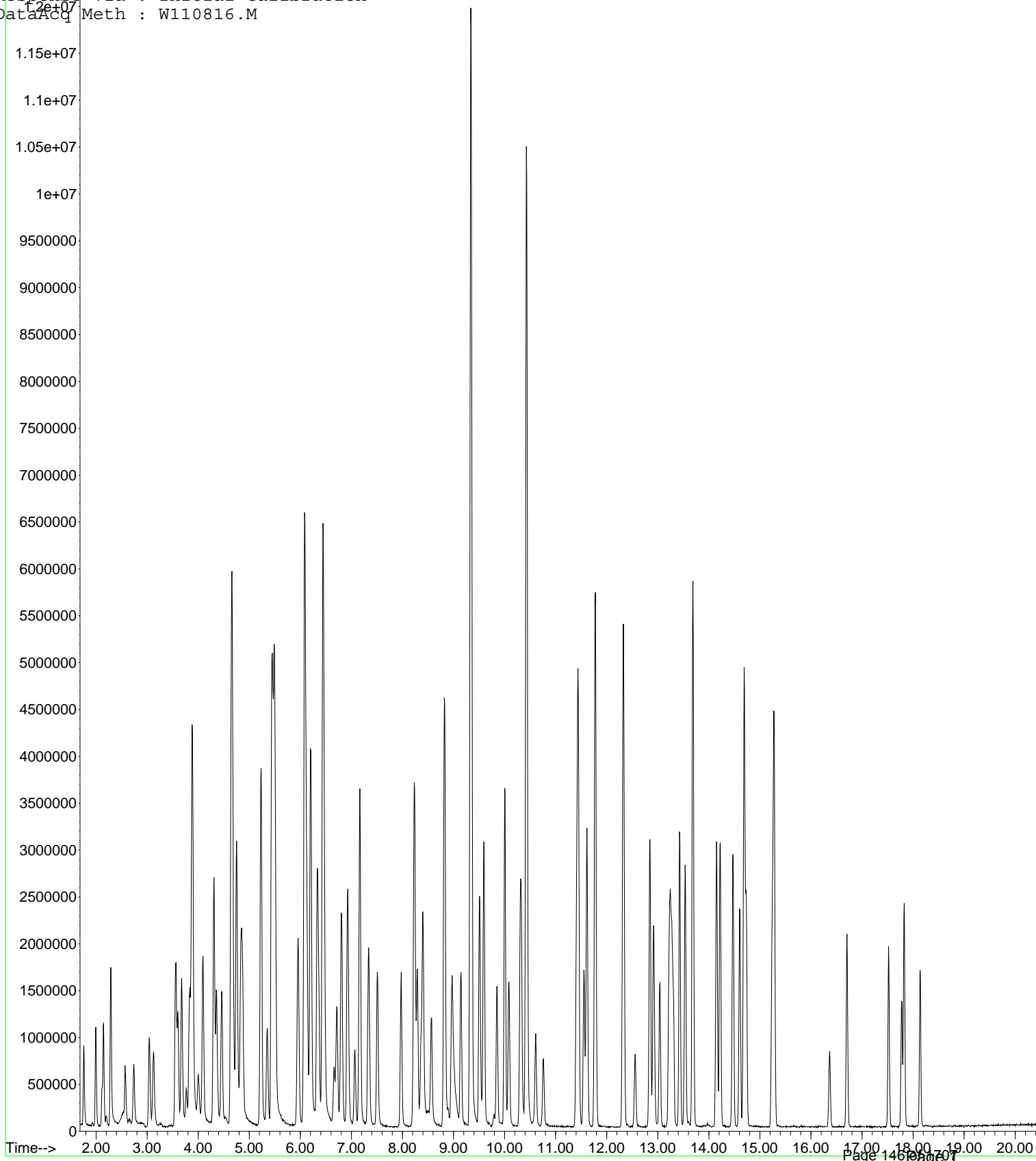
(#) = qualifier out of range (m) = manual integration

ICV2.D W110816.M Mon Nov 21 15:37:10 2016

Quantitation Report
Data File : C:\INSTARCH\Data\NOV0816\ICV2.D Vial: 14
Acq On : 8 Nov 2016 22:03 Operator: AGK-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.00/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS1 Integration Params: VOC.P

Quant Time: Nov 09 08:22:10 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:21:43 2016
Response via : Initial Calibration
Data File : W110816.M



Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICB1.D
 Acq On : 8 Nov 2016 23:03
 Sample : INITIAL CALIB. BLANK
 Misc : 5.0 mL DI H2O Purged + IS/SS
 MS Integration Params: VOC.P

Vial: 16
 Operator: AGK-RLD
 Inst : VMS3
 Multiplr: 1.00

Quant Time: Nov 09 08:22:46 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
						Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1505611	20.00	ug/L	0.00
						NA%
68) d5-CHLORO BENZENE**ISTD**	11.41	117	1085898	20.00	ug/L	0.00
						NA%
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	525929	20.00	ug/L	0.00
						NA%

System Monitoring Compounds

41) SURRDibrflma	6.66	113	380541	20.165	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 101	%
45) SURR12DCAd4	7.07	102	91808	18.138	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 91	%
61) SURRD8Tolule	9.51	98	1479650	19.400	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 97	%
83) SURR4BrFBenz	13.04	95	513456	21.174	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 106	%

Target Compounds

						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	1.99	50	11933	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.89	58	19153	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorothe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	3.89	43	54726	N.D.		
16) Iodomethane	4.01	142	7022	5.3009	ug/L #	41
17) Carbon Dislf	4.11	76	12583	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.67	59	18827	Below	Cal #	50
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorite	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.46	43	4298	Below	Cal #	78
28) chloroprene	5.48	53	2542	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorite	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydrofur	6.47	42	9256	N.D.		

(#) = qualifier out of range (m) = manual integration

ICB1.D W110816.M Mon Nov 21 15:55:53 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICB1.D

Vial: 16

Acq On : 8 Nov 2016 23:03

Operator: AGK-RLD

Sample : INITIAL CALIB. BLANK

Inst : VMS3

Misc : 5.0 mL DI H2O Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:22:46 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.		
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	0.00	119	0	N.D.		
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	7.15	78	2961	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	0.00	95	0	N.D.		
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	8.42	88	10535	30.8314	ug/L #	61
56) Bromodiclma	0.00	83	0	N.D.		
57) 2Nitropropane	8.84	43	3221	1.4007	ug/L #	17
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	9.34	43	8703	Below	Cal #	68
62) Toluene	9.62	92	2671	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	10.42	43	7794	Below	Cal #	31
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	11.44	112	2528	N.D.		
73) 1Clhexane	11.41	91	4303	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	12.90	55	12731	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	0.00	91	0	N.D.		
89) 2chlorotolue	0.00	91	0	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	14.21	105	2844	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	14.72	146	2781	N.D.		
96) pIsopropylto	0.00	119	0	N.D.		
97) 14dichlorobe	14.72	146	2781	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	15.23	91	2614	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

ICB1.D W110816.M Mon Nov 21 15:55:53 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV0816\ICB1.D

Vial: 16

Acq On : 8 Nov 2016 23:03

Operator: AGK-RLD

Sample : INITIAL CALIB. BLANK

Inst : VMS3

Misc : 5.0 mL DI H2O Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 09 08:22:46 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Wed Nov 09 08:21:43 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	17.82	128	7496	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

ICB1.D W110816.M Mon Nov 21 15:55:53 2016

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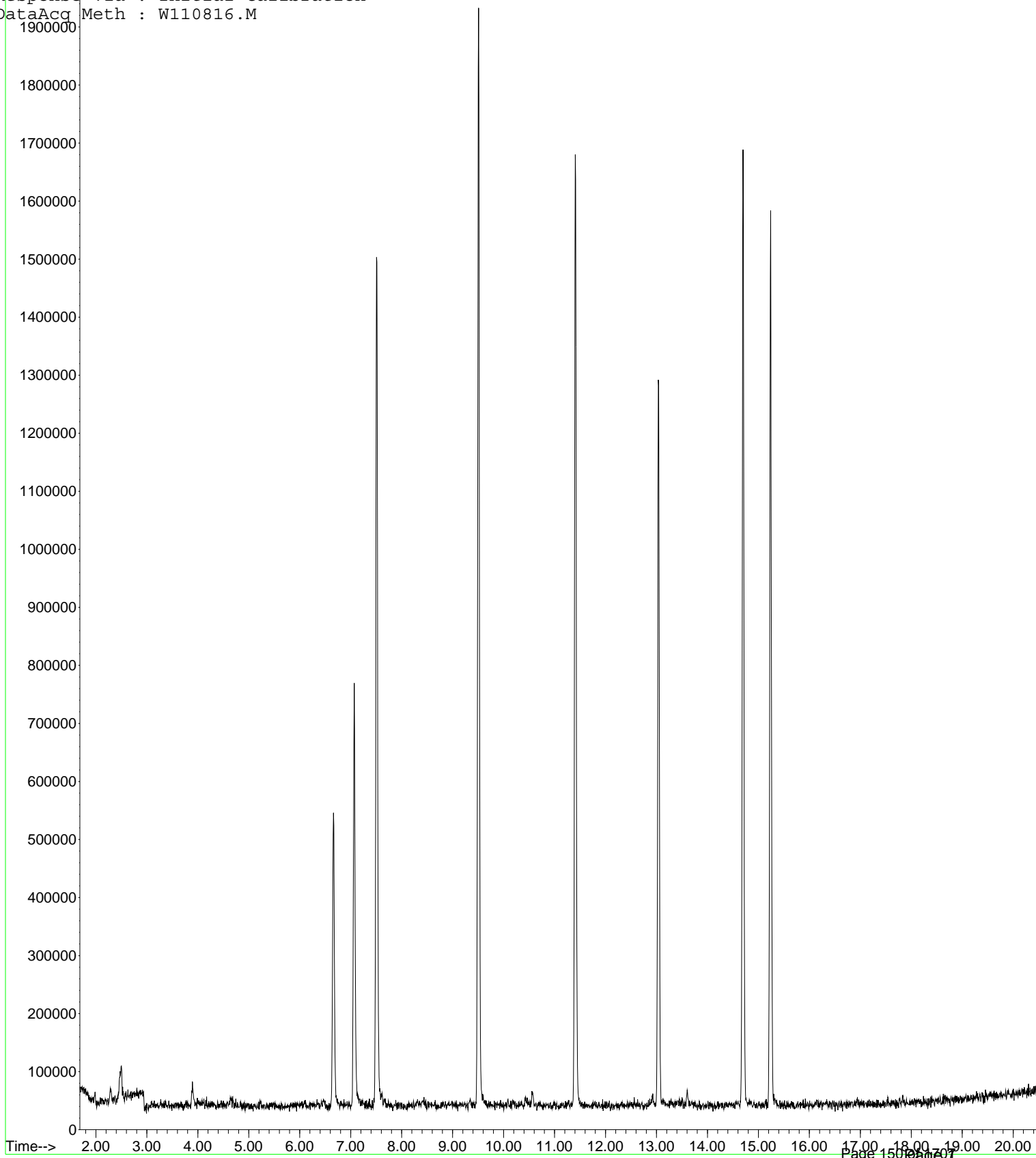
Page 107 Page 3

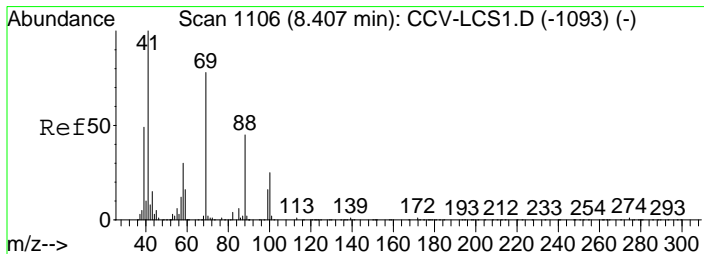
Quantitation Report
Data File : C:\INSTARCH\Data\NOV0816\ICB1.D
Acq On : 8 Nov 2016 23:03
Sample : INITIAL CALIB. BLANK
Misc : 5.0 mL DI H2O Purged + IS/SS
MS Integration Params: VOC.P

TIC: ICB1.D
Vial: 16
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Quant Time: Nov 09 08:22:46 2016 Results File: W110816.RES

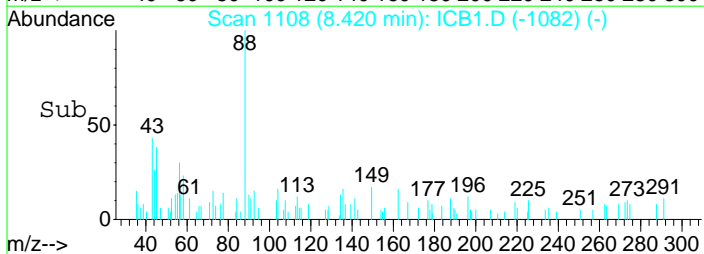
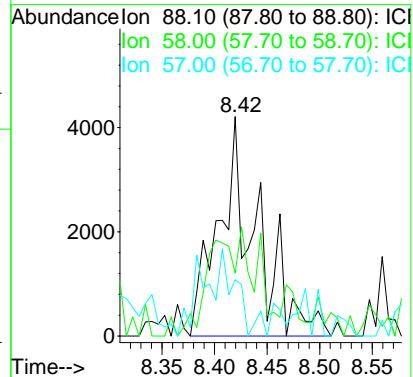
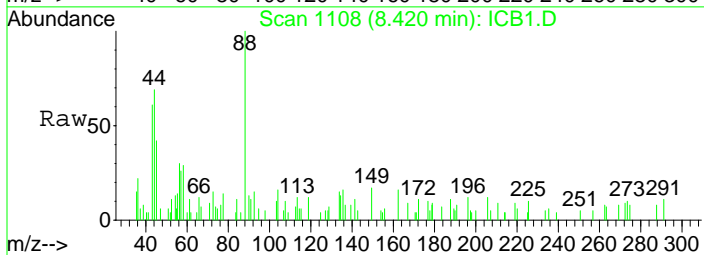
Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Nov 09 08:21:43 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M





#55
 14dioxane
 Concen: 30.83 ug/L
 RT: 8.42 min Scan# 1108
 Delta R.T. 0.01 min
 Lab File: ICB1.D
 Acq: 8 Nov 2016 23:03

Tgt Ion	Ratio	Lower	Upper
88	100		
58	59.2	72.5	112.5#
57	0.0	7.1	47.1#



**VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS**

Data File : C:\INSTARCH\Data\NOV1616\BFB2.D
Acq On : 16 Nov 2016 15:26
Sample : 132610,BFB,
Misc : 25 ng Inj.
Integration File: VOC.P

Vial: 15
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Method : C:\INSTARCH\METHODS\W110816.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.423 to 4.453 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.4	14507	PASS
75	95	30	60	52.4	25869	PASS
95	95	100	100	100.0	49408	PASS
96	95	5	9	6.5	3232	PASS
173	174	0.00	2	0.6	250	PASS
174	95	50	100	82.6	40825	PASS
175	174	5	9	9.0	3667	PASS
176	174	95	101	98.7	40286	PASS
177	176	5	9	7.1	2843	PASS

W110816.M Mon Nov 21 09:48:29 2016

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
 Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
 Sample : 132610,LCSW, Inst : VMS3
 Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 Integrator: RTE

Quant Time: Nov 16 16:05:07 2016

Quant Method : C:\INSTARCH\METHODS\W110816.M
 Quant Title : 8260C Waters Method
 Response via : Initial Calibration
 DataAcq Meth:W110816.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	87	0.00
2 PT	Dichlorodi	0.2938	0.3158	-7.49	86	0.00
3 PT	Chloromethan	0.5657	0.5328	5.82	86	0.00
4 PT	VinylChlorid	0.4481	0.4649	-3.75	87	0.00
5 PT	Bromomethane	0.1168	0.0774#	33.73#	61	0.01
6 PT	Chloroethane	0.2650	0.2258	14.79	76	0.00
7 T	Dichloroflmethane	0.4801	0.4885	-1.75	91	0.00
8 PT	Trichlorofma	0.3300	0.3430	-3.94	87	0.00
9 T	Ethylether	0.2914	0.3053	-4.77	95	0.00
10 T	dichlorotfluoroethan	0.2968	0.3054	-2.90	86	0.00
11 T	propyleneoxide	0.0679	0.0633	6.77	78	0.00
12 T	Acrolein	0.1335	0.1081	19.03	73	0.00
13 PT	1ldichlorothe	0.2306	0.2138	7.29	81	0.01
14 PT	Trichlorotfluoroeth	0.2044	0.2098	-2.64	86	0.00
15 PT	Acetone	0.2110	0.2039	3.36	83	0.00
16 T	Iodomethane	0.1004	0.0977	2.69	117	0.00
17 PT	Carbon Dislf	0.6362	0.6727	-5.74	92	0.00
18 T	allylchloride	0.4879	0.5889	-20.70#	99	0.00
19 PT	methylacetate	0.1622	0.1547	4.62	87	0.00
20 PT	Methylchlorid	0.2590	0.2662	-2.78	90	0.00
21 T	tbutylalcohol	0.0914	0.0817	10.61	76	0.00
22 T	Acrylonitrile	0.2322	0.2448	-5.43	90	0.00
23 PT	tl2dichlorte	0.2286	0.2480	-8.49	94	0.00
24 PT	MtBE	0.7299	0.7538	-3.27	93	0.00
25 T	Hexane	0.4938	0.5495	-11.28	89	0.00
26 PT	1ldichlorota	0.5627	0.5828	-3.57	90	0.00
27 T	Vinylacetate	0.6887	0.8144	-18.25	110	0.00
28 T	chloroprene	0.5496	0.6247	-13.66	91	0.00
29 T	Diisopether	1.2045	1.4240	-18.22	98	0.00
30 T	ETBE	0.9700	1.0122	-4.35	90	0.00
31 T	22dichloropr	0.3726	0.3733	-0.19	86	0.01
32 PT	cl2dichlorte	0.2897	0.2863	1.17	88	0.00
33 PT	2Butanone	0.0692	0.0652#	5.78	85	0.00
34 T	propionitrile	0.1064	0.1017	4.42	85	0.00
35 T	Ethylacetate	0.0177	0.0147#	16.95	84	0.00
36 T	methacrylonitrile	0.1894	0.1893	0.05	86	0.00
37 T	Bromochlorma	0.1128	0.1154	-2.30	88	0.00
38 T	Tetrahydofur	0.2385	0.2620	-9.85	96	0.00
39 PT	Chloroform	0.4399	0.4538	-3.16	89	0.00
40 PT	11ltrichlota	0.3909	0.3971	-1.59	89	0.01
41 S	SURRDibrflma	0.2507	0.2380	5.07	85	0.00
42 PT	Cyclohexane	0.6376	0.6821	-6.98	88	0.00
43 PT	Carbtetracllo	0.3088	0.3074	0.45	88	0.00
44 T	1ldicloprope	0.1219	0.1264	-3.69	83	0.00
45 S	SURR12DCAd4	0.0672	0.0676	-0.60	86	0.00
46 PT	Benzene	1.0227	1.0837	-5.96	88	0.00
47 PT	12dichlorota	0.4433	0.4231	4.56	86	0.00
48 T	TAME	0.7285	0.7961	-9.28	95	0.00

49	PT	trichloroete	0.2547	0.2606	-2.32	87	0.00
50	PT	methylcyclohexane	0.4408	0.4434	-0.59	86	0.00
51	PT	12dicloropra	0.3554	0.3643	-2.50	86	0.00
52	T	23Dicl1propene	0.3996	0.4224	-5.71	89	0.00
53	T	Dibromometha	0.1717	0.1573	8.39	83	0.00
54	T	methylmethacrylate	0.2756	0.2733	0.83	87	0.00
55	T	14dioxane	0.0045	0.0025#	44.44#	53	0.00
56	PT	Bromodiclrma	0.3210	0.3362	-4.74	89	0.00
57	T	2Nitropropane	0.1863	0.1835	1.50	83	0.00
58	T	2CLEVE	0.0257	0.0452	-75.88#	152	0.00
59	PT	cl3dicloproe	0.4438	0.4379	1.33	89	0.00
60	PT	4Meth2Pentan	0.5504	0.6369	-15.72	96	0.00
61	S	SURRd8Tolule	1.0132	0.9979	1.51	85	0.00
62	PT	Toluene	0.6308	0.6693	-6.10	90	0.00
63	PT	tl3Dicloprop	0.3927	0.3602	8.28	83	0.00
64	T	ethylmethacrylate	0.4041	0.4147	-2.62	90	0.00
65	PT	112Triclotha	0.2146	0.2211	-3.03	94	0.00
66	PT	Tetrachlorte	0.2541	0.2677	-5.35	87	0.00
67	T	13Dicloropropa	0.4416	0.4423	-0.16	85	0.00
68	I	d5-CHLORO BENZENE**ISTD**	1.0000	1.0000	0.00	84	0.00
69	PT	2Hexanone	0.6333	0.7195	-13.61	94	0.00
70	PT	Clorodibrmta	0.3280	0.2865	12.65	83	0.00
71	PT	12Dibrometha	0.3565	0.3557	0.22	89	0.00
72	PT	Chlorobenzen	0.9231	0.9448	-2.35	89	0.00
73	T	1Clhexane	0.4979	0.5067	-1.77	88	0.00
74	T	1112Tetclota	0.3138	0.3159	-0.67	91	0.00
75	PT	Ethylbenzene	1.5869	1.7085	-7.66	89	0.00
76	PT	m p-Xylene	0.6124	0.6386	-4.28	87	0.00
77	PT	o-Xylene	0.5913	0.6338	-7.19	91	0.00
78	PT	Styrene	0.9495	1.0092	-6.29	93	0.00
79	PT	Bromoform	0.2501	0.2187	12.55	74	0.00
80	PT	Isopropylben	1.4325	1.5249	-6.45	88	0.00
81	T	cyclohexanone	0.0362	0.0247#	31.77#	60	0.00
82	I	d4-1,4-DICHLORO BENZENE**IS	1.0000	1.0000	0.00	88	0.00
83	S	SURR4BrFBenz	0.9222	0.8973	2.70	82	0.00
84	T	Bromobenzene	0.6964	0.7129	-2.37	88	0.01
85	PT	1122Tetrclta	1.1253	1.2269	-9.03	95	0.00
86	T	123Triclproa	1.4022	1.3181	6.00	80	0.00
87	T	14dichloro2butene	0.4121	0.3343	18.88	74	0.00
88	T	n-Propylbenz	3.2694	3.6148	-10.56	87	0.00
89	T	2chlorotolue	1.9982	2.0254	-1.36	86	0.00
90	T	4chlorotolue	2.2133	2.4419	-10.33	91	0.00
91	T	135Trimebenz	2.2226	2.3566	-6.03	86	0.00
92	T	tbutylbenzen	1.8354	1.9499	-6.24	85	0.00
93	T	124Trimetben	2.2584	2.3151	-2.51	82	0.00
94	T	sbutylbenzen	2.7323	2.9778	-8.99	88	0.00
95	PT	13Diclorbenz	1.1623	1.1956	-2.87	85	0.00
96	T	pIsopropylto	2.2606	2.3923	-5.83	86	0.00
97	PT	14dichlorobe	1.2021	1.2550	-4.40	88	0.00
98	PT	12dichlorobe	1.1259	1.1424	-1.47	89	0.00
99	T	nButylbenzen	2.2118	2.3602	-6.71	86	0.00
100	PT	12dibromo3cl	0.2489	0.2112	15.15	75	0.02
101	T	135Trichlorobenzene	0.7928	0.7917	0.14	81	0.00
102	PT	124Trichlobe	0.7254	0.6850	5.57	83	0.00
103	T	Hexachlorobu	0.3256	0.3035	6.79	79	0.00
104	T	Naphthalene	2.1515	2.0712	3.73	80	0.00
105	T	123Trichlben	0.6246	0.5630	9.86	79	0.00

(#) = Out of Range

SPCC's out = 2 CCC's out = 0

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
 Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
 Sample : 132610,LCSW, Inst : VMS3
 Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
 Integrator: RTE

Quant Time: Nov 16 16:05:07 2016

Quant Method : C:\INSTARCH\METHODS\W110816.M
 Quant Title : 8260C Waters Method
 Response via : Initial Calibration
 DataAcq Meth:W110816.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	87	0.00
2 PT	Dichlorodi	10.0000	10.7491	-7.49	86	0.00
3 PT	Chloromethan	10.0000	9.9627	0.37	86	0.00
4 PT	VinylChlorid	10.0000	10.3746	-3.75	87	0.00
5 PT	Bromomethane	10.0000	6.6313	33.69#	61	0.01
6 PT	Chloroethane	10.0000	8.5188	14.81	76	0.00
7 T	Dichloroflmethane	10.0000	10.1768	-1.77	91	0.00
8 PT	Trichlorofma	10.0000	10.3921	-3.92	87	0.00
9 T	Ethylether	10.0000	10.4777	-4.78	95	0.00
10 T	dichlorotfluoroethan	10.0000	10.2901	-2.90	86	0.00
11 T	propyleneoxide	100.0000	93.2791	6.72	78	0.00
12 T	Acrolein	50.0000	40.4673	19.07	73	0.00
13 PT	1ldichlorothe	10.0000	9.2708	7.29	81	0.01
14 PT	Trichlorotfluoroeth	20.0000	20.5328	-2.66	86	0.00
15 PT	Acetone	100.0000	95.9354	4.06	83	0.00
16 T	Iodomethane	20.0000	18.3484	8.26	117	0.00
17 PT	Carbon Dislf	20.0000	21.1482	-5.74	92	0.00
18 T	allylchloride	20.0000	24.1396	-20.70#	99	0.00
19 PT	methylacetate	10.0000	9.5349	4.65	87	0.00
20 PT	Methylchlorid	10.0000	10.2773	-2.77	90	0.00
21 T	tbutylalcohol	500.0000	440.9703	11.81	76	0.00
22 T	Acrylonitrile	50.0000	52.7193	-5.44	90	0.00
23 PT	tl2dichlorte	10.0000	10.8513	-8.51	94	0.00
24 PT	MtBE	10.0000	10.3273	-3.27	93	0.00
25 T	Hexane	20.0000	22.2522	-11.26	89	0.00
26 PT	1ldichlorota	10.0000	10.3583	-3.58	90	0.00
27 T	Vinylacetate	100.0000	123.7179	-23.72#	110	0.00
28 T	chloroprene	20.0000	22.7331	-13.67	91	0.00
29 T	Diisopether	10.0000	11.8217	-18.22	98	0.00
30 T	ETBE	10.0000	10.4348	-4.35	90	0.00
31 T	22dichloropr	10.0000	10.0207	-0.21	86	0.01
32 PT	cl2dichlorte	10.0000	9.8823	1.18	88	0.00
33 PT	2Butanone	100.0000	94.2763	5.72	85	0.00
34 T	propionitrile	100.0000	95.6266	4.37	85	0.00
35 T	Ethylacetate	50.0000	41.7101	16.58	84	0.00
36 T	methacrylonitrile	20.0000	19.9873	0.06	86	0.00
37 T	Bromochlorma	10.0000	10.2307	-2.31	88	0.00
38 T	Tetrahydofur	100.0000	109.8300	-9.83	96	0.00
39 PT	Chloroform	10.0000	10.3166	-3.17	89	0.00
40 PT	11ltrichlota	10.0000	10.1590	-1.59	89	0.01
41 S	SURRDibrflma	20.0000	18.9900	5.05	85	0.00
42 PT	Cyclohexane	10.0000	10.6987	-6.99	88	0.00
43 PT	Carbtetracl	10.0000	9.9528	0.47	88	0.00
44 T	1ldicloprope	10.0000	10.3722	-3.72	83	0.00
45 S	SURR12DCAd4	20.0000	20.1128	-0.56	86	0.00
46 PT	Benzene	10.0000	10.5960	-5.96	88	0.00
47 PT	12dichlorota	10.0000	9.5455	4.54	86	0.00
48 T	TAME	10.0000	10.9287	-9.29	95	0.00

49	PT	trichloroete	10.0000	10.2331	-2.33	87	0.00
50	PT	methylcyclohexane	10.0000	10.0594	-0.59	86	0.00
51	PT	12dicloropra	10.0000	10.2500	-2.50	86	0.00
52	T	23Dicl1propene	10.0000	10.5726	-5.73	89	0.00
53	T	Dibromometha	10.0000	9.1653	8.35	83	0.00
54	T	methylmethacrylate	10.0000	9.9161	0.84	87	0.00
55	T	14dioxane	500.0000	278.5446	44.29#	53	0.00
56	PT	Bromodiclrma	10.0000	10.4724	-4.72	89	0.00
57	T	2Nitropropane	100.0000	91.4531	8.55	83	0.00
58	T	2CLEVE	50.0000	69.2106	-38.42#	152	0.00
59	PT	cl3dicloproe	10.0000	9.8673	1.33	89	0.00
60	PT	4Meth2Pentan	100.0000	115.8067	-15.81	96	0.00
61	S	SURRd8Tolule	20.0000	19.6987	1.51	85	0.00
62	PT	Toluene	10.0000	10.6093	-6.09	90	0.00
63	PT	tl3Dicloprop	10.0000	9.1734	8.27	83	0.00
64	T	ethylmethacrylate	20.0000	20.5211	-2.61	90	0.00
65	PT	112Triclotha	10.0000	10.3006	-3.01	94	0.00
66	PT	Tetrachlorte	10.0000	10.5344	-5.34	87	0.00
67	T	13Dicloropropa	10.0000	10.0160	-0.16	85	0.00
68	I	d5-CHLORO BENZENE**ISTD**	20.0000	20.0000	0.00	84	0.00
69	PT	2Hexanone	100.0000	112.1004	-12.10	94	0.00
70	PT	Clorodibrmta	10.0000	8.7354	12.65	83	0.00
71	PT	12Dibrometha	10.0000	9.9780	0.22	89	0.00
72	PT	Chlorobenzen	10.0000	10.2350	-2.35	89	0.00
73	T	1Clhexane	10.0000	10.1767	-1.77	88	0.00
74	T	1112Tetclota	10.0000	10.0662	-0.66	91	0.00
75	PT	Ethylbenzene	10.0000	10.7661	-7.66	89	0.00
76	PT	m p-Xylene	20.0000	20.8537	-4.27	87	0.00
77	PT	o-Xylene	10.0000	10.7189	-7.19	91	0.00
78	PT	Styrene	10.0000	10.6295	-6.30	93	0.00
79	PT	Bromoform	10.0000	8.7440	12.56	74	0.00
80	PT	Isopropylben	10.0000	10.6450	-6.45	88	0.00
81	T	cyclohexanone	200.0000	136.5611	31.72#	60	0.00
82	I	d4-1,4-DICHLORO BENZENE**IS	20.0000	20.0000	0.00	88	0.00
83	S	SURR4BrFBenz	20.0000	19.4607	2.70	82	0.00
84	T	Bromobenzene	10.0000	10.2374	-2.37	88	0.01
85	PT	1122Tetrclta	10.0000	10.9030	-9.03	95	0.00
86	T	123Triclproa	10.0000	9.4003	6.00	80	0.00
87	T	14dichloro2butene	10.0000	8.1128	18.87	74	0.00
88	T	n-Propylbenz	10.0000	11.0562	-10.56	87	0.00
89	T	2chlorotolue	10.0000	10.1359	-1.36	86	0.00
90	T	4chlorotolue	10.0000	11.0330	-10.33	91	0.00
91	T	135Trimebenz	10.0000	10.6028	-6.03	86	0.00
92	T	tbutylbenzen	10.0000	10.6237	-6.24	85	0.00
93	T	124Trimetben	10.0000	10.2510	-2.51	82	0.00
94	T	sbutylbenzen	10.0000	10.8984	-8.98	88	0.00
95	PT	13Diclorbenz	10.0000	10.2862	-2.86	85	0.00
96	T	pIsopropylto	10.0000	10.5827	-5.83	86	0.00
97	PT	14dichlorobe	10.0000	10.4396	-4.40	88	0.00
98	PT	12dichlorobe	10.0000	10.1460	-1.46	89	0.00
99	T	nButylbenzen	10.0000	10.6709	-6.71	86	0.00
100	PT	12dibromo3cl	10.0000	8.4824	15.18	75	0.02
101	T	135Trichlorobenzene	10.0000	9.9863	0.14	81	0.00
102	PT	124Trichlobe	10.0000	9.4428	5.57	83	0.00
103	T	Hexachlorobu	10.0000	9.3196	6.80	79	0.00
104	T	Naphthalene	10.0000	9.6268	3.73	80	0.00
105	T	123Trichlben	10.0000	9.0130	9.87	79	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D

Vial: 16

Acq On : 16 Nov 2016 15:44

Operator: AGK-RLD

Sample : 132610,LCSW,

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1162832	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	838224	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	436001	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.67	113	276784	18.990	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 95	%
45) SURR12DCAd4	7.07	102	78626	20.113	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 101	%
61) SURRD8Tolule	9.51	98	1160388	19.699	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 98	%
83) SURR4BrFBenz	13.04	95	391227	19.461	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 97	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	183615	10.7491	ug/L	95
3) Chloromethan	2.00	50	309755	9.9627	ug/L	94
4) VinylChlorid	2.15	62	270305	10.3746	ug/L	97
5) Bromomethane	2.59	94	45017	6.6313	ug/L	98
6) Chloroethane	2.75	64	131266	8.5188	ug/L	95
7) Dichloroflmethane	3.04	67	284045	10.1768	ug/L	95
8) Trichlorofma	3.13	101	199421	10.3921	ug/L	90
9) Ethylether	3.56	59	177530	10.4777	ug/L	98
10) dichlorotfluoroethan	3.56	67	177547	10.2901	ug/L	97
11) propyleneoxide	3.88	58	368008	93.2791	ug/L	90
12) Acrolein	3.68	56	314219	40.4673	ug/L	93
13) 11dichlorothe	3.84	96	124309	9.2708	ug/L	# 87
14) Trichlorotfluoroeth	3.88	101	244012	20.5328	ug/L	97
15) Acetone	3.89	43	1185674	95.9354	ug/L	97
16) Iodomethane	4.00	142	113570	18.3484	ug/L	93
17) Carbon Dislf	4.09	76	782275	21.1482	ug/L	99
18) allylchloride	4.31	41	684798	24.1396	ug/L	94
19) methylacetate	4.36	74	89920	9.5349	ug/L	99
20) Methylchlorid	4.47	84	154788	10.2773	ug/L	100
21) tbutylalcohol	4.65	59	2374567	440.9703	ug/L	98
22) Acrylonitrile	4.75	53	711622	52.7193	ug/L	99
23) t12dichlorote	4.84	96	144219	10.8513	ug/L	95
24) MtBE	4.86	73	438290	10.3273	ug/L	96
25) Hexane	5.23	57	638922	22.2522	ug/L	97
26) 11dichlorota	5.35	63	338865	10.3583	ug/L	99
27) Vinylacetate	5.44	43	4735030	123.7179	ug/L	98
28) chloroprene	5.48	53	726365	22.7331	ug/L	99
29) Diisopether	5.51	45	827913	11.8217	ug/L	94
30) ETBE	5.96	59	588504	10.4348	ug/L	98
31) 22dichloropr	6.09	77	217070	10.0207	ug/L	98
32) c12dichlorote	6.08	96	166459	9.8823	ug/L	96
33) 2Butanone	6.09	72	379342	94.2763	ug/L	99
34) propionitrile	6.13	54	591444	95.6266	ug/L	98
35) Ethylacetate	6.20	88	42873	41.7101	ug/L	# 76
36) methacrylonitrile	6.34	67	220079	19.9873	ug/L	89
37) Bromochloroma	6.36	128	67077	10.2307	ug/L	97
38) Tetrahydofur	6.44	42	1523050	109.8300	ug/L	93

(#) = qualifier out of range (m) = manual integration

CCV-LCS2.D W110816.M

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Page 116 Page 1

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D

Vial: 16

Acq On : 16 Nov 2016 15:44

Operator: AGK-RLD

Sample : 132610,LCSW,

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	263848	10.3166	ug/L	99
40) 111trichlota	6.72	97	230879	10.1590	ug/L	98
42) Cyclohexane	6.81	56	396586	10.6987	ug/L	98
43) Carbtetraclo	6.94	119	178714	9.9528	ug/L	96
44) 11dicloroprope	6.93	110	73510	10.3722	ug/L	95
46) Benzene	7.16	78	630069	10.5960	ug/L	97
47) 12dichlorota	7.16	62	246014	9.5455	ug/L	98
48) TAME	7.34	73	462886	10.9287	ug/L	99
49) trichloroete	7.97	95	151512	10.2331	ug/L	98
50) methylcyclohexane	8.24	83	257821	10.0594	ug/L	96
51) 12dicloropra	8.22	63	211815	10.2500	ug/L	97
52) 23Dicl1propene	8.29	75	245619	10.5726	ug/L	98
53) Dibromometha	8.36	93	91478	9.1653	ug/L	97
54) methylmethacrylate	8.40	69	158892	9.9161	ug/L	99
55) 14dioxane	8.41	88	73509	278.5446	ug/L	89
56) Bromodiclma	8.57	83	195457	10.4724	ug/L	97
57) 2Nitropropane	8.82	43	1066786	91.4531	ug/L	98
58) 2CLEVE	8.96	63	131537	69.2106	ug/L	97
59) c13diclorproe	9.14	75	254597	9.8673	ug/L	98
60) 4Meth2Pentan	9.34	43	3702782	115.8067	ug/L	96
62) Toluene	9.59	92	389116	10.6093	ug/L	94
63) t13Dicloroprop	9.86	75	209423	9.1734	ug/L	94
64) ethylmethacrylate	10.01	69	482176	20.5211	ug/L	94
65) 112Triclotha	10.09	83	128538	10.3006	ug/L	98
66) Tetrachlorte	10.32	166	155662	10.5344	ug/L	97
67) 13Diclorpropa	10.31	76	257167	10.0160	ug/L	100
69) 2Hexanone	10.43	43	3015608	112.1004	ug/L	98
70) Clorodibrmta	10.61	129	120094	8.7354	ug/L	90
71) 12Dibrometha	10.76	107	149071	9.9780	ug/L	98
72) Chlorobenzen	11.45	112	395965	10.2350	ug/L	99
73) 1Clhexane	11.44	91	212353	10.1767	ug/L	99
74) 1112Tetclota	11.55	131	132394	10.0662	ug/L	91
75) Ethylbenzene	11.61	91	716056	10.7661	ug/L	99
76) m p-Xylene	11.78	106	535264	20.8537	ug/L	97
77) o-Xylene	12.32	106	265621	10.7189	ug/L	96
78) Styrene	12.33	104	422987	10.6295	ug/L	96
79) Bromoform	12.56	173	91641	8.7440	ug/L	90
80) Isopropylben	12.85	105	639112	10.6450	ug/L	100
81) cyclohexanone	12.92	55	207226	136.5611	ug/L	99
84) Bromobenzene	13.26	156	155422	10.2374	ug/L	95
85) 1122Tetrclta	13.22	83	267471	10.9030	ug/L	99
86) 123Tric1proa	13.28	75	287341	9.4003	ug/L	98
87) 14dichloro2butene	13.30	53	72883	8.1128	ug/L	97
88) n-Propylbenz	13.43	91	788024	11.0562	ug/L	99
89) 2chlorotolue	13.54	91	441536	10.1359	ug/L	99
90) 4chlorotolue	13.69	91	532334	11.0330	ug/L	99
91) 135Trimetbenz	13.69	105	513746	10.6028	ug/L	95
92) tbutylbenzen	14.15	119	425072	10.6237	ug/L	97
93) 124Trimetben	14.22	105	504699	10.2510	ug/L	95
94) sbutylbenzen	14.47	105	649160	10.8984	ug/L	100
95) 13Diclorbenz	14.61	146	260633	10.2862	ug/L	99
96) pIsopropylto	14.69	119	521521	10.5827	ug/L	95
97) 14dichlorobe	14.73	146	273585	10.4396	ug/L	96
98) 12dichlorobe	15.27	146	249037	10.1460	ug/L	96
99) nButylbenzen	15.28	91	514521	10.6709	ug/L	98
100) 12dibromo3cl	16.38	157	46032	8.4824	ug/L	94
101) 135Trichlorobenzene	16.71	180	172585	9.9863	ug/L	97

(#)=qualifier out of range (m)=manual integration

CCV-LCS2.D W110816.M

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Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
Sample : 132610,LCSW, Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	149324	9.4428	ug/L	98
103) Hexachlorobu	17.77	225	66157	9.3196	ug/L	96
104) Naphthalene	17.83	128	451523	9.6268	ug/L	98
105) 123Trichlben	18.14	180	122729	9.0130	ug/L	95

(#) = qualifier out of range (m) = manual integration

CCV-LCS2.D W110816.M Mon Nov 21 09:50:17 2016

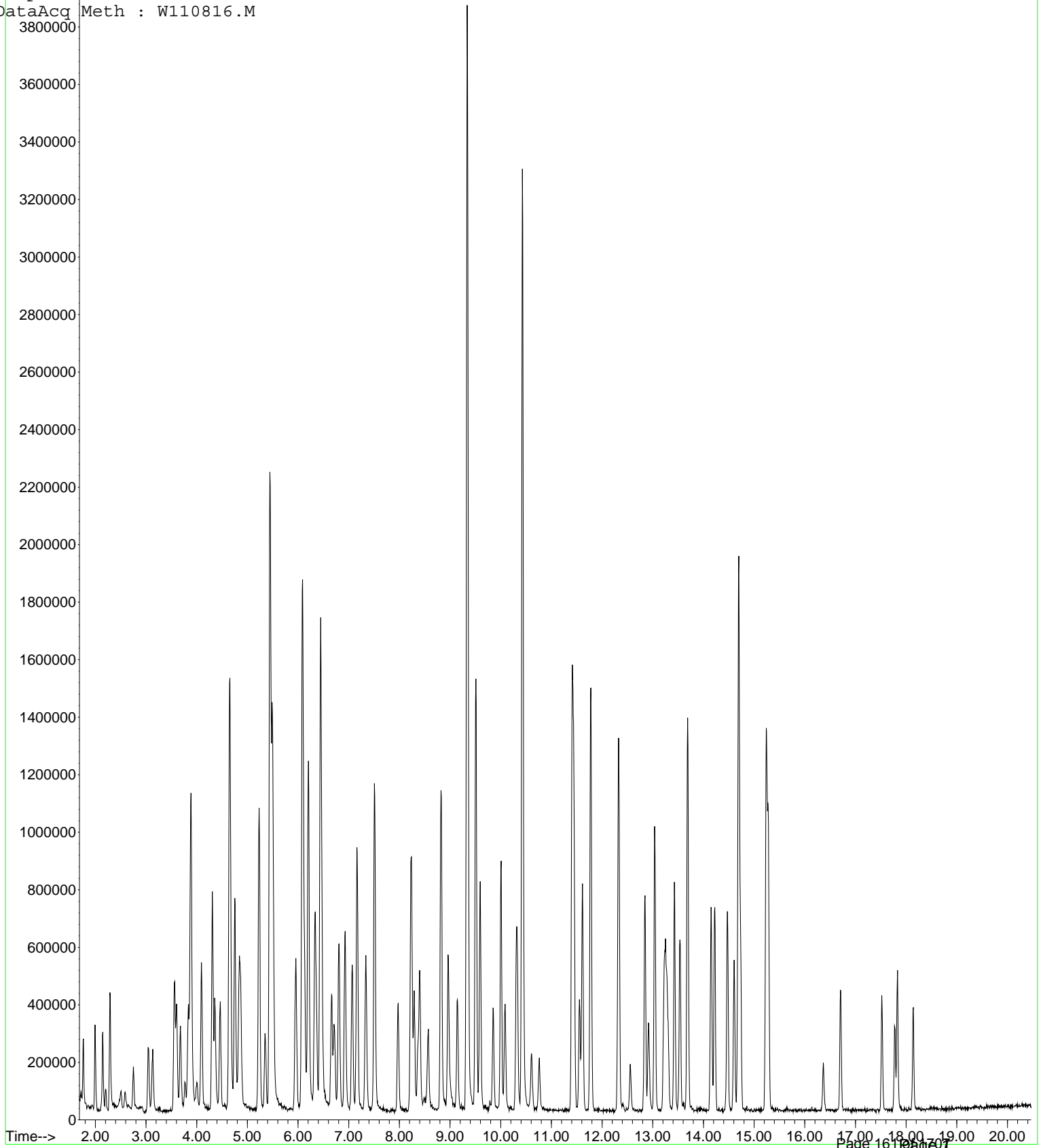
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Quantitation Report
TIC: CCV-LCS2.D
Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
Sample : 132610,LCSW, Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sun Nov 13 10:10:19 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



**VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS**

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D

Vial: 16

Acq On : 16 Nov 2016 15:44

Operator: AGK-RLD

Sample : 132610,LCSW,

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1162832	20.00	ug/L	0.00
68) d5-CHLOROBNZENE**ISTD**	11.41	117	838224	20.00	ug/L	0.00
82) d4-1,4-DICHLOROBNZENE**IS	14.70	152	436001	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.67	113	276784	18.990	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 95	%
45) SURR12DCAd4	7.07	102	78626	20.113	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 101	%
61) SURRD8Tolule	9.51	98	1160388	19.699	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 98	%
83) SURR4BrFBenz	13.04	95	391227	19.461	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 97	%

Target Compounds

						Qvalue
2) Dichlorodi	1.76	85	183615	10.7491	ug/L	95
3) Chloromethan	2.00	50	309755	9.9627	ug/L	94
4) VinylChlorid	2.15	62	270305	10.3746	ug/L	97
5) Bromomethane	2.59	94	45017	6.6313	ug/L	98
6) Chloroethane	2.75	64	131266	8.5188	ug/L	95
7) Dichloroflmethane	3.04	67	284045	10.1768	ug/L	95
8) Trichlorofma	3.13	101	199421	10.3921	ug/L	90
9) Ethylether	3.56	59	177530	10.4777	ug/L	98
10) dichlorotfluoroethan	3.56	67	177547	10.2901	ug/L	97
11) propyleneoxide	3.88	58	368008	93.2791	ug/L	90
12) Acrolein	3.68	56	314219	40.4673	ug/L	93
13) 11dichlorothe	3.84	96	124309	9.2708	ug/L	# 87
14) Trichlorotfluoroeth	3.88	101	244012	20.5328	ug/L	97
15) Acetone	3.89	43	1185674	95.9354	ug/L	97
16) Iodomethane	4.00	142	113570	18.3484	ug/L	93
17) Carbon Dislf	4.09	76	782275	21.1482	ug/L	99
18) allylchloride	4.31	41	684798	24.1396	ug/L	94
19) methylacetate	4.36	74	89920	9.5349	ug/L	99
20) Methylchlorid	4.47	84	154788	10.2773	ug/L	100
21) tbutylalcohol	4.65	59	2374567	440.9703	ug/L	98
22) Acrylonitrile	4.75	53	711622	52.7193	ug/L	99
23) t12dichlorote	4.84	96	144219	10.8513	ug/L	95
24) MtBE	4.86	73	438290	10.3273	ug/L	96
25) Hexane	5.23	57	638922	22.2522	ug/L	97
26) 11dichlorota	5.35	63	338865	10.3583	ug/L	99
27) Vinylacetate	5.44	43	4735030	123.7179	ug/L	98
28) chloroprene	5.48	53	726365	22.7331	ug/L	99
29) Diisopether	5.51	45	827913	11.8217	ug/L	94
30) ETBE	5.96	59	588504	10.4348	ug/L	98
31) 22dichloropr	6.09	77	217070	10.0207	ug/L	98
32) c12dichlorote	6.08	96	166459	9.8823	ug/L	96
33) 2Butanone	6.09	72	379342	94.2763	ug/L	99
34) propionitrile	6.13	54	591444	95.6266	ug/L	98
35) Ethylacetate	6.20	88	42873	41.7101	ug/L	# 76
36) methacrylonitrile	6.34	67	220079	19.9873	ug/L	89
37) Bromochloroma	6.36	128	67077	10.2307	ug/L	97
38) Tetrahydofur	6.44	42	1523050	109.8300	ug/L	93

(#) = qualifier out of range (m) = manual integration

CCV-LCS2.D W110816.M

Mon Nov 21 09:50:17 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D

Vial: 16

Acq On : 16 Nov 2016 15:44

Operator: AGK-RLD

Sample : 132610,LCSW,

Inst : VMS3

Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS

Multiplr: 1.00

MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	6.47	83	263848	10.3166	ug/L	99
40) 111trichlota	6.72	97	230879	10.1590	ug/L	98
42) Cyclohexane	6.81	56	396586	10.6987	ug/L	98
43) Carbtetraclo	6.94	119	178714	9.9528	ug/L	96
44) 11dicloprope	6.93	110	73510	10.3722	ug/L	95
46) Benzene	7.16	78	630069	10.5960	ug/L	97
47) 12dichlorota	7.16	62	246014	9.5455	ug/L	98
48) TAME	7.34	73	462886	10.9287	ug/L	99
49) trichloroete	7.97	95	151512	10.2331	ug/L	98
50) methylcyclohexane	8.24	83	257821	10.0594	ug/L	96
51) 12dicloropra	8.22	63	211815	10.2500	ug/L	97
52) 23Dicl1propene	8.29	75	245619	10.5726	ug/L	98
53) Dibromometha	8.36	93	91478	9.1653	ug/L	97
54) methylmethacrylate	8.40	69	158892	9.9161	ug/L	99
55) 14dioxane	8.41	88	73509	278.5446	ug/L	89
56) Bromodiclma	8.57	83	195457	10.4724	ug/L	97
57) 2Nitropropane	8.82	43	1066786	91.4531	ug/L	98
58) 2CLEVE	8.96	63	131537	69.2106	ug/L	97
59) c13dicloproe	9.14	75	254597	9.8673	ug/L	98
60) 4Meth2Pentan	9.34	43	3702782	115.8067	ug/L	96
62) Toluene	9.59	92	389116	10.6093	ug/L	94
63) t13Dicloprop	9.86	75	209423	9.1734	ug/L	94
64) ethylmethacrylate	10.01	69	482176	20.5211	ug/L	94
65) 112Triclotha	10.09	83	128538	10.3006	ug/L	98
66) Tetrachlorte	10.32	166	155662	10.5344	ug/L	97
67) 13Diclorpropa	10.31	76	257167	10.0160	ug/L	100
69) 2Hexanone	10.43	43	3015608	112.1004	ug/L	98
70) Clorodibrmta	10.61	129	120094	8.7354	ug/L	90
71) 12Dibrometha	10.76	107	149071	9.9780	ug/L	98
72) Chlorobenzen	11.45	112	395965	10.2350	ug/L	99
73) 1Clhexane	11.44	91	212353	10.1767	ug/L	99
74) 1112Tetclota	11.55	131	132394	10.0662	ug/L	91
75) Ethylbenzene	11.61	91	716056	10.7661	ug/L	99
76) m p-Xylene	11.78	106	535264	20.8537	ug/L	97
77) o-Xylene	12.32	106	265621	10.7189	ug/L	96
78) Styrene	12.33	104	422987	10.6295	ug/L	96
79) Bromoform	12.56	173	91641	8.7440	ug/L	90
80) Isopropylben	12.85	105	639112	10.6450	ug/L	100
81) cyclohexanone	12.92	55	207226	136.5611	ug/L	99
84) Bromobenzene	13.26	156	155422	10.2374	ug/L	95
85) 1122Tetrclta	13.22	83	267471	10.9030	ug/L	99
86) 123Tric1proa	13.28	75	287341	9.4003	ug/L	98
87) 14dichloro2butene	13.30	53	72883	8.1128	ug/L	97
88) n-Propylbenz	13.43	91	788024	11.0562	ug/L	99
89) 2chlorotolue	13.54	91	441536	10.1359	ug/L	99
90) 4chlorotolue	13.69	91	532334	11.0330	ug/L	99
91) 135Trimetbenz	13.69	105	513746	10.6028	ug/L	95
92) tbutylbenzen	14.15	119	425072	10.6237	ug/L	97
93) 124Trimetben	14.22	105	504699	10.2510	ug/L	95
94) sbutylbenzen	14.47	105	649160	10.8984	ug/L	100
95) 13Diclorbenz	14.61	146	260633	10.2862	ug/L	99
96) pIsopropylto	14.69	119	521521	10.5827	ug/L	95
97) 14dichlorobe	14.73	146	273585	10.4396	ug/L	96
98) 12dichlorobe	15.27	146	249037	10.1460	ug/L	96
99) nButylbenzen	15.28	91	514521	10.6709	ug/L	98
100) 12dibromo3cl	16.38	157	46032	8.4824	ug/L	94
101) 135Trichlorobenzene	16.71	180	172585	9.9863	ug/L	97

(#) = qualifier out of range (m) = manual integration

CCV-LCS2.D W110816.M

Mon Nov 21 09:50:17 2016

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Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
Sample : 132610,LCSW, Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.52	180	149324	9.4428	ug/L	98
103) Hexachlorobu	17.77	225	66157	9.3196	ug/L	96
104) Naphthalene	17.83	128	451523	9.6268	ug/L	98
105) 123Trichlben	18.14	180	122729	9.0130	ug/L	95

(#) = qualifier out of range (m) = manual integration

CCV-LCS2.D W110816.M Mon Nov 21 09:50:17 2016

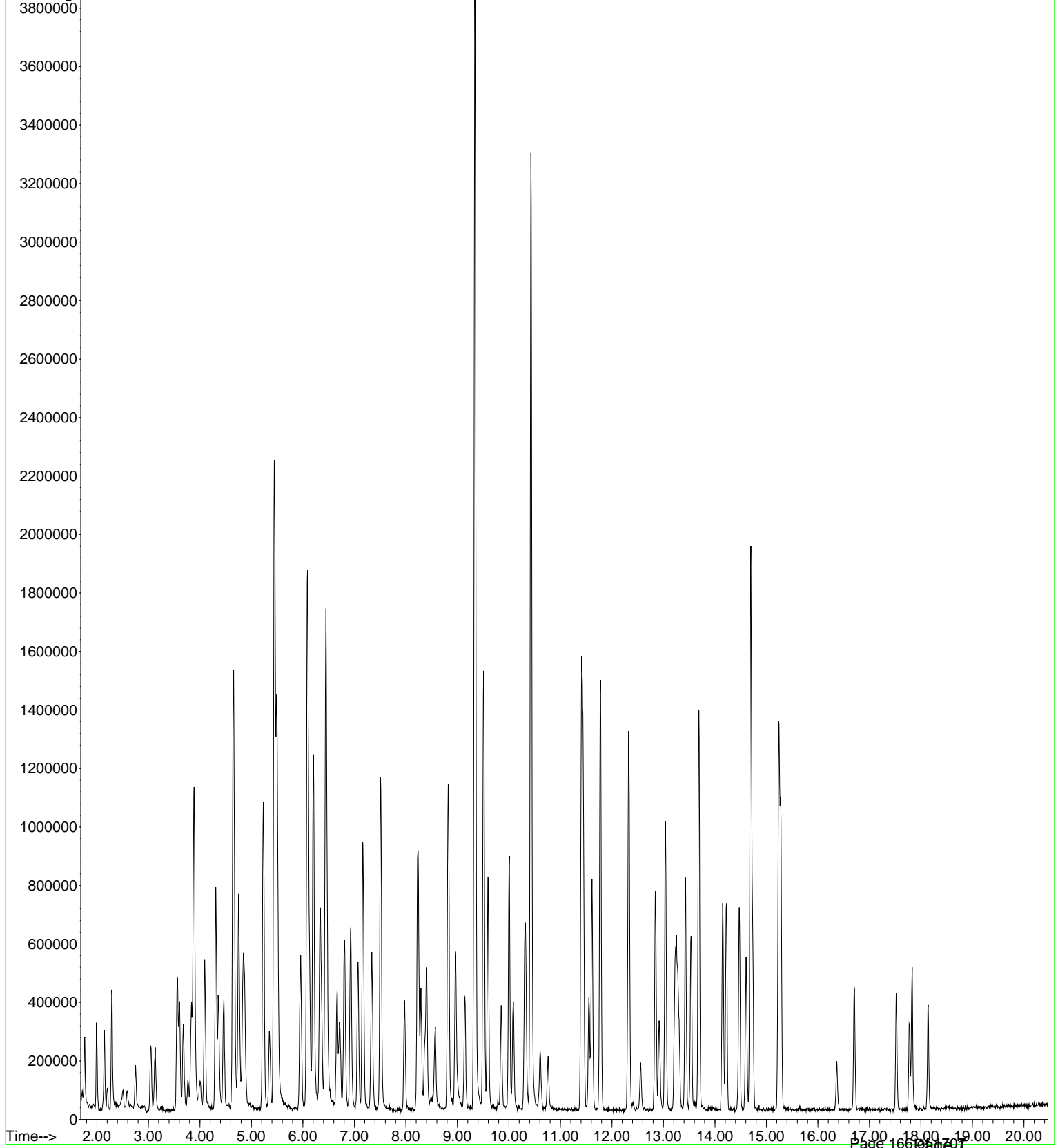
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Quantitation Report
TIC: CCV-LCS2.D
Data File : C:\INSTARCH\Data\NOV1616\CCV-LCS2.D Vial: 16
Acq On : 16 Nov 2016 15:44 Operator: AGK-RLD
Sample : 132610,LCSW, Inst : VMS3
Misc : 10.00/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 16 16:05:07 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sun Nov 13 10:10:19 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M



Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\MB2-CCB1.D
 Acq On : 16 Nov 2016 16:44
 Sample : 132610, MBW,
 Misc : pH<2, 5.0 mL DI H2O Purged + IS/SS
 MS Integration Params: VOC.P

Vial: 18
 Operator: AGK-RLD
 Inst : VMS3
 Multiplr: 1.00

Quant Time: Nov 16 17:05:14 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.51	96	1133160	20.00	ug/L	0.00
68) d5-CHLORO BENZENE**ISTD**	11.41	117	850515	20.00	ug/L	0.00
82) d4-1,4-DICHLORO BENZENE**IS	14.70	152	424708	20.00	ug/L	0.00

System Monitoring Compounds

41) SURRDibrflma	6.66	113	279679	19.691	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 98	%
45) SURR12DCAd4	7.07	102	80542	21.142	ug/L	0.00
Spiked Amount	20.000	Range	89 - 112	Recovery	= 106	%
61) SURRD8Tolule	9.51	98	1144224	19.933	ug/L	0.00
Spiked Amount	20.000	Range	88 - 115	Recovery	= 100	%
83) SURR4BrFBenz	13.04	95	378749	19.341	ug/L	0.00
Spiked Amount	20.000	Range	80 - 125	Recovery	= 97	%

Target Compounds

						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	1.99	50	8242	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	3.90	58	6147	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorothe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	3.89	43	17538	Below	Cal	96
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.09	76	3054	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.47	84	4578	N.D.		
21) tbutylalcohol	4.65	59	13491	Below	Cal	86
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorthe	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorthe	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydrofur	6.45	42	5837	N.D.		

(#) = qualifier out of range (m) = manual integration

MB2-CCB1.D W110816.M Mon Nov 21 09:51:30 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\MB2-CCB1.D
 Acq On : 16 Nov 2016 16:44
 Sample : 132610, MBW,
 Misc : pH<2, 5.0 mL DI H2O Purged + IS/SS
 MS Integration Params: VOC.P

Vial: 18
 Operator: AGK-RLD
 Inst : VMS3
 Multiplr: 1.00

Quant Time: Nov 16 17:05:14 2016

Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)

Title : 8260C Waters Method

Last Update : Sun Nov 13 10:10:19 2016

Response via : Initial Calibration

DataAcq Meth : W110816.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39) Chloroform	0.00	83	0	N.D.		
40) 111trichlota	0.00	97	0	N.D.		
42) Cyclohexane	0.00	56	0	N.D.		
43) Carbtetraclo	0.00	119	0	N.D.		
44) 11dicloprope	0.00	110	0	N.D.		
46) Benzene	0.00	78	0	N.D.		
47) 12dichlorota	0.00	62	0	N.D.		
48) TAME	0.00	73	0	N.D.		
49) trichloroete	0.00	95	0	N.D.		
50) methylcyclohexane	0.00	83	0	N.D.		
51) 12dicloropra	0.00	63	0	N.D.		
52) 23Dicl1propene	0.00	75	0	N.D.		
53) Dibromometha	0.00	93	0	N.D.		
54) methylmethacrylate	0.00	69	0	N.D.		
55) 14dioxane	8.40	88	3344	13.0031	ug/L #	13
56) Bromodiclrma	0.00	83	0	N.D.		
57) 2Nitropropane	0.00	43	0	N.D.		
58) 2CLEVE	0.00	63	0	N.D.		
59) c13dicloproe	0.00	75	0	N.D.		
60) 4Meth2Pentan	0.00	43	0	N.D.		
62) Toluene	0.00	92	0	N.D.		
63) t13Dicloprop	0.00	75	0	N.D.		
64) ethylmethacrylate	0.00	69	0	N.D.		
65) 112Triclotha	0.00	83	0	N.D.		
66) Tetrachlorte	0.00	166	0	N.D.		
67) 13Diclorpropa	0.00	76	0	N.D.		
69) 2Hexanone	10.44	43	2846	Below	Cal #	31
70) Clorodibrmta	0.00	129	0	N.D.		
71) 12Dibrometha	0.00	107	0	N.D.		
72) Chlorobenzen	0.00	112	0	N.D.		
73) 1Clhexane	0.00	91	0	N.D.		
74) 1112Tetclota	0.00	131	0	N.D.		
75) Ethylbenzene	0.00	91	0	N.D.		
76) m p-Xylene	0.00	106	0	N.D.		
77) o-Xylene	0.00	106	0	N.D.		
78) Styrene	0.00	104	0	N.D.		
79) Bromoform	0.00	173	0	N.D.		
80) Isopropylben	0.00	105	0	N.D.		
81) cyclohexanone	12.91	55	3053	N.D.		
84) Bromobenzene	0.00	156	0	N.D.		
85) 1122Tetrclta	0.00	83	0	N.D.		
86) 123Triclproa	0.00	75	0	N.D.		
87) 14dichloro2butene	0.00	53	0	N.D.		
88) n-Propylbenz	0.00	91	0	N.D.		
89) 2chlorotolue	0.00	91	0	N.D.		
90) 4chlorotolue	0.00	91	0	N.D.		
91) 135Trimebenz	0.00	105	0	N.D.		
92) tbutylbenzen	0.00	119	0	N.D.		
93) 124Trimetben	0.00	105	0	N.D.		
94) sbutylbenzen	0.00	105	0	N.D.		
95) 13Diclorbenz	0.00	146	0	N.D.		
96) pIsopropylto	0.00	119	0	N.D.		
97) 14dichlorobe	0.00	146	0	N.D.		
98) 12dichlorobe	0.00	146	0	N.D.		
99) nButylbenzen	0.00	91	0	N.D.		
100) 12dibromo3cl	0.00	157	0	N.D.		
101) 135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

MB2-CCB1.D W110816.M Mon Nov 21 09:51:30 2016

Quantitation Report

Data File : C:\INSTARCH\Data\NOV1616\MB2-CCB1.D
Acq On : 16 Nov 2016 16:44
Sample : 132610,MBW,
Misc : pH<2, 5.0 mL DI H2O Purged + IS/SS
MS Integration Params: VOC.P

Vial: 18
Operator: AGK-RLD
Inst : VMS3
Multiplr: 1.00

Quant Time: Nov 16 17:05:14 2016

Results File: W110816.RES

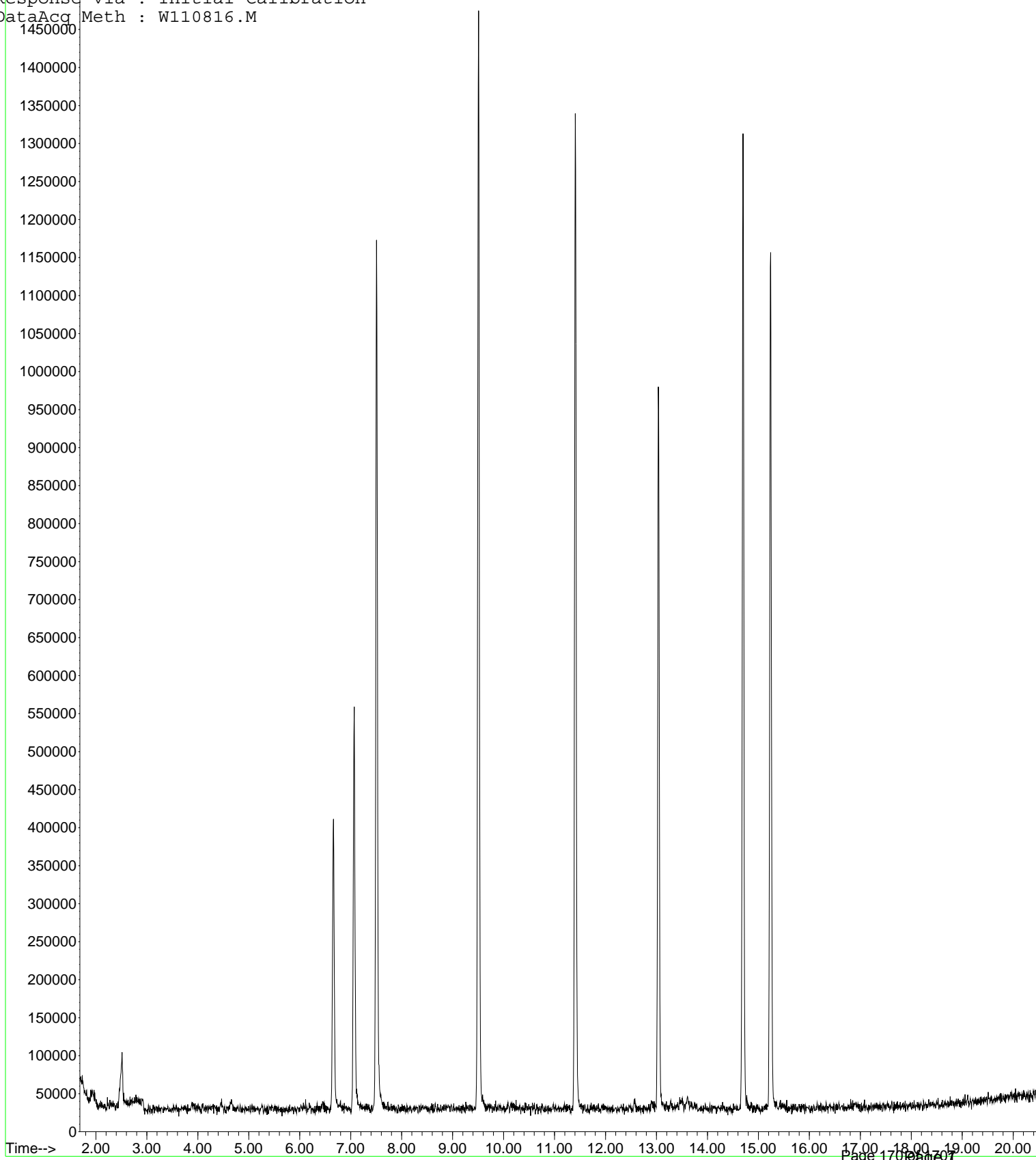
Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sun Nov 13 10:10:19 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M

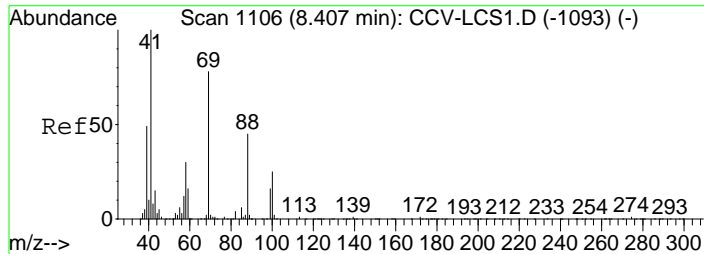
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

Quantitation Report
Data File : C:\INSTARCH\Data\NOV1616\MB2-CCB1.D Vial: 18
Acq On : 16 Nov 2016 16:44 Operator: AGK-RLD
Sample : 132610, MBW, Inst : VMS3
Misc : pH<2, 5.0 mL DI H2O Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

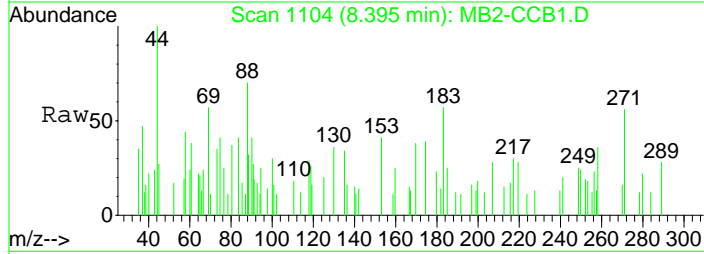
Quant Time: Nov 16 17:05:14 2016 Results File: W110816.RES

Quant Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Sun Nov 13 10:10:19 2016
Response via : Initial Calibration
DataAcq Meth : W110816.M

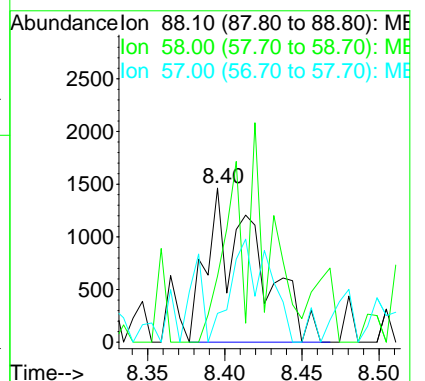
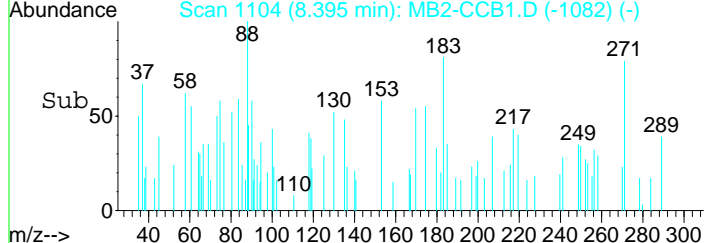




#55
 14dioxane
 Concen: 13.00 ug/L
 RT: 8.40 min Scan# 1104
 Delta R.T. -0.02 min
 Lab File: MB2-CCB1.D
 Acq: 16 Nov 2016 16:44



Tgt Ion:	88	Resp:	3344
Ion Ratio	Lower	Upper	
88	100		
58	0.0	72.5	112.5#
57	0.0	7.1	47.1#



**VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS**

VOC 8260 QSM WATER Analytical Run
132708 on 11/21/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECRPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	809281			BFB			VOC 8260 QSM WATER	0			
	807359			LCSW			VOC 8260 QSM WATER	0			
	807363			CCV			VOC 8260 QSM WATER	0			
	807540			MBW			VOC 8260 QSM WATER	0			
123585	804577		11/09/2016 1230		TETRA TECH	VE CARTER SCHOOL	VOC 8260 QSM		SW	4	
		VEC-SUMP1-110916									
5	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

Distribution: Volatiles

C:\LIMSREPS\ANALYTICALRUN.RPT

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Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\NOV1616\BFB1.D
Injection Date : 16 Nov 2016 Log Time Period (hrs) : ALL
Injection Time : 08:41 Total files within period : 35
Sample Directory : C:\INSTARCH\DATA\NOV1616\

Injection Log Summary Table

File ID	Multiplier			Sample Name	Date	Time
	I	S	T	Misc Info		
BFB2	1.00	1.00	1.00	132610,BFB, 25 ng Inj.	16 Nov 2016	15:26
CCV-LCS2	1.00	1.00	1.00	132610,LCSW, 10.00/100 ug/L, 5.0 mL Pu	16 Nov 2016	15:44
MB2-CCB1	1.00	1.00	1.00	132610,MBW, pH<2, 5.0 mL DI H2O Purge	16 Nov 2016	16:44
804577	1.00	1.00	1.00	132708,804577, pH<2, 5.0 mL Purged + IS/	17 Nov 2016	01:48

8260 ISTD/SSTD 20ug/ml VOC0248
8260 BFB STD. 50ug/ml VOC0247
8260 ICV STD. 100ug/ml VOC0249
8260 CCV/CALIB. 100ug/ml VOC0250

FVO4-01 Data Review Checklist

FORM #: FVO4-01
Rev. #: 1.1
Effective Date: 4/01/15

INDEPENDENT DATA REVIEW CHECKLIST				Method: GCMS (EPA SW-846 8260C)			
Analysis Date	LIMs Run #(s):	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved?		Instrument
11/16/2016	132371 132609 132610 132708 132711 132802	AGK	RLD	11/21/2016	Yes	No	
					Yes		
Instructions: Complete one checklist per analytical sequence. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.							
Requirement:		Acceptance criteria		Analyst	Review	Independent Review	Comments:
				Yes	No	Yes	
I. BFB Tune Check							
Was a BFB tune check analyzed with acceptable results?		Relative abundance criteria met?		Yes		Yes	If no, Do not proceed with analyses.
II. Initial Calibration Verification (ICV)							
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?		Lowest standard at or below RL?		Yes		Yes	If no, recalibrate with required # of levels
Were the Average Relative Response Factors (ARRF) acceptable?		ARRF ≥ specified limits (see SOP)		Yes		Yes	If no, analyses stopped, recalibrate.
Was a second-source ICV analyzed?		Required before sample analyses.		Yes		Yes	If no, analyze prior to sample analyses.
Were all target compound %Deviation or %Drift acceptable?		%D < 20% or project/program specific		Yes		Yes	If no, reanalyzed ICV to address failures
Was Initial Calibration Blank (ICB) analyzed?		Required before sample analyses.		Yes		Yes	If no, analyzed ICB before sample analyses.
Were the ICB results for all target analytes less than the limit of detection (LOD).		<LOD or < project/program specific limits		Yes		Yes	If no, analyze another blank to address detects.
III. Continuing Calibration Verification (CCV)							
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?		Relative abundance criteria met?		Yes		Yes	If no, reanalyze BFB until acceptable; re-tuning the instrument may be necessary.
Was a CCV analyzed after every 12 hour tune check?		Required before sample analyses.		Yes		Yes	If no, analyzed CCV after acceptable tune check.
Were all target compound %Deviation or %Drift acceptable?		%D < 20% or project/program specific			No	No	If no, reanalysis or recalibration may be required.
If necessary, were the results for outlying compounds qualified?				Yes		Yes	If yes, results qualified "Z"

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		If no, analyze a MB with each sample batch.
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		If no, reanalyze MB an all affected data if possible or see SOP for more detailed criteria
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						If yes, affected results qualified "B"
V. Laboratory Control Spike (LCS)						
Was a LCS analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		If no, analyze a LCS with each sample batch.
Were the LCS recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.		No		No	If no, Reanalyze LCS and all affected data if possible or data requires qualification.
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?		Yes		Yes		If yes, affected results qualified "Q"
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		If no, analyze a MS/MSD pair with each sample batch.
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		If no, qualify detects (with an "M" flag) in the parent sample, also qualify non-detects if MS/MSD recoveries were low.
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	generated limits, or client specific limits.	Yes		Yes		If no, affected results qualified "Y"
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		If no, instrument maintenance may be required to correct problems.
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.		No		No	If no, samples with high surrogate recoveries and no associated analyte detects were not reanalyzed. Low surrogate recoveries require reanalysis.
If possible, were the affected samples reanalyzed?		Yes		Yes		If no, see below **
**Were reported sample results with failing surrogate recoveries qualified?		Yes		Yes		If yes, affected results qualified "S"
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.	Yes		Yes		
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)		No		No	If no, see below: analyzed past hold, qualify "H" If improperly preserved qualify "T"
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		If no, affected samples reanalyzed
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.	Yes		Yes		If no, affected samples reanalyzed

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		If no, include sequence run with raw data.
Were all data, calculations, and values verified in LIMS upon completion of data capture?		Yes		Yes		If no, recapture the data and verify data prior to validation.
Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		IF No, address manual integration and/or turn on audit trail feature and document reason why it may have been turned off.
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		If No, include proper qualification(s) in LIMS and enter nonconformities into the NCR spreadsheet before data review/validation.

Non-applicable Yes/No cells are left blank

Comments:

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W110816.M (RTE Integrator)
 Title : 8260C Waters Method
 Start (Tune) File ID : C:\INSTARCH\DATA\NOV0816\BFB1.D
 Injection Date : 8 Nov 2016 Log Time Period (hrs) : ALL
 Injection Time : 15:49 Total files within period : 15
 Sample Directory : C:\INSTARCH\DATA\NOV0816\

Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.50/5.00 ug/L, 5.0 mL Pu	8 Nov 2016	17:04
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 2.00/20.0 ug/L, 5.0 mL Pu	8 Nov 2016	17:34
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 5.00/50.0 ug/L, 5.0 mL Pu	8 Nov 2016	18:04
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 10.00/100 ug/L, 5.0 mL Pu	8 Nov 2016	18:34
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 20.00/200 ug/L, 5.0 mL Pu	8 Nov 2016	19:04
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 30.00/300 ug/L, 5.0 mL Pu	8 Nov 2016	19:34
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 40.00/400 ug/L, 5.0 mL Pu	8 Nov 2016	20:04
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 80.00/800 ug/L, 5.0 mL Pu	8 Nov 2016	20:34
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF. 10.00/100 ug/L, 5.0 mL Pu	8 Nov 2016	21:33
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF. 30.00/300 ug/L, 5.0 mL Pu	8 Nov 2016	22:03
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK 5.0 mL DI H2O Purged + IS	8 Nov 2016	23:03

8260 ISTD/SSTD 20ug/ml VOC0248
 8260 BFB STD. 50ug/ml VOC0247
 8260 ICV STD. 100ug/ml VOC0249
 8260 CCV/CALIB. 100ug/ml VOC0250

LPVO1-02 VOC
Volatiles Standards Prep Logbook
Logbook Created: 10/10/16

Balance used in reagent prep: VOB01

NOTEBOOK VIEW: LTN_LPVO1_02_VOC_Default, NOTEBOOK: LPVO1_02_VOC, PAGE: 5

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Author: rdigmann on: 17.11.2016 08:10:05

Witness: akurth on: 21.11.2016 16:55:53

Project: Unassigned

Page Title: 110816

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0247	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V726 into 2925uL of MeOH.	MeOH / OSolv/56029	50 ug/mL	11/08/2016	12/08/2016	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0248	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0799 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-d ₄ Std. V756 into 25mL of MeOH.	MeOH / OSolv/56029	20 ug/mL	11/08/2016	12/08/2016	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0249	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0804 , 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0808 , and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0802 into 2250uL of MeOH.	MeOH / OSolv/56029	100 ug/mL	11/08/2016	11/15/2016	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0250	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0800 , 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0807 , and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0801 into 2250uL of MeOH.	MeOH / OSolv/56029	100 ug/mL	11/08/2016	11/15/2016	RLD

LSVO1-01
Volatiles Standards Logbook

Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 27

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Author: AAnstett on: 07.10.2016 13:35:31

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Project: Unassigned

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Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0804	8260 VOC Mix	AccuStandard	M-502-10X-PAK	216071115
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	07/13/2019	09/26/2016	RLD
# of Ampules/Units:	5	Comments:	Used to prepare 8260 ICV/Spiking Std.	

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CT Laboratories, LLC

LSVO1-01
Volatiles Standards Logbook

Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSV01_01_VOC_Default, NOTEBOOK: LSV01_01_VOC, PAGE: 25

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Author: rdigmann on: 06.09.2016 15:21:15

Page is not Witnessed

Project: Unassigned

Page Title: 083116

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0801	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	BW160824021
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/22/2016	08/31/2016	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0802	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	BW160824022
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/22/2016	08/31/2016	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std.	

LSVO1-01
Volatiles Standards Logbook

Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSV01_01_VOC_Default, NOTEBOOK: LSV01_01_VOC, PAGE: 29

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Author: AAnstett on: 21.10.2016 13:51:38

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Project: Unassigned

Page Title: 101816

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0807	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	BW161011017
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	04/19/2017	10/18/2016	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0808	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	BW161011018
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	04/09/2017	10/18/2016	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0799	8260 ISTD/SSTD Mix	Ultra Scientific	STM-540	CM-1098
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,500 ug/mL	MeOH	04/30/2018	08/22/2016	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ISTD/SSTD.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0800	8260 VOC Mix	Ultra Scientific	DWM-588-1	CP-2742
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	07/31/2019	08/22/2016	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Std.	

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CT Laboratories, LLC

CTI VOLATILE STANDARDS LOGBOOK 1

CTI STANDARD NUMBER (EXAMPLE = CTIV001)	COMPOUND or SOLUTION NAME	COMPOUND / SOLUTION SUPPLIER	STANDARD'S PART NUMBER	STANDARD'S LOT #	STANDARD CONCENTRATION ¹ and EXPIRATION DATE	NEAT (N) or SOLUTION (S) (If neat list % purity, if solution list solvent)	DATE REC'D and ANALYST'S INITIALS	COMMENTS
V742	VOC 8260 Special Additions	SPEX	VO-CTWI-5	SM150526010	1000-50000 ug/mL, 11/23/15	MeOH	6/2/15, RD	2 x 1 mL
V743	8260 VOC Mix	Accu Standard	M-502-10X-PAK	215011040	2000 ug/mL, 11/2/18	MeOH	6/9/15, RD	5 x 1 mL
V744	8260 VOC Mix	Ultra Sci.	DWM-588-1	CM-1859	2000 ug/mL, 5/31/18	MeOH	6/18/15, RA	2 x 1 mL
V745	VOC 8260 Special Additions	SPEX	VO-CTWI-5	SM150526009	1000-50000 ug/mL, 11/23/15	MeOH	7/21/15, RA	2 x 1 mL
V746	VOC 8260 Special Additions	SPEX	VO-CTWI-5	SM150526010	1000-50000 ug/mL, 11/23/15	MeOH	7/21/15, RD	2 x 1 mL
V747	VOC 8260 Additions	SPEX	VO-CTWI-12	TS150721007	1000-10000 ug/mL, 10/19/15	MeOH	7/23/15, RD	2 x 1 mL
V748	VOC 8260 Additions	SPEX	VO-CTWI-12	TS150721008	1000-10000 ug/mL, 10/19/15	MeOH	7/23/15, RD	2 x 1 mL
V749	8260 VOC Mix	Ultra Sci.	DWM-588-1	CM-3808	2000 ug/mL, 8/31/18	MeOH	8/6/15, RD	2 x 1 mL
V750	VOC 8260 Special Additions	SPEX	VO-CTWI-12	TS150901001	1000-50000 ug/mL, 11/30/15	MeOH	9/10/15, RA	2 x 1 mL
V751	VOC 8260 Special Additions	SPEX	VO-CTWI-12	TS150904001	1000-50000 ug/mL, 12/3/15	MeOH	9/10/15, RD	2 x 1 mL
V752	Fluorobenzene	Ultra Sci.	STS-160-1	CL-3264	2000 ug/mL, 9/30/18	MeOH	9/25/15, RA	4 x 1 mL
V753	Chloro-TFT	Ultra Sci.	STS-220N-1	CM-5040	2000 ug/mL, 10/31/19	MeOH	9/25/15, RD	4 x 1 mL
V754	VOC 8260 Special Addition	SPEX	VO-CTWI-5	BW150925015	1000-50000 ug/mL, 03/23/16	MeOH	10/02/15, BMS	2 x 1 mL
V755	VOC 8260 Special Addition	SPEX	VO-CTWI-5	SM150925016	1000-50000 ug/mL, 03/23/16	MeOH	10/02/15, BMS	2 x 1 mL
V756	12-Dichlorobenzene	Ultra Sci.	STS-210-1	CG-1939Z	2000 ug/mL, 9/30/18	MeOH	10/04/15, RD	4 x 1 mL
V757	8260 VOC Mix	Ultra Sci.	DWM-588-1	CM-3956	2000 ug/mL, 8/31/18	MeOH	10/15/15, RD	4 x 1 mL
V758	8260 VOC Mix	Accu Standard	M-502-10X-PAK	215081111	2000 ug/mL, 8/25/18	MeOH	11/3/15, RA	5 x 1 mL
V759	PVOC/GRO Mix	RESTEK	30095	A0112470	1000/10000 ug/mL, 08/31/22	MeOH	11/10/15, BMS	2 x 1 mL
V760	PVOC/GRO Mix	ULTRA	UST-100-1	CK-2547A	1000/10000 ug/mL, 09/30/17	MeOH	11/10/15, BMS	4 x 1 mL

* = If multiple vials of the same lot number and expiration date are received the standard will be given one CTI Standard # and each vial will have a alpha designation assigned to it. (Example = Three vials of DRO standard solution, CTI001A-C)

1 = If multiple analytes and all of the concentrations vary, mark VARIES.

RD
11/23/15

CTI VOLATILE STANDARDS LOGBOOK 1

CTI STANDARD NUMBER (EXAMPLE = CTIV001)	COMPOUND or SOLUTION NAME	COMPOUND / SOLUTION SUPPLIER	STANDARD'S PART NUMBER	STANDARD'S LOT #	STANDARD CONCENTRATION ¹ and EXPIRATION DATE	NEAT (N) or SOLUTION (S) (If neat list % purity, if solution list solvent)	DATE REC'D and ANALYST'S INITIALS	COMMENTS
V723	8260 Special Additions	SPEX	VO-CTWI-5	C1141119008	1000-50000 ug/ml 5/18/15	MeOH	RD 12/16/14	2x/mL
V724	8260 Special Additions	SPEX	VO-CTWI-5	C1141119009	1000-50000 ug/ml 5/18/15	MeOH	RD 12/16/14	2x/mL
V725	8260 ISTD/STD Mix	Ultra Sci.	STM-540	CK-2154	2500 ug/ml 7/31/16	MeOH	RD 12/18/14	4x/mL
V726	BFB Std.	Ultra Sci.	STS-110N	CH-324BA	2000 ug/ml 11/30/17	MeOH	RD 12/18/14	2x/mL
V727	Acetylene Std.	AIRGAS	X02HE99C33A0037	54-124467791-1	200 PPMV 12/17/17	Helium	Bms 12/22/14	1 cylinder @ 28.7 CF
V728	1,4-Dioxane Std.	SPEX	S-1715	C1121219012	1000 ug/ml, 12/19/15	MeOH	RD 12/31/14	2x/mL
V729	VOC Mix	Ultra Sci.	DWM-588-1	CL-5325	2000 ug/ml, 1/31/18	MeOH	RD 1/31/15	2x/mL
V730	Methane, Ethene, Ethane Std.	AIRGAS	X04HE99C3530380	54-124292300-1	200 ppmV 02/03/16	He	Bms 02/03/15	Re-certified V619
V731	VOC 8260 Additions	SPEX	VO-CTWI-12	C1150202012	1000-10000 ug/ml, 5/31/15	MeOH	RD 2/6/15	2x/mL
V732	VOC 8260 Additions	SPEX	VOCTWI-12	C1150202013	1000-10000 ug/ml, 5/31/15	MeOH	RD 2/6/15	2x/mL
V733	8260 Special Additions	SPEX	VO-CTWI-5	C1150303001	1000-50000 ug/ml, 8/30/15	MeOH	RD 3/11/15	2x/mL
V734	8260 Special Additions	SPEX	VO-CTWI-5	C1150304006	1000-50000 ug/ml, 8/31/15	MeOH	RD 3/11/15	2x/mL
V735	VOC Mix	Accu Std.	M-502-10X	214111094	2000 ug/ml 11/12/17	MeOH	RD 3/31/15	2x/mL
V736	VOC Mixture	ULTRA SCI.	DWM-588-1	CM-0137	2000 ug/ml 02/28/18	MeOH	Bms 04/09/15	2x/mL
V737	Unleaded Gasoline	ULTRA SCI.	R60-601-1	CH-0979A	5000 ug/ml 05/31/17	MeOH	Bms 04/09/15	2x/mL
V738	Unleaded Gasoline	RESTEK	30205	A0101022	50,000 ug/ml 02/28/21	MeOH	Bms 04/10/15	2x/mL
V739	VOC 8260 Additions	SPEX	VO-CTWI-12	TS150506001	1000-10000 ug/ml, 8/4/15	MeOH	RD 5/11/15	2x/mL
V740	VOC 8260 Additions	SPEX	VO-CTWI-12	TS150506002	1000-10000 ug/ml, 8/4/15	MeOH	RD 5/11/15	2x/mL
V741	VOC 8260 Special Additions	SPEX	VO-CTWI-5	SM150526009	1000-50000 ug/L 11/22/15	MeOH	RD 6/2/15	2x/mL

* = If multiple vials of the same lot number and expiration date are received the standard will be given one CTI Standard # and each vial will have an alpha designation assigned to it. (Example = Three vials of DRO standard solution, CTI001A-C)

1 = If multiple analytes and all of the concentrations vary, mark VARIES.

RD 6/2/15

**SEMI-VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS**



1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>1.020</u> (g/L)	CTL Sample ID:	<u>804577</u>
% Solids:		Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>1.0</u> (mL)	Date/Time Prepared:	<u>11/15/2016 / 09:00</u>
Analytical Method:	<u>EPA 8270D</u>	Analytical Prep Batch #	<u>60157</u>
Analytical Run #:	<u>132796</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 23:46</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):		<u>/</u>	
ICAL Calibration #:	<u>1S110916</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
92-52-4	1,1'-Biphenyl		U	0.15	N/A	N/A	
95-94-3	1,2,4,5-Tetrachlorobenzene	0.39	U	0.17	0.39	0.98	0.98
95-95-4	2,4,5-Trichlorophenol	2.0	U	1.1	2.0	4.9	4.9
88-06-2	2,4,6-Trichlorophenol	2.0	U	0.98	2.0	4.9	4.9
120-83-2	2,4-Dichlorophenol	2.0	U	0.98	2.0	4.9	4.9
105-67-9	2,4-Dimethylphenol	2.0	U	0.80	2.0	4.9	4.9
51-28-5	2,4-Dinitrophenol	4.9	U	1.5	4.9	9.8	9.8
121-14-2	2,4-Dinitrotoluene	0.39	U	0.21	0.39	0.98	0.98
606-20-2	2,6-Dinitrotoluene	0.39	U	0.27	0.39	0.98	0.98
91-58-7	2-Chloronaphthalene	0.39	U	0.18	0.39	0.98	0.98
95-57-8	2-Chlorophenol	2.0	U	0.85	2.0	4.9	4.9
91-57-6	2-Methylnaphthalene	0.39	U	0.17	0.39	0.98	0.98
95-48-7	2-Methylphenol	2.0	U	0.84	2.0	4.9	4.9
88-74-4	2-Nitroaniline	0.39	U Q	0.22	0.39	2.0	2.0
88-75-5	2-Nitrophenol	2.0	U	0.88	2.0	4.9	4.9
1319-77-3	3 & 4-Methylphenol	3.5	U	1.4	3.5	8.8	8.8
91-94-1	3,3'-Dichlorobenzidine	0.98	U Q,Z	0.65	0.98	2.5	2.5
99-09-2	3-Nitroaniline	0.98	U	0.25	0.98	2.0	2.0
534-52-1	4,6-Dinitro-2-methylphenol	2.0	U Q	1.6	2.0	9.8	9.8
101-55-3	4-Bromophenyl-phenyl ether	0.39	U	0.20	0.39	2.0	2.0
59-50-7	4-Chloro-3-methylphenol	2.0	U	0.78	2.0	4.9	4.9
106-47-8	4-Chloroaniline	0.39	U	0.12	0.39	0.98	0.98
7005-72-3	4-Chlorophenyl-phenyl ether	0.39	U	0.18	0.39	0.98	0.98
100-01-6	4-Nitroaniline	0.39	U Q	0.15	0.39	0.98	0.98



1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>1.020</u> (g/L)	CTL Sample ID:	<u>804577</u>
% Solids:		Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>1.0</u> (mL)	Date/Time Prepared:	<u>11/15/2016 / 09:00</u>
Analytical Method:	<u>EPA 8270D</u>	Analytical Prep Batch #	<u>60157</u>
Analytical Run #:	<u>132796</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 23:46</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):			<u>/</u>
ICAL Calibration #:	<u>1S110916</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
100-02-7	4-Nitrophenol	4.9	U	1.1	4.9	9.8	9.8
83-32-9	Acenaphthene	0.39	U	0.18	0.39	0.98	0.98
208-96-8	Acenaphthylene	0.39	U	0.17	0.39	0.98	0.98
98-86-2	Acetophenone	0.39	U	0.26	0.39	0.98	0.98
120-12-7	Anthracene	0.39	U	0.11	0.39	0.98	0.98
1912-24-9	Atrazine		U	0.25	N/A	N/A	
100-52-7	Benzaldehyde		U	0.25	N/A	N/A	
56-55-3	Benzo(a)anthracene	0.39	U	0.12	0.39	0.98	0.98
50-32-8	Benzo(a)pyrene	0.39	U	0.14	0.39	0.98	0.98
205-99-2	Benzo(b)fluoranthene	0.39	U	0.17	0.39	0.98	0.98
191-24-2	Benzo(g,h,i)perylene	0.39	U	0.21	0.39	0.98	0.98
207-08-9	Benzo(k)fluoranthene	0.39	U	0.20	0.39	0.98	0.98
111-91-1	Bis(2-chloroethoxy)methane	0.39	U	0.19	0.39	0.98	0.98
111-44-4	Bis(2-chloroethyl)ether	0.39	U	0.21	0.39	0.98	0.98
108-60-1	Bis(2-chloroisopropyl)ether	0.39	U	0.22	0.39	0.98	0.98
117-81-7	Bis(2-ethylhexyl)phthalate	0.43	J	0.43	0.98	2.0	2.0
85-68-7	Butylbenzylphthalate	0.98	U	0.46	0.98	2.0	2.0
105-60-2	Caprolactam		U	0.19	N/A	N/A	
86-74-8	Carbazole	0.33	J	0.12	0.39	0.98	0.98
218-01-9	Chrysene	0.39	U	0.16	0.39	0.98	0.98
53-70-3	Dibenzo(a,h)anthracene	0.39	U	0.17	0.39	0.98	0.98
132-64-9	Dibenzofuran	0.39	U	0.19	0.39	0.98	0.98
84-66-2	Diethylphthalate	0.98	U	0.44	0.98	2.0	2.0
131-11-3	Dimethylphthalate	0.56	J	0.53	0.98	2.0	2.0



1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>1.020</u> (g/L)	CTL Sample ID:	<u>804577</u>
% Solids:		Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>1.0</u> (mL)	Date/Time Prepared:	<u>11/15/2016 / 09:00</u>
Analytical Method:	<u>EPA 8270D</u>	Analytical Prep Batch #	<u>60157</u>
Analytical Run #:	<u>132796</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 23:46</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):			<u>/</u>
ICAL Calibration #:	<u>1S110916</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
84-74-2	Di-n-butylphthalate	2.0	U	0.66	2.0	3.9	3.9
117-84-0	Di-n-octylphthalate	0.98	U	0.48	0.98	2.0	2.0
206-44-0	Fluoranthene	0.39	U	0.13	0.39	0.98	0.98
86-73-7	Fluorene	0.39	U	0.19	0.39	0.98	0.98
118-74-1	Hexachlorobenzene	0.39	U	0.26	0.39	0.98	0.98
87-68-3	Hexachlorobutadiene	0.39	U	0.18	0.39	0.98	0.98
77-47-4	Hexachlorocyclopentadiene	0.98	U	0.25	0.98	2.0	2.0
67-72-1	Hexachloroethane	0.39	U	0.22	0.39	0.98	0.98
193-39-5	Indeno(1,2,3-cd)pyrene	0.39	U	0.18	0.39	0.98	0.98
78-59-1	Isophorone	0.39	U	0.18	0.39	0.98	0.98
91-20-3	Naphthalene	0.39	U	0.18	0.39	0.98	0.98
98-95-3	Nitrobenzene	0.39	U	0.16	0.39	0.98	0.98
621-64-7	N-Nitroso-di-n-propylamine	0.39	U	0.18	0.39	0.98	0.98
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	0.78	U	0.35	0.78	2.0	2.0
87-86-5	Pentachlorophenol	2.2	J	1.1	2.0	4.9	4.9
85-01-8	Phenanthrene	0.39	U	0.29	0.39	0.98	0.98
108-95-2	Phenol	2.0	U	0.47	2.0	4.9	4.9
129-00-0	Pyrene	0.39	U	0.13	0.39	0.98	0.98



1B-2

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	TETRA TECH-VE CARTER SCHOOL
Matrix:		SDG No.:	123585
Sample wt/vol:	1.000 (g/L)	CTL Sample ID:	805501
% Solids:		Date Received:	11/11/2016
Conc. Extract Vol:	1.0 (mL)	Date/Time Prepared:	11/15/2016 / 09:00
Analytical Method:	EPA 8270D	Analytical Prep Batch #	60157
Analytical Run #:	132796	Dilution Factor:	1.00
Cleanup Date/Time/Type:			
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):			
ICAL Calibration #:	1S110916	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
92-52-4	1,1'-Biphenyl	11/17/2016	19:32	0.15	U	0.15	4.00	2.00
95-94-3	1,2,4,5-Tetrachlorobenzene	11/17/2016	19:32	0.17	U	0.17	1.00	0.50
95-95-4	2,4,5-Trichlorophenol	11/17/2016	19:32	1.1	U	1.1	5.0	2.5
88-06-2	2,4,6-Trichlorophenol	11/17/2016	19:32	1.0	U	1.0	5.0	2.5
120-83-2	2,4-Dichlorophenol	11/17/2016	19:32	1.0	U	1.0	5.0	2.5
105-67-9	2,4-Dimethylphenol	11/17/2016	19:32	0.82	U	0.82	5.00	2.5
51-28-5	2,4-Dinitrophenol	11/17/2016	19:32	1.5	U	1.5	10.0	5.0
121-14-2	2,4-Dinitrotoluene	11/17/2016	19:32	0.21	U	0.21	1.00	0.50
606-20-2	2,6-Dinitrotoluene	11/17/2016	19:32	0.28	U	0.28	1.00	0.50
91-58-7	2-Chloronaphthalene	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
95-57-8	2-Chlorophenol	11/17/2016	19:32	0.87	U	0.87	5.00	2.5
91-57-6	2-Methylnaphthalene	11/17/2016	19:32	0.17	U	0.17	1.00	0.50
95-48-7	2-Methylphenol	11/17/2016	19:32	0.86	U	0.86	5.00	2.5
88-74-4	2-Nitroaniline	11/17/2016	19:32	0.22	U	0.22	2.00	1.00
88-75-5	2-Nitrophenol	11/17/2016	19:32	0.90	U	0.90	5.00	2.5
1319-77-3	3 & 4-Methylphenol	11/17/2016	19:32	1.4	U	1.4	9.0	4.5
91-94-1	3,3'-Dichlorobenzidine	11/17/2016	19:32	0.66	U	0.66	2.50	1.25
99-09-2	3-Nitroaniline	11/17/2016	19:32	0.26	U	0.26	2.00	1.00
534-52-1	4,6-Dinitro-2-methylphenol	11/17/2016	19:32	1.6	U	1.6	10.0	5.0
101-55-3	4-Bromophenyl-phenyl ether	11/17/2016	19:32	0.20	U	0.20	2.00	1.00
59-50-7	4-Chloro-3-methylphenol	11/17/2016	19:32	0.76	U	0.76	5.00	2.50
106-47-8	4-Chloroaniline	11/17/2016	19:32	0.12	U	0.12	1.00	0.50
7005-72-3	4-Chlorophenyl-phenyl ether	11/17/2016	19:32	0.18	U	0.18	1.00	0.50



1B-2

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: 1.000 (g/L) CTL Sample ID: 805501

% Solids: _____ Date Received: 11/11/2016

Conc. Extract Vol: 1.0 (mL) Date/Time Prepared: 11/15/2016 / 09:00

Analytical Method: EPA 8270D Analytical Prep Batch # 60157

Analytical Run #: 132796 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____

ICAL Calibration #: 1S110916 Concentration Units: ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
100-01-6	4-Nitroaniline	11/17/2016	19:32	0.15	U	0.15	1.00	0.50
100-02-7	4-Nitrophenol	11/17/2016	19:32	1.1	U	1.1	10.0	5.0
83-32-9	Acenaphthene	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
208-96-8	Acenaphthylene	11/17/2016	19:32	0.17	U	0.17	1.00	0.50
98-86-2	Acetophenone	11/17/2016	19:32	0.27	U	0.27	1.00	0.50
120-12-7	Anthracene	11/17/2016	19:32	0.11	U	0.11	1.00	0.50
1912-24-9	Atrazine	11/17/2016	19:32	0.26	U	0.26	1.00	0.50
100-52-7	Benzaldehyde	11/17/2016	19:32	0.25	U	0.25	1.00	0.50
56-55-3	Benzo(a)anthracene	11/17/2016	19:32	0.12	U	0.12	1.00	0.50
50-32-8	Benzo(a)pyrene	11/17/2016	19:32	0.14	U	0.14	1.00	0.50
205-99-2	Benzo(b)fluoranthene	11/17/2016	19:32	0.17	U	0.17	1.00	0.50
191-24-2	Benzo(g,h,i)perylene	11/17/2016	19:32	0.21	U	0.21	1.00	0.50
207-08-9	Benzo(k)fluoranthene	11/17/2016	19:32	0.20	U	0.20	1.00	0.50
111-91-1	Bis(2-chloroethoxy)methane	11/17/2016	19:32	0.19	U	0.19	1.00	0.50
111-44-4	Bis(2-chloroethyl)ether	11/17/2016	19:32	0.21	U	0.21	1.00	0.50
108-60-1	Bis(2-chloroisopropyl)ether	11/17/2016	19:32	0.22	U	0.22	1.00	0.50
117-81-7	Bis(2-ethylhexyl)phthalate	11/17/2016	19:32	0.44	U	0.44	2.00	1.00
85-68-7	Butylbenzylphthalate	11/17/2016	19:32	0.47	U	0.47	2.00	1.00
105-60-2	Caprolactam	11/17/2016	19:32	0.19	U	0.19	2.00	1.00
86-74-8	Carbazole	11/17/2016	19:32	0.12	U	0.12	1.00	0.50
218-01-9	Chrysene	11/17/2016	19:32	0.16	U	0.16	1.00	0.50
53-70-3	Dibenzo(a,h)anthracene	11/17/2016	19:32	0.17	U	0.17	1.00	0.50
132-64-9	Dibenzofuran	11/17/2016	19:32	0.19	U	0.19	1.00	0.50



1B-2

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: 1.000 (g/L) CTL Sample ID: 805501

% Solids: _____ Date Received: 11/11/2016

Conc. Extract Vol: 1.0 (mL) Date/Time Prepared: 11/15/2016 / 09:00

Analytical Method: EPA 8270D Analytical Prep Batch #: 60157

Analytical Run #: 132796 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____

ICAL Calibration #: 1S110916 Concentration Units: ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
84-66-2	Diethylphthalate	11/17/2016	19:32	0.45	U	0.45	2.00	1.00
131-11-3	Dimethylphthalate	11/17/2016	19:32	0.54	U	0.54	2.00	1.00
84-74-2	Di-n-butylphthalate	11/17/2016	19:32	0.67	U	0.67	4.00	2.00
117-84-0	Di-n-octylphthalate	11/17/2016	19:32	0.49	U	0.49	2.00	1.00
206-44-0	Fluoranthene	11/17/2016	19:32	0.13	U	0.13	1.00	0.50
86-73-7	Fluorene	11/17/2016	19:32	0.19	U	0.19	1.00	0.50
118-74-1	Hexachlorobenzene	11/17/2016	19:32	0.27	U	0.27	1.00	0.50
87-68-3	Hexachlorobutadiene	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
77-47-4	Hexachlorocyclopentadiene	11/17/2016	19:32	0.26	U	0.26	2.00	1.00
67-72-1	Hexachloroethane	11/17/2016	19:32	0.22	U	0.22	1.00	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
78-59-1	Isophorone	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
91-20-3	Naphthalene	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
98-95-3	Nitrobenzene	11/17/2016	19:32	0.16	U	0.16	1.00	0.50
621-64-7	N-Nitroso-di-n-propylamine	11/17/2016	19:32	0.18	U	0.18	1.00	0.50
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	11/17/2016	19:32	0.36	U	0.36	2.00	1.00
87-86-5	Pentachlorophenol	11/17/2016	19:32	1.1	U	1.1	5.0	2.5
85-01-8	Phenanthrene	11/17/2016	19:32	0.30	U	0.30	1.00	0.50
108-95-2	Phenol	11/17/2016	19:32	0.48	U	0.48	5.00	2.50
129-00-0	Pyrene	11/17/2016	19:32	0.13	U	0.13	1.00	0.50

2C

WATER SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Analytical Method: EPA 8270D SDG: 123585

Analytical Run #: 132796 ICAL Calibration #: 1S110916

CTLab # 804577					
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	85	40	125	
Surr: 2-Fluorobiphenyl	100	83	50	110	
Surr: 2-Fluorophenol	100	49	20	110	
Surr: Nitrobenzene-d5	100	72	40	110	
Surr: Phenol-d5	100	32	10	115	
Surr: Terphenyl-d14	100	84	50	135	

CTLab # 805501		Sample Type:	Method Blank		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol		11.3	40	125	FAIL
Surr: 2-Fluorobiphenyl		70.7	50	110	
Surr: 2-Fluorophenol		51.2	20	110	
Surr: Nitrobenzene-d5		61.3	40	110	
Surr: Phenol-d5		35.1	10	115	
Surr: Terphenyl-d14		78.1	50	135	

CTLab # 805502		Sample Type:	Lab Control Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	72.0	40	125	
Surr: 2-Fluorobiphenyl	100	78.7	50	110	
Surr: 2-Fluorophenol	100	51.7	20	110	
Surr: Nitrobenzene-d5	100	66.1	40	110	
Surr: Phenol-d5	100	35.1	10	115	
Surr: Terphenyl-d14	100	93.0	50	135	

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
Sample No.: 805502 SDG No.: 123585
Analytical Method: EPA 8270D Concentration Units: ug/L

Sample No.: 805502 Parent Sample No.: 0
Analytical Prep Batch #: 60157 Analytical Preparation Date/Time: 11/15/2016 09:00
Analytical Run #: 132796 ICAL Calibration #: 1S110916

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
1,1'-Biphenyl	11/17/2016 21:49	50-150	14.5		20.0	72	
1,2,4,5-Tetrachlorobenzene	11/17/2016 21:49	40-110	14.8		20.0	74	
2,4,5-Trichlorophenol	11/17/2016 21:49	50-110	17.9		20.0	90	
2,4,6-Trichlorophenol	11/17/2016 21:49	50-115	16.7		20.0	84	
2,4-Dichlorophenol	11/17/2016 21:49	50-105	15.0		20.0	75	
2,4-Dimethylphenol	11/17/2016 21:49	30-110	13.8		20.0	69	
2,4-Dinitrophenol	11/17/2016 21:49	15-140	6.18		20.0	31	
2,4-Dinitrotoluene	11/17/2016 21:49	50-120	20.6		20.0	103	
2,6-Dinitrotoluene	11/17/2016 21:49	50-115	21.1		20.0	106	
2-Chloronaphthalene	11/17/2016 21:49	50-105	14.8		20.0	74	
2-Chlorophenol	11/17/2016 21:49	35-105	15.4		20.0	77	
2-Methylnaphthalene	11/17/2016 21:49	45-105	14.6		20.0	73	
2-Methylphenol	11/17/2016 21:49	40-110	14.7		20.0	74	
2-Nitroaniline	11/17/2016 21:49	50-115	23.6		20.0	118	FAIL
2-Nitrophenol	11/17/2016 21:49	40-115	13.4		20.0	67	
3 & 4-Methylphenol	11/17/2016 21:49	30-110	14.0		20.0	70	
3,3'-Dichlorobenzidine	11/17/2016 21:49	20-110	33.5		20.0	168	FAIL
3-Nitroaniline	11/17/2016 21:49	20-125	21.9		20.0	110	
4,6-Dinitro-2-methylphenol	11/17/2016 21:49	40-130	7.60		20.0	38	FAIL
4-Bromophenyl-phenyl ether	11/17/2016 21:49	50-115	18.2		20.0	91	
4-Chloro-3-methylphenol	11/17/2016 21:49	45-110	18.8		20.0	94	
4-Chloroaniline	11/17/2016 21:49	15-110	13.2		20.0	66	
4-Chlorophenyl-phenyl ether	11/17/2016 21:49	50-110	17.3		20.0	86	
4-Nitroaniline	11/17/2016 21:49	35-120	25.5		20.0	128	FAIL
4-Nitrophenol	11/17/2016 21:49	0-125	12.0		20.0	60	
Acenaphthene	11/17/2016 21:49	45-110	16.9		20.0	84	
Acenaphthylene	11/17/2016 21:49	50-105	17.9		20.0	90	
Acetophenone	11/17/2016 21:49	40-124	16.9		20.0	84	

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 805502 SDG No.: 123585
 Analytical Method: EPA 8270D Concentration Units: ug/L

Sample No.: 805502 Parent Sample No.: 0
 Analytical Prep Batch #: 60157 Analytical Preparation Date/Time: 11/15/2016 09:00
 Analytical Run #: 132796 ICAL Calibration #: 1S110916

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Anthracene	11/17/2016	21:49	55-110	19.6		20.0	98
Atrazine	11/17/2016	21:49	50-150	17.3		20.0	86
Benzaldehyde	11/17/2016	21:49	15-118	13.0		20.0	65
Benzo(a)anthracene	11/17/2016	21:49	55-110	20.1		20.0	100
Benzo(a)pyrene	11/17/2016	21:49	55-110	19.4		20.0	97
Benzo(b)fluoranthene	11/17/2016	21:49	45-120	19.1		20.0	96
Benzo(g,h,i)perylene	11/17/2016	21:49	40-125	18.7		20.0	94
Benzo(k)fluoranthene	11/17/2016	21:49	45-125	20.6		20.0	103
Bis(2-chloroethoxy)methane	11/17/2016	21:49	45-105	14.4		20.0	72
Bis(2-chloroethyl)ether	11/17/2016	21:49	35-110	17.4		20.0	87
Bis(2-chloroisopropyl)ether	11/17/2016	21:49	25-130	16.9		20.0	84
Bis(2-ethylhexyl)phthalate	11/17/2016	21:49	40-125	19.1		20.0	96
Butylbenzylphthalate	11/17/2016	21:49	45-115	21.3		20.0	106
Caprolactam	11/17/2016	21:49	10-120	7.02		20.0	35
Carbazole	11/17/2016	21:49	50-115	22.2		20.0	111
Chrysene	11/17/2016	21:49	55-110	19.1		20.0	96
Dibenzo(a,h)anthracene	11/17/2016	21:49	40-125	18.2		20.0	91
Dibenzofuran	11/17/2016	21:49	55-105	17.4		20.0	87
Diethylphthalate	11/17/2016	21:49	40-120	20.2		20.0	101
Dimethylphthalate	11/17/2016	21:49	25-125	19.6		20.0	98
Di-n-butylphthalate	11/17/2016	21:49	55-115	18.8		20.0	94
Di-n-octylphthalate	11/17/2016	21:49	35-135	21.1		20.0	106
Fluoranthene	11/17/2016	21:49	55-115	17.6		20.0	88
Fluorene	11/17/2016	21:49	50-110	17.7		20.0	88
Hexachlorobenzene	11/17/2016	21:49	50-110	17.1		20.0	86
Hexachlorobutadiene	11/17/2016	21:49	25-105	11.1		20.0	56
Hexachlorocyclopentadiene	11/17/2016	21:49	45-113	9.96		20.0	50
Hexachloroethane	11/17/2016	21:49	30-95	13.4		20.0	67

3C

WATER SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 805502 SDG No.: 123585
 Analytical Method: EPA 8270D Concentration Units: ug/L

Sample No.: 805502 Parent Sample No.: 0
 Analytical Prep Batch #: 60157 Analytical Preparation Date/Time: 11/15/2016 09:00
 Analytical Run #: 132796 ICAL Calibration #: 1S110916

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Indeno(1,2,3-cd)pyrene	11/17/2016	21:49	45-125	18.3		20.0	92
Isophorone	11/17/2016	21:49	50-110	14.5		20.0	72
Naphthalene	11/17/2016	21:49	40-100	15.4		20.0	77
Nitrobenzene	11/17/2016	21:49	45-110	14.1		20.0	70
N-Nitroso-di-n-propylamine	11/17/2016	21:49	35-130	17.5		20.0	88
N-Nitrosodiphenylamine & Diphn	11/17/2016	21:49	50-110	39.6		40.0	99
Pentachlorophenol	11/17/2016	21:49	40-115	8.38		20.0	42
Phenanthrene	11/17/2016	21:49	50-115	19.4		20.0	97
Phenol	11/17/2016	21:49	0-115	8.09		20.0	40
Pyrene	11/17/2016	21:49	50-130	20.5		20.0	102

Spike Recovery: 4 out of 66 outside limits

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Sample ID:	<u>805501</u>	SDG No.:	<u>123585</u>
Matrix:	<u>LIQUID</u>	Date Extracted:	<u>11/15/2016</u>
Date Analyzed:	<u>11/17/2016</u>	Time Analyzed:	<u>19:32</u>
Analytical Method:	<u>EPA 8270D</u>	Extraction Method:	<u>SW3510</u>
Analytical Run #:	<u>132796</u>	Extraction Batch #:	<u>60157</u>
		ICAL Calibration #:	<u>1S110916</u>

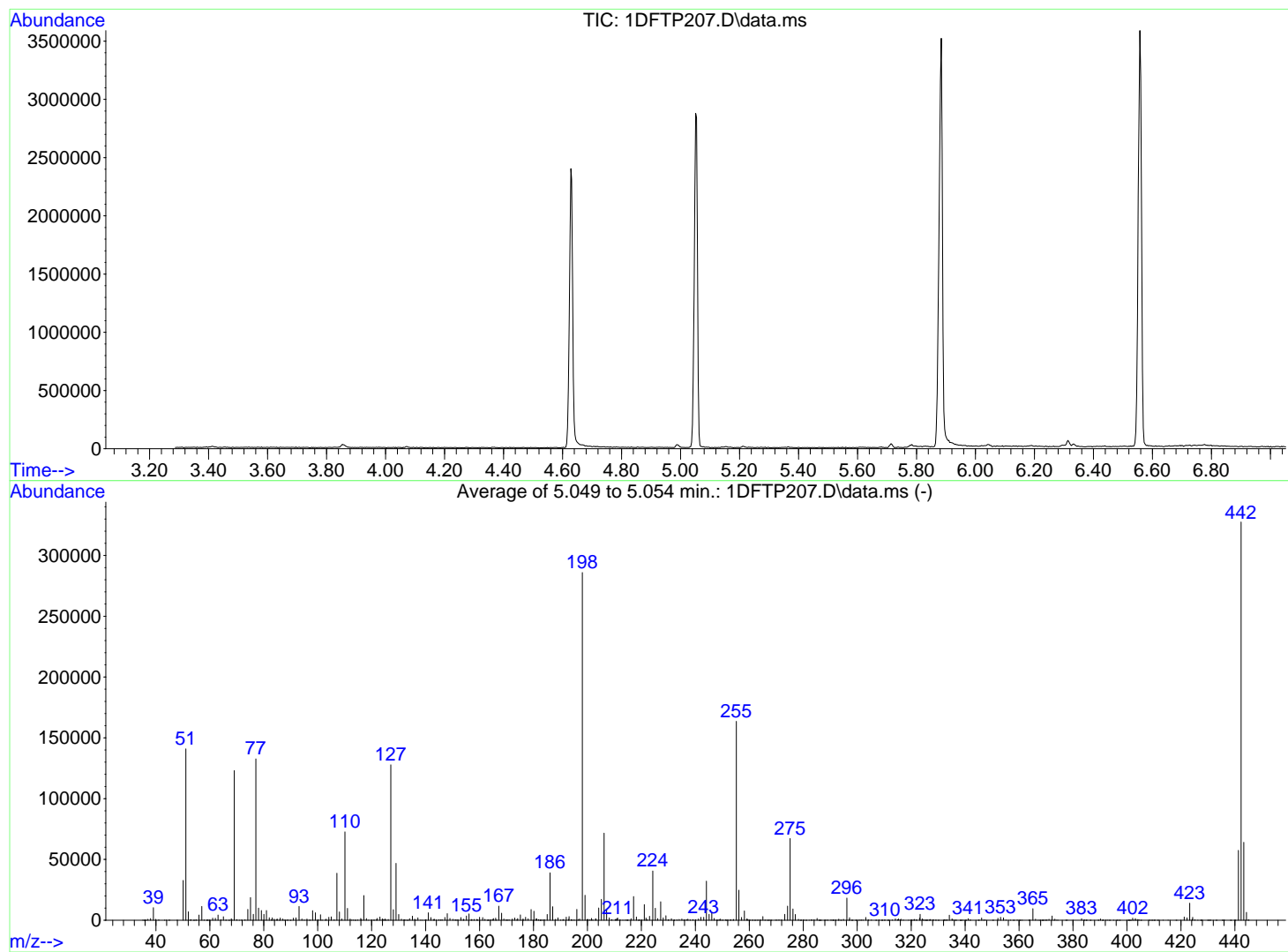
THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	MBW	805501	11/17/2016 19:32	1S110916
2	LCSW	805502	11/17/2016 21:49	1S110916
3	VEC-SUMP1-110916	804577	11/17/2016 23:46	1S110916

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
 Acq On : 9 Nov 2016 10:49
 Sample : DFTPP TUNE SVMS7269
 Misc : SVMS1,25 ug DFTPP
 Integrator: RTE

Vial: 1
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
 Title : DFTPP TUNE Method
 Last Update : Fri Nov 04 12:05:16 2016



AutoFind: Scans 621, 622, 623; Background Corrected with Scan 610

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	43.0	140970	PASS
68	69	0.00	2	1.1	1338	PASS
70	69	0.00	2	0.5	584	PASS
127	442	10	80	39.0	127829	PASS
197	198	0.00	2	0.3	996	PASS
198	442	50	100	87.3	285973	PASS
199	198	5	9	7.2	20509	PASS
275	442	10	60	20.5	67229	PASS
365	198	1	100	3.3	9562	PASS
441	442	0.01	24	17.6	57528	PASS
442	442	50	100	100.0	327509	PASS
443	442	15	24	19.6	64053	PASS

Injection Log Summary Report

Method : X:\METHODS\1A110916.M (RTE Integrator)
 Title : Method for 8270 analysis
 Start (Tune) File ID : X:\DATA\1S110916\1DFTP207.D
 Injection Date : 9 Nov 2016 Log Time Period (hrs) : ALL
 Injection Time : 10:49 Total files within period : 53
 Sample Directory : X:\DATA\1S110916\

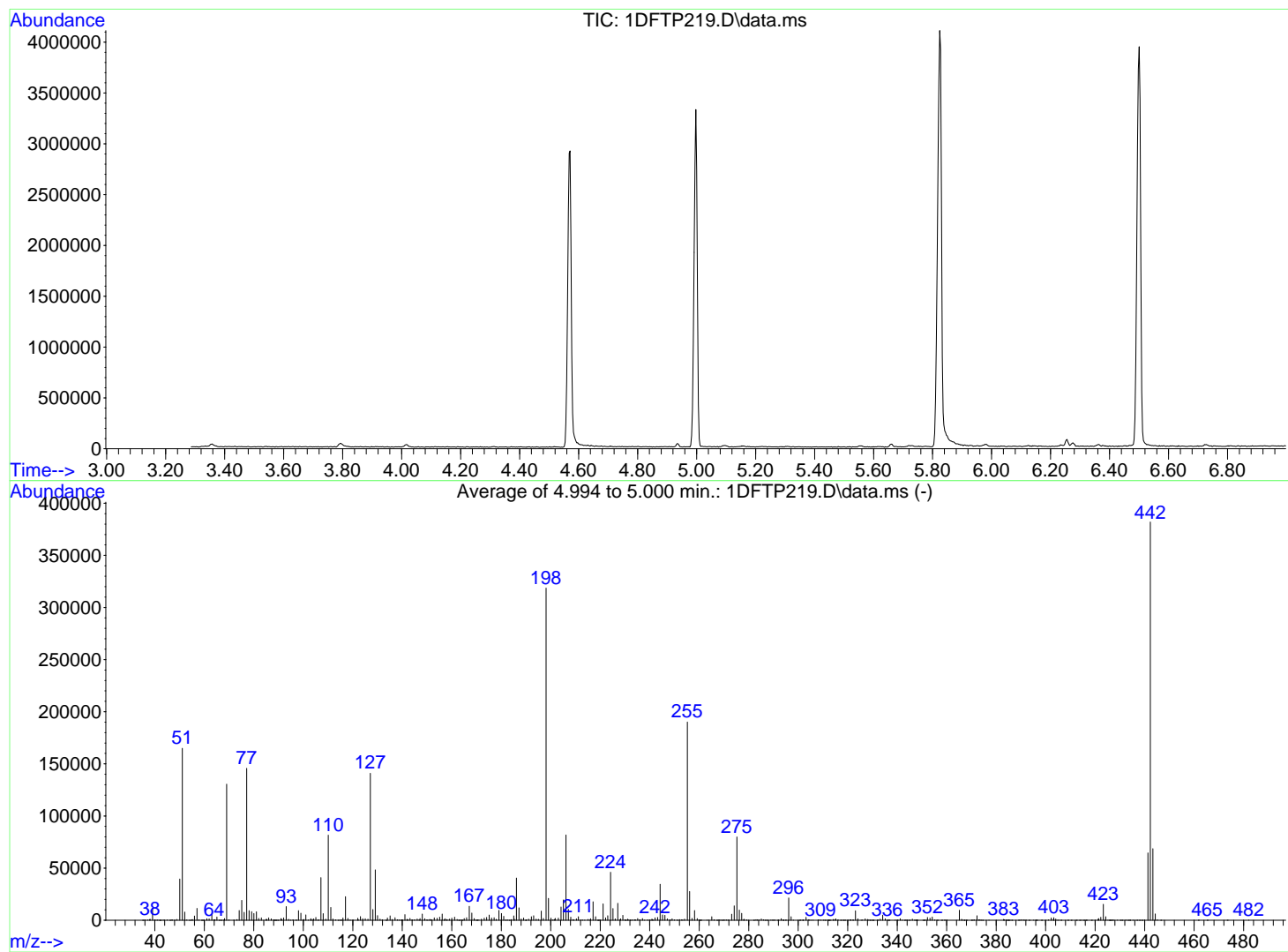
Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1IB01	1.00	1.00	1.00	InstrumentBlank 500uL+5ul IS S3553C	9 Nov 2016	11:04
1ICAL7A	1.00	1.00	1.00	ICAL 50ug/ml SVMS7280 500uL+5ul IS S3553C	9 Nov 2016	11:24
1ICAL6A	1.00	1.00	1.00	ICAL 40ug/ml SVMS7279 500uL+5ul IS S3553C	9 Nov 2016	11:44
1ICAL5A	1.00	1.00	1.00	ICAL 30ug/ml SVMS7278 500uL+5ul IS S3553C	9 Nov 2016	12:04
1ICAL4A	1.00	1.00	1.00	ICAL 20ug/ml SVMS7277 500uL+5ul IS S3553C	9 Nov 2016	12:23
1ICAL3A	1.00	1.00	1.00	ICAL 10ug/ml SVMS7276 500uL+5ul IS S3553C	9 Nov 2016	12:43
1ICAL2A	1.00	1.00	1.00	ICAL 5ug/ml SVMS7275 500uL+5ul IS S3553C	9 Nov 2016	13:03
1ICAL1A	1.00	1.00	1.00	ICAL 1ug/ml SVMS7274 500uL+5ul IS S3553C	9 Nov 2016	13:22
1ICV1A	1.00	1.00	1.00	ICV 20ug/ml SVMS7281 500uL+5ul IS S3553C	9 Nov 2016	13:42
1ICV2A	1.00	1.00	1.00	ICV 40ug/ml SVMS7282 500uL+5ul IS S3553C	9 Nov 2016	14:02
1IB02	1.00	1.00	1.00	InstrumentBlank 500uL+5ul IS S3553C	9 Nov 2016	14:22
1ICAL7	1.00	1.00	1.00	ICAL 50ug/ml SVMS7214 500uL+5ul IS S3553C	9 Nov 2016	14:41
1ICAL6	1.00	1.00	1.00	ICAL 40ug/ml SVMS7213 500uL+5ul IS S3553C	9 Nov 2016	15:01
1ICAL5	1.00	1.00	1.00	ICAL 30ug/ml SVMS7212 500uL+5ul IS S3553C	9 Nov 2016	15:45
1ICAL4	1.00	1.00	1.00	ICAL 20ug/ml SVMS7211 500uL+5ul IS S3553C	9 Nov 2016	16:05
1ICAL3	1.00	1.00	1.00	ICAL 10ug/ml SVMS7210 500uL+5ul IS S3553C	9 Nov 2016	16:24
1ICAL2	1.00	1.00	1.00	ICAL 5ug/ml SVMS7209 500uL+5ul IS S3553C	9 Nov 2016	16:44
1ICAL1	1.00	1.00	1.00	ICAL 1ug/ml SVMS7208 500uL+5ul IS S3553C	9 Nov 2016	17:03
1ICV1	1.00	1.00	1.00	ICV 20ug/ml SVMS7215 500uL+5ul IS S3553C	9 Nov 2016	17:22
1ICV2	1.00	1.00	1.00	ICV 40ug/ml SVMS7216 500uL+5ul IS S3553C	9 Nov 2016	17:42
1DFTP208	1.00	1.00	1.00	DFTPP TUNE SVMS7269 SVMS1,25 ug DFTPP	9 Nov 2016	17:58
1CCV244	1.00	1.00	1.00	CCV 20ug/ml SVMS7217 500uL+5ul IS S3553C	9 Nov 2016	18:14

Data File : C:\INSTARCH\Data\1S111716\1DFTP219.D
 Acq On : 17 Nov 2016 12:18
 Sample : DFTPP TUNE SVMS7269
 Misc : SVMS1,25 ug DFTPP
 Integrator: RTE

Vial: 1
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
 Title : DFTPP TUNE Method
 Last Update : Tue Nov 15 19:28:39 2016



AutoFind: Scans 602, 603, 604; Background Corrected with Scan 594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	43.2	164909	PASS
68	69	0.00	2	1.3	1670	PASS
70	69	0.00	2	0.3	380	PASS
127	442	10	80	36.9	141000	PASS
197	198	0.00	2	0.5	1719	PASS
198	442	50	100	83.4	318592	PASS
199	198	5	9	6.6	21066	PASS
275	442	10	60	20.9	79896	PASS
365	198	1	100	3.0	9626	PASS
441	442	0.01	24	16.9	64578	PASS
442	442	50	100	100.0	381994	PASS
443	442	15	24	18.0	68730	PASS

Injection Log Summary Report

Method : Z:\METHODS\1S110916.M (RTE Integrator)
 Title : Method for 8270 analysis
 Start (Tune) File ID : Y:\DATA\1S111716\1DFTP219.D
 Injection Date : 17 Nov 2016 Log Time Period (hrs) : ALL
 Injection Time : 12:18 Total files within period : 36
 Sample Directory : Y:\DATA\1S111716\

Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1CCV259	1.00	1.00	1.00	CCV 20ug/ml SVMS7217 500uL+5ul IS S3553B	17 Nov 2016	12:34
1CCV260	1.00	1.00	1.00	CCV 20ug/ml SVMS7283 500uL+5ul IS S3553B	17 Nov 2016	12:54
1MRL01	1.00	1.00	1.00	MRL 1/5ug/ml SVMS7241 500uL+5ul IS S3553B	17 Nov 2016	13:14
1MRL01A	1.00	1.00	1.00	MRL 1ug/ml SVMS7280 500uL+5ul IS S3553B	17 Nov 2016	13:34
1MDL01	1.00	1.00	1.00	MDL 0.5/2.5ug/ml SVMS7242 500uL+5ul IS S3553B	17 Nov 2016	13:54
1MDL01A	1.00	1.00	1.00	MDL 0.5ug/ml SVMS7309 500uL+5ul IS S3553B	17 Nov 2016	14:14
1MBW01	1.00	1.00	1.00	132723,MBW, 802276,500uL+5ul IS S3553	17 Nov 2016	14:34
1LCSW01	1.00	1.00	1.00	132723,LCSW, 802277,500uL+5ul IS S3553	17 Nov 2016	14:54
799886	1.00	1.00	1.00	132723,799886, 500uL+5ul IS S3553C	17 Nov 2016	15:14
800850	1.00	1.00	1.00	132723,800850, 500uL+5ul IS S3553C	17 Nov 2016	15:34
801467	1.00	1.00	1.00	132723,801467, 500uL+5ul IS S3553C	17 Nov 2016	15:54
801471	1.00	1.00	1.00	132723,801471, 500uL+5ul IS S3553C	17 Nov 2016	16:14
1MBW02	1.00	1.00	1.00	132750,MBW, 801483,500uL+5ul IS S3553	17 Nov 2016	16:34
1LCSW02	1.00	1.00	1.00	132750,LCSW, 801484,500uL+5ul IS S3553	17 Nov 2016	16:54
1MBTV02	1.00	1.00	1.00	132750,MBTV, 2710,500uL+5ul IS S3553C	17 Nov 2016	17:14
1MBTS02	1.00	1.00	1.00	132750,MBTS, 2710,500uL+5ul IS S3553C	17 Nov 2016	17:34
797691D	1.00	1.00	1.00	132750,797691,10 2710,500uL+5ul IS S3553C	17 Nov 2016	17:53
797693D	1.00	1.00	1.00	132750,797693,10 2710,500uL+5ul IS S3553C	17 Nov 2016	18:13
797695D	1.00	1.00	1.00	132750,797695,10 2710,500uL+5ul IS S3553C	17 Nov 2016	18:32
1MBW03	1.00	1.00	1.00	132795,MBW, 805494,500uL+5ul IS S3553	17 Nov 2016	18:52
1IB02	1.00	1.00	1.00	INSTRUMENT BLANK 500uL+5ul IS S3553C	17 Nov 2016	19:12
1MBW03R	1.00	1.00	1.00	132795,MBW, 805494,500uL+5ul IS S3553	17 Nov 2016	19:32

Injection Log Summary Report

Method : Z:\METHODS\1S110916.M (RTE Integrator)
 Title : Method for 8270 analysis
 Start (Tune) File ID : Y:\DATA\1S111716\1DFTP219.D
 Injection Date : 17 Nov 2016 Log Time Period (hrs) : ALL
 Injection Time : 12:18 Total files within period : 36
 Sample Directory : Y:\DATA\1S111716\

Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1LCSW03	1.00	1.00	1.00	132795,LCSW, 805495,500uL+5ul IS S3553	17 Nov 2016	19:51
803342	1.00	1.00	1.00	132795,803342, 500uL+5ul IS S3553C	17 Nov 2016	20:11
803344	1.00	1.00	1.00	132795,803344, 500uL+5ul IS S3553C	17 Nov 2016	20:30
803925	1.00	1.00	1.00	132795,803925, 500uL+5ul IS S3553C	17 Nov 2016	20:50
803943	1.00	1.00	1.00	132795,803943, 500uL+5ul IS S3553C	17 Nov 2016	21:10
803944	1.00	1.00	1.00	132795,803944, 500uL+5ul IS S3553C	17 Nov 2016	21:29
1LCSW03R	1.00	1.00	1.00	132795,LCSW, 805495,500uL+5ul IS S3553	17 Nov 2016	21:49
1CCV261	1.00	1.00	1.00	CCV 20ug/ml SVMS7217 500uL+5ul IS S3553B	17 Nov 2016	22:08
1MRL02	1.00	1.00	1.00	MRL 1/5ug/ml SVMS7241 500uL+5ul IS S3553B	17 Nov 2016	22:28
1MDL02	1.00	1.00	1.00	MDL 0.5/2.5ug/ml SVMS7242 500uL+5ul IS S3553B	17 Nov 2016	22:47
800842	1.00	1.00	1.00	132724,800842, 500uL+5ul IS S3553C	17 Nov 2016	23:07
800843	1.00	1.00	1.00	132724,800843, 500uL+5ul IS S3553C	17 Nov 2016	23:27
804577	1.00	1.00	1.00	132796,804577, 500uL+5ul IS S3553C	17 Nov 2016	23:46
800879	1.00	1.00	1.00	132725,800879, 500uL+5ul IS S3553C	18 Nov 2016	00:06

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 9 Nov 2016
 Instrument ID : SVMS1 Time Analyzed : 16:05
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
		Area	# RT	# Area	# RT	# Area	# RT
12 HOUR STD		191851	3.85	867715	5.49	386418	7.15
UPPER LIMIT		383702	4.35	1735430	5.99	772836	7.65
LOWER LIMIT		95926	3.35	433858	4.99	193209	6.65
File ID	Sample						
1CCV259	CCV 20ug/	250386	3.77	1365605	5.40	566610	7.09
1CCV260	CCV 20ug/	239244	3.77	1302299	5.39	510125	7.09
1CCV261	CCV 20ug/	276462	3.77	1485180	5.40	607666	7.09
1IB02	INSTRUMEN	258602	3.77	1395120	5.39	584640	7.08
1LCSW01	132723,LC	261408	3.76	1346841	5.39	565694	7.08
1LCSW02	132750,LC	267255	3.77	1464300	5.39	597515	7.08
1LCSW03	132795,LC	260671	3.77	1395736	5.39	572212	7.08
1LCSW03R	132795,LC	263846	3.77	1440160	5.39	579592	7.09
1MBTS02	132750,MB	263307	3.77	1390927	5.39	591191	7.08
1MBTV02	132750,MB	275362	3.77	1485066	5.39	614873	7.08
1MBW01	132723,MB	257071	3.77	1381263	5.39	579420	7.09
1MBW02	132750,MB	267762	3.77	1425192	5.39	606229	7.08
1MBW03	132795,MB	259101	3.77	1399181	5.39	586409	7.09
1MBW03R	132795,MB	257436	3.77	1443744	5.39	596890	7.09
1MDL01	MDL 0.5/2	257030	3.77	1406358	5.39	595637	7.09
1MDL01A	MDL 0.5ug	239102	3.77	1303107	5.39	550951	7.09
1MDL02	MDL 0.5/2	288045	3.77	1552086	5.39	639942	7.09
1MRL01	MRL 1/5ug	256406	3.77	1401363	5.39	575163	7.09
1MRL01A	MRL 1ug/m	234138	3.77	1274927	5.39	616615	7.09
1MRL02	MRL 1/5ug	256858	3.77	1357038	5.39	585082	7.08
797691D	132750,79	267238	3.77	1440597	5.39	603518	7.09
797693D	132750,79	258246	3.77	1396802	5.39	575804	7.08
797695D	132750,79	268392	3.77	1446740	5.39	604340	7.08
799886	132723,79	240025	3.77	1329925	5.39	556863	7.09
800842	132724,80	253585	3.77	1368849	5.39	574282	7.08

IS1 (DCB) = 14Diclbenzd4
 IS2 (NPT) = Naphthalened8
 IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 9 Nov 2016
 Instrument ID : SVMS1 Time Analyzed : 16:05
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
Area	# RT	Area	# RT	Area	# RT	Area	# RT
12 HOUR STD	191851 3.85	867715 5.49	386418 7.15				
UPPER LIMIT	383702 4.35	1735430 5.99	772836 7.65				
LOWER LIMIT	95926 3.35	433858 4.99	193209 6.65				

File ID	Sample	Area	RT	Area	RT	Area	RT
800843	132724,80	244490	3.77	1310940	5.39	545580	7.09
800850	132723,80	248403	3.77	1357258	5.39	568002	7.09
800879	132725,80	253445	3.77	1401677	5.39	589424	7.08
801467	132723,80	254626	3.77	1343976	5.39	573052	7.09
801471	132723,80	243167	3.77	1307416	5.39	543389	7.08
803342	132795,80	256528	3.77	1402556	5.39	586383	7.09
803344	132795,80	255377	3.77	1352030	5.39	571023	7.09
803925	132795,80	260218	3.77	1401743	5.39	600039	7.09
803943	132795,80	251322	3.77	1386918	5.39	583107	7.09
803944	132795,80	251044	3.77	1356586	5.39	572303	7.08
804577	132796,80	259603	3.77	1384910	5.39	584654	7.08

IS1 (DCB) = 14Diclbenzd4
 IS2 (NPT) = Naphthalened8
 IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 9 Nov 2016
 Instrument ID : SVMS1 Time Analyzed : 16:05
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		Area	# RT	# Area	# RT	# Area	# RT
12 HOUR STD		874898	8.09	554927	9.49	566082	10.37
UPPER LIMIT		1749796	8.59	1109854	9.99	1132164	10.87
LOWER LIMIT		437449	7.59	277464	8.99	283041	9.87
File ID	Sample						
1CCV259	CCV 20ug/	1162900	8.04	629811	9.44	633386	10.31
1CCV260	CCV 20ug/	1149598	8.04	729018	9.44	690723	10.31
1CCV261	CCV 20ug/	1309194	8.04	761660	9.44	778137	10.31
1IB02	INSTRUMEN	1238285	8.03	799073	9.44	768668	10.31
1LCSW01	132723,LC	1208600	8.03	707284	9.44	739011	10.31
1LCSW02	132750,LC	1284861	8.03	751724	9.44	786713	10.31
1LCSW03	132795,LC	1213930	8.03	722362	9.44	744387	10.31
1LCSW03R	132795,LC	1244653	8.04	721914	9.44	762131	10.31
1MBTS02	132750,MB	1248069	8.03	812867	9.44	785226	10.31
1MBTV02	132750,MB	1346340	8.03	834302	9.44	802902	10.31
1MBW01	132723,MB	1246785	8.04	765693	9.43	740779	10.31
1MBW02	132750,MB	1309796	8.03	824237	9.44	813208	10.31
1MBW03	132795,MB	1260660	8.04	789618	9.43	758764	10.31
1MBW03R	132795,MB	1247508	8.04	787566	9.43	769672	10.31
1MDL01	MDL 0.5/2	1235957	8.04	779625	9.44	766636	10.31
1MDL01A	MDL 0.5ug	1196390	8.04	749863	9.43	729832	10.31
1MDL02	MDL 0.5/2	1359909	8.04	839903	9.43	861915	10.31
1MRL01	MRL 1/5ug	1209281	8.04	750862	9.44	692764	10.31
1MRL01A	MRL 1ug/m	1158851	8.04	726958	9.44	700583	10.31
1MRL02	MRL 1/5ug	1253994	8.03	786179	9.44	771983	10.31
797691D	132750,79	1274915	8.04	816281	9.43	763637	10.31
797693D	132750,79	1159188	8.03	789097	9.44	716135	10.31
797695D	132750,79	1273180	8.03	816639	9.44	800881	10.31
799886	132723,79	1185406	8.04	728031	9.43	705160	10.31
800842	132724,80	1205987	8.03	782859	9.44	758942	10.31

IS4 (PHN) = Phenanthrd10
 IS5 (CRY) = Chrysene-d12
 IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 9 Nov 2016
 Instrument ID : SVMS1 Time Analyzed : 16:05
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
Area	#	RT	#	Area	#	RT	#
12 HOUR STD	874898	8.09		554927	9.49	566082	10.37
UPPER LIMIT	1749796	8.59		1109854	9.99	1132164	10.87
LOWER LIMIT	437449	7.59		277464	8.99	283041	9.87
File ID	Sample						
800843	132724,80	1164581	8.04	732442	9.44	723284	10.31
800850	132723,80	1195662	8.04	749908	9.44	715612	10.31
800879	132725,80	1239857	8.03	778973	9.44	779497	10.31
801467	132723,80	1233582	8.04	771563	9.43	734105	10.31
801471	132723,80	1164375	8.03	746076	9.44	708464	10.31
803342	132795,80	1252257	8.04	796086	9.43	762129	10.31
803344	132795,80	1214972	8.04	766098	9.43	740507	10.31
803925	132795,80	1244557	8.04	784759	9.43	745964	10.31
803943	132795,80	1225759	8.04	757356	9.43	705397	10.31
803944	132795,80	1210865	8.03	777039	9.44	758782	10.31
804577	132796,80	1203761	8.03	756775	9.44	694288	10.32

IS4 (PHN) = Phenanthrd10
 IS5 (CRY) = Chrysene-d12
 IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

**SEMI - VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S111716\804577.D
 Acq On : 17 Nov 2016 23:46
 Sample : 132796,804577,
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 17:20:46 2016

Vial: 30
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:25:42 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.768	152	259603	20.00	ug/mL	0.00
21) Naphthalened8	5.390	136	1384910	20.00	ug/mL	0.00
39) Acenaphthened10	7.081	164	584654	20.00	ug/mL	-0.01
63) Phenanthrd10	8.033	188	1201736	20.00	ug/mL	0.00
75) Chrysene-d12	9.439	240	756775	20.00	ug/mL	0.00
86) Perylene-d12	10.317	264	694288	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.665	112	287074	48.95	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	48.95%	
7) SURRPhenol-d5	3.416	99	216263	32.12	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	32.12%	
22) SURRNitrbenzened5	4.410	82	279851	71.61	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	71.61%	
44) SURR2Flbiphenyl	6.584	172	796804	82.94	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	82.94%	
62) SURR246Tribphenl	7.610	330	310868	84.51	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	84.51%	
78) SURRTerphenyl-d14	8.846	244	525956	83.74	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	83.74%	
Target Compounds						
					Qvalue	
3) Pyridine	1.969	79	1458	0.6974	ug/mL#	6
14) bis2clispreth	4.094	45	3199	0.0936	ug/mL	72
17) Acetophenone	4.231	105	3986	0.1678	ug/mL	68
23) Nitrobenzene	4.410	77	1712	0.0864	ug/mL#	48
24) Isophorone	4.757	82	5561	0.1553	ug/mL	98
30) Benzoic acid	5.086	122	5420	2.3310	ug/mL	87
36) 4Cl3methylphe	6.160	107	3544	0.1857	ug/mL#	24
38) 1Methylnaphth	6.322	141	3730	0.1001	ug/mL#	56
45) 2Clnaphthalen	6.743	162	1671	0.0420	ug/mL#	1
46) 2Nitroaniline	6.766	65	863	0.2745	ug/mL#	5
47) Acnaphthylene	6.976	152	1291	0.0196	ug/mL#	38
48) Dimethylphtha	6.916	163	25673	0.5685	ug/mL	93
49) 26Dinitrotolu	6.956	165	4221	0.4253	ug/mL#	20
53) Dibenzofuran	7.226	168	1877	0.0322	ug/mL	63
55) 4-Nitrophenol	7.203	65	3022	0.3132	ug/mL#	7
56) 2,3,5,6-Tetrachlorop	7.288	232	1129	0.0874	ug/mL	63
57) 2,3,4,6-Tetrachlorop	7.317	232	2266	0.1581	ug/mL	84
58) Fluorene	7.453	166	2665	0.0576	ug/mL#	43
61) 4Nitroaniline	7.578	138	1119	0.1150	ug/mL#	47
65) Ntrsdiphlam&Diphlam	7.598	169	28463	0.5931	ug/mL#	34
69) Pentaclphenol	7.925	266	10462	2.2219	ug/mL	90
70) Phenanthrene	8.044	178	4238	0.0686	ug/mL	79
71) Anthracene	8.076	178	6680	0.1054	ug/mL	83
72) Carbazole	8.175	167	17302	0.3387	ug/mL	85
73) Dinbtylphthal	8.351	149	10062	0.1878	ug/mL	90
74) Fluoranthene	8.652	202	5510	0.1078	ug/mL	94
76) Benzidine	8.655	184	5637	4.1887	ug/mL	59
77) Pyrene	8.769	202	4511	0.0888	ug/mL	65
79) Btylbzylphth	9.118	149	4155	0.1861	ug/mL	76
80) bis2Ethlhxlad	9.155	129	2399	0.1437	ug/mL#	88
82) B[a]anthracen	9.439	228	4094	0.0899	ug/mL#	68
84) bis2Ethlhxlph	9.451	149	13257	0.4395	ug/mL	84

Data File : C:\INSTARCH\Data\1S111716\804577.D
Acq On : 17 Nov 2016 23:46
Sample : 132796,804577,
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 18 17:20:46 2016

Vial: 30
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

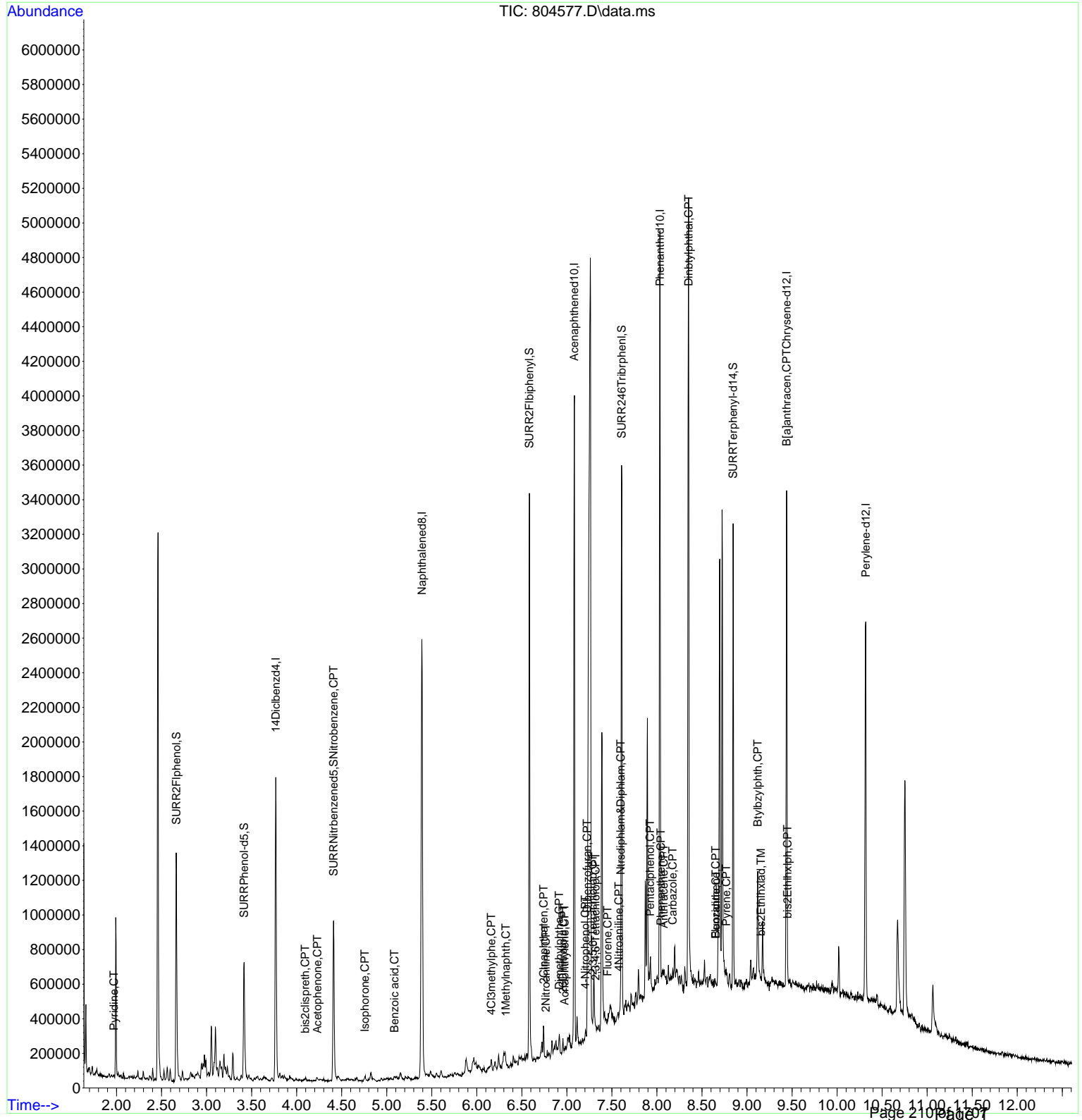
Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:25:42 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

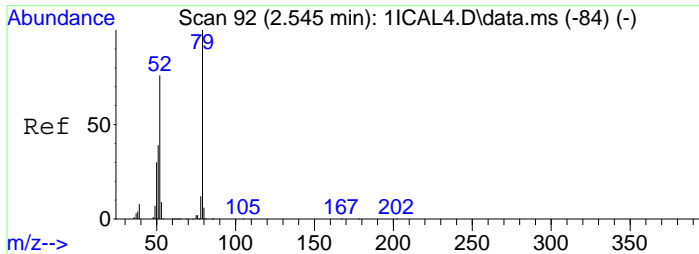
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Vial: 30
Operator: RPN
Inst : SVM51
Multiplr: 1.00

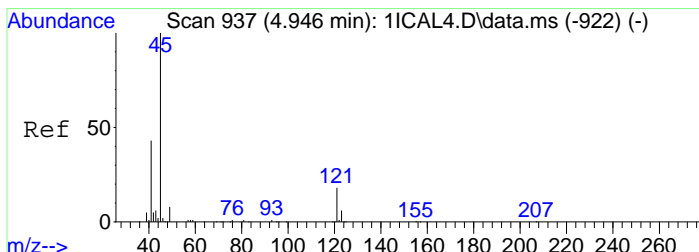
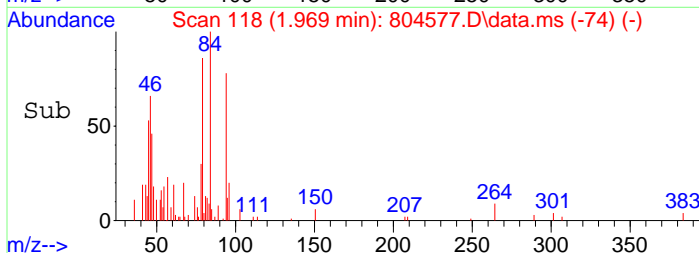
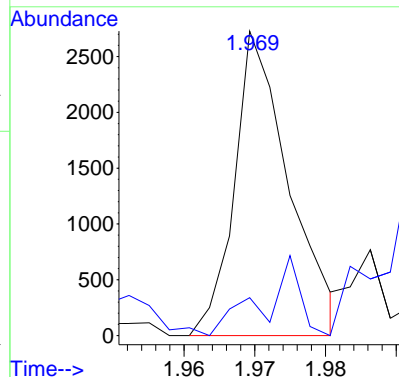
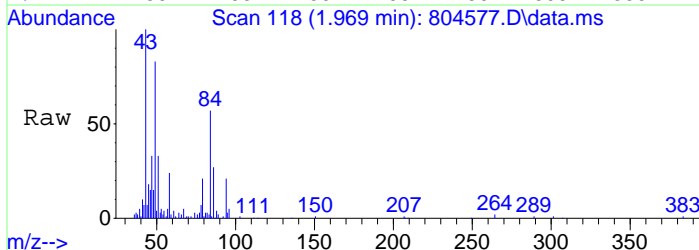
Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:25:42 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M





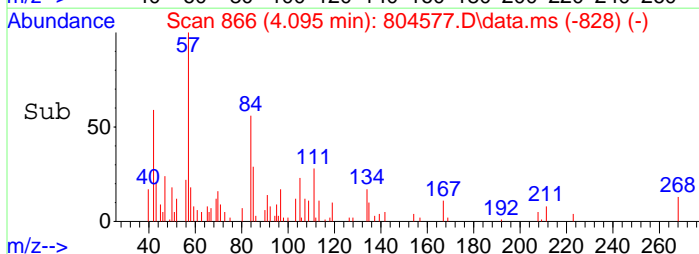
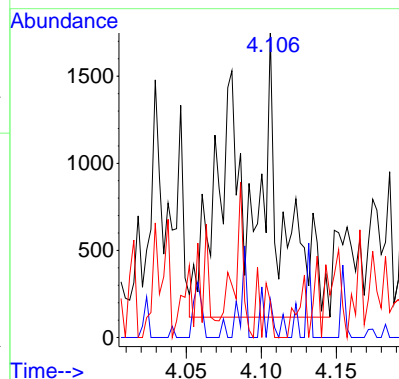
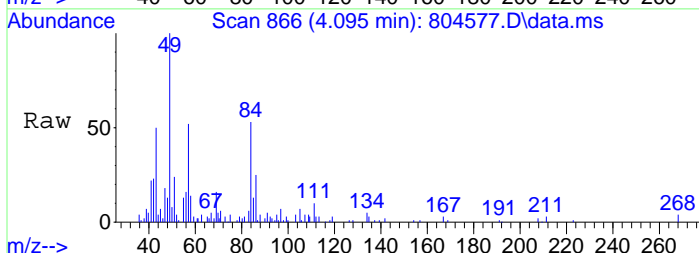
#3
Pyridine
Concen: 0.70 ug/mL
RT: 1.969 min Scan# 118
Delta R.T. 0.026 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

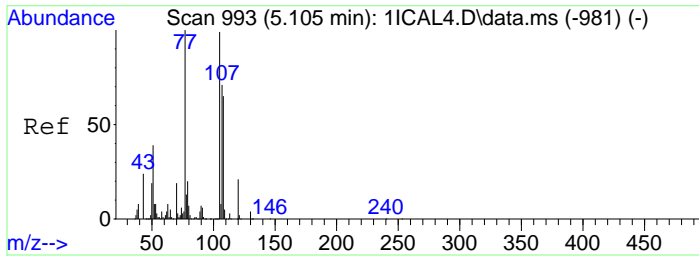
Tgt Ion: 79 Resp: 1458
Ion Ratio Lower Upper
79 100
52 12.4 84.3 144.3#



#14
bis2clispreth
Concen: 0.09 ug/mL
RT: 4.094 min Scan# 866
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

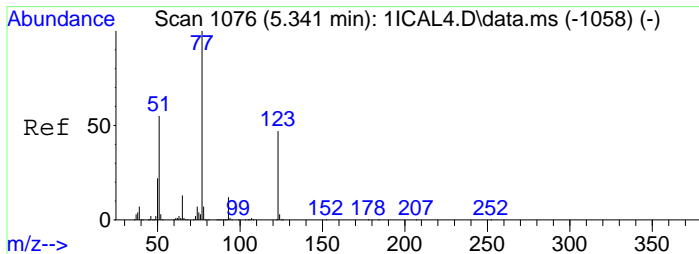
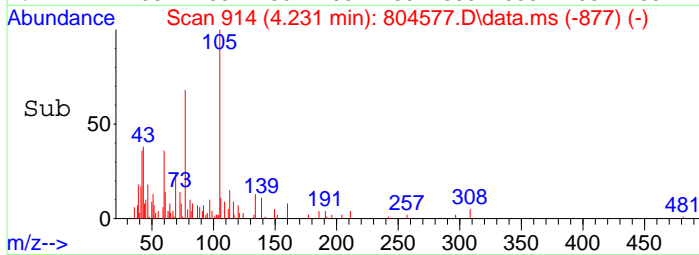
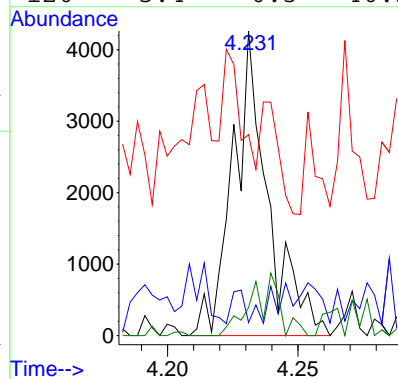
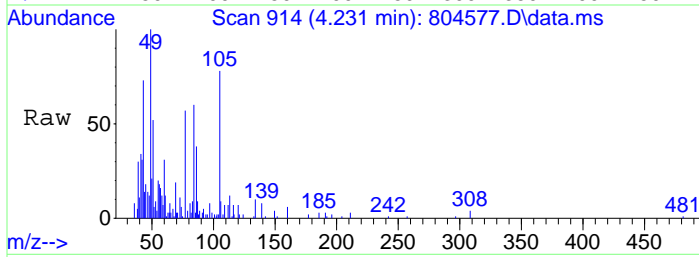
Tgt Ion: 45 Resp: 3199
Ion Ratio Lower Upper
45 100
121 0.0 0.0 42.1
77 0.0 0.0 27.9





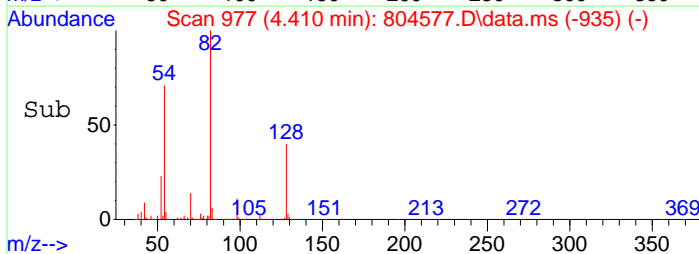
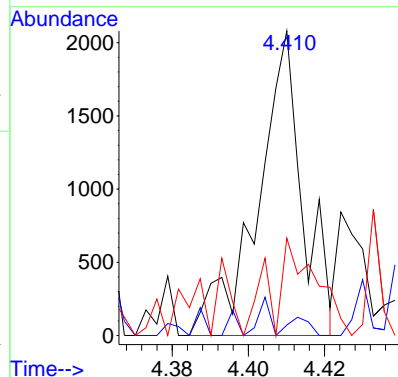
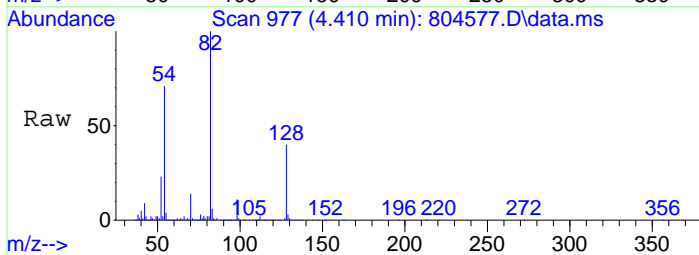
#17
Acetophenone
Concen: 0.17 ug/mL
RT: 4.231 min Scan# 914
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

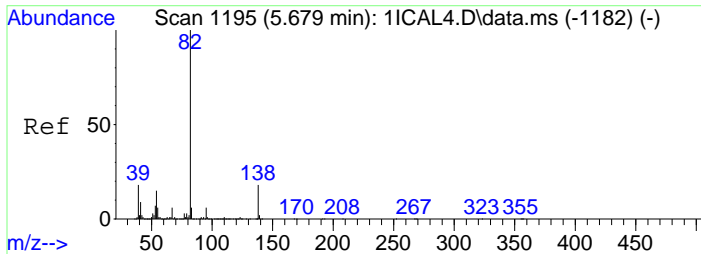
Tgt Ion	105	Resp	3986
Ion Ratio	Lower	Upper	
105	100		
71	0.0	0.0	30.5
51	20.5	10.0	70.0
120	5.4	0.3	40.3



#23
Nitrobenzene
Concen: 0.09 ug/mL
RT: 4.410 min Scan# 977
Delta R.T. -0.031 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

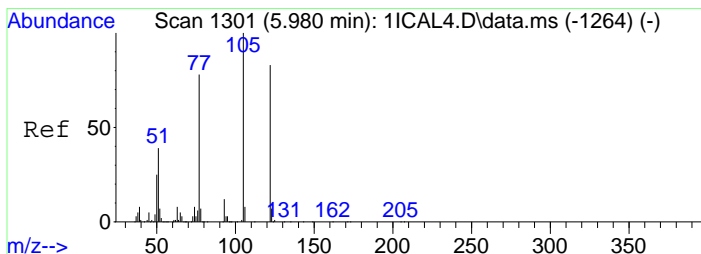
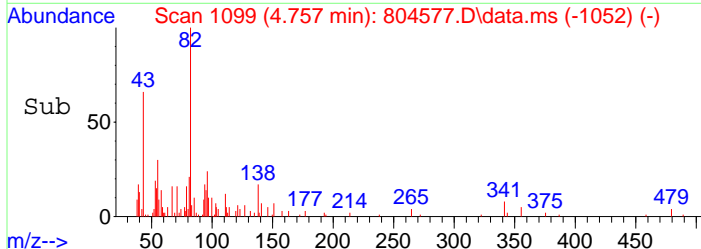
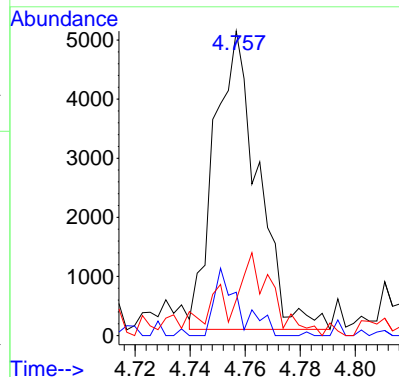
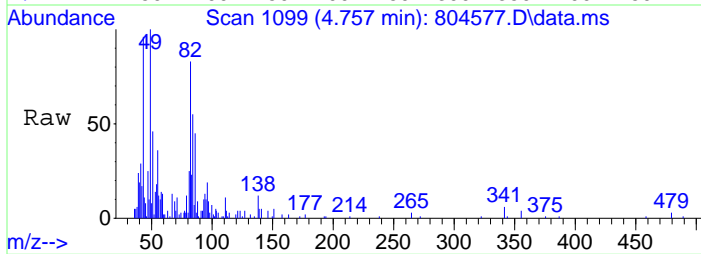
Tgt Ion	77	Resp	1712
Ion Ratio	Lower	Upper	
77	100		
123	3.4	15.1	75.1#
65	22.8	0.0	45.5





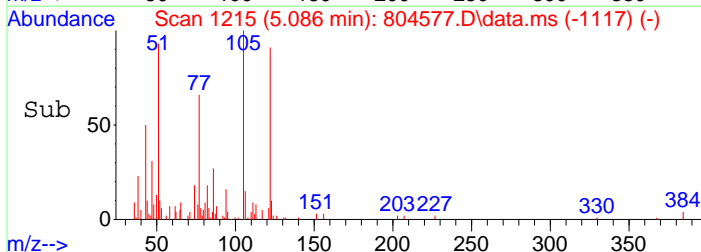
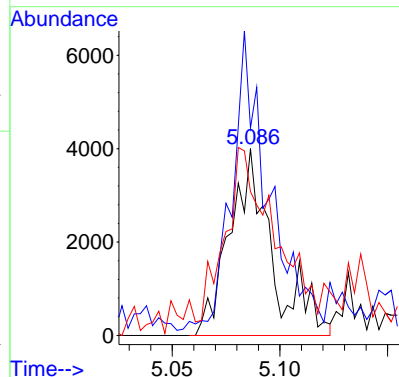
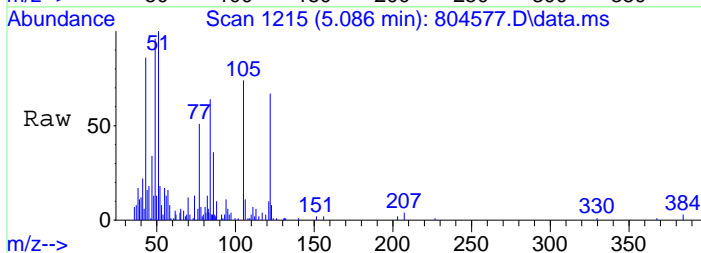
#24
Isophorone
Concen: 0.16 ug/mL
RT: 4.757 min Scan# 1099
Delta R.T. -0.011 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

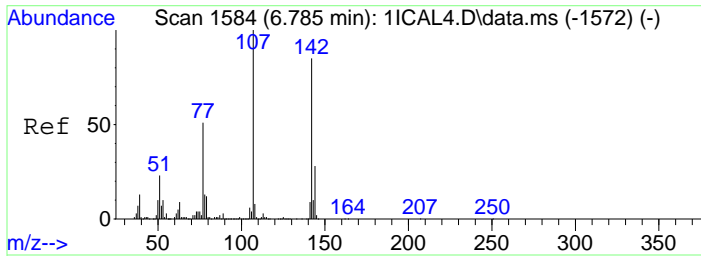
Tgt Ion: 82	Resp: 5561
Ion Ratio	Lower Upper
82	100
138	14.5 0.0 45.2
95	7.7 0.0 26.5



#30
Benzoic acid
Concen: 2.33 ug/mL
RT: 5.086 min Scan# 1215
Delta R.T. 0.114 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

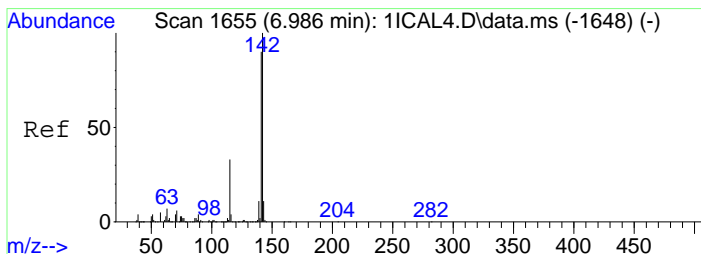
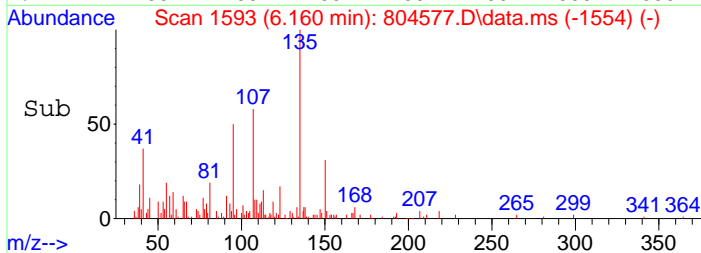
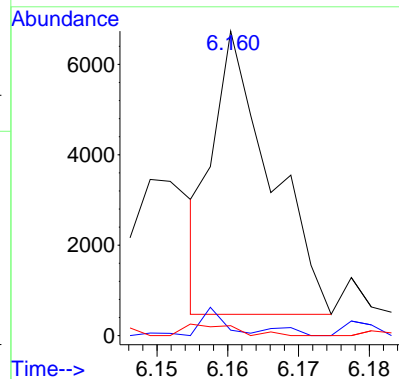
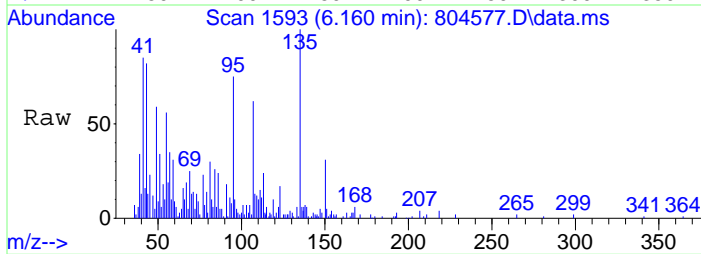
Tgt Ion: 122	Resp: 5420
Ion Ratio	Lower Upper
122	100
105	103.6 79.7 139.7
77	57.9 47.4 107.4





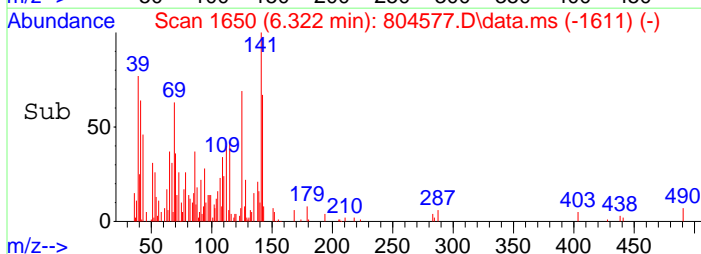
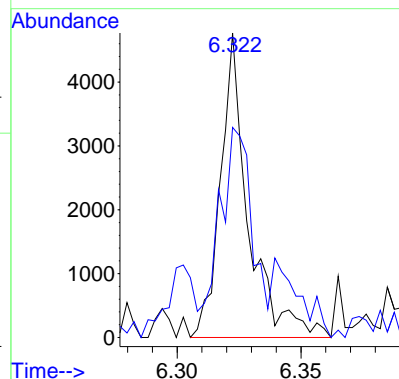
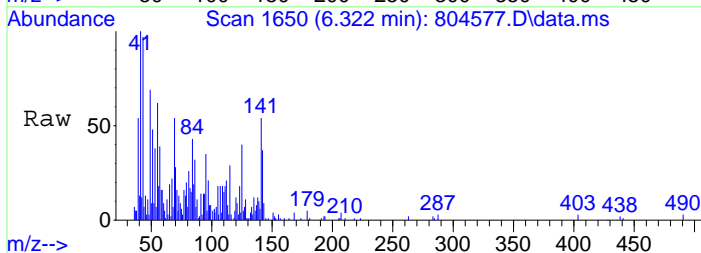
#36
4Cl3methylphe
Concen: 0.19 ug/mL
RT: 6.160 min Scan# 1593
Delta R.T. 0.011 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

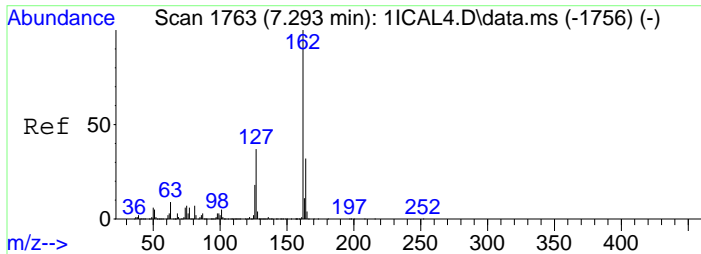
Tgt Ion	107	Resp	3544
Ion Ratio	Lower	Upper	
107	100		
142	1.9	46.8	106.8#
144	3.5	0.0	53.8



#38
1Methylnaphth
Concen: 0.10 ug/mL
RT: 6.322 min Scan# 1650
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

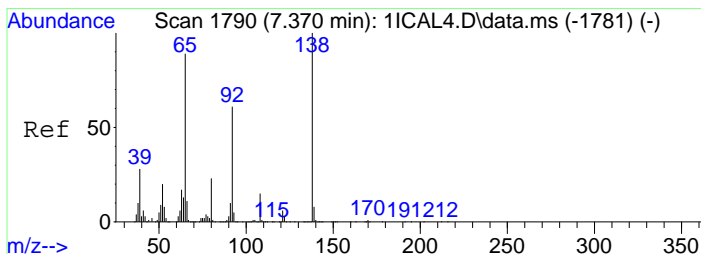
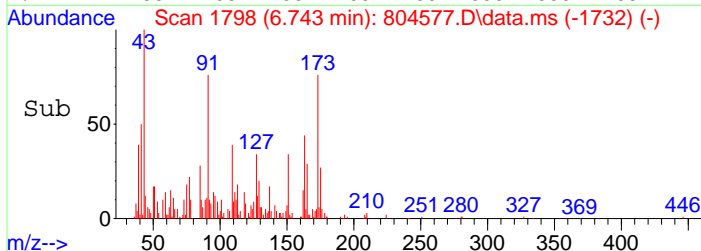
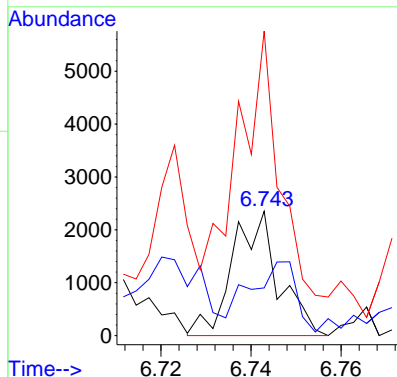
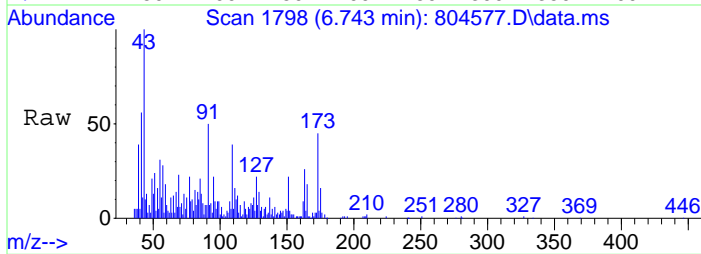
Tgt Ion	141	Resp	3730
Ion Ratio	Lower	Upper	
141	100		
142	69.0	86.8	146.8#





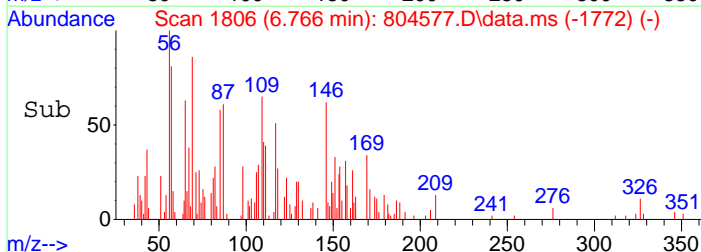
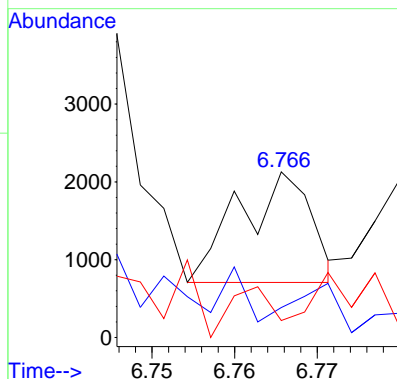
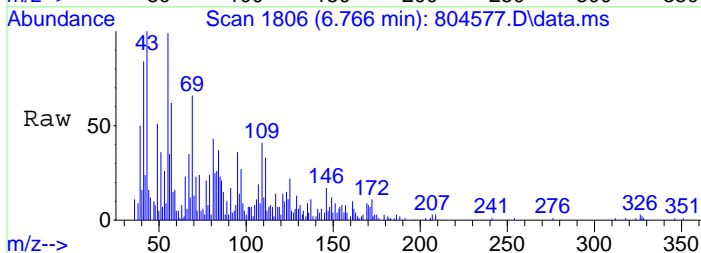
#45
 2Clnaphthalen
 Concen: 0.04 ug/mL
 RT: 6.743 min Scan# 1798
 Delta R.T. 0.074 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

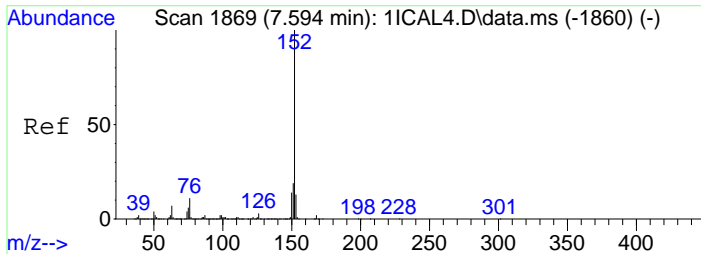
Tgt Ion	Ratio	Lower	Upper
162	100		
164	24.7	1.3	61.3
127	213.9	8.6	68.6#



#46
 2Nitroaniline
 Concen: 0.27 ug/mL
 RT: 6.766 min Scan# 1806
 Delta R.T. -0.003 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

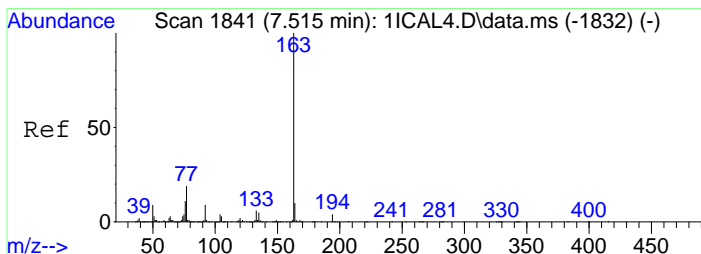
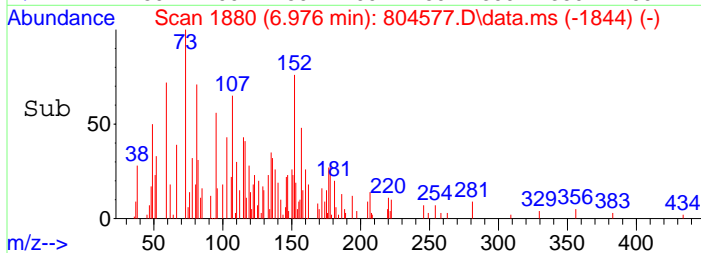
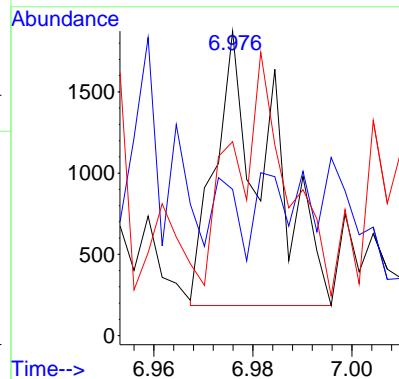
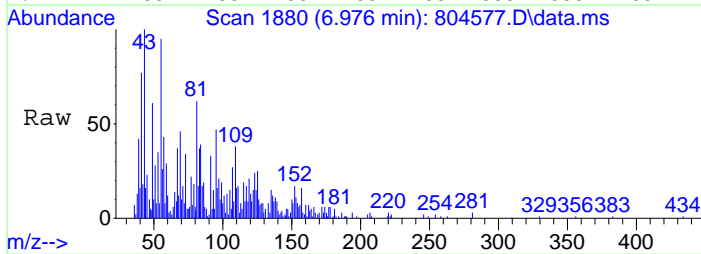
Tgt Ion	Ratio	Lower	Upper
65	100		
92	0.0	32.9	92.9#
138	0.0	77.9	137.9#





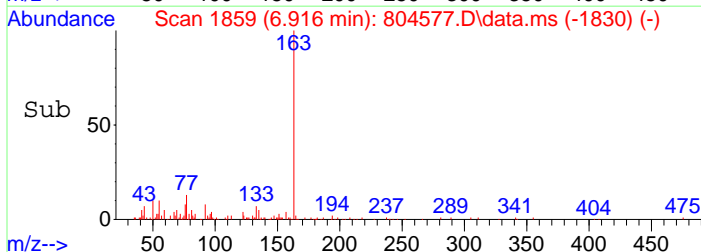
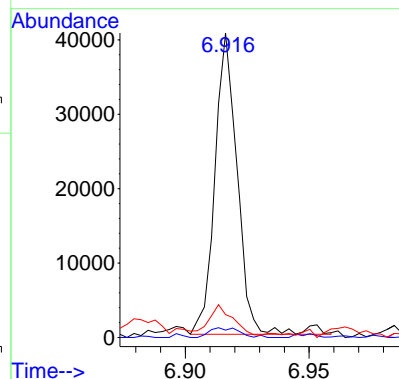
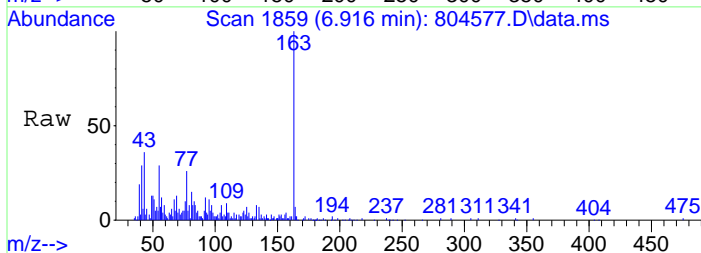
#47
Acnaphthylene
Concen: 0.02 ug/mL
RT: 6.976 min Scan# 1880
Delta R.T. -0.011 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

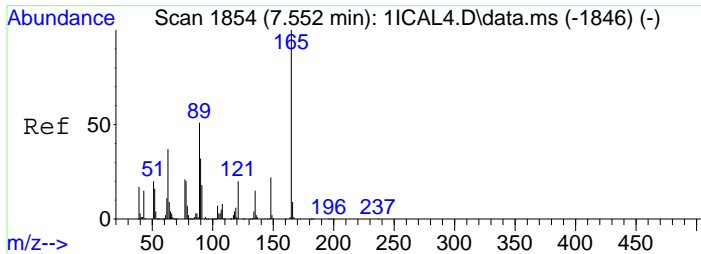
Tgt Ion	152	Resp	1291
Ion Ratio	100	Lower	Upper
151	5.4	0.0	49.6
153	56.3	0.0	42.8#



#48
Dimethylphtha
Concen: 0.57 ug/mL
RT: 6.916 min Scan# 1859
Delta R.T. -0.017 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

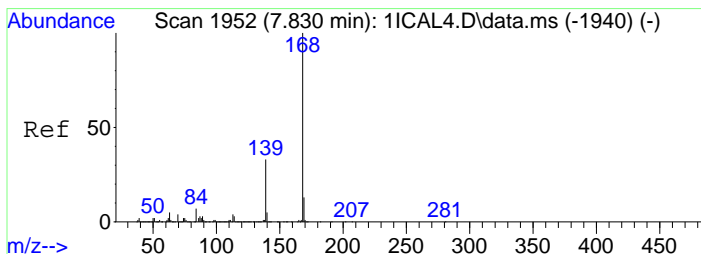
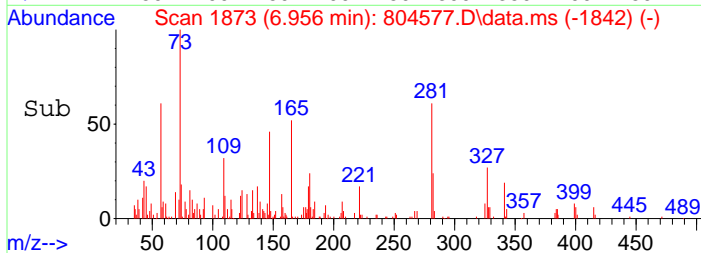
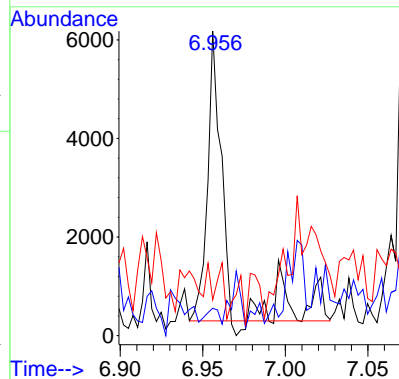
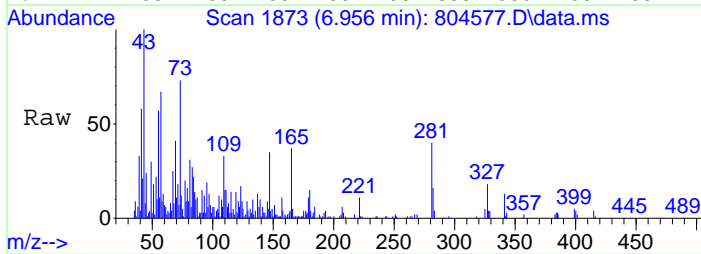
Tgt Ion	163	Resp	25673
Ion Ratio	100	Lower	Upper
194	2.4	0.0	33.8
164	7.7	0.0	40.5





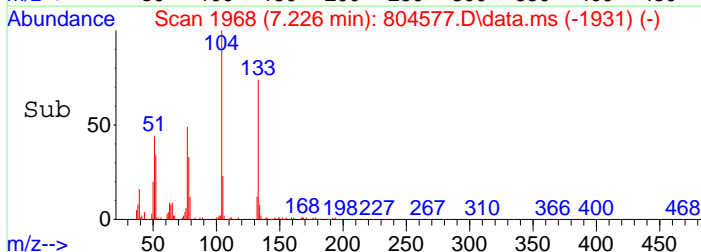
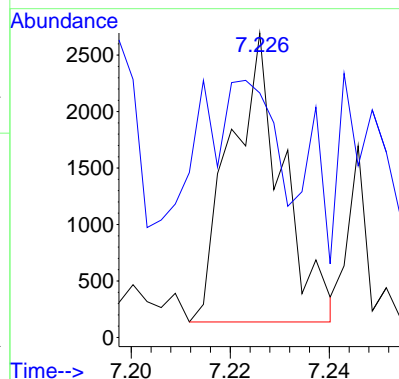
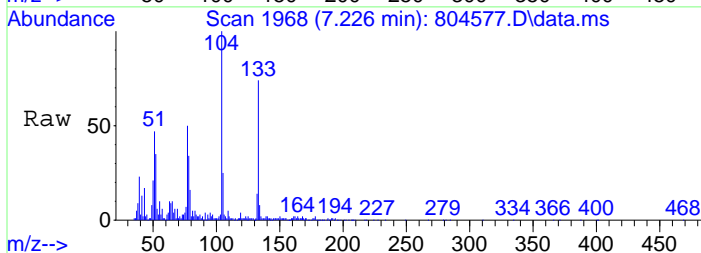
#49
26Dinitrotolu
Concen: 0.43 ug/mL
RT: 6.956 min Scan# 1873
Delta R.T. -0.011 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

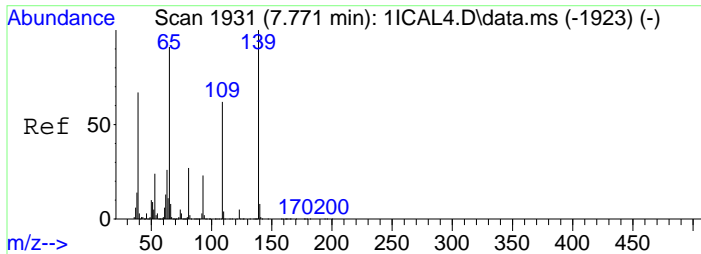
Tgt Ion	165	Resp	4221
Ion Ratio	100	Lower	Upper
165	100		
89	0.4	26.3	86.3#
63	0.0	45.5	85.5#



#53
Dibenzofuran
Concen: 0.03 ug/mL
RT: 7.226 min Scan# 1968
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

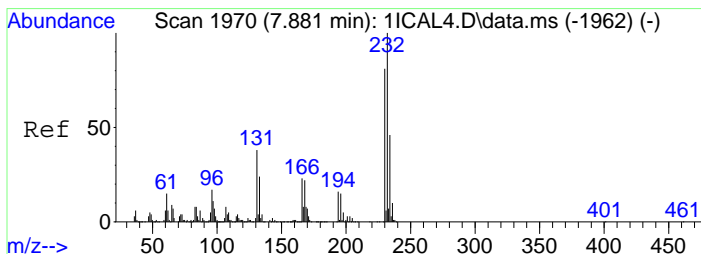
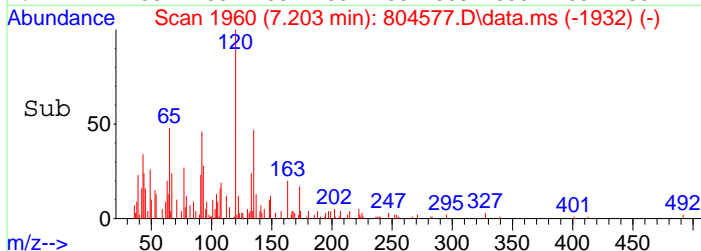
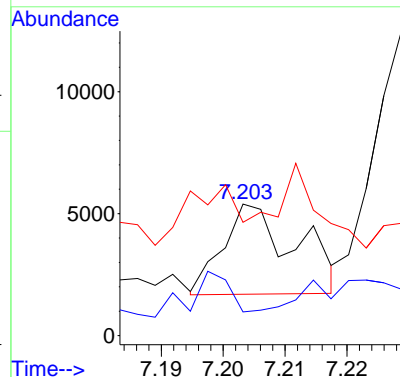
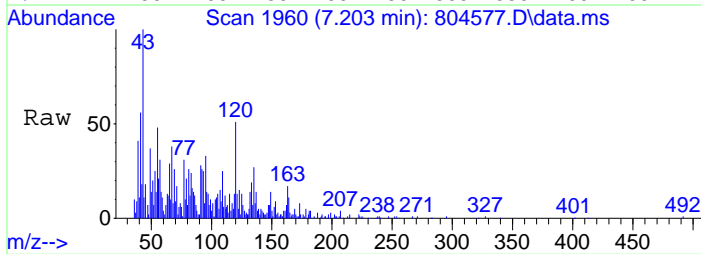
Tgt Ion	168	Resp	1877
Ion Ratio	100	Lower	Upper
168	100		
139	59.1	7.1	67.1





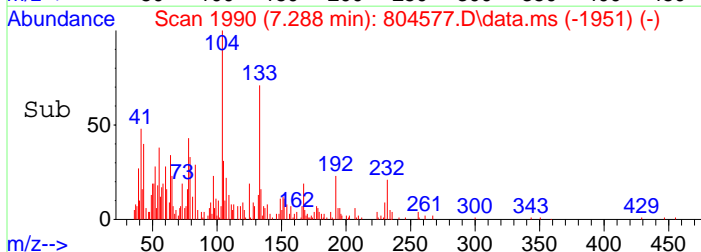
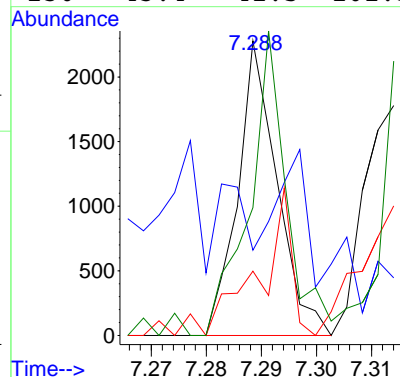
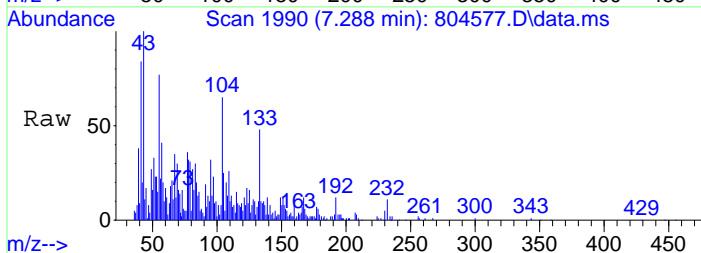
#55
4-Nitrophenol
Concen: 0.31 ug/mL
RT: 7.203 min Scan# 1960
Delta R.T. -0.020 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

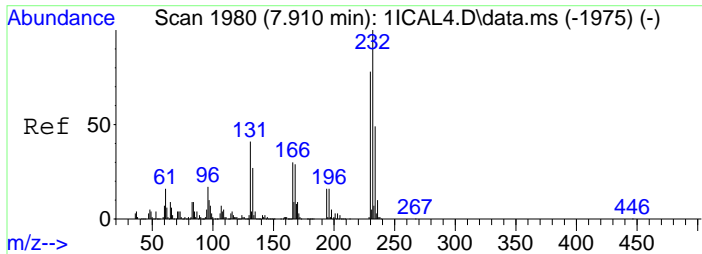
Tgt Ion	65	Resp	3022
Ion Ratio	65	100	
Lower	139	0.0	65.3
Upper	109	1.3	55.1



#56
2,3,5,6-Tetrachlorop
Concen: 0.09 ug/mL
RT: 7.288 min Scan# 1990
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

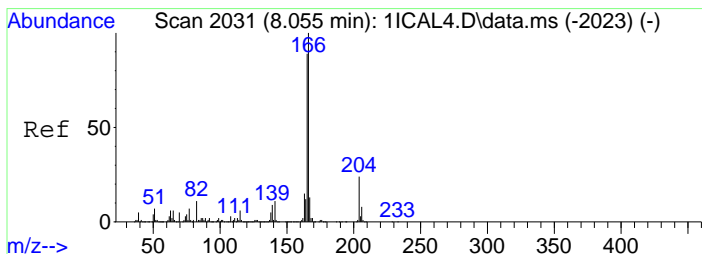
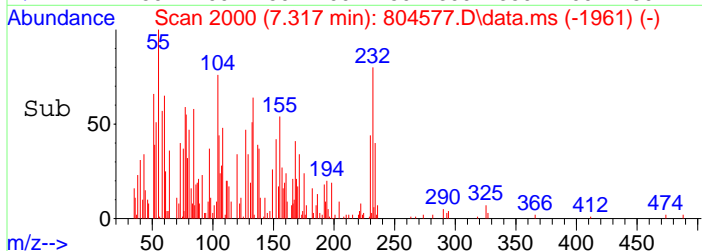
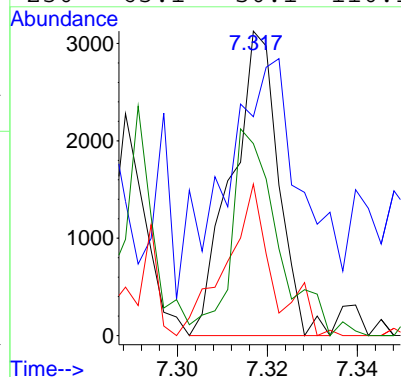
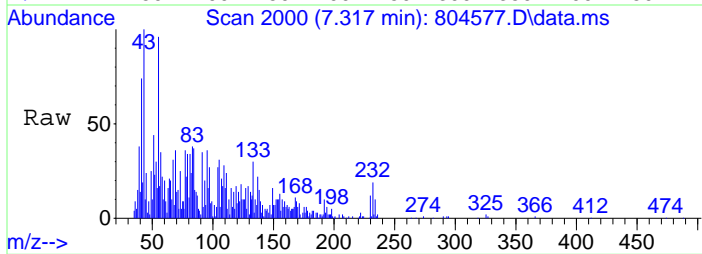
Tgt Ion	232	Resp	1129
Ion Ratio	232	100	
Lower	194	4.7	0.0
Upper	234	14.5	14.4
	230	43.4	41.5





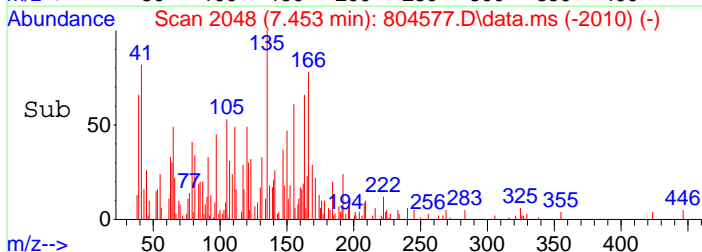
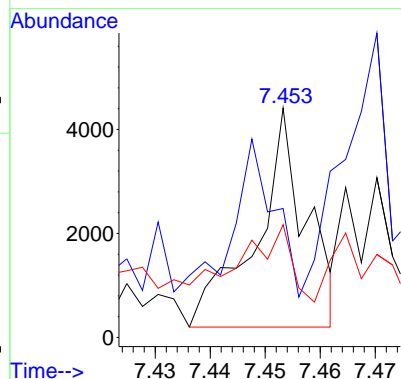
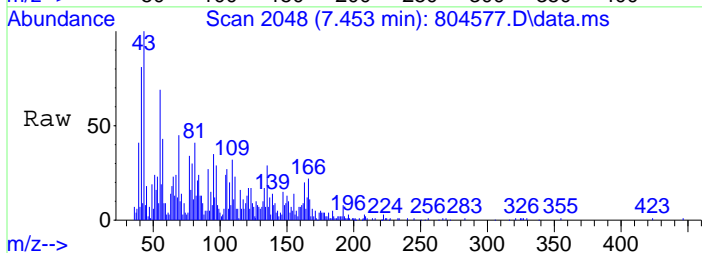
#57
 2,3,4,6-Tetrachlorop
 Concen: 0.16 ug/mL
 RT: 7.317 min Scan# 2000
 Delta R.T. -0.009 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

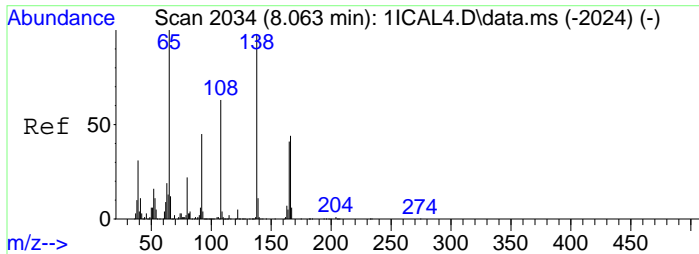
Tgt Ion	232	Resp	2266
Ion Ratio	100	Lower	Upper
131	31.4	14.8	74.8
234	48.0	14.8	74.8
230	63.1	50.1	110.1



#58
 Fluorene
 Concen: 0.06 ug/mL
 RT: 7.453 min Scan# 2048
 Delta R.T. -0.006 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

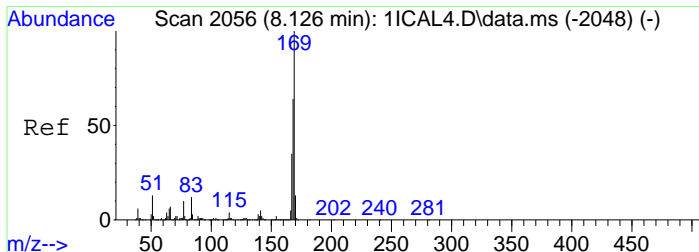
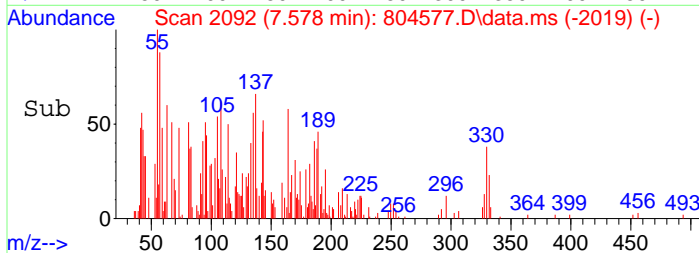
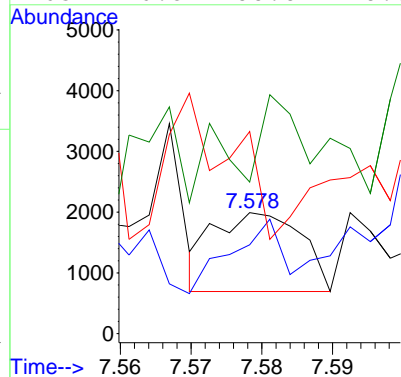
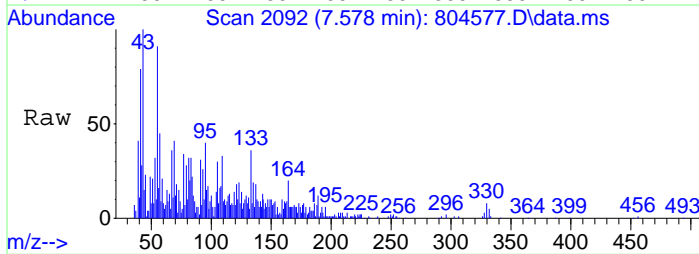
Tgt Ion	166	Resp	2665
Ion Ratio	100	Lower	Upper
165	30.6	57.2	117.2#
167	27.5	0.0	44.0





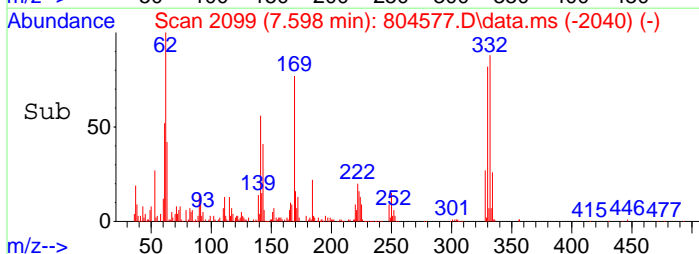
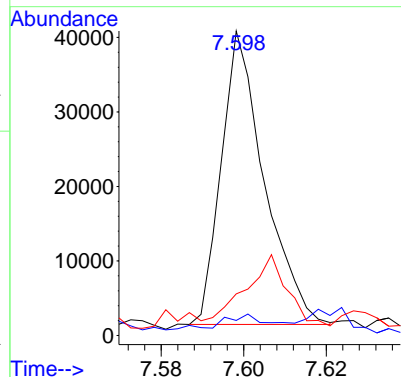
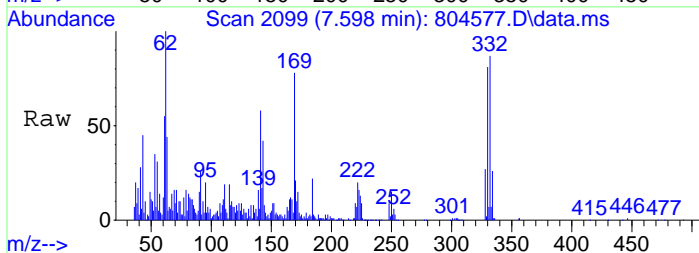
#61
4Nitroaniline
Concen: 0.11 ug/mL
RT: 7.578 min Scan# 2092
Delta R.T. 0.088 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

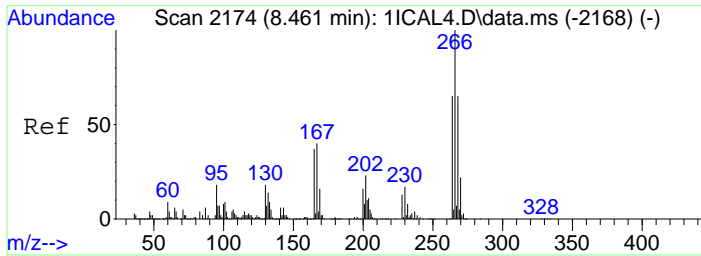
Tgt Ion:138	Resp:	1119
Ion Ratio	Lower	Upper
138	100	
92	61.7	14.6 74.6
108	61.3	52.5 112.5
65	26.3	88.8 148.8#



#65
Ntrsdiphlam&Diphlam
Concen: 0.59 ug/mL
RT: 7.598 min Scan# 2099
Delta R.T. 0.048 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

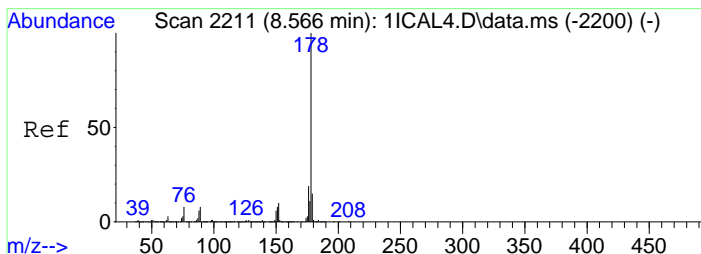
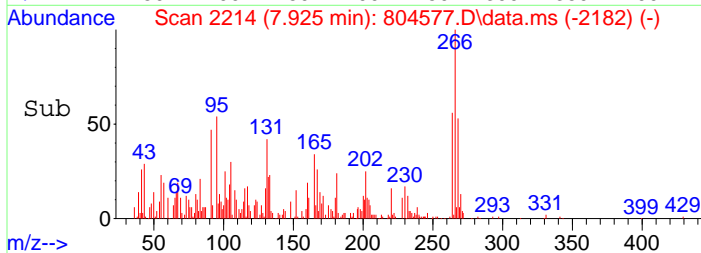
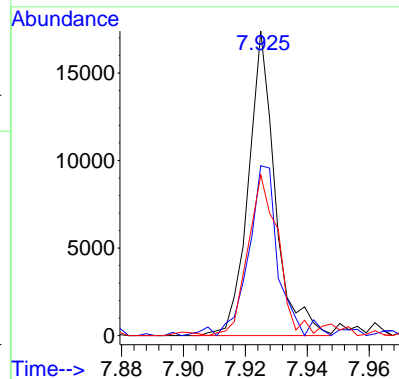
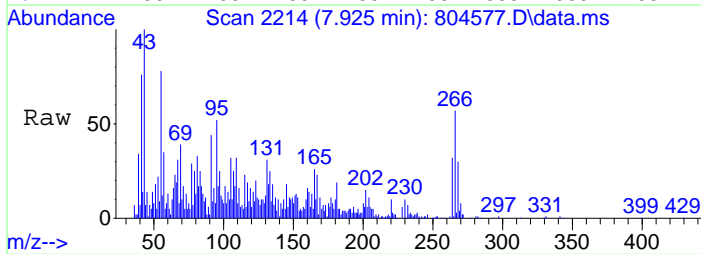
Tgt Ion:169	Resp:	28463
Ion Ratio	Lower	Upper
169	100	
168	1.7	34.0 94.0#
167	10.9	3.8 63.8





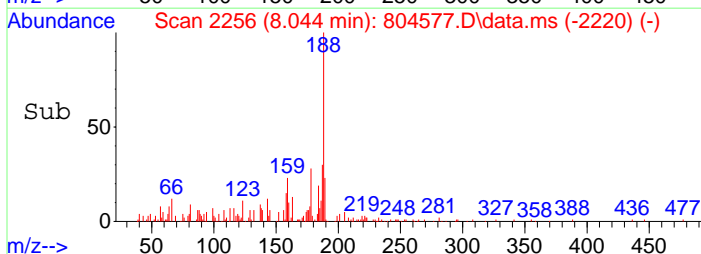
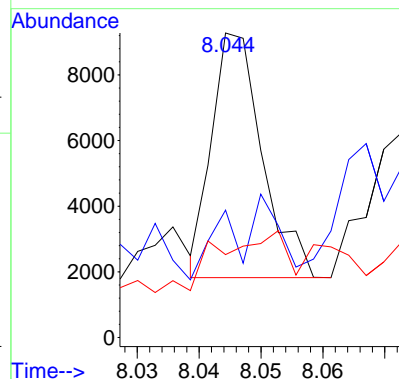
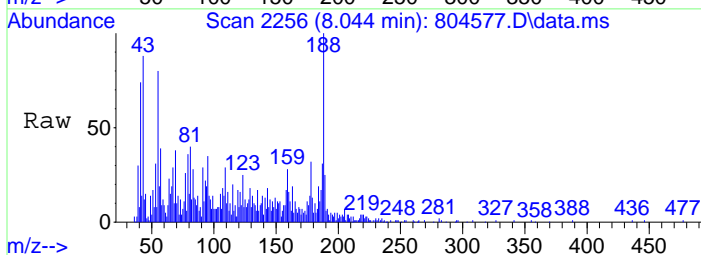
#69
Pentaclphenol
Concen: 2.22 ug/mL
RT: 7.925 min Scan# 2214
Delta R.T. -0.009 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

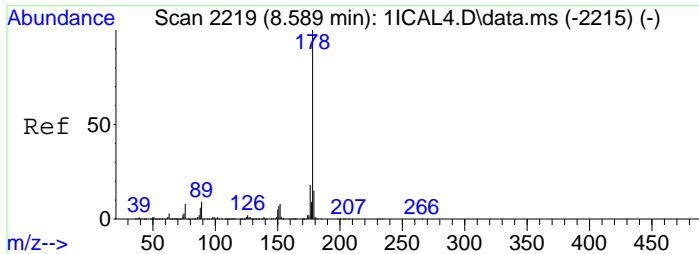
Tgt Ion	266	Resp	10462	
Ion Ratio	Lower	Upper		
266	100			
264	55.8	30.1	90.1	
268	51.8	32.3	92.3	



#70
Phenanthrene
Concen: 0.07 ug/mL
RT: 8.044 min Scan# 2256
Delta R.T. -0.011 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

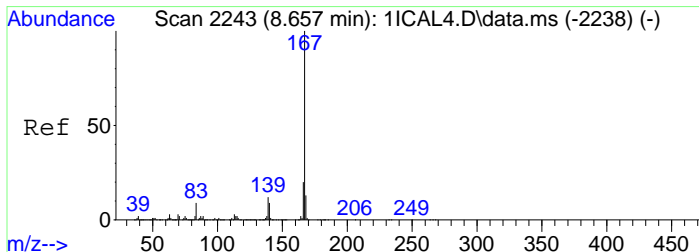
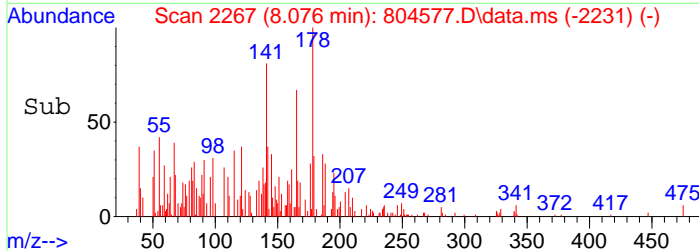
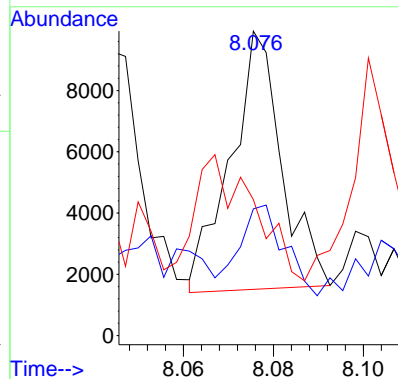
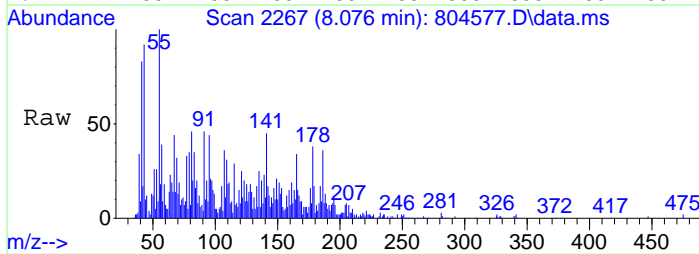
Tgt Ion	178	Resp	4238	
Ion Ratio	Lower	Upper		
178	100			
179	28.5	0.0	44.1	
176	14.7	0.0	49.4	





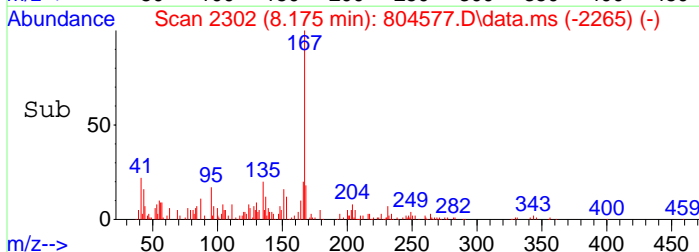
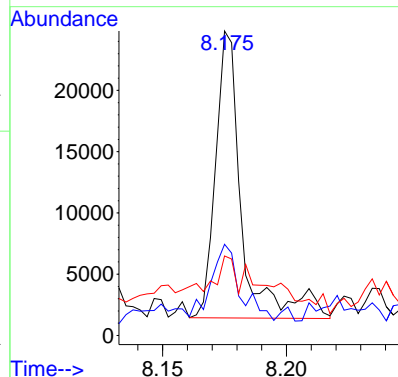
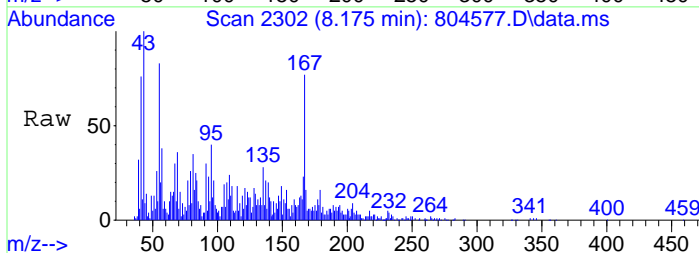
#71
 Anthracene
 Concen: 0.11 ug/mL
 RT: 8.076 min Scan# 2267
 Delta R.T. -0.011 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

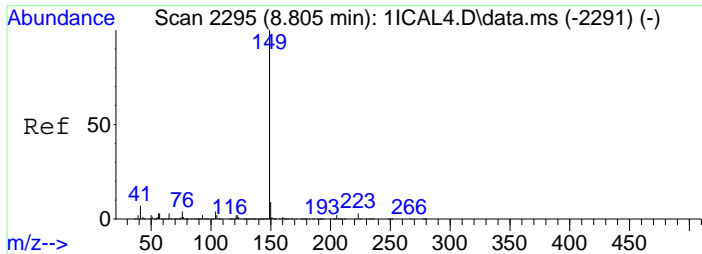
Tgt Ion	Ratio	Lower	Upper
178	100		
176	27.1	0.0	48.4
179	20.0	0.0	44.3



#72
 Carbazole
 Concen: 0.34 ug/mL
 RT: 8.175 min Scan# 2302
 Delta R.T. -0.009 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

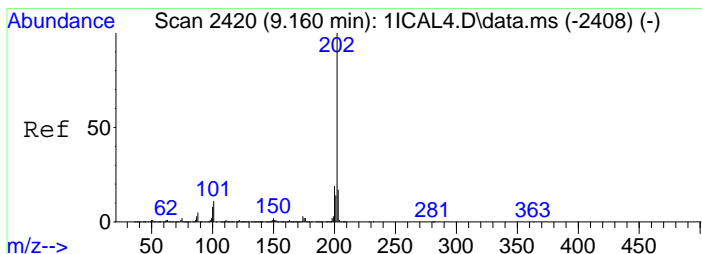
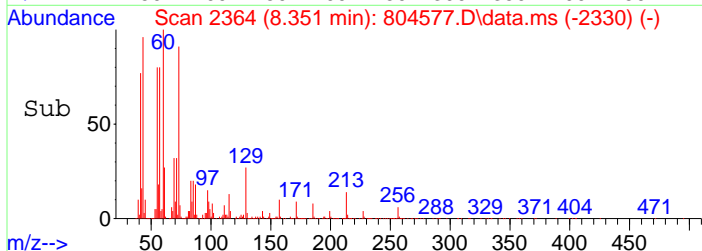
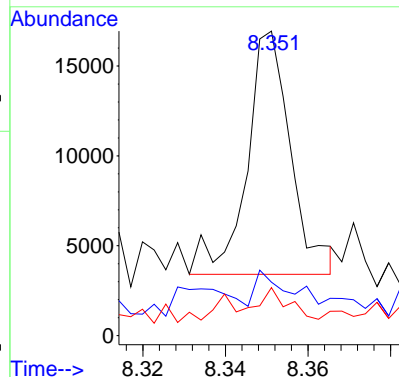
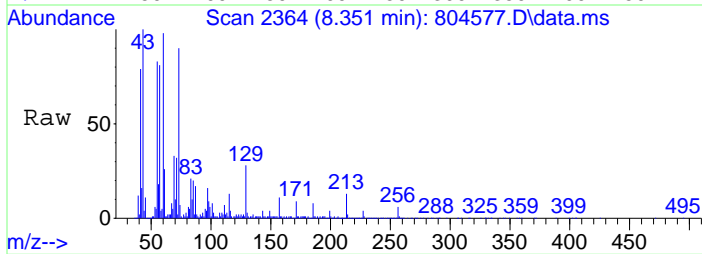
Tgt Ion	Ratio	Lower	Upper
167	100		
166	25.3	0.0	50.1
139	20.1	0.0	41.8





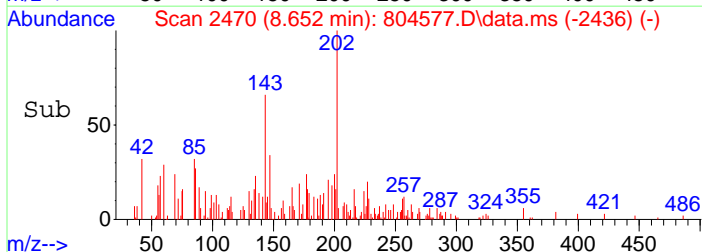
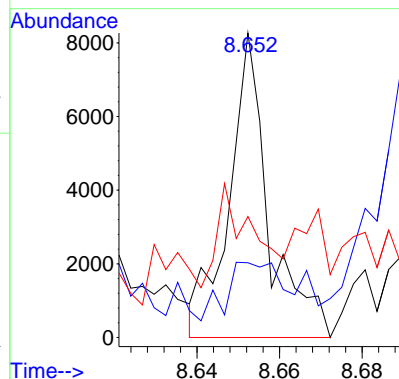
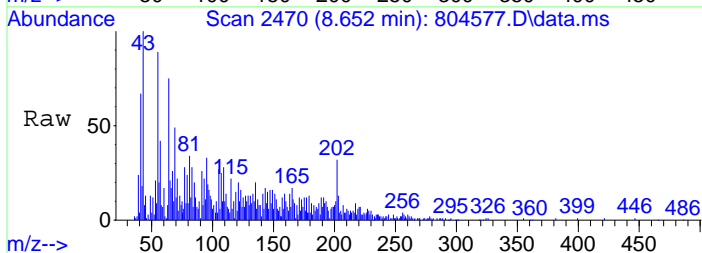
#73
Dinbtylphthal
Concen: 0.19 ug/mL
RT: 8.351 min Scan# 2364
Delta R.T. -0.003 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

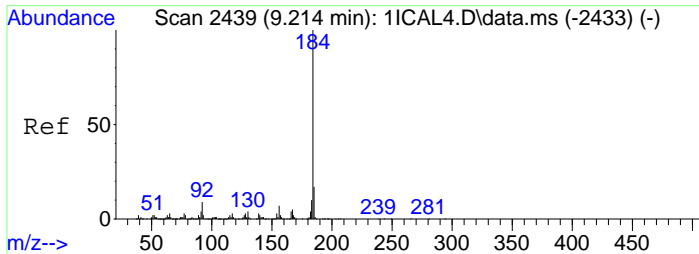
Tgt Ion	Ratio	Resp	Lower	Upper
149	100	10062		
150	6.7	0.0	39.0	
104	10.1	0.0	34.0	



#74
Fluoranthene
Concen: 0.11 ug/mL
RT: 8.652 min Scan# 2470
Delta R.T. -0.003 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

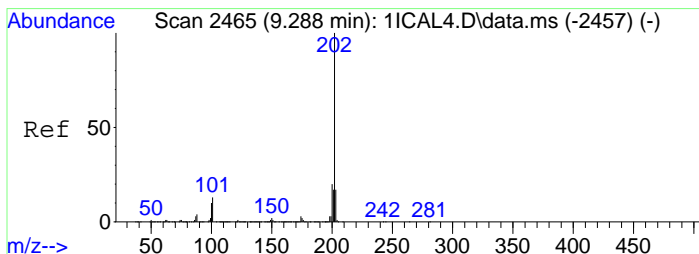
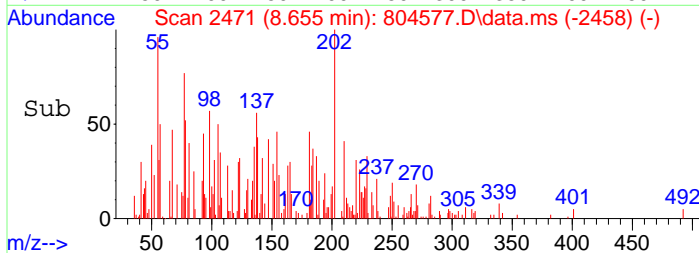
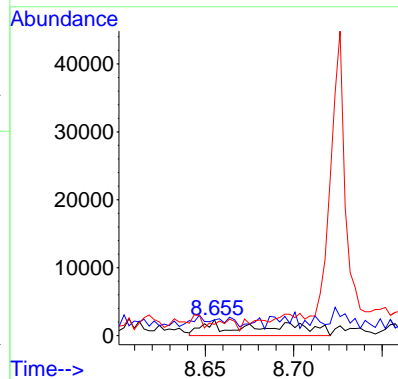
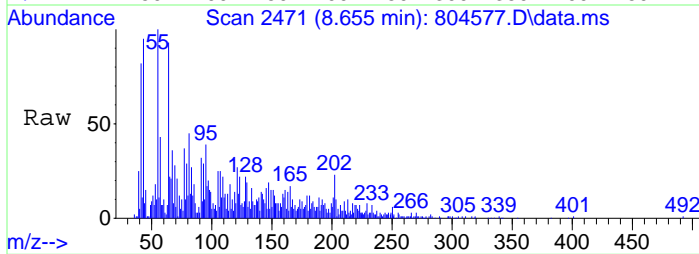
Tgt Ion	Ratio	Resp	Lower	Upper
202	100	5510		
101	15.7	0.0	42.6	
203	19.0	0.0	37.4	





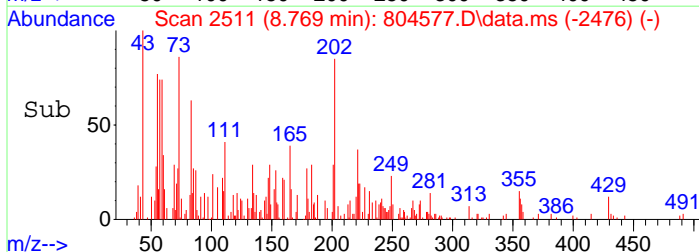
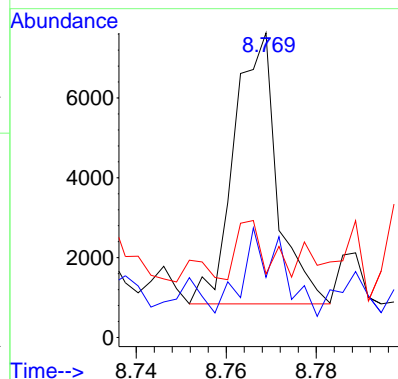
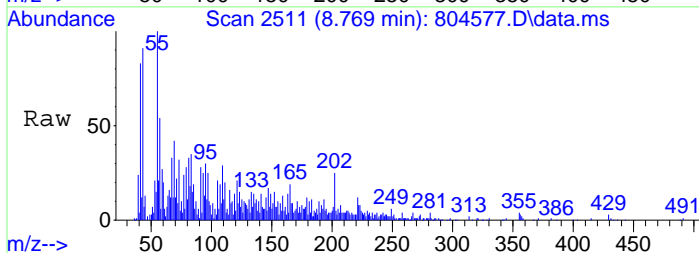
#76
Benzidine
Concen: 4.19 ug/mL
RT: 8.655 min Scan# 2471
Delta R.T. -0.063 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

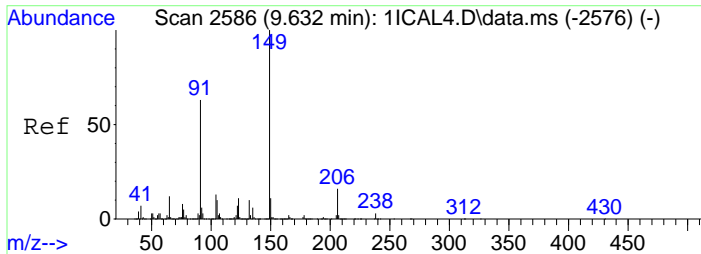
Tgt Ion:184	Resp:	5637
Ion Ratio	Lower	Upper
184	100	
92	25.1	0.0 37.5
185	0.0	0.0 45.5



#77
Pyrene
Concen: 0.09 ug/mL
RT: 8.769 min Scan# 2511
Delta R.T. -0.000 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

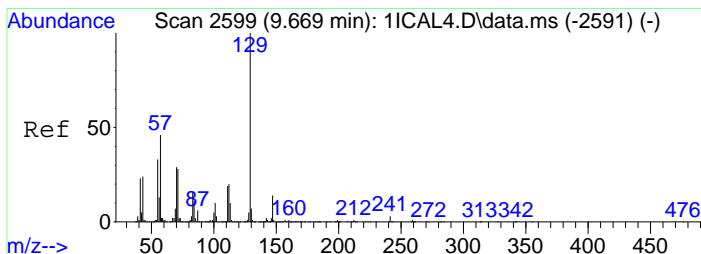
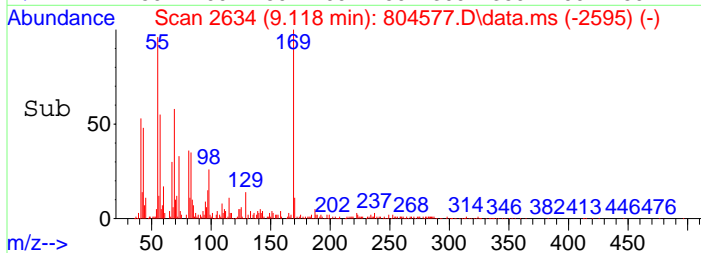
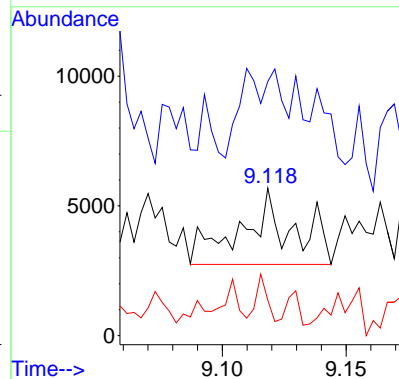
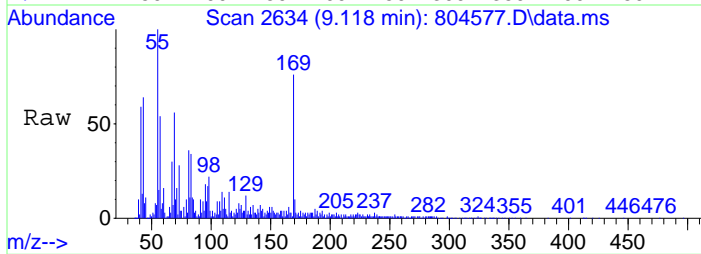
Tgt Ion:202	Resp:	4511
Ion Ratio	Lower	Upper
202	100	
200	4.6	0.0 47.8
203	0.0	0.0 47.4





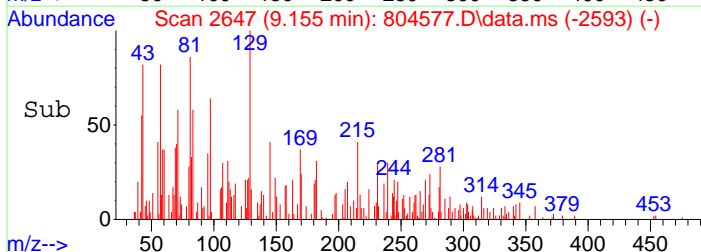
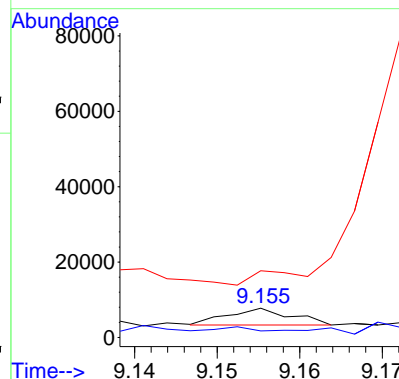
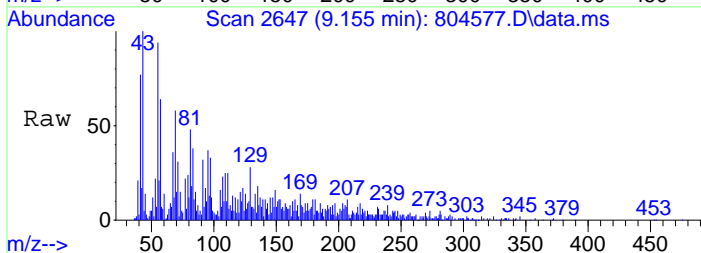
#79
 Btylbzylphth
 Concen: 0.19 ug/mL
 RT: 9.118 min Scan# 2634
 Delta R.T. 0.011 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

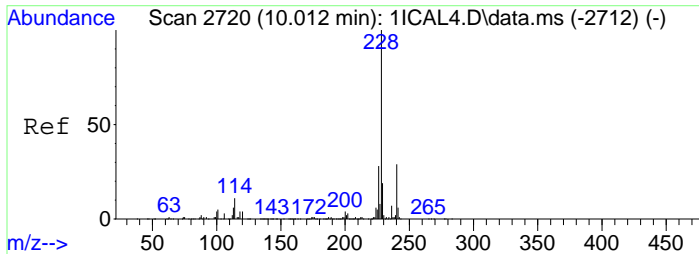
Tgt Ion:149	Resp:	4155
Ion Ratio	Lower	Upper
149	100	
91	89.4	37.5 97.5
206	22.0	0.0 47.1



#80
 bis2Ethlhxlad
 Concen: 0.14 ug/mL
 RT: 9.155 min Scan# 2647
 Delta R.T. 0.003 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

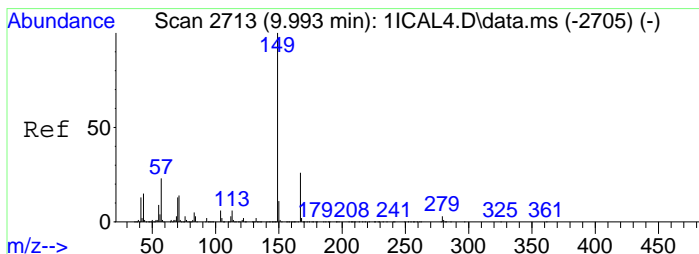
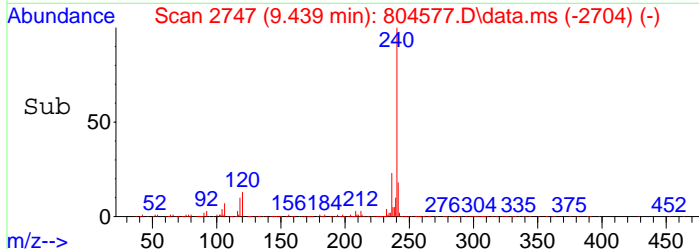
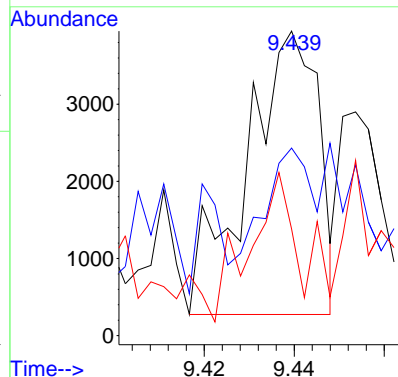
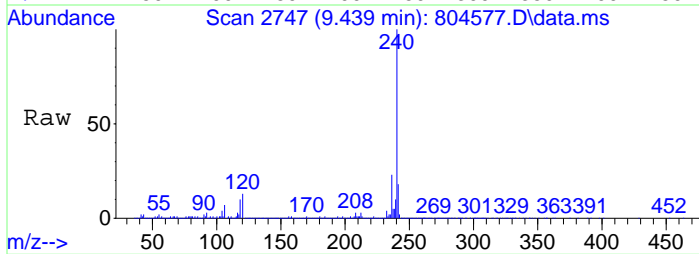
Tgt Ion:129	Resp:	2399
Ion Ratio	Lower	Upper
129	100	
112	0.0	17.5 26.3#
57	68.0	53.9 80.9





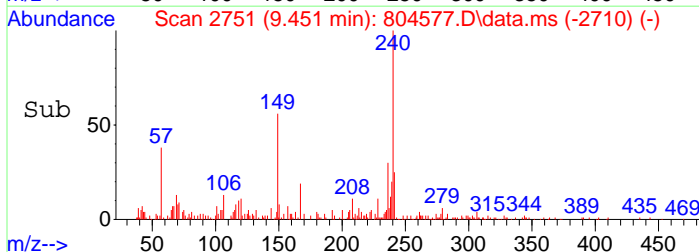
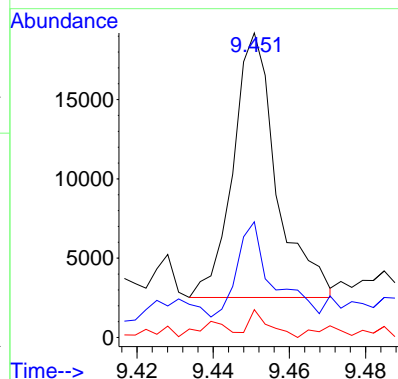
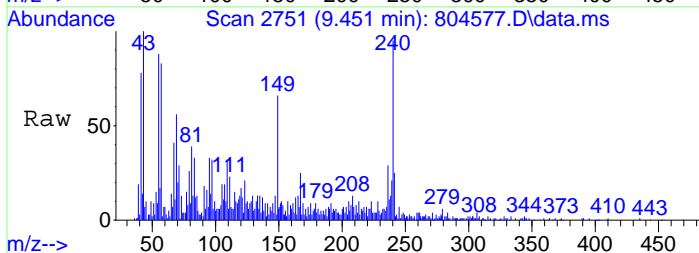
#82
B[a]anthracene
Concen: 0.09 ug/mL
RT: 9.439 min Scan# 2747
Delta R.T. 0.008 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

Tgt Ion:	228	Resp:	4094
Ion Ratio		Lower	Upper
228	100		
229	51.4	0.0	49.8#
226	24.0	0.0	56.3



#84
bis(2-ethylhexyl)phthalate
Concen: 0.44 ug/mL
RT: 9.451 min Scan# 2751
Delta R.T. 0.003 min
Lab File: 804577.D
Acq: 17 Nov 16 11:46 pm

Tgt Ion:	149	Resp:	13257
Ion Ratio		Lower	Upper
149	100		
167	31.2	0.0	53.4
279	7.3	0.0	32.4



Data File : C:\INSTARCH\Data\1S111716\804577.D
 Acq On : 17 Nov 2016 23:46
 Sample : 132796,804577,
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 20:26:26 2016

Vial: 30
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:29:11 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

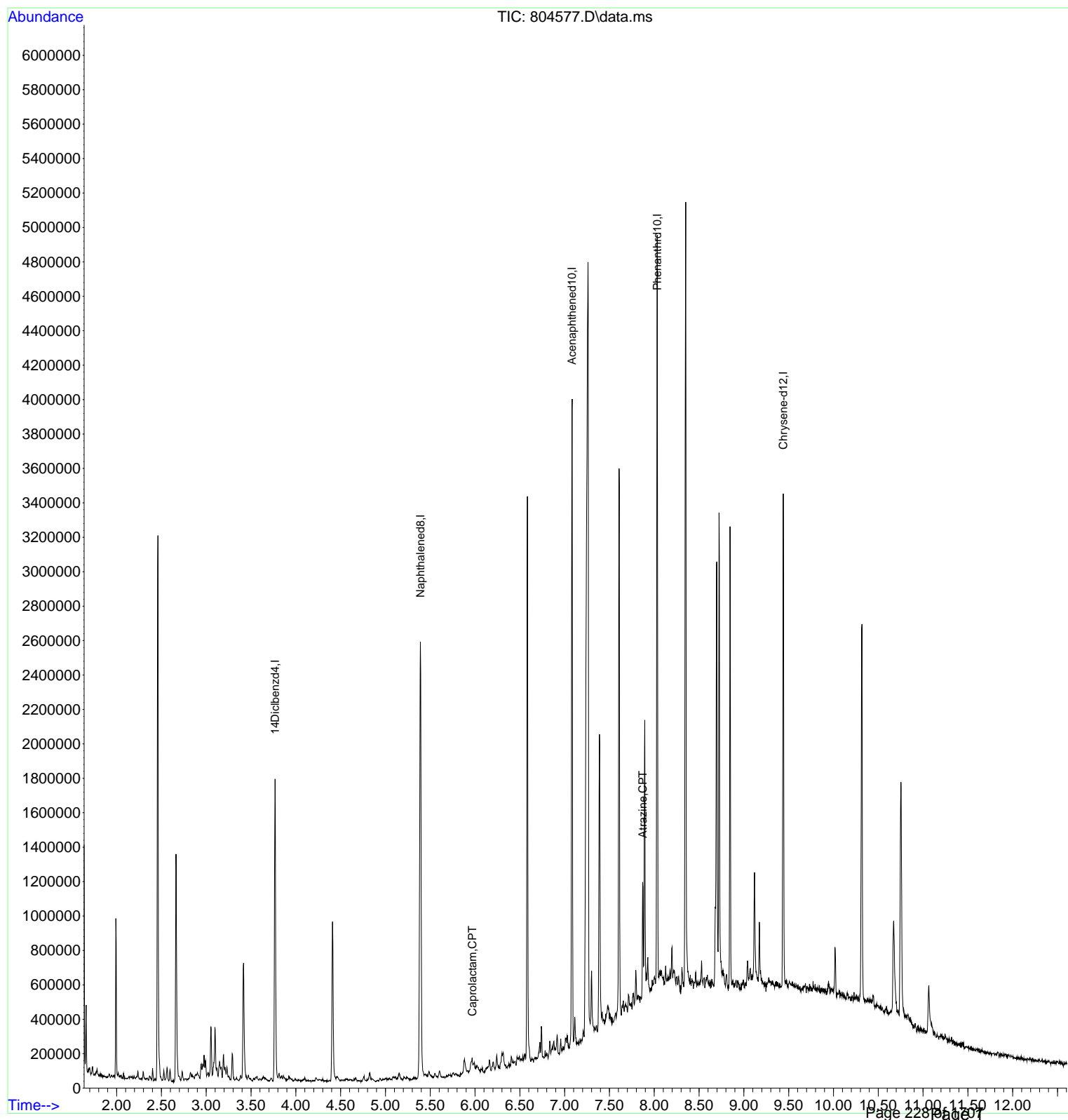
Internal Standards						
1) 14Diclbenzd4	3.768	152	264098	20.00	ug/mL	0.00
3) Naphthalened8	5.390	136	1394317	20.00	ug/mL	0.00
5) Acenaphthened10	7.081	164	586322	20.00	ug/mL	0.00
7) Phenanthrd10	8.033	188	1196966	20.00	ug/mL	0.00
9) Chrysene-d12	9.439	240	756139	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.970	55	36180	2.9497	ug/mL#	40
8) Atrazine	7.871	200	1425	0.1149	ug/mL#	1

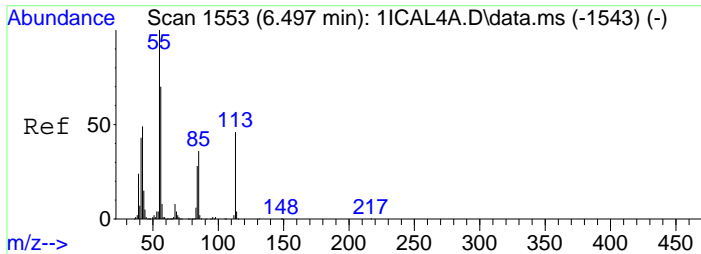
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\804577.D
Acq On : 17 Nov 2016 23:46
Sample : 132796,804577,
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 18 20:26:26 2016

Vial: 30
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

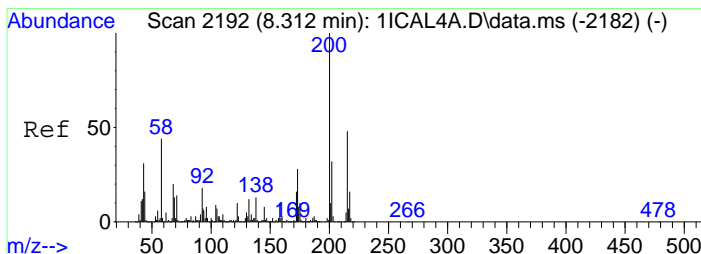
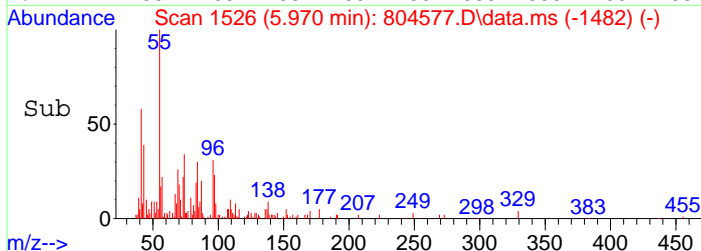
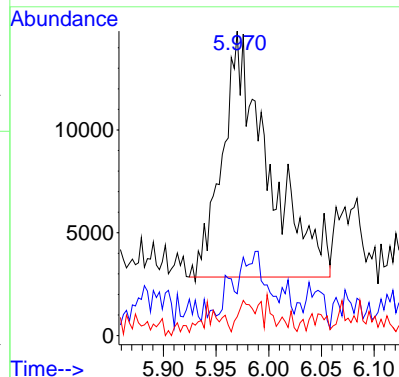
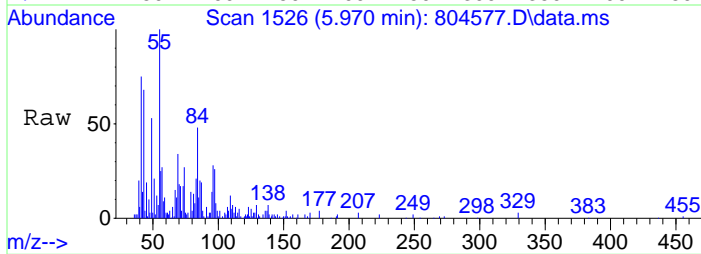
Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:29:11 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M





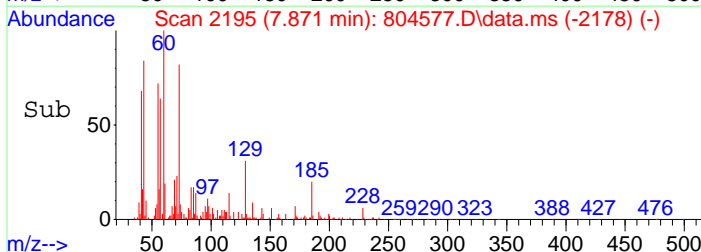
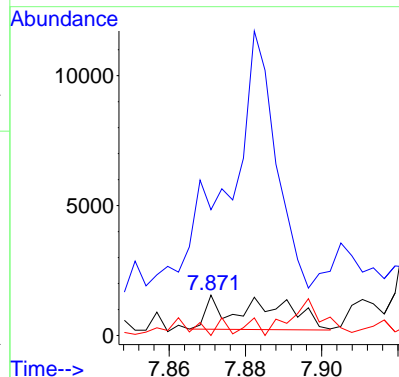
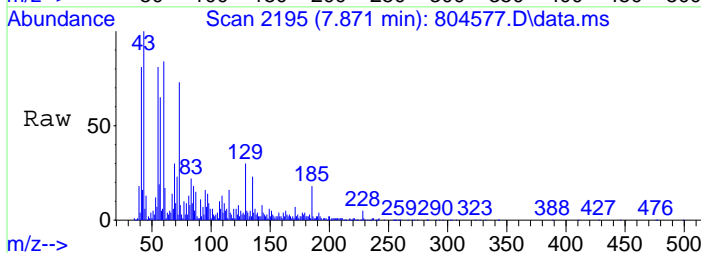
#4
 Caprolactam
 Concen: 2.95 ug/mL
 RT: 5.970 min Scan# 1526
 Delta R.T. 0.026 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

Tgt Ion:	55	Resp:	36180
Ion Ratio	Lower	Upper	
55	100		
42	8.3	32.0	72.0#
113	5.9	22.6	62.6#



#8
 Atrazine
 Concen: 0.11 ug/mL
 RT: 7.871 min Scan# 2195
 Delta R.T. -0.008 min
 Lab File: 804577.D
 Acq: 17 Nov 16 11:46 pm

Tgt Ion:	200	Resp:	1425
Ion Ratio	Lower	Upper	
200	100		
58	605.5	32.1	92.1#
215	0.0	21.3	81.3#



**SEMI - VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS**

Injection Log Summary Report

Method : X:\METHODS\1A110916.M (RTE Integrator)
Title : Method for 8270 analysis
Start (Tune) File ID : X:\DATA\1S110916\1DFTP207.D
Injection Date : 9 Nov 2016 Log Time Period (hrs) : ALL
Injection Time : 10:49 Total files within period : 53
Sample Directory : X:\DATA\1S110916\

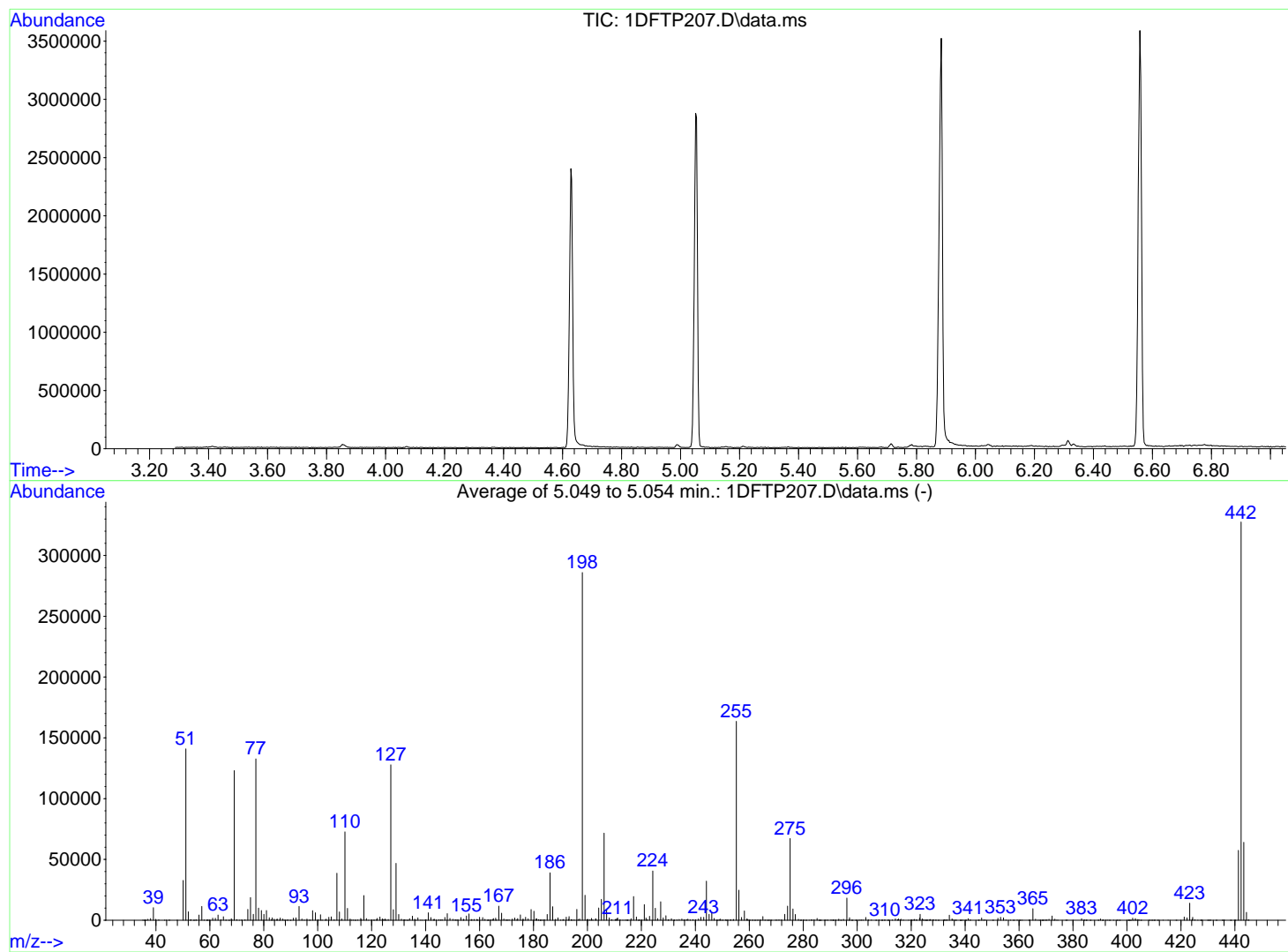
Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1IB02	1.00	1.00	1.00	500uL+5ul IS S3553C InstrumentBlank	9 Nov 2016	14:22
1ICAL7	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 50ug/ml SVMS7214	9 Nov 2016	14:41
1ICAL6	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 40ug/ml SVMS7213	9 Nov 2016	15:01
1ICAL5	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 30ug/ml SVMS7212	9 Nov 2016	15:45
1ICAL4	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 20ug/ml SVMS7211	9 Nov 2016	16:05
1ICAL3	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 10ug/ml SVMS7210	9 Nov 2016	16:24
1ICAL2	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 5ug/ml SVMS7209	9 Nov 2016	16:44
1ICAL1	1.00	1.00	1.00	500uL+5ul IS S3553C ICAL 1ug/ml SVMS7208	9 Nov 2016	17:03
1ICV1	1.00	1.00	1.00	500uL+5ul IS S3553C ICV 20ug/ml SVMS7215	9 Nov 2016	17:22
1ICV2	1.00	1.00	1.00	500uL+5ul IS S3553C ICV 40ug/ml SVMS7216	9 Nov 2016	17:42
				500uL+5ul IS S3553C		

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
Acq On : 9 Nov 2016 10:49
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE

Vial: 1
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
Title : DFTPP TUNE Method
Last Update : Fri Nov 04 12:05:16 2016



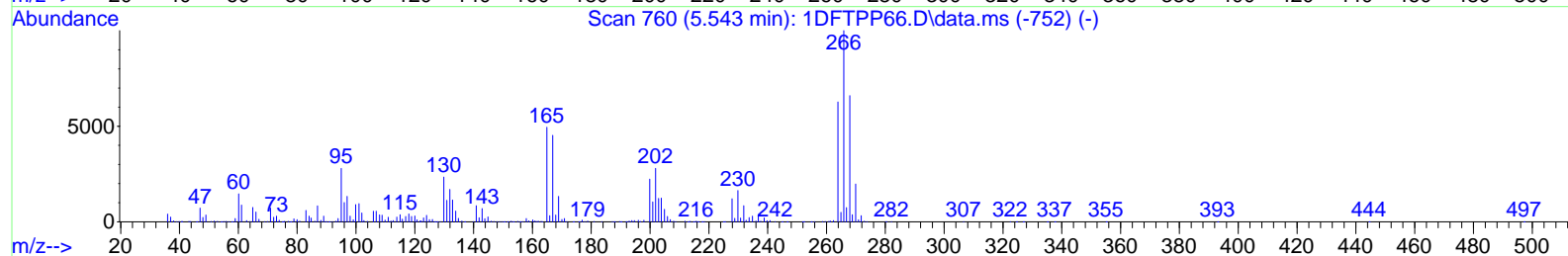
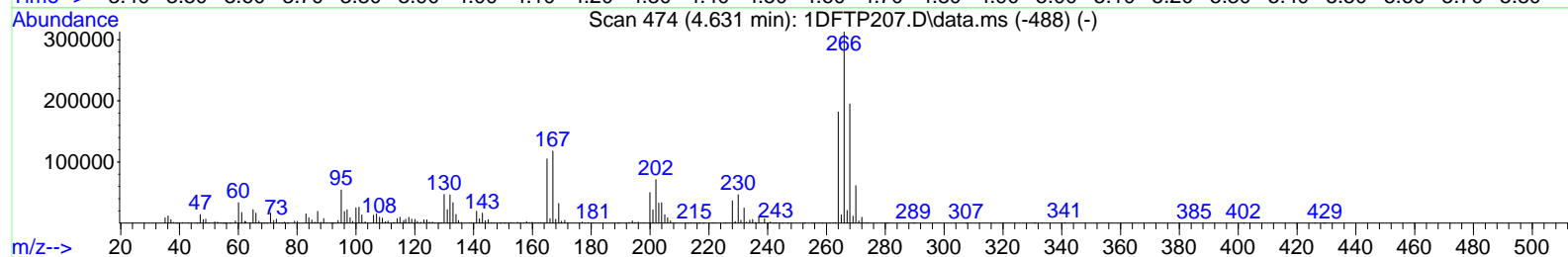
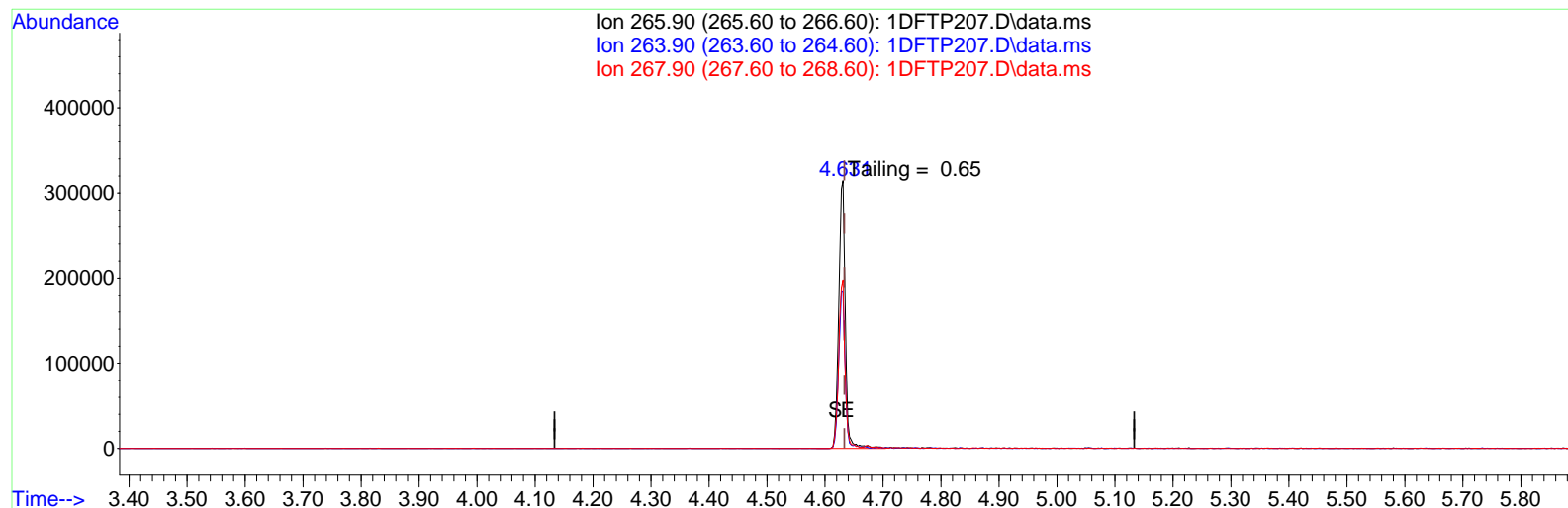
AutoFind: Scans 621, 622, 623; Background Corrected with Scan 610

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	43.0	140970	PASS
68	69	0.00	2	1.1	1338	PASS
70	69	0.00	2	0.5	584	PASS
127	442	10	80	39.0	127829	PASS
197	198	0.00	2	0.3	996	PASS
198	442	50	100	87.3	285973	PASS
199	198	5	9	7.2	20509	PASS
275	442	10	60	20.5	67229	PASS
365	198	1	100	3.3	9562	PASS
441	442	0.01	24	17.6	57528	PASS
442	442	50	100	100.0	327509	PASS
443	442	15	24	19.6	64053	PASS

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
 Acq On : 9 Nov 2016 10:49
 Sample : DFTPP TUNE SVMS7269
 Misc : SVMS1,25 ug DFTPP
 Integrator: RTE
 Quant Time: Nov 09 11:00:26 2016

Vial: 1
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
 Quant Title : DFTPP TUNE Method
 QLast Update : Fri Nov 04 12:05:16 2016
 Response via : Initial Calibration
 DataAcq Meth:1DFTPP.M



TIC: 1DFTP207.D\data.ms

(1) Pentachlorophenol

4.631min (-0.003) 16.32 ng

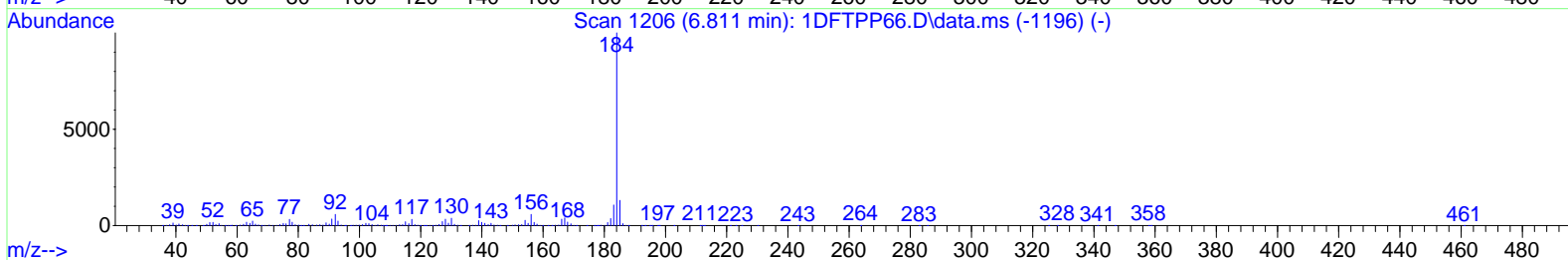
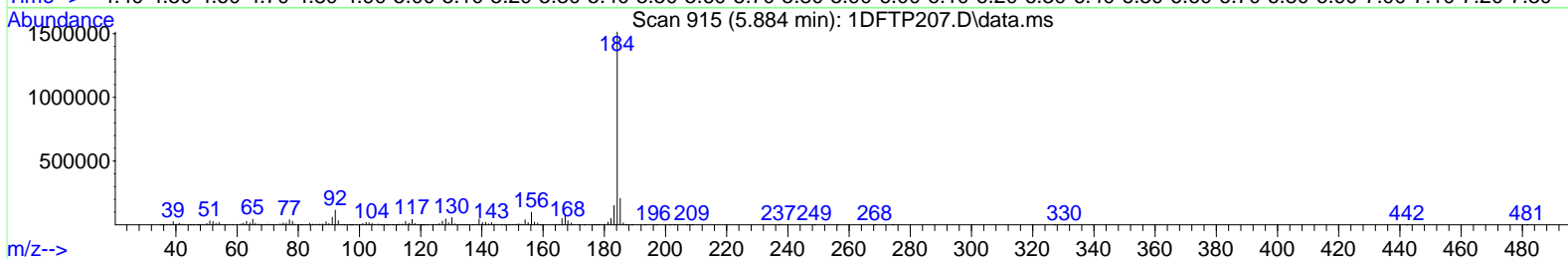
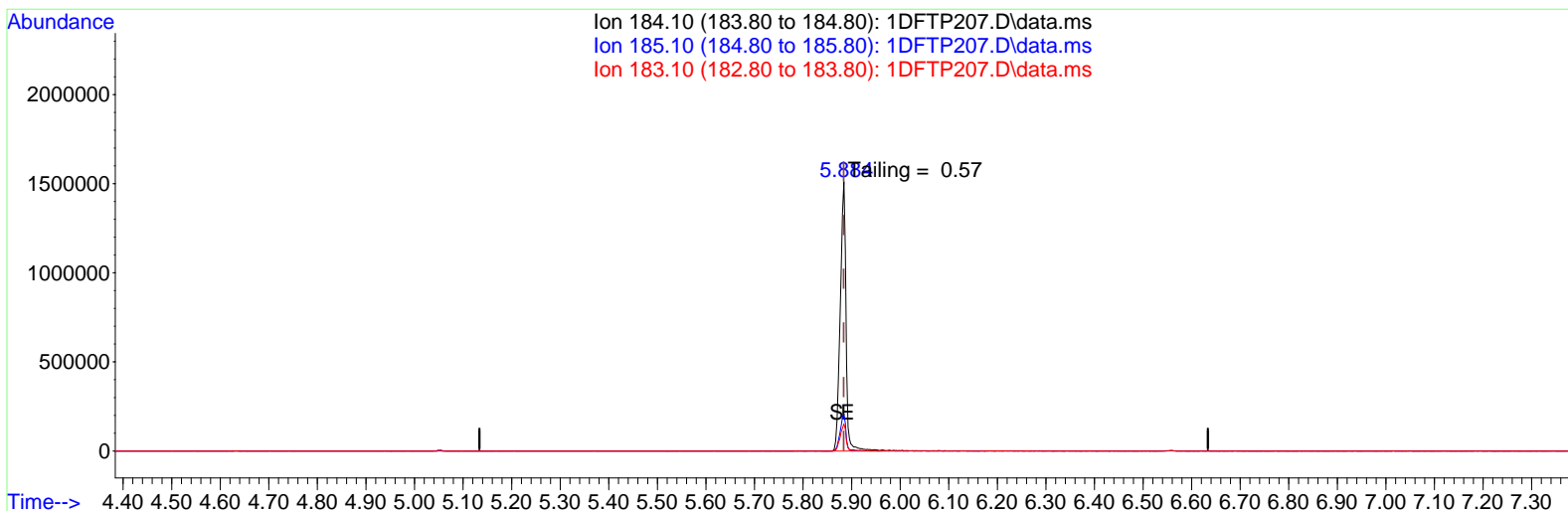
response 242676

Ion	Exp%	Act%
265.90	100	100
263.90	66.20	58.42
267.90	60.90	62.92
0.00	0.00	0.00

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
Acq On : 9 Nov 2016 10:49
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Nov 09 11:00:26 2016

Vial: 1
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Fri Nov 04 12:05:16 2016
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP207.D\data.ms

(3) Benzidine

5.884min (+0.000) 14.06 ng

response 1232833

Ion	Exp%	Act%
184.10	100	100
185.10	13.80	14.18
183.10	12.20	10.45
0.00	0.00	0.00

Data File : 1DFTP207.D
Data File Path : C:\INSTARCH\Data\1S110916\
Date Acquired : 11/9/2016 10:49
Sample Name : DFTPP TUNE SVMS7269
Misc Info : SVMS1,25 ug DFTPP

Vial Number : 1
Operator : JJY
Instrument Name: SVMS1
Sample Multiplier: 1

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Calibration Title : DFTPP TUNE Method
Last Update : Fri Nov 04 12:05:16 2016

Compound	R.T.	Qlon	Response
1) Pentachlorophenol	4.63	266	242676
2) DFTPP	5.05	198	233091
3) Benzidine	5.88	184	1232833
4) DDE	6.04	246	1699
5) DDD	6.32	235	11294
6) DDT	6.56	235	589426

DDT %Degradation

DDD + DDE	x	100%	2.16 %
DDD + DDE + DDT			

Method Path : C:\INSTARCH\METHODS\
 Method File : 1S110916.M
 Title : Method for 8270 analysis
 Last Update : Wed Nov 09 17:18:01 2016
 Response Via : Initial Calibration

Calibration Files

1 =1ICAL1.D 5 =1ICAL2.D 10 =1ICAL3.D 20 =1ICAL4.D 30 =1ICAL5.D 40 =1ICAL6.D 50 =1ICAL7.D

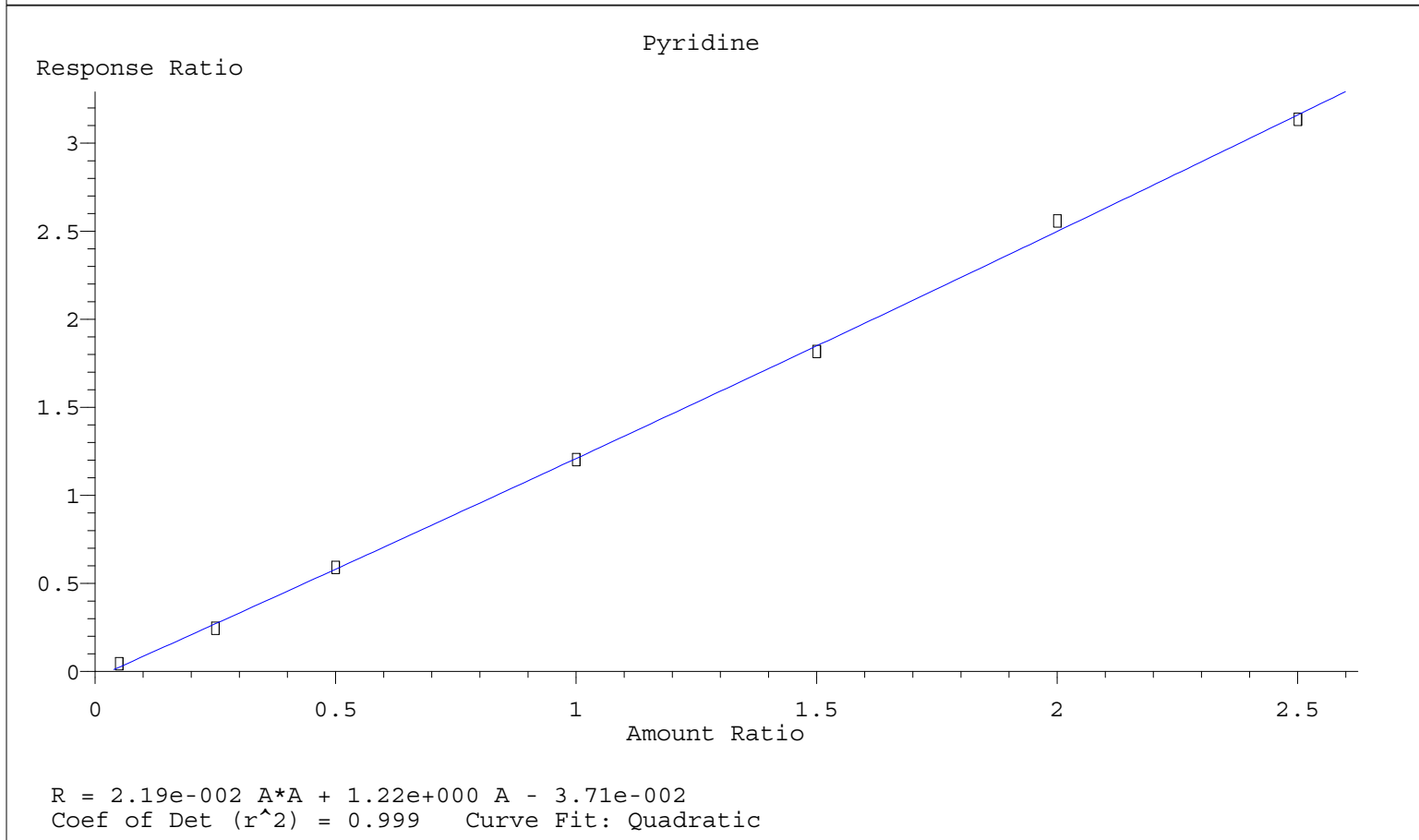
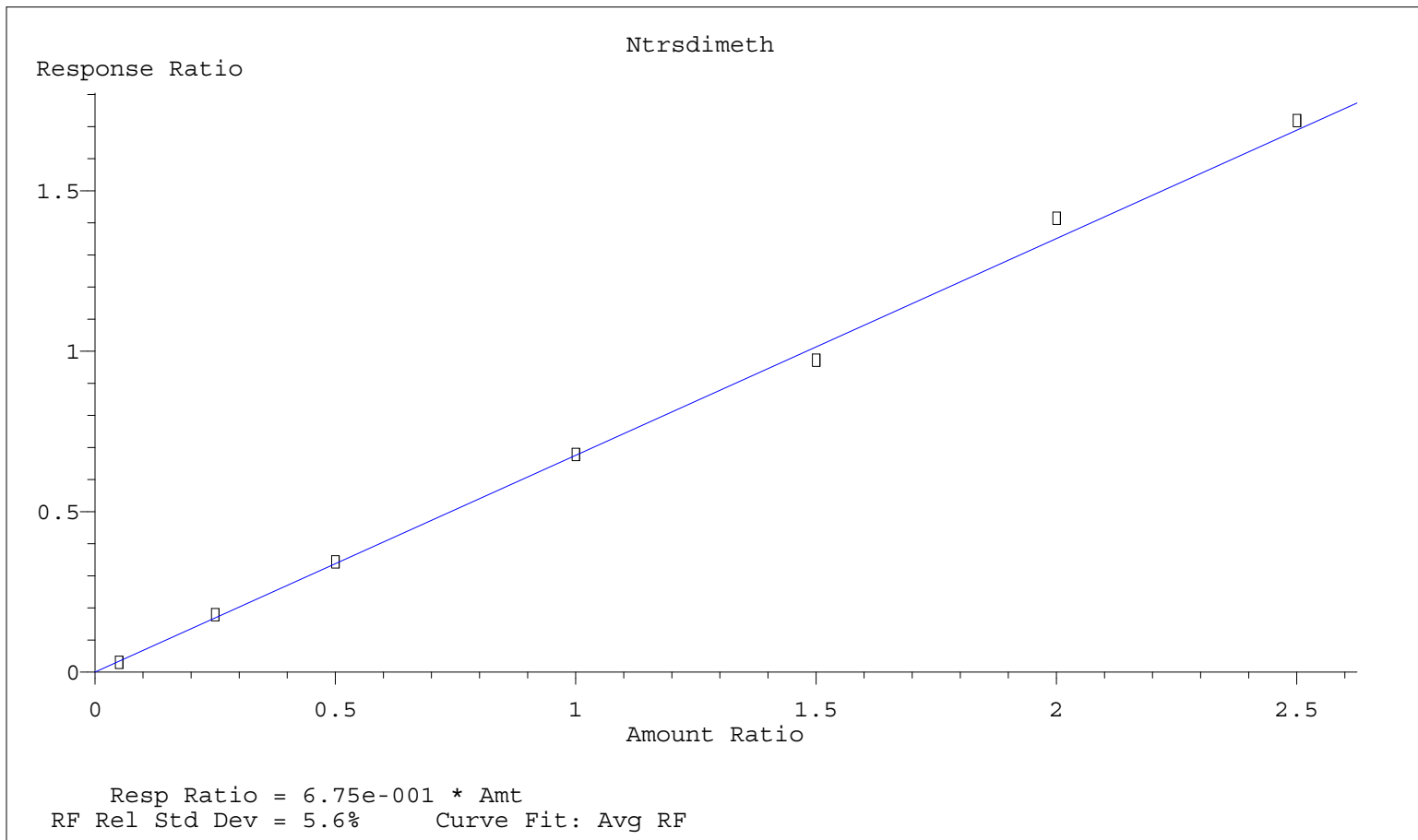
Compound		1	5	10	20	30	40	50	Avg	%RSD

1) I	14Diclbenzd4	-----ISTD-----								
2) CT	Ntrsdimeth	0.605	0.715	0.686	0.678	0.648	0.707	0.687	0.675	5.62
3) CT	Pyridine	0.879	0.980	1.182	1.203	1.211	1.279	1.254	1.141	13.23
4) S	SURR2Flphenol	0.393	0.460	0.439	0.460	0.462	0.483	0.466	0.452	6.42
5) CT	Aniline	1.545	1.330	1.655	1.698	1.716	1.810	1.752	1.644	9.81
6) CPT	bis2Clethletr	1.133	1.055	1.008	1.069	1.073	1.128	1.099	1.081	4.05
7) S	SURRPhenol-d5	0.509	0.521	0.510	0.527	0.504	0.538	0.523	0.519	2.28
8) CPT	Phenol	1.347	1.525	1.461	1.499	1.482	1.598	1.512	1.489	5.12
9) CPT	2-Cl-phenol	1.178	1.258	1.195	1.233	1.221	1.278	1.232	1.228	2.81
10) CT	13Diclbenz	1.406	1.431	1.405	1.434	1.382	1.464	1.415	1.419	1.84
11) CT	14Diclbenz	1.498	1.561	1.432	1.429	1.404	1.468	1.405	1.457	3.93
12) CT	12Diclbenz	1.515	1.406	1.363	1.382	1.336	1.383	1.313	1.386	4.69
13) CT	Benzyl alcoho	0.659	0.802	0.753	0.806	0.812	0.864	0.809	0.786	8.22
14) CPT	bis2clispreth	2.765	2.810	2.590	2.601	2.525	2.660	2.487	2.634	4.52
15) CPT	2Methylphenol	0.856	1.025	0.975	0.965	0.938	0.994	0.926	0.954	5.75
16) CT	Ntrspyrrol	0.544	0.640	0.609	0.593	0.592	0.631	0.595	0.600	5.22
17) CPT	Acetophenone	1.705	1.982	1.779	1.842	1.810	1.893	1.797	1.830	4.83
18) CPT	Hexaclethane	0.642	0.667	0.611	0.619	0.581	0.632	0.599	0.621	4.59
19) CPT	N-Ntrsdinprop	0.842	0.961	0.857	0.921	0.885	0.943	0.901	0.901	4.84
20) CPT	3&4Methylphenol	1.114	1.256	1.219	1.255	1.226	1.307	1.230	1.230	4.78
21) I	Naphthalened8	-----ISTD-----								
22) S	SURRNitrbenzened5	0.055	0.058	0.054	0.058	0.057	0.058	0.055	0.056	2.63
23) CPT	Nitrobenzene	0.302	0.279	0.274	0.284	0.290	0.297	0.277	0.286	3.59
24) CPT	Isophorone	0.511	0.537	0.510	0.523	0.526	0.519	0.495	0.517	2.60
25) CPT	2-Nitrophenol	0.121	0.147	0.143	0.150	0.148	0.147	0.140	0.142	6.92
26) CPT	24Dimthpheno	0.195	0.223	0.210	0.218	0.216	0.221	0.207	0.213	4.65
27) CPT	bis2clethoxym	0.346	0.363	0.318	0.331	0.335	0.329	0.318	0.334	4.83
28) CPT	24Diclphenol	0.280	0.295	0.290	0.289	0.282	0.283	0.263	0.283	3.62
29) CT	124Triclbenz	0.359	0.370	0.337	0.337	0.337	0.337	0.317	0.342	5.04
30) CT	Benzoic acid		0.119	0.122	0.156	0.159	0.165	0.157	0.146	13.88
31) CPT	Naphthalene	0.995	0.991	0.922	0.905	0.888	0.897	0.858	0.922	5.65
32) CPT	4-Cl-aniline	0.353	0.302	0.341	0.358	0.348	0.351	0.331	0.340	5.62
33) CT	26Diclphenol	0.269	0.277	0.268	0.271	0.255	0.249	0.233	0.260	5.83
34) CT	Hexaclprop	0.250	0.279	0.252	0.269	0.260	0.252	0.237	0.257	5.31
35) CPT	Hexaclbutdien	0.278	0.264	0.246	0.255	0.240	0.243	0.223	0.250	7.11
36) CPT	4Cl3methylphe	0.227	0.286	0.277	0.290	0.284	0.287	0.277	0.276	7.93
37) CPT	2Methylnaphth	0.690	0.693	0.646	0.653	0.621	0.623	0.602	0.647	5.40
38) CT	1Methylnaphth	0.588	0.583	0.534	0.536	0.517	0.514	0.495	0.538	6.52
39) I	Acenaphthened10	-----ISTD-----								
40) CPT	Hxclcycpentdi	0.289	0.397	0.406	0.460	0.435	0.431	0.417	0.405	13.65
41) CPT	1245Tetrclbenz	0.899	0.870	0.797	0.791	0.735	0.741	0.702	0.791	9.19
42) CPT	246Triclpheno	0.511	0.503	0.483	0.514	0.488	0.501	0.486	0.498	2.52

Method Path : C:\INSTARCH\METHODS\											
Method File : 1S110916.M											
43)	CPT	245Triclphe	0.538	0.561	0.541	0.558	0.522	0.521	0.508	0.535	3.67
44)	S	SURR2Flbiphenyl	0.345	0.355	0.323	0.336	0.310	0.321	0.311	0.329	5.19
45)	CPT	2Clnaphthalen	1.447	1.472	1.333	1.372	1.306	1.323	1.284	1.362	5.27
46)	CPT	2Nitroaniline	0.340	0.406	0.388	0.416	0.426	0.432	0.419	0.404	7.86
47)	CPT	Acnaphthylene	2.422	2.410	2.181	2.277	2.144	2.200	2.115	2.250	5.53
48)	CPT	Dimethylphtha	1.687	1.670	1.519	1.563	1.452	1.488	1.434	1.545	6.54
49)	CPT	26Dinitrotolu	0.349	0.377	0.331	0.339	0.324	0.338	0.318	0.339	5.71
50)	CPT	Acenaphthene	1.447	1.413	1.320	1.326	1.264	1.262	1.245	1.325	5.90
51)	CPT	3Nitroaniline	0.329	0.300	0.341	0.350	0.348	0.341	0.331	0.334	5.11
52)	CPT	24Dinitphenol		0.105	0.137	0.206	0.199	0.218	0.205	0.178	25.73#
53)	CPT	Dibenzofuran	2.207	2.186	1.976	1.974	1.873	1.876	1.850	1.992	7.44
54)	CPT	24Dinitrotolu	0.435	0.469	0.429	0.449	0.420	0.426	0.406	0.433	4.71
55)	CPT	4-Nitrophenol		0.305	0.305	0.343	0.351	0.337	0.339	0.330	6.02
56)	CT	2,3,5,6-Tetrac...	0.402	0.439	0.446	0.470	0.441	0.453	0.441	0.442	4.60
57)	CPT	2,3,4,6-Tetrac...	0.506	0.526	0.480	0.502	0.476	0.478	0.465	0.490	4.34
58)	CPT	Fluorene	1.759	1.749	1.579	1.600	1.495	1.497	1.400	1.583	8.45
59)	CPT	4Clphlphlethr	0.948	0.879	0.814	0.806	0.730	0.724	0.684	0.798	11.74
60)	CPT	Diethylphthal	1.782	1.900	1.663	1.772	1.683	1.697	1.672	1.738	4.92
61)	CPT	4Nitroaniline	0.324	0.302	0.323	0.346	0.345	0.347	0.344	0.333	5.18
62)	S	SURR246Tribbrphenl	0.121	0.129	0.127	0.132	0.124	0.127	0.120	0.126	3.32
-----ISTD-----											
63)	I	Phenanthrd10									
64)	CPT	46Dinit2mylph		0.097	0.103	0.121	0.123	0.125	0.120	0.115	10.32
65)	CPT	Ntrsdiphlam&Di...	0.596	0.569	0.509	0.499	0.475	0.472	0.439	0.508	11.01
66)	CT	Azobenz&12Diph...	0.188	0.176	0.156	0.154	0.153	0.149	0.142	0.160	10.14
67)	CPT	4Brphlphlethr	0.259	0.253	0.241	0.235	0.224	0.223	0.215	0.236	6.96
68)	CPT	Hexaclbenzene	0.316	0.289	0.267	0.267	0.257	0.255	0.250	0.272	8.63
69)	CPT	Pentaclphenol		0.131	0.138	0.151	0.157	0.159	0.154	0.148	7.68
70)	CPT	Phenanthrene	1.175	1.060	1.028	1.006	0.981	0.986	0.960	1.028	7.07
71)	CPT	Anthracene	1.138	1.158	1.045	1.052	1.008	1.005	0.974	1.054	6.57
72)	CPT	Carbazole	0.884	0.906	0.843	0.841	0.850	0.828	0.797	0.850	4.23
73)	CPT	Dinbtylphthal	0.886	0.964	0.904	0.880	0.903	0.870	0.834	0.892	4.44
74)	CPT	Fluoranthene	0.926	0.918	0.838	0.834	0.833	0.822	0.783	0.851	6.12
-----ISTD-----											
75)	I	Chrysene-d12									
76)	CT	Benzidine		0.109	0.335	0.387	0.444	0.450	0.437	0.360	36.25#
77)	CPT	Pyrene	1.340	1.345	1.263	1.347	1.344	1.398	1.357	1.342	2.98
78)	S	SURRTerphenyl-d14	0.163	0.164	0.160	0.168	0.164	0.175	0.167	0.166	2.93
79)	CPT	Btylbzylphth	0.514	0.596	0.551	0.605	0.609	0.639	0.615	0.590	7.21
80)	TM	bis2Ethlhxlad	0.396	0.450	0.410	0.453	0.444	0.477	0.460	0.441	6.44
81)	CPT	33Diclbnzidin	0.412	0.290	0.231	0.220	0.238	0.256	0.271	0.274	23.88#
82)	CPT	B[a]anthracen	1.230	1.216	1.129	1.214	1.201	1.217	1.220	1.204	2.84
83)	CPT	Chrysene	1.110	1.112	1.044	1.124	1.099	1.143	1.118	1.107	2.78
84)	CPT	bis2Ethlhxlp	0.758	0.821	0.787	0.826	0.799	0.822	0.767	0.797	3.45
85)	CPT	Dinoctylphthl	1.212	1.379	1.404	1.550	1.561	1.588	1.585	1.469	9.68
-----ISTD-----											
86)	I	Perylene-d12									
87)	CPT	B[b]fluoranth	1.149	1.205	1.204	1.176	1.188	1.242	1.135	1.186	3.06
88)	CPT	B[k]fluoranth	1.203	1.265	1.007	1.146	1.018	0.987	1.084	1.101	9.70
89)	CPT	Benz[a]pyrene	1.205	1.231	1.117	1.170	1.085	1.123	1.076	1.144	5.20
90)	CPT	Indeno-pyrene	1.300	1.347	1.269	1.291	1.222	1.246	1.197	1.267	4.01
91)	CPT	Dib[ah]anthr	1.029	1.108	1.044	1.052	1.002	1.030	0.956	1.032	4.51
92)	CPT	B[ghi]perylene	1.059	1.119	1.082	1.120	1.081	1.091	1.051	1.086	2.46

Method Path : C:\INSTARCH\METHODS\
Method File : 1S110916.M
(#) = Out of Range

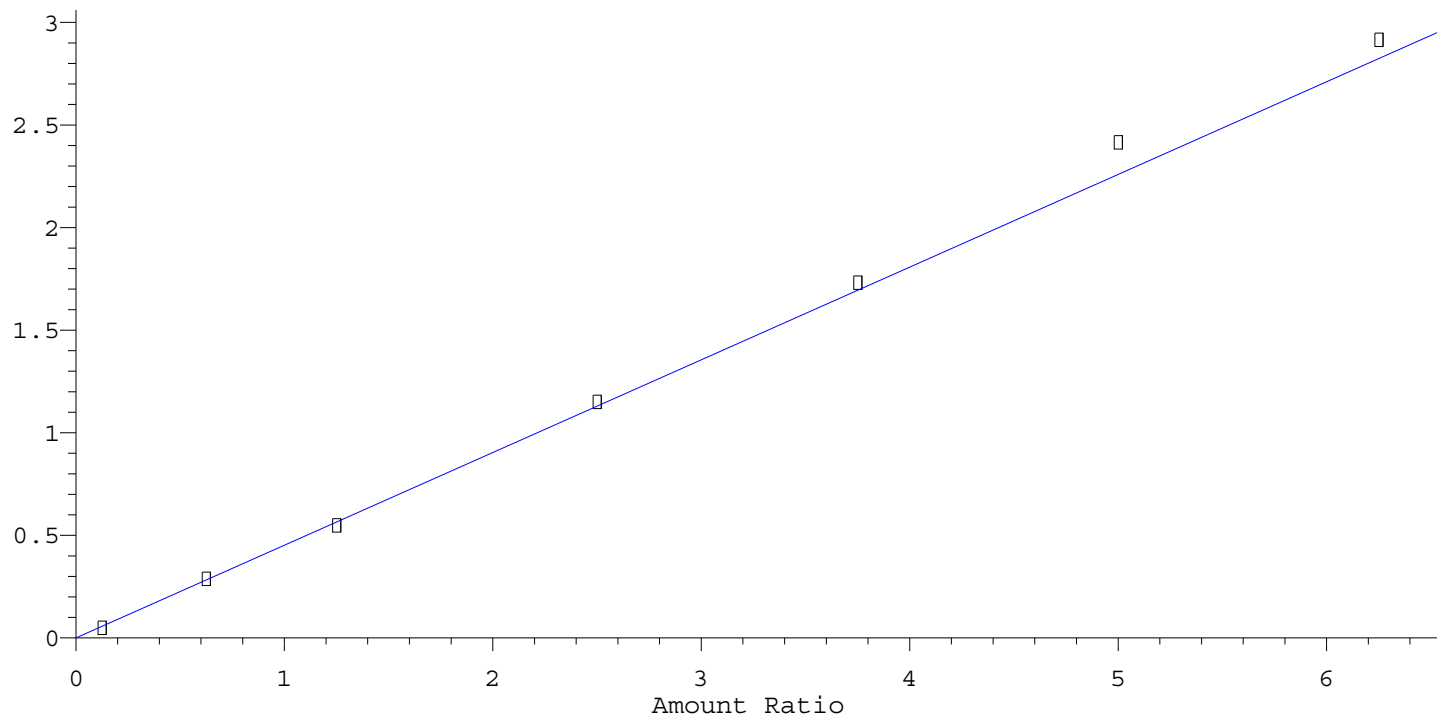
Calibration Plot Report



Calibration Plot Report

SURR2Flphenol

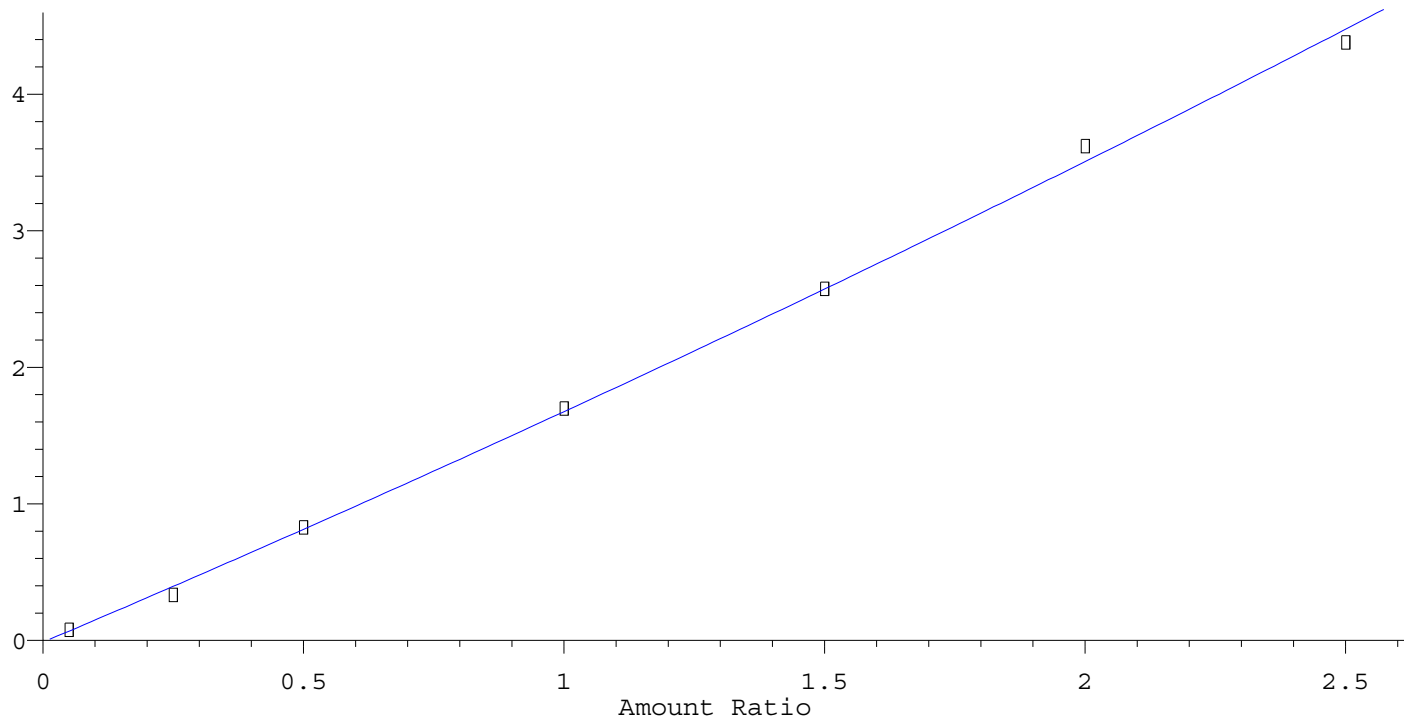
Response Ratio



Resp Ratio = $4.52e-001 * \text{Amt}$
 RF Rel Std Dev = 6.4% Curve Fit: Avg RF

Aniline

Response Ratio

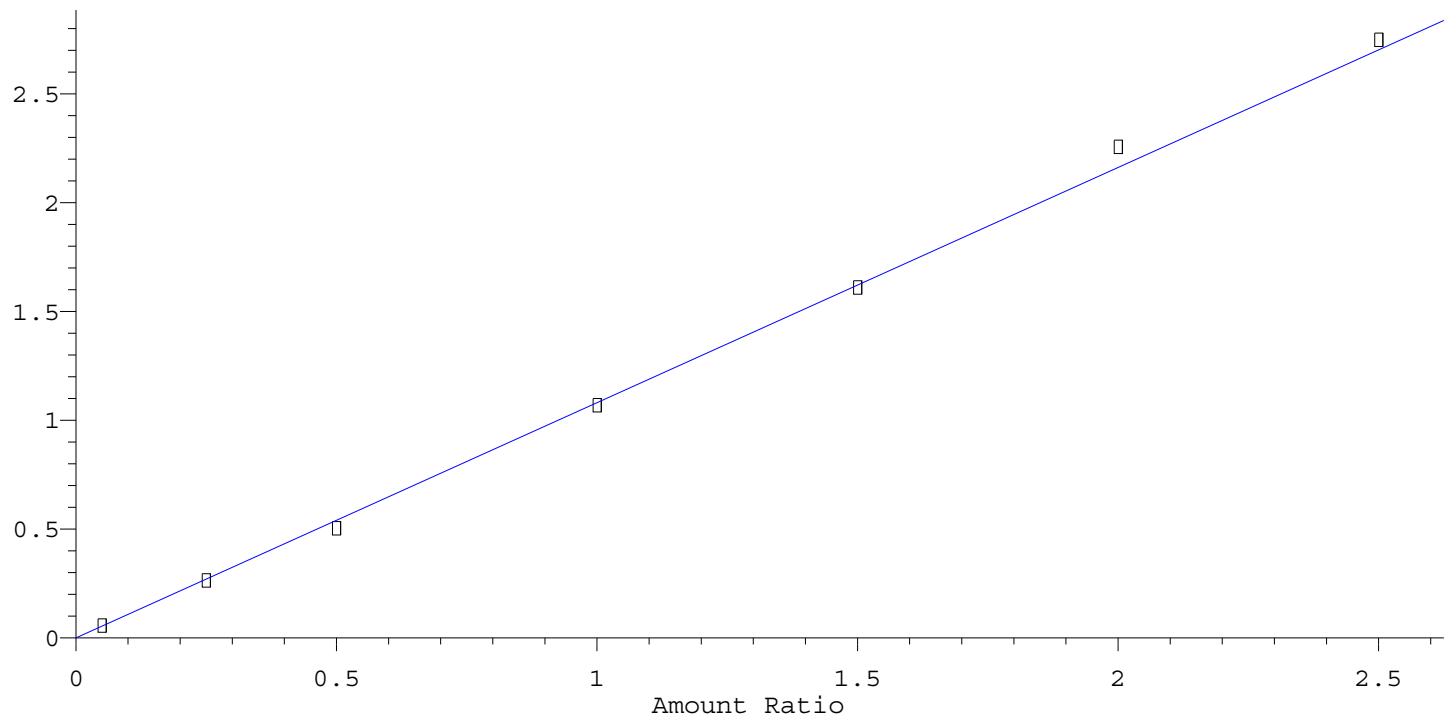


$R = 7.16e-002 A^2 + 1.62e+000 A - 1.30e-002$
 Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

bis2Clethletr

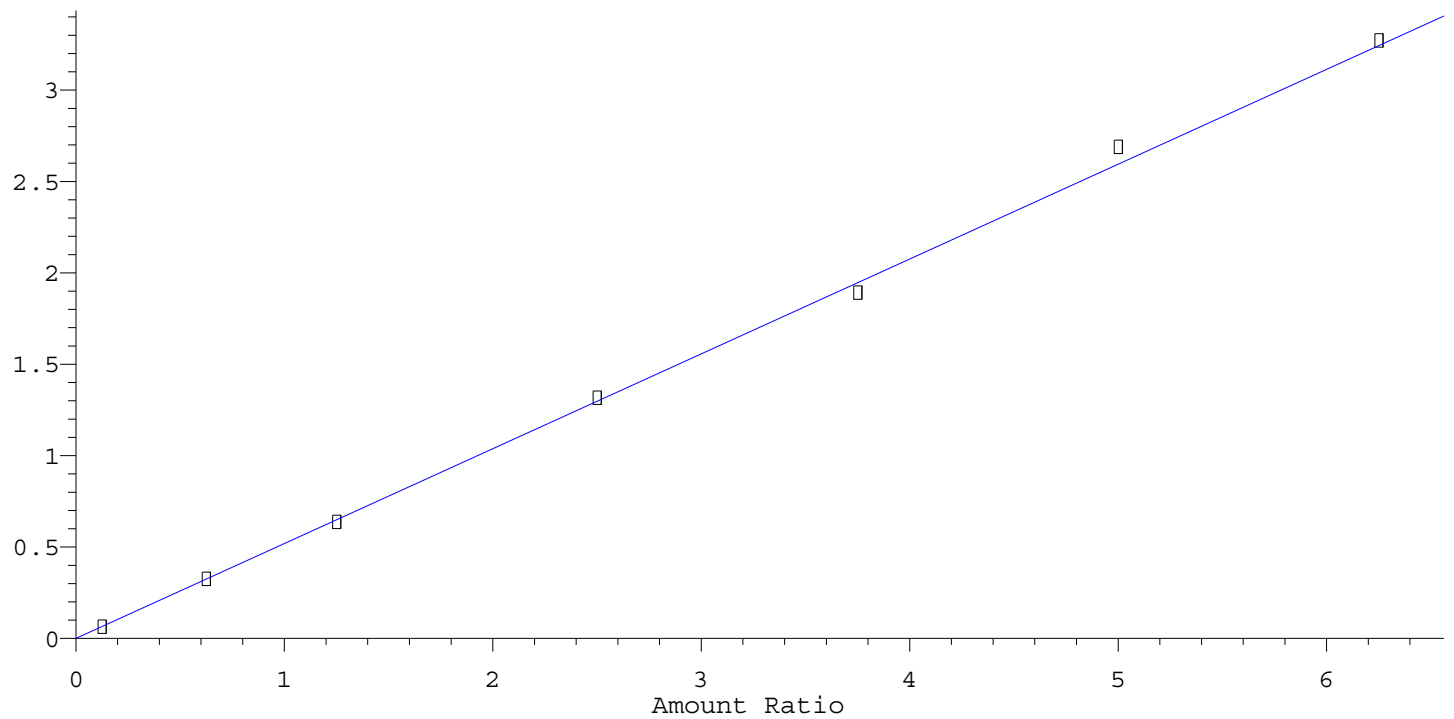
Response Ratio



Resp Ratio = 1.08e+000 * Amt
RF Rel Std Dev = 4.1% Curve Fit: Avg RF

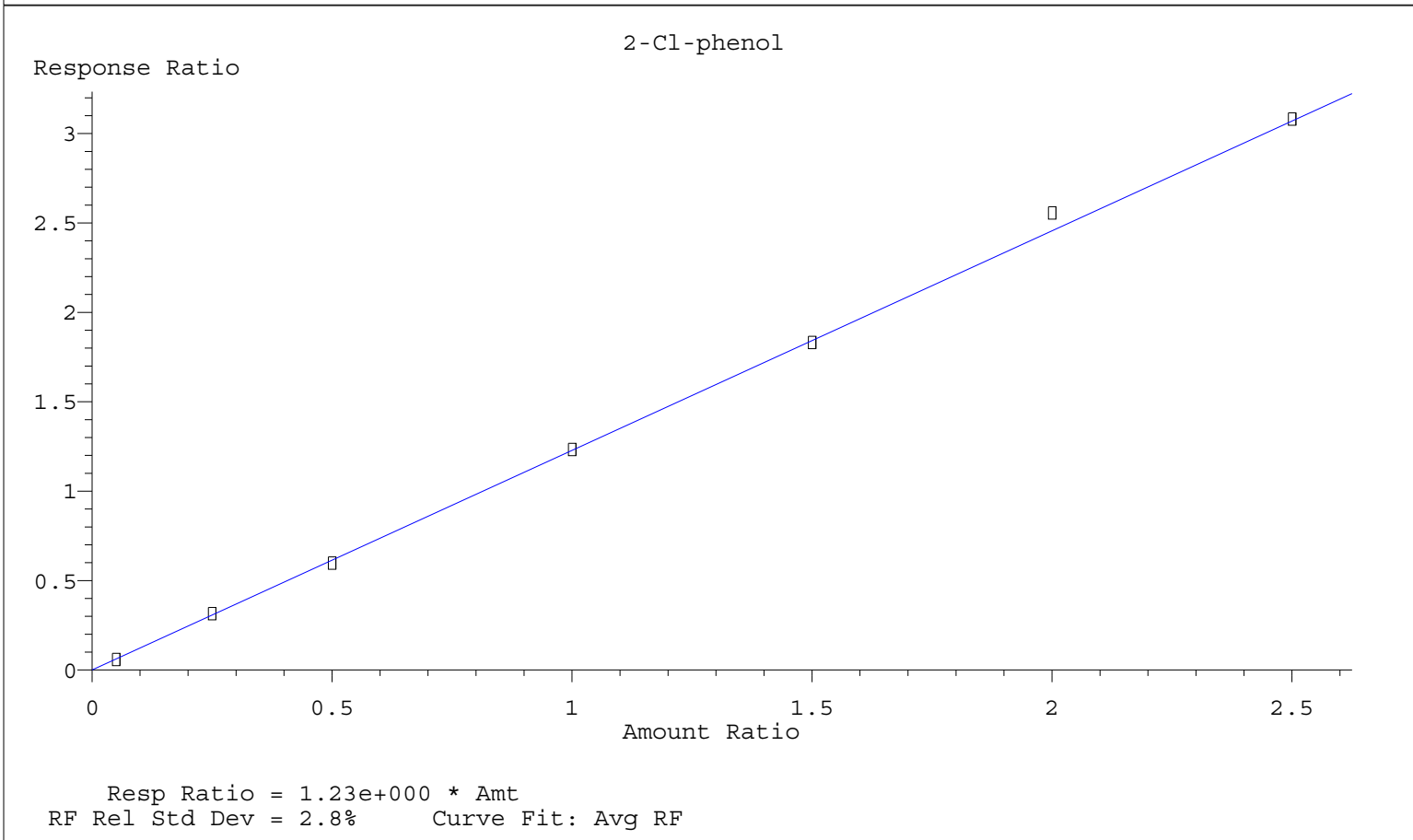
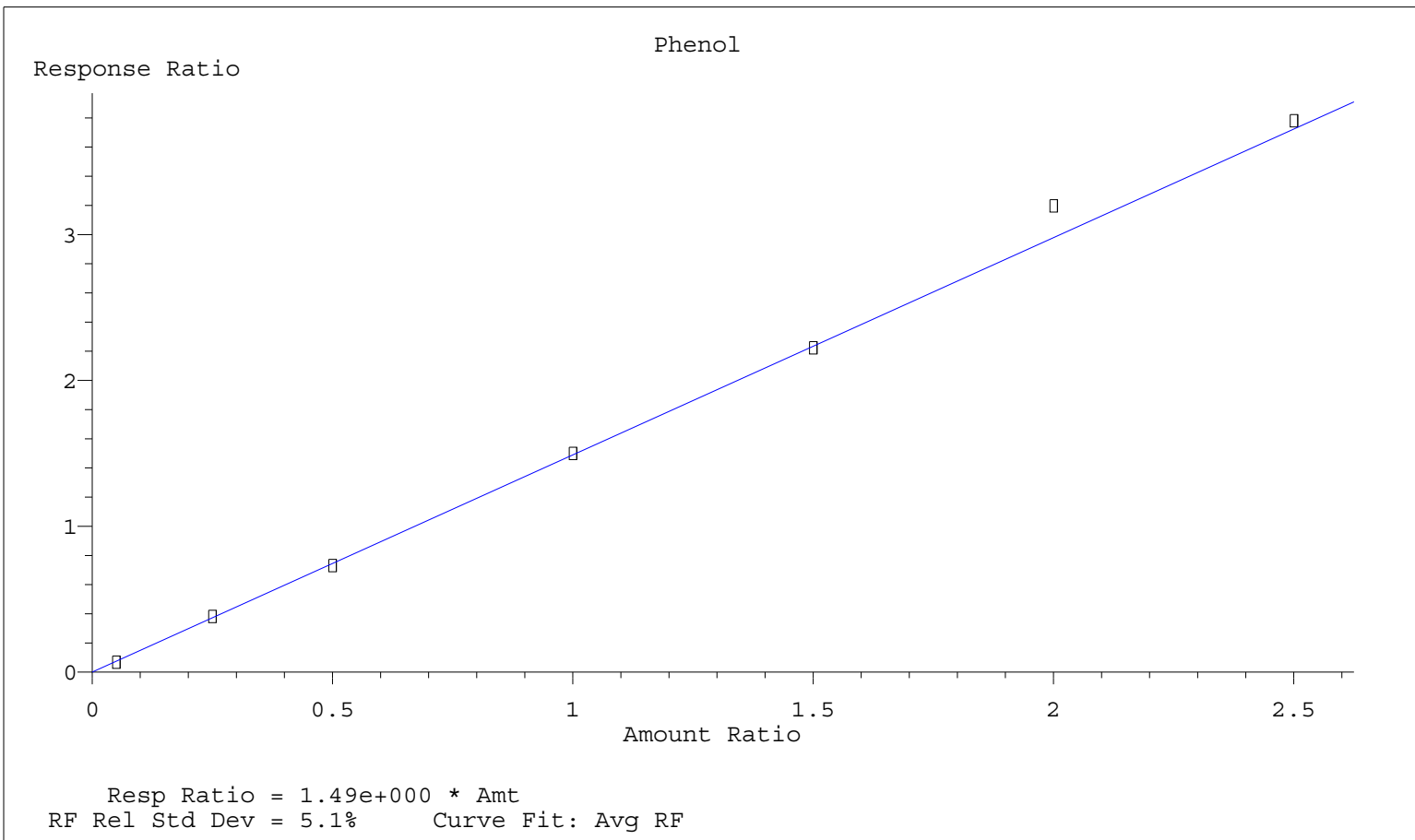
SURRPhenol-d5

Response Ratio

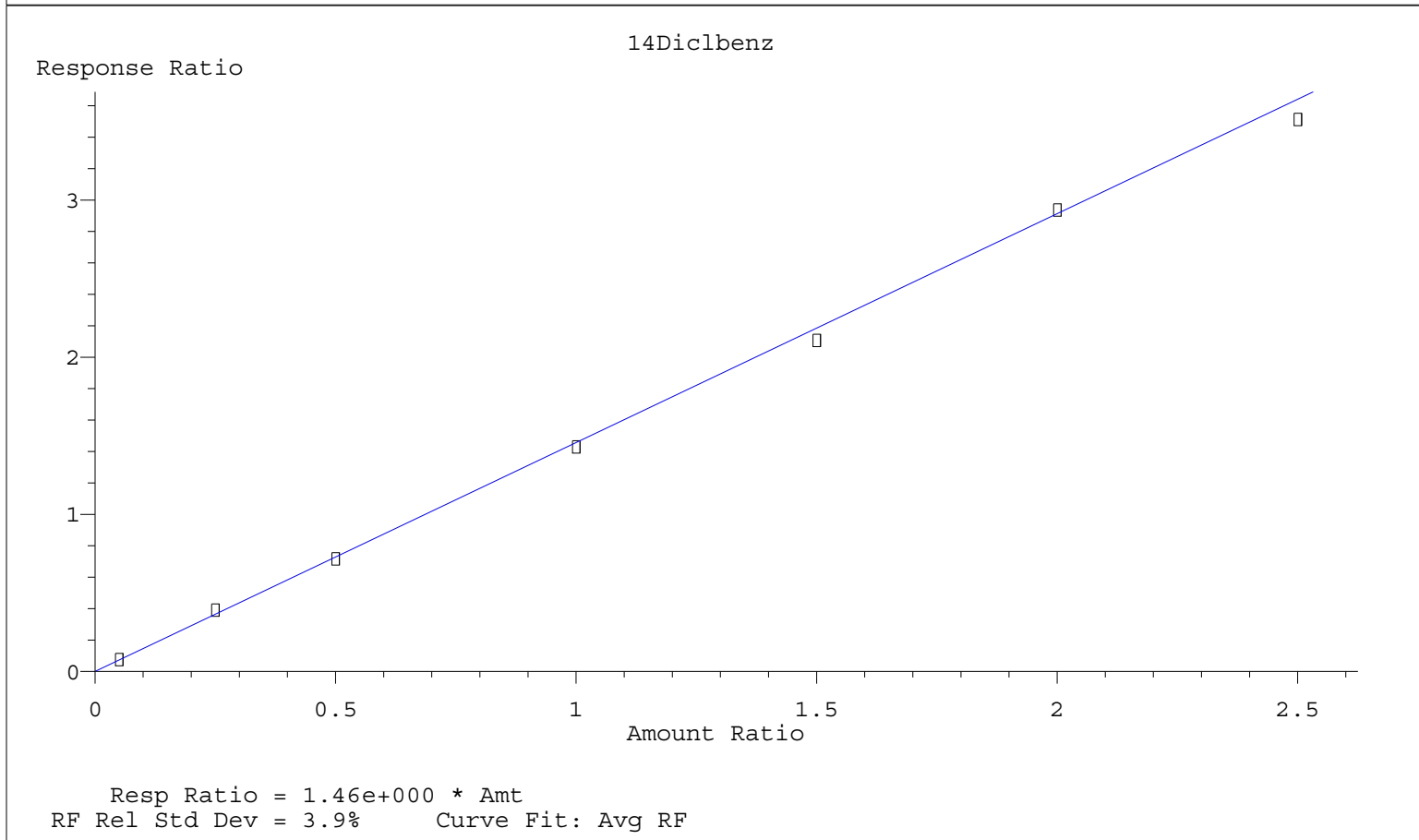
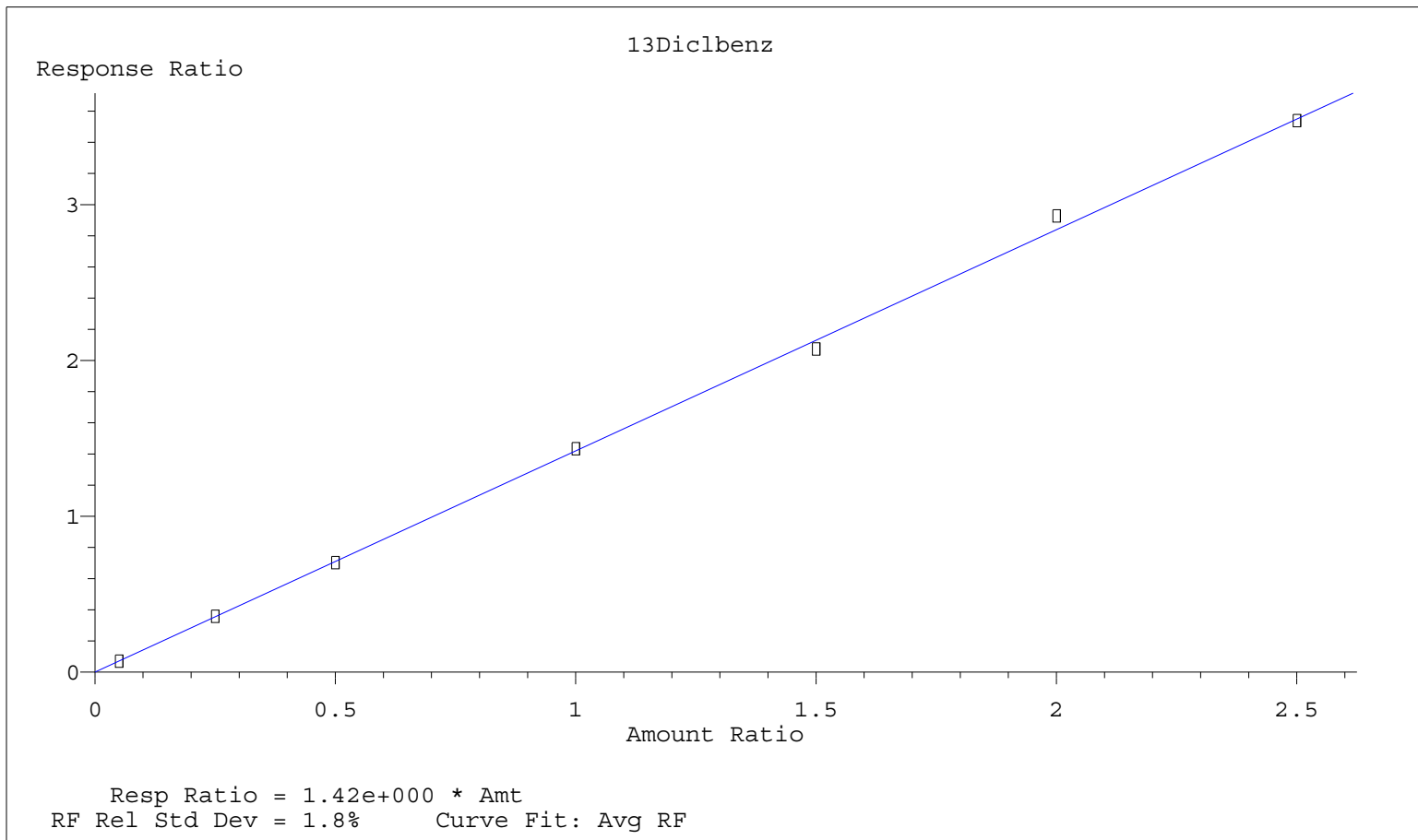


Resp Ratio = 5.19e-001 * Amt
RF Rel Std Dev = 2.3% Curve Fit: Avg RF

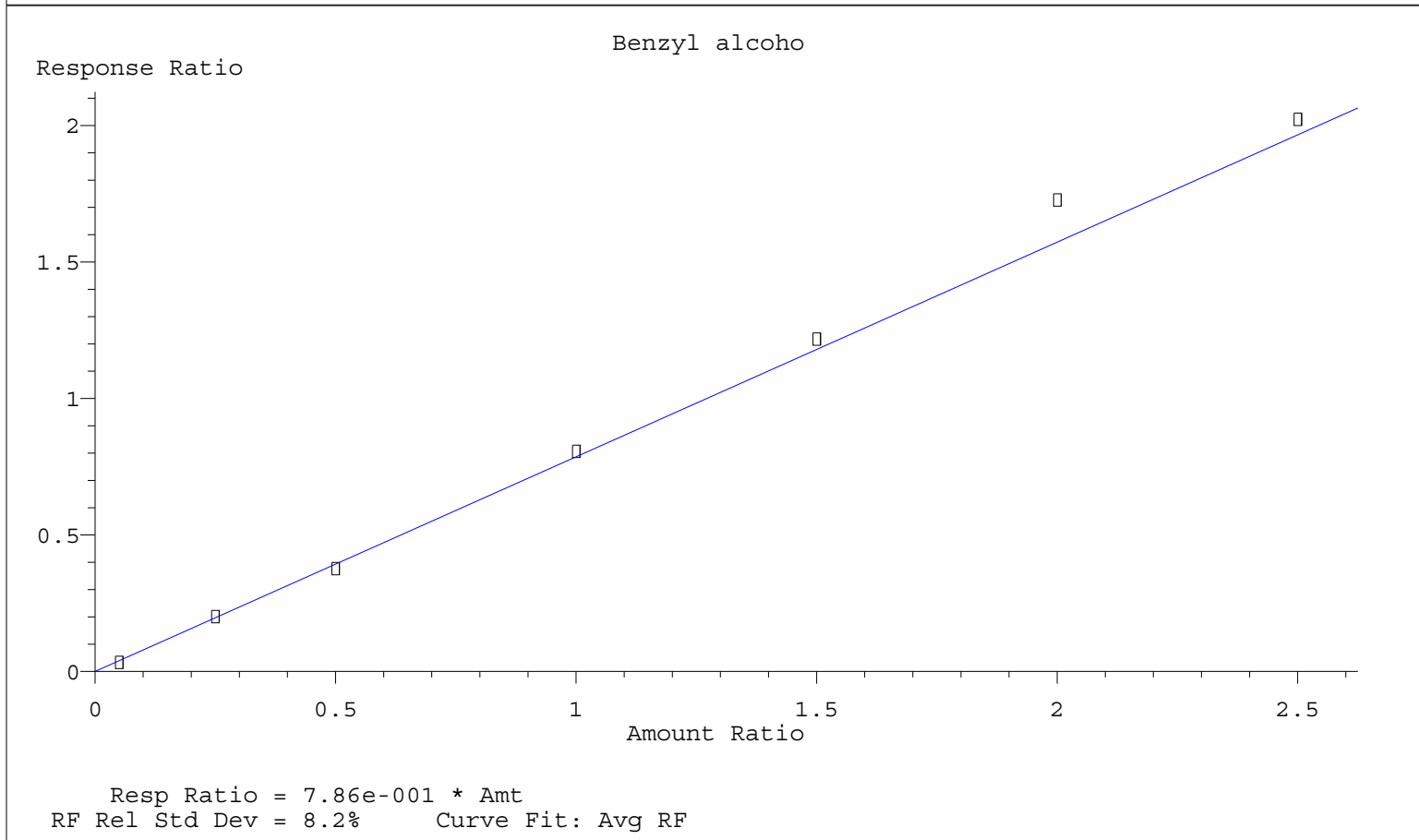
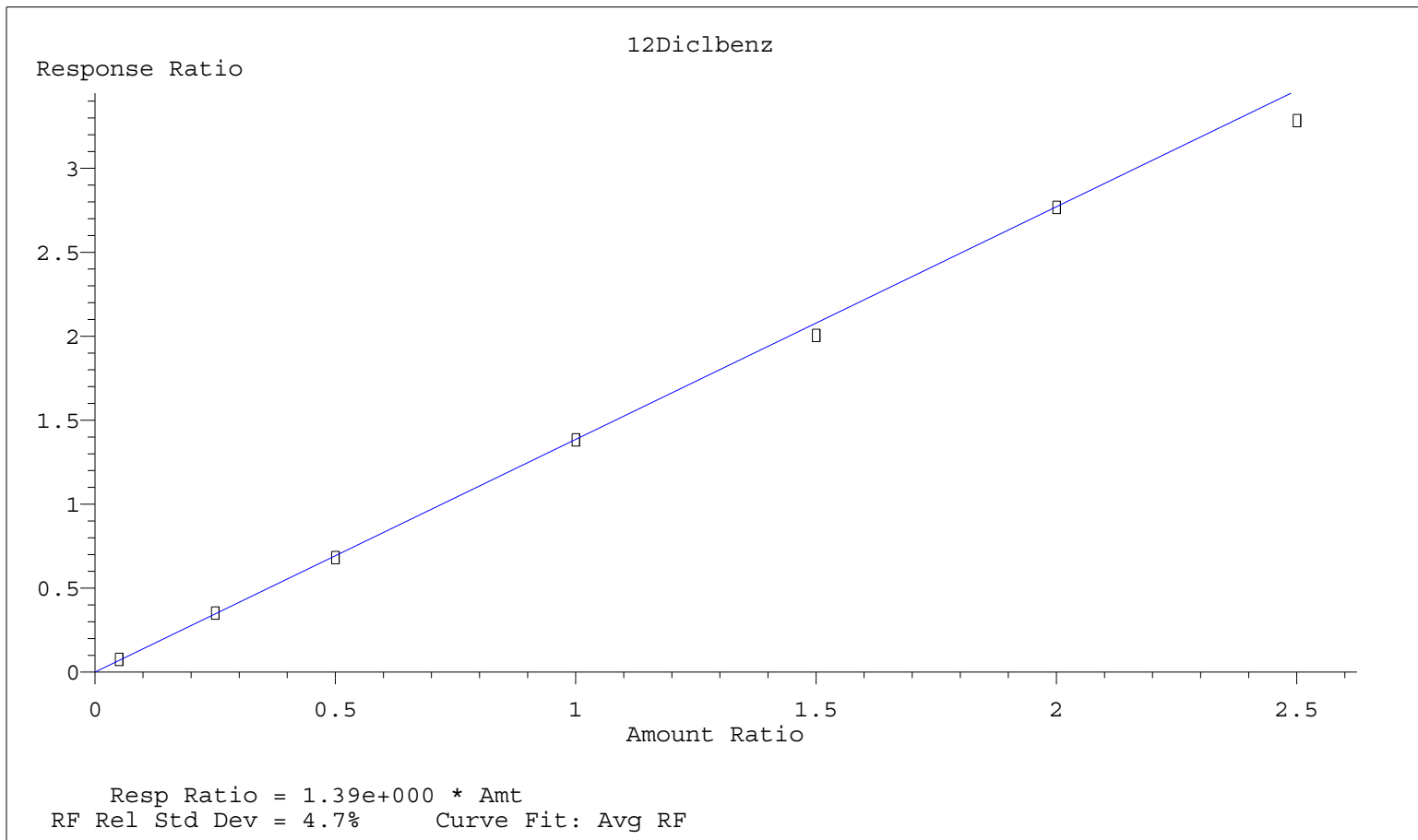
Calibration Plot Report



Calibration Plot Report



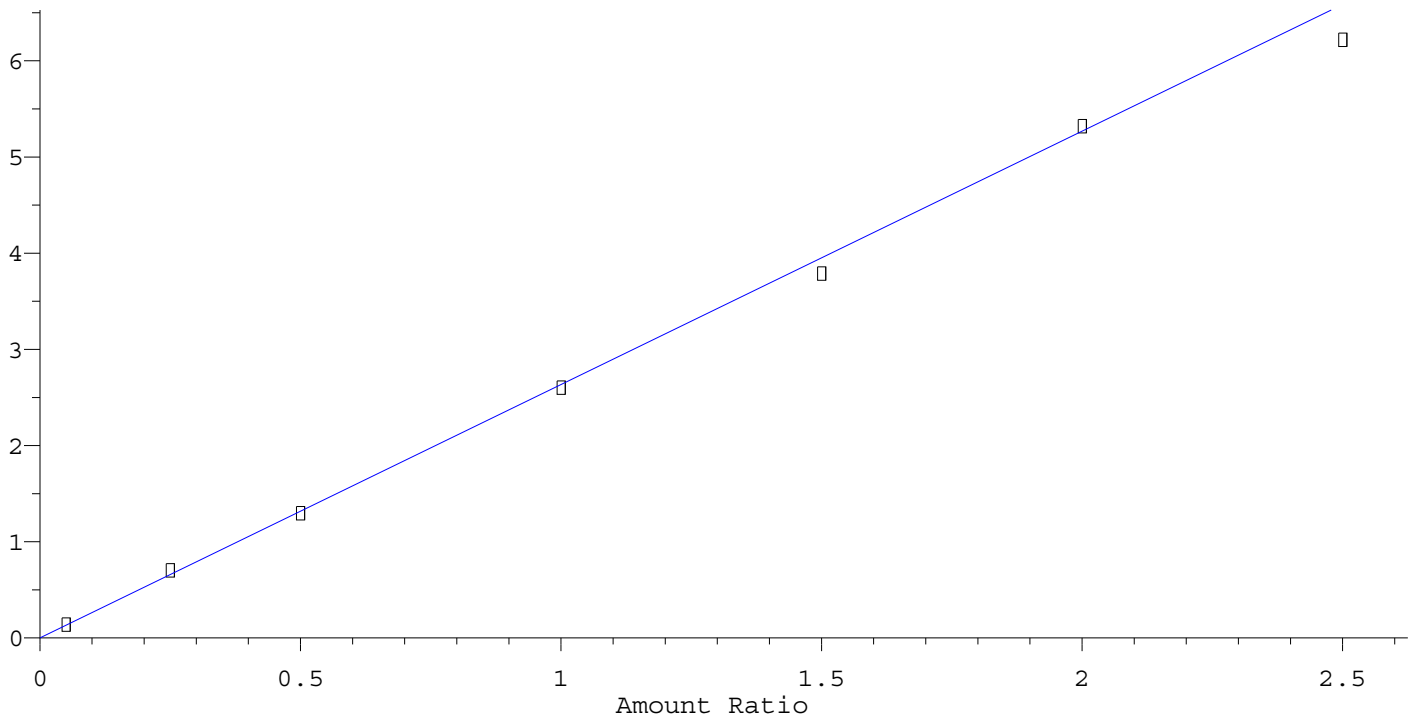
Calibration Plot Report



Calibration Plot Report

bis2clispreth

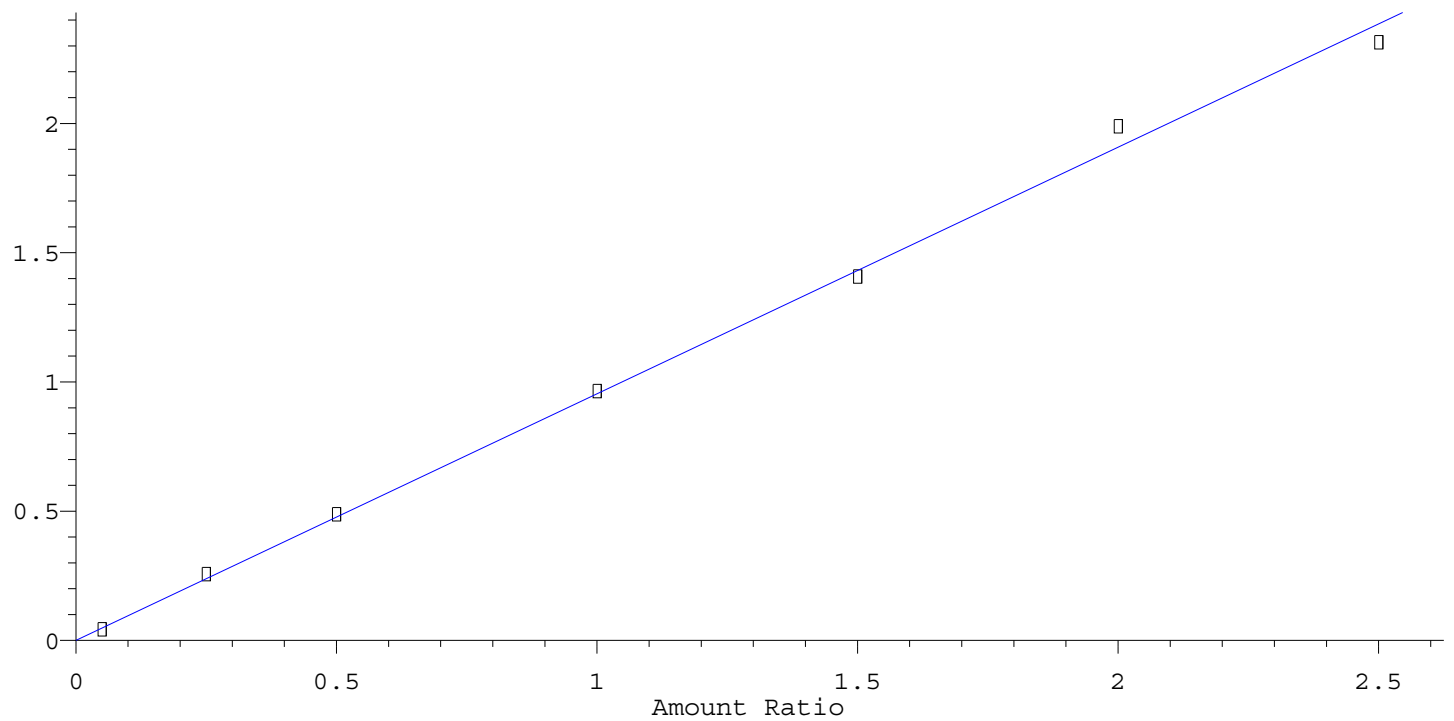
Response Ratio



Resp Ratio = 2.63e+000 * Amt
RF Rel Std Dev = 4.5% Curve Fit: Avg RF

2Methylphenol

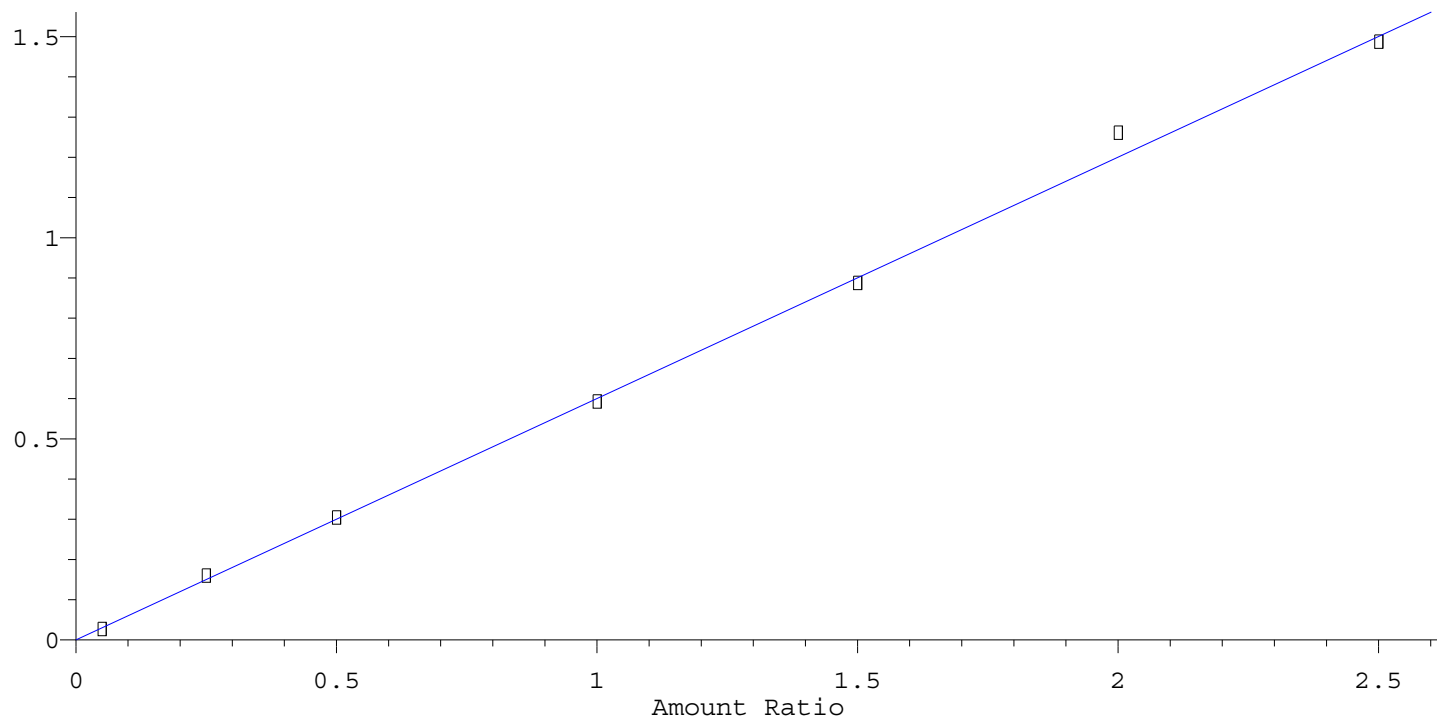
Response Ratio



Resp Ratio = 9.54e-001 * Amt
RF Rel Std Dev = 5.7% Curve Fit: Avg RF

Ntrspyrrol

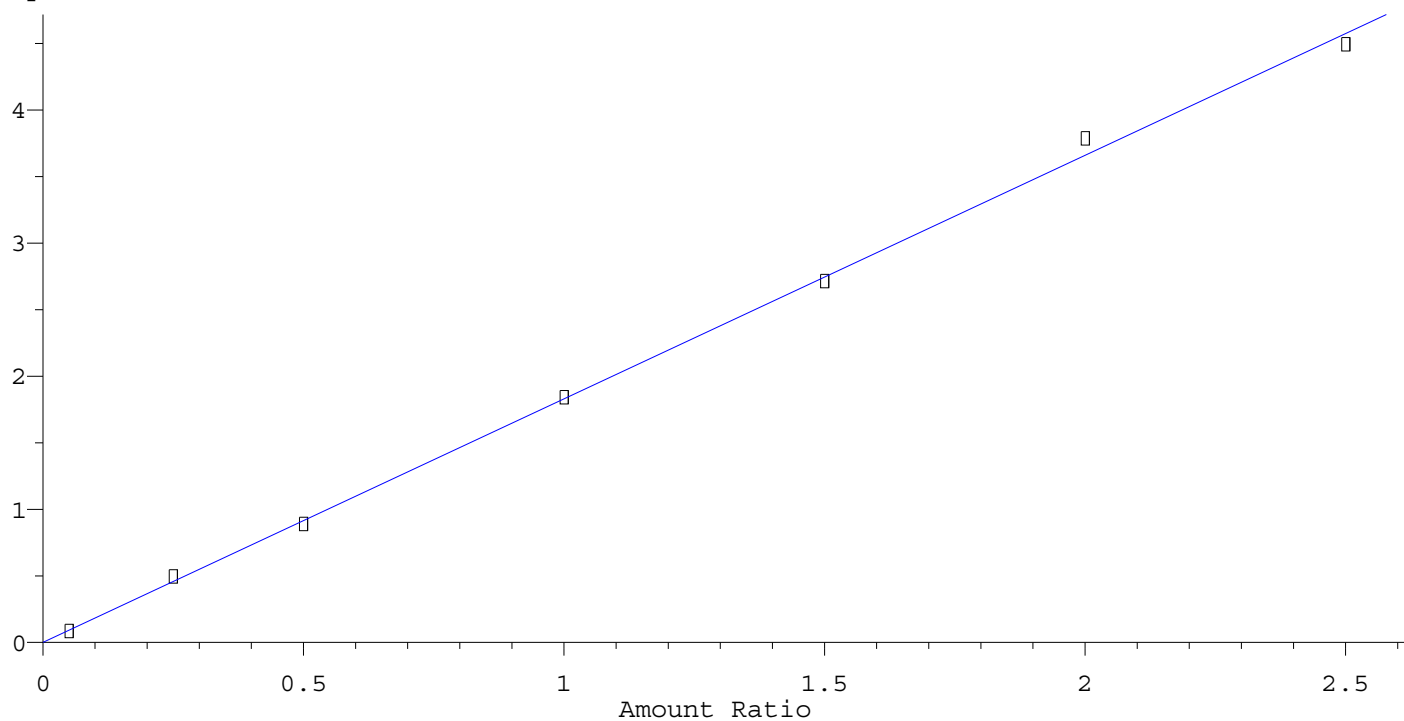
Response Ratio



Resp Ratio = $6.00\text{e-}001$ * Amt
RF Rel Std Dev = 5.2% Curve Fit: Avg RF

Acetophenone

Response Ratio

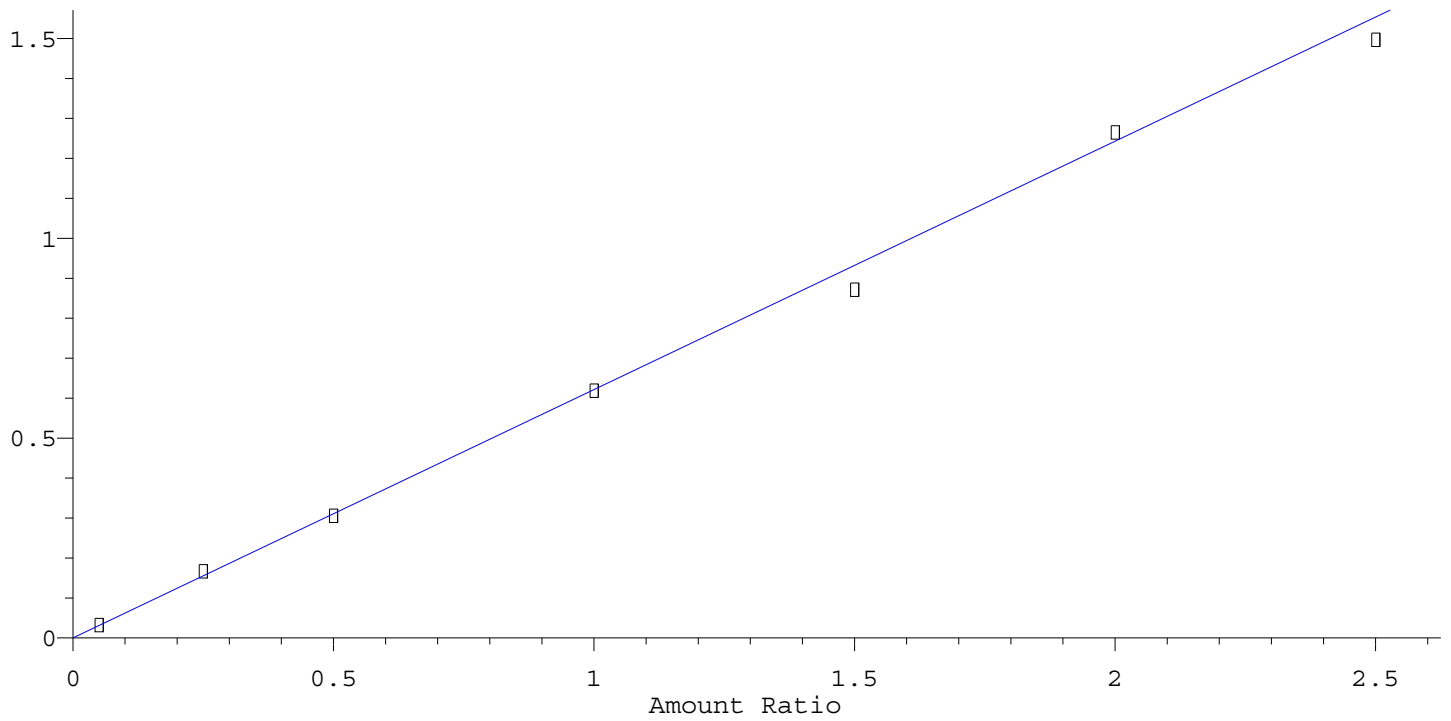


Resp Ratio = $1.83\text{e+}000$ * Amt
RF Rel Std Dev = 4.8% Curve Fit: Avg RF

Calibration Plot Report

Hexaclethane

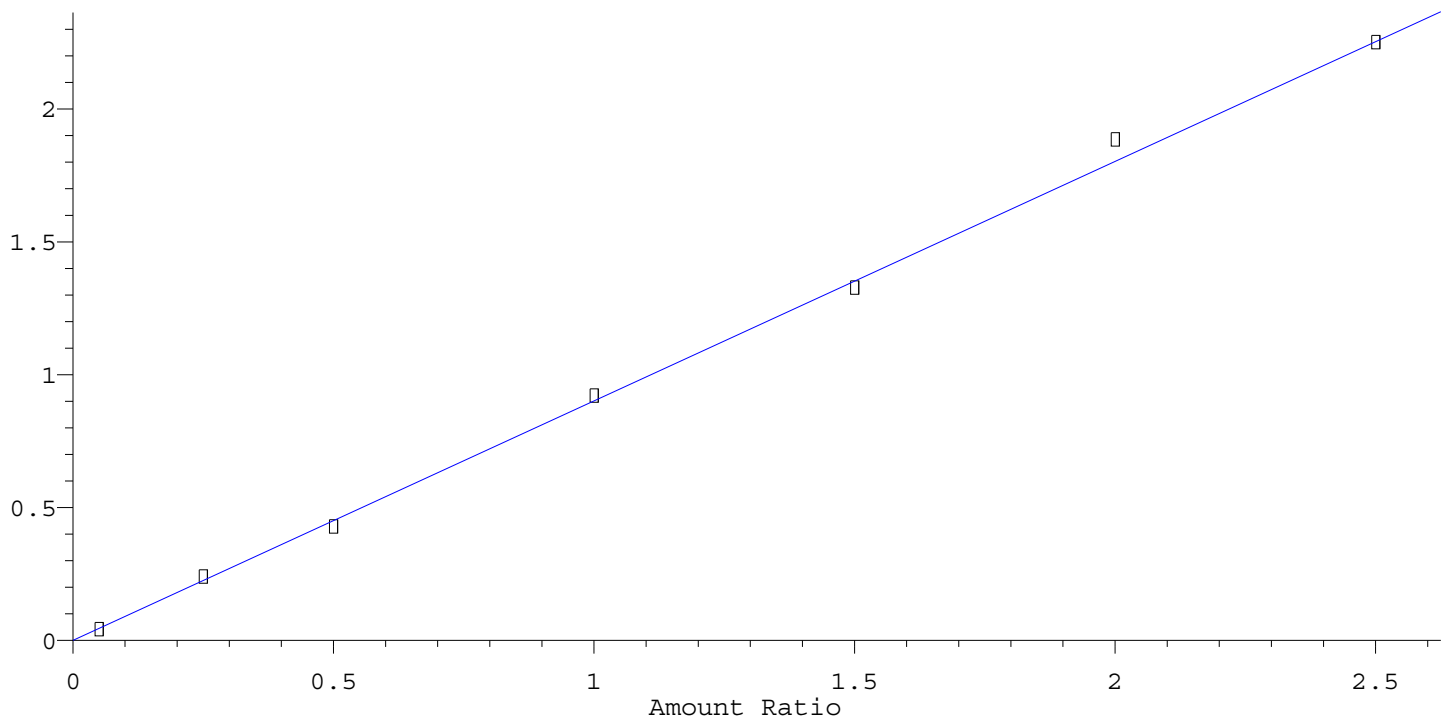
Response Ratio



Resp Ratio = $6.21\text{e-}001$ * Amt
RF Rel Std Dev = 4.6% Curve Fit: Avg RF

N-Ntrsdinprop

Response Ratio

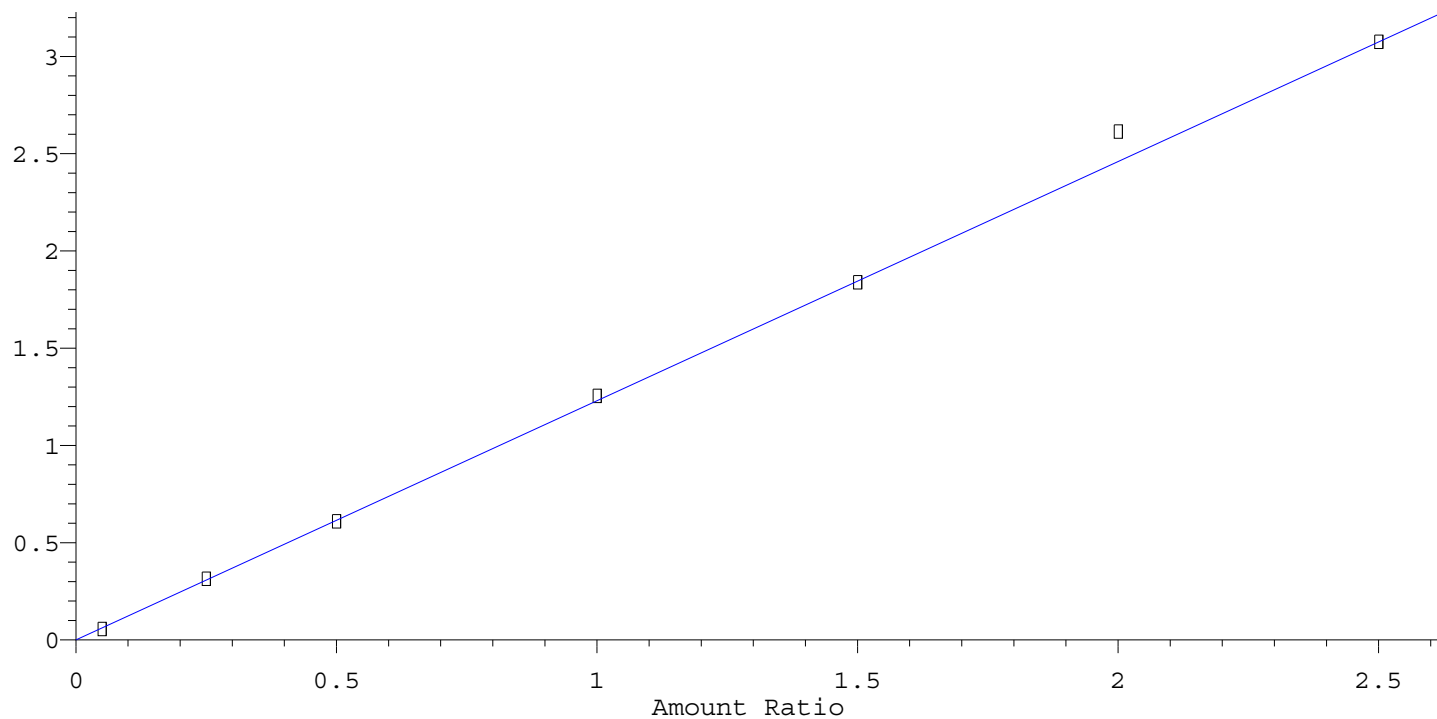


Resp Ratio = $9.01\text{e-}001$ * Amt
RF Rel Std Dev = 4.8% Curve Fit: Avg RF

Calibration Plot Report

3&4Methylphenol

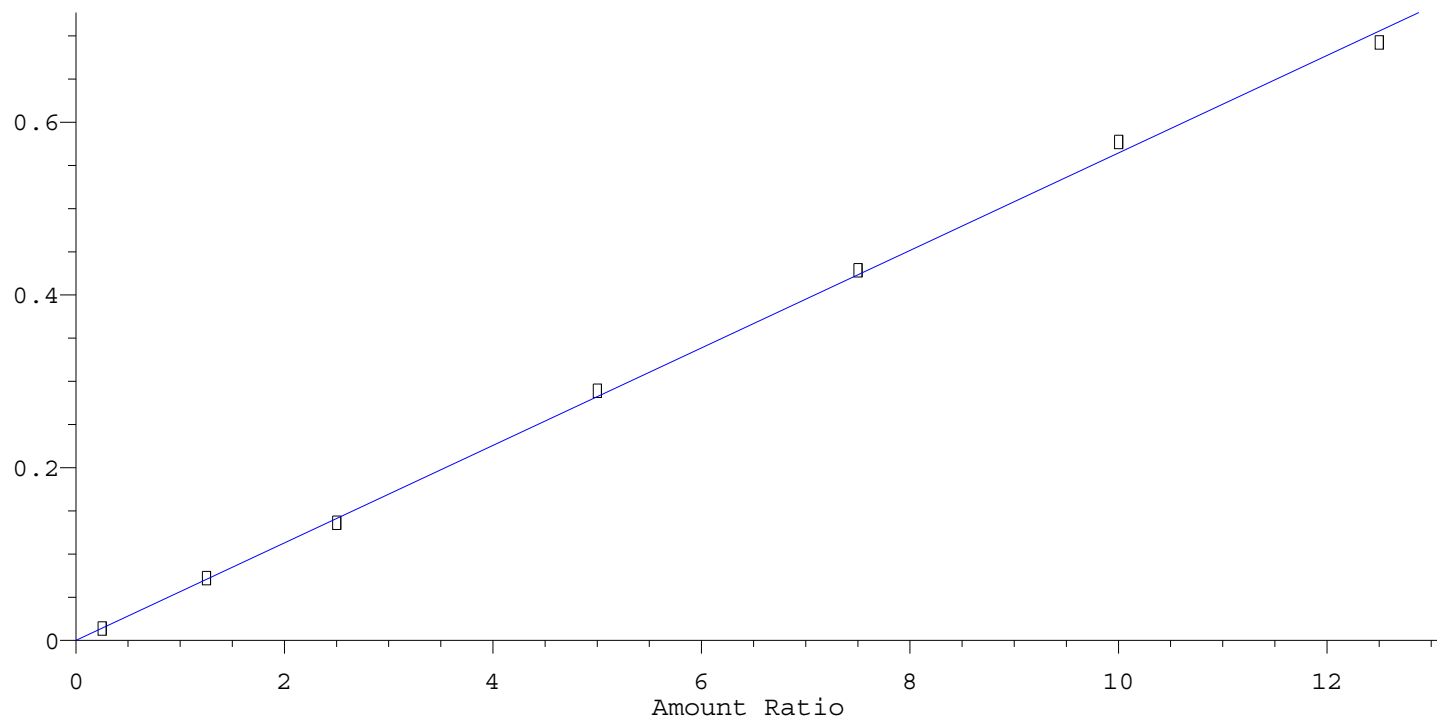
Response Ratio



Resp Ratio = 1.23e+000 * Amt
RF Rel Std Dev = 4.8% Curve Fit: Avg RF

SURRNitrbenzened5

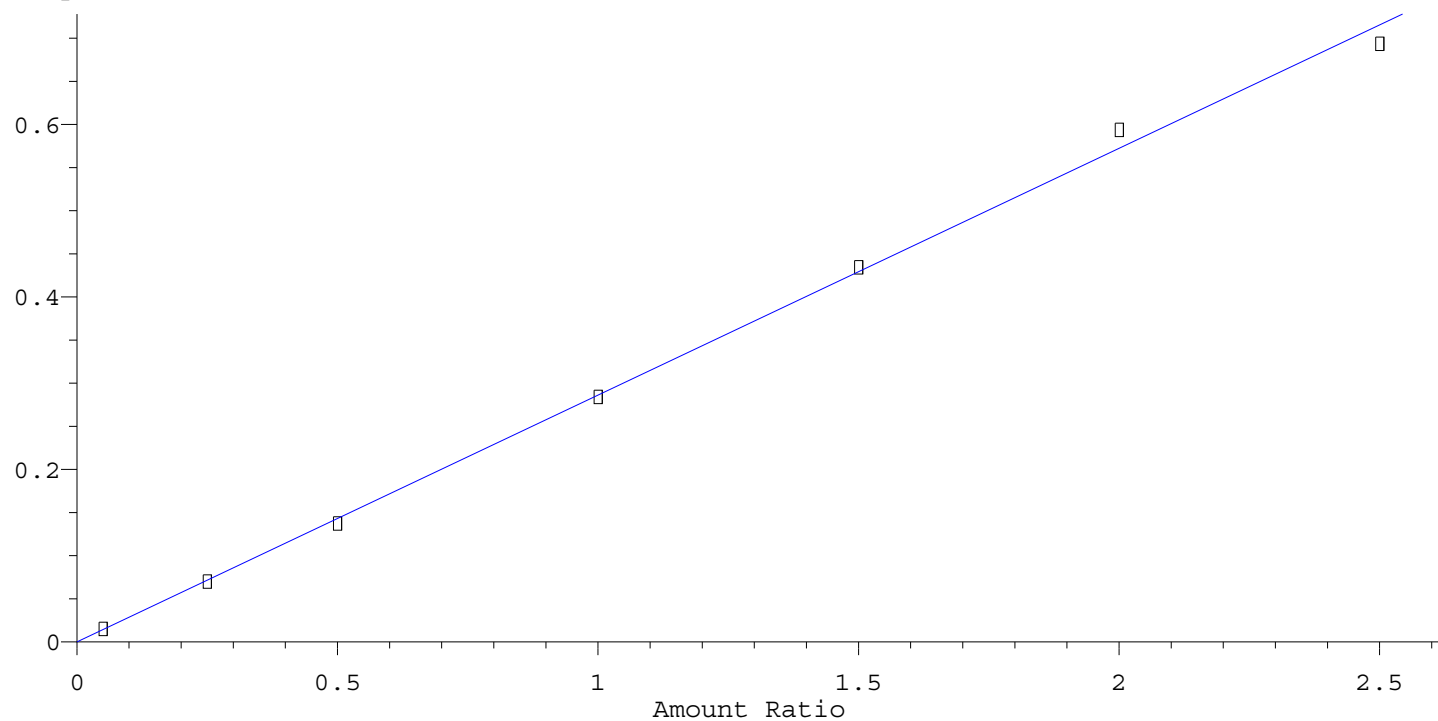
Response Ratio



Resp Ratio = 5.64e-002 * Amt
RF Rel Std Dev = 2.6% Curve Fit: Avg RF

Nitrobenzene

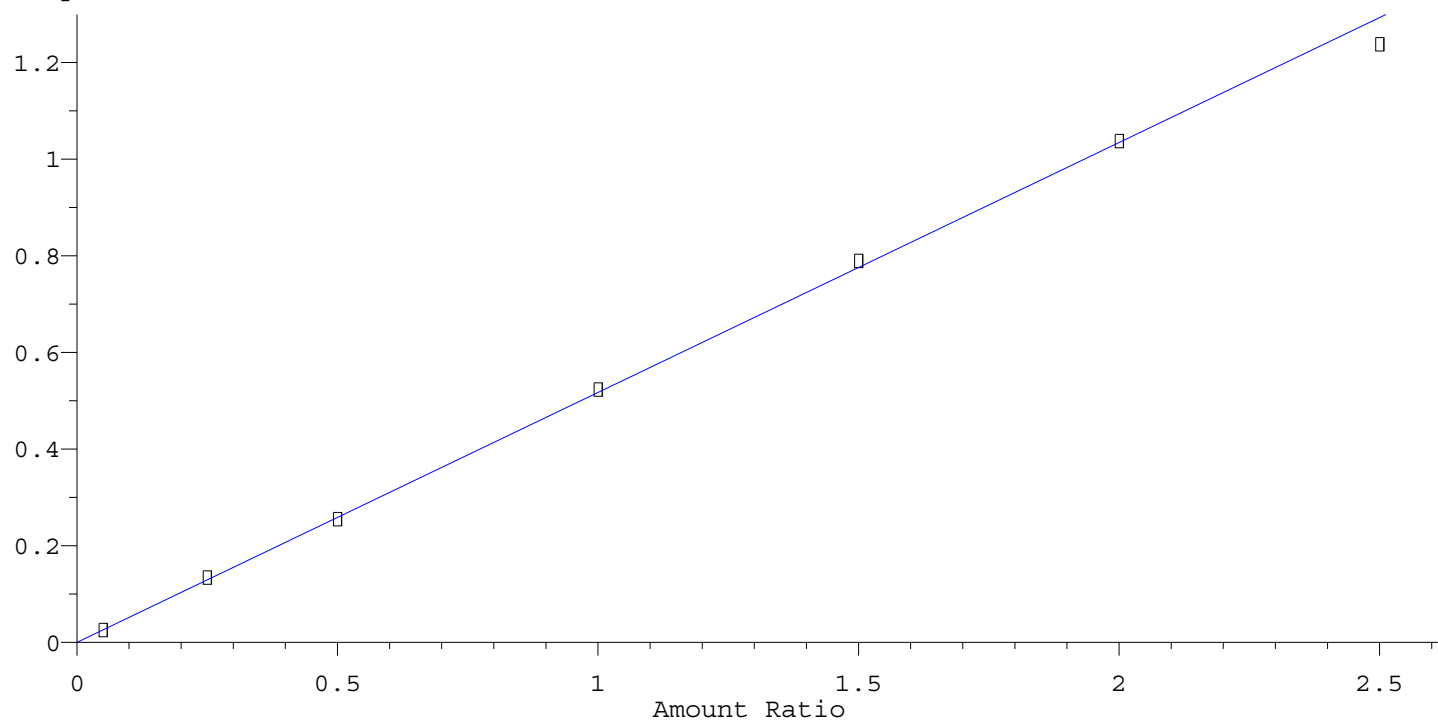
Response Ratio



Resp Ratio = 2.86×10^{-1} * Amt
RF Rel Std Dev = 3.6% Curve Fit: Avg RF

Isophorone

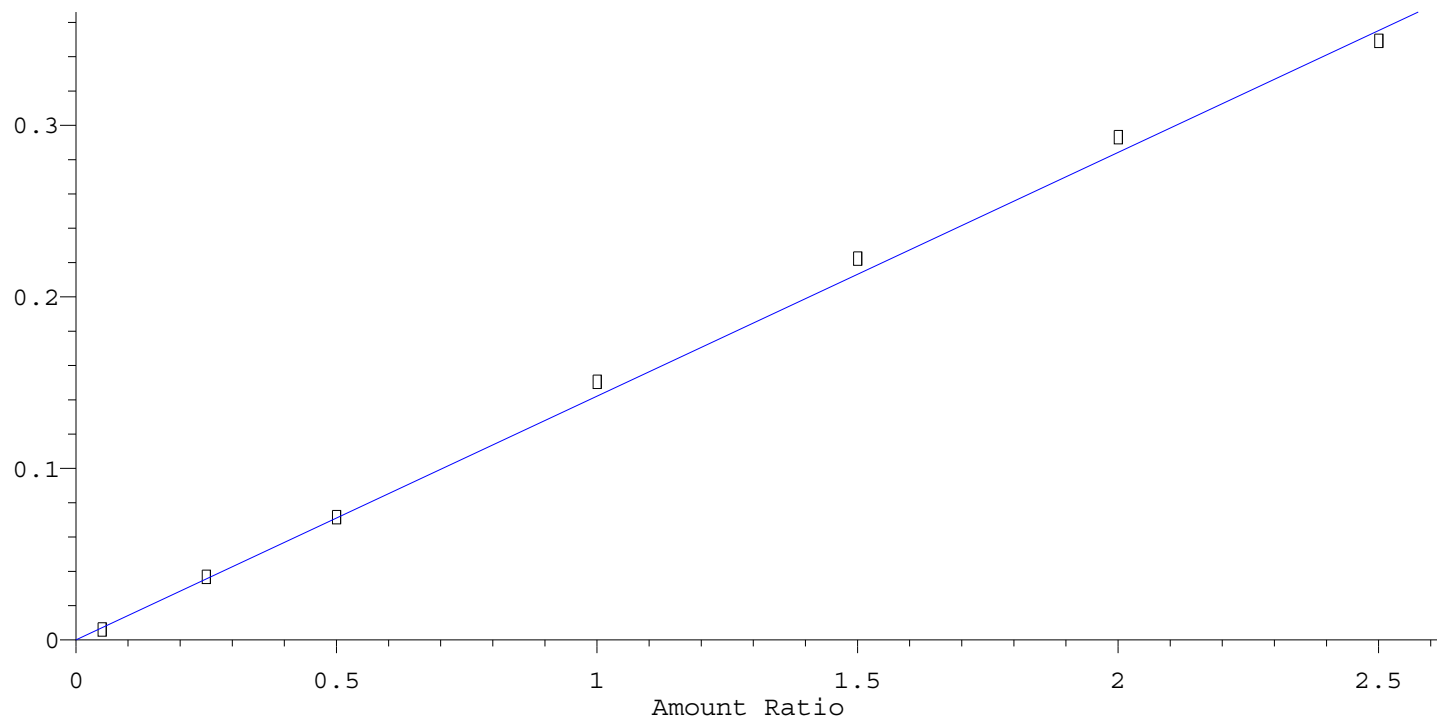
Response Ratio



Resp Ratio = 5.17×10^{-1} * Amt
RF Rel Std Dev = 2.6% Curve Fit: Avg RF

2-Nitrophenol

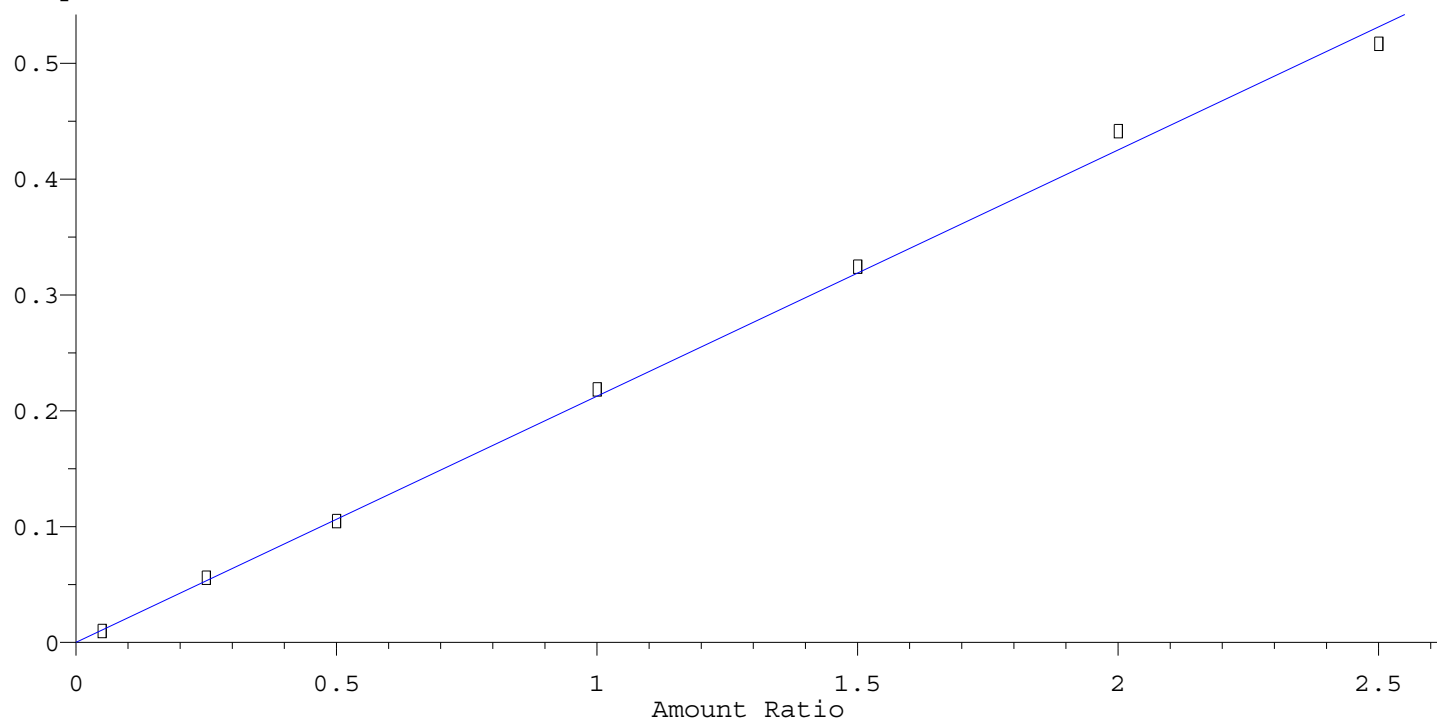
Response Ratio



Resp Ratio = 1.42×10^{-1} * Amt
RF Rel Std Dev = 6.9% Curve Fit: Avg RF

24Dimthpheno

Response Ratio

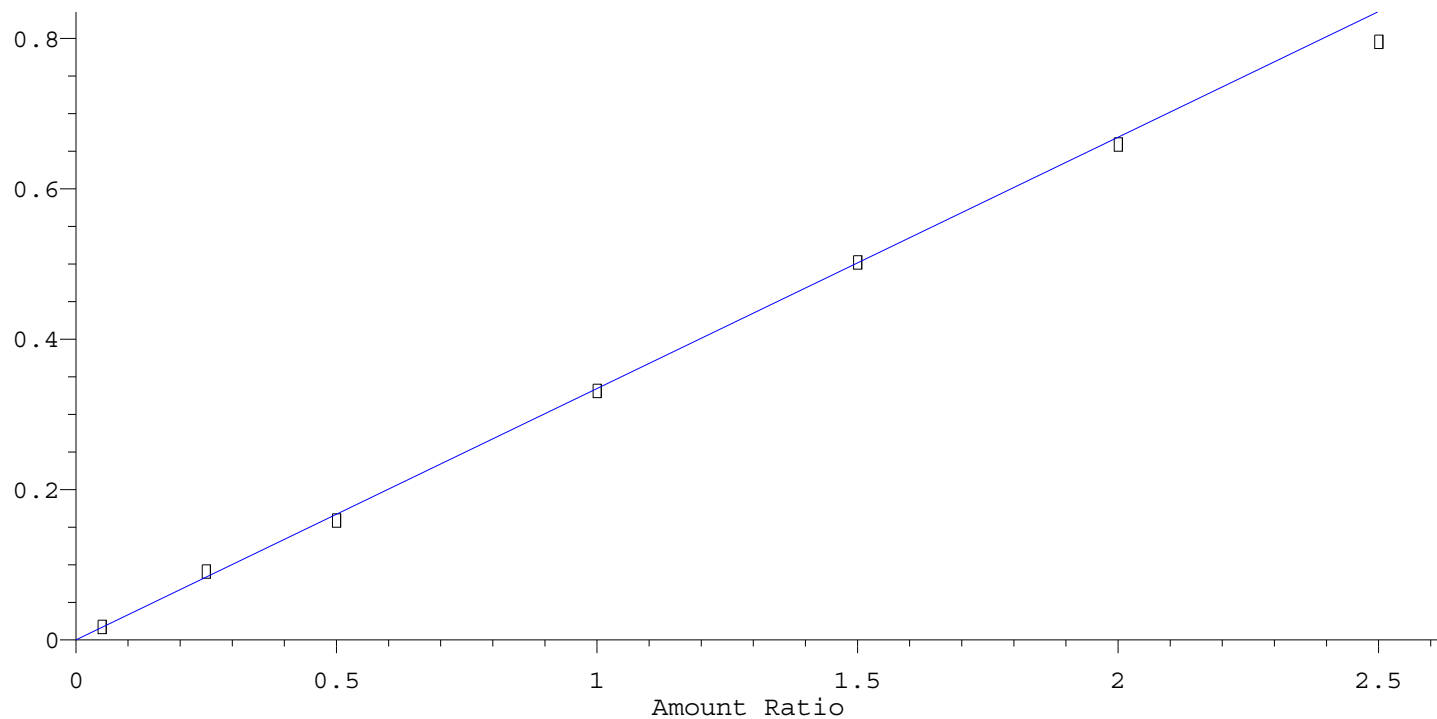


Resp Ratio = 2.13×10^{-1} * Amt
RF Rel Std Dev = 4.6% Curve Fit: Avg RF

Calibration Plot Report

bis2clethoxym

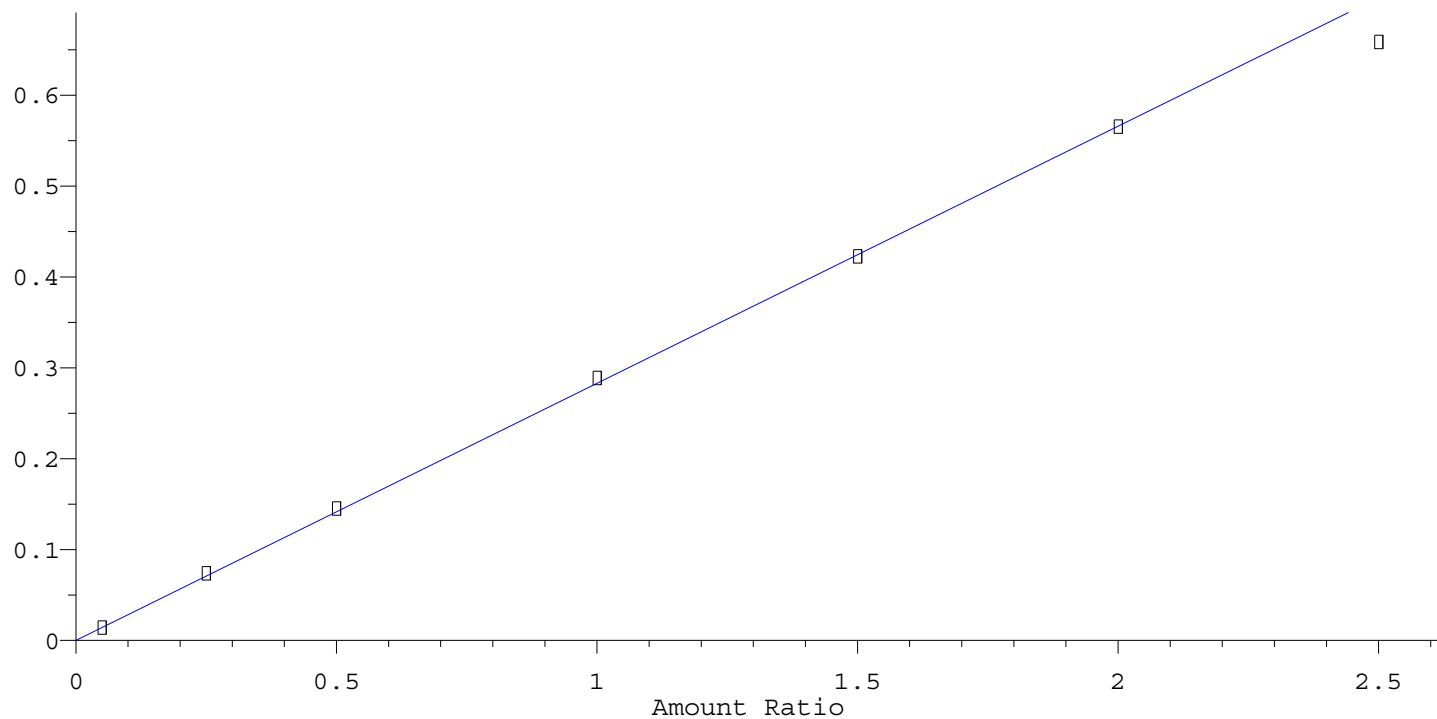
Response Ratio



Resp Ratio = 3.34e-001 * Amt
RF Rel Std Dev = 4.8% Curve Fit: Avg RF

24Diclphenol

Response Ratio

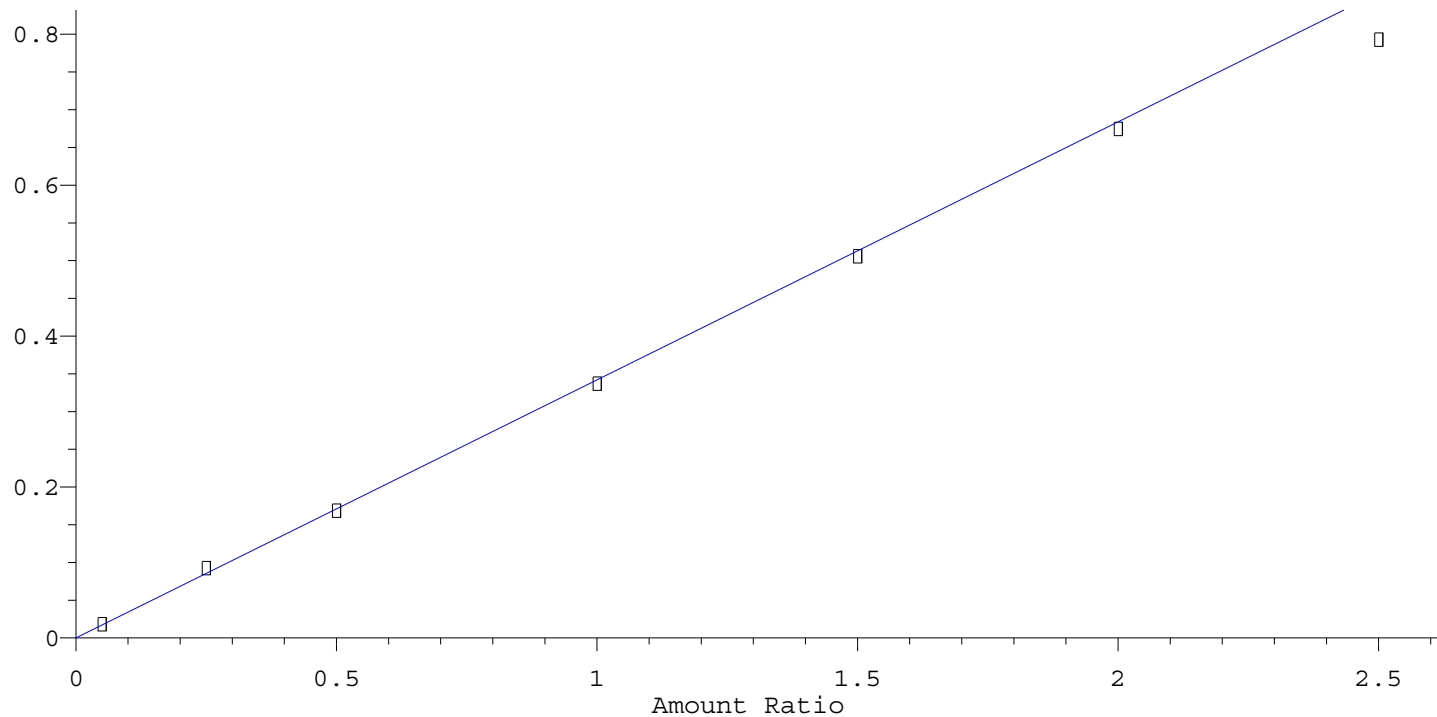


Resp Ratio = 2.83e-001 * Amt
RF Rel Std Dev = 3.6% Curve Fit: Avg RF

Calibration Plot Report

124Triclbz

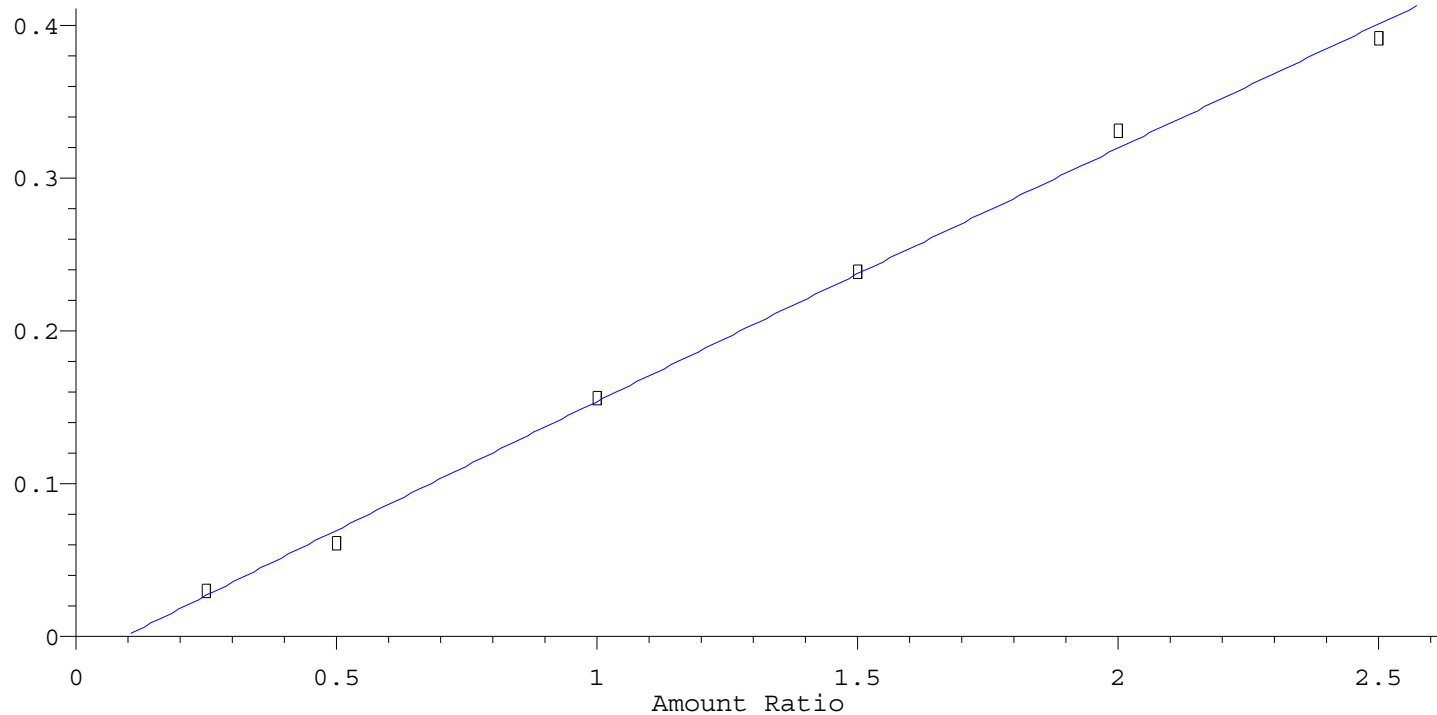
Response Ratio



Resp Ratio = $3.42 \times 10^{-1} \times \text{Amt}$
 RF Rel Std Dev = 5.0% Curve Fit: Avg RF

Benzoic acid

Response Ratio

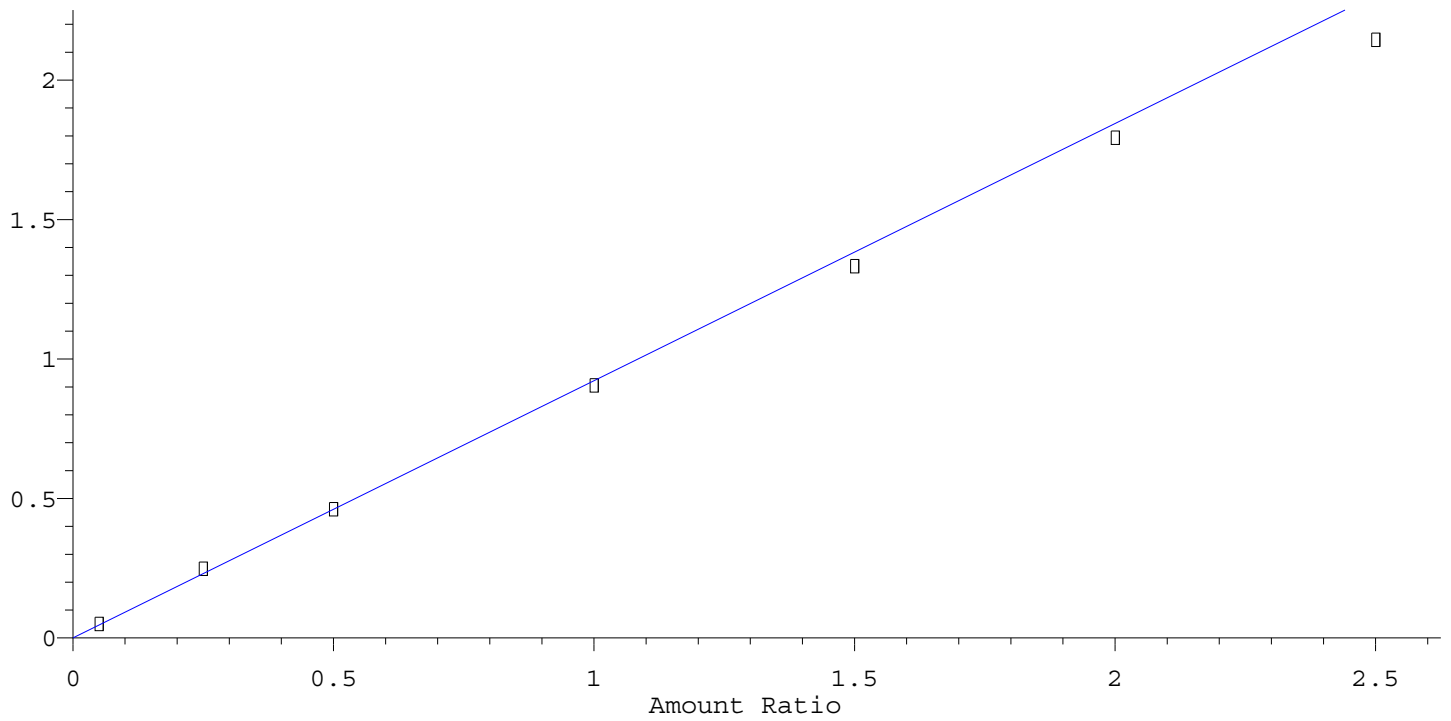


$R = -2.15 \times 10^{-3} A^2 + 1.72 \times 10^{-1} A - 1.61 \times 10^{-2}$
 Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

Naphthalene

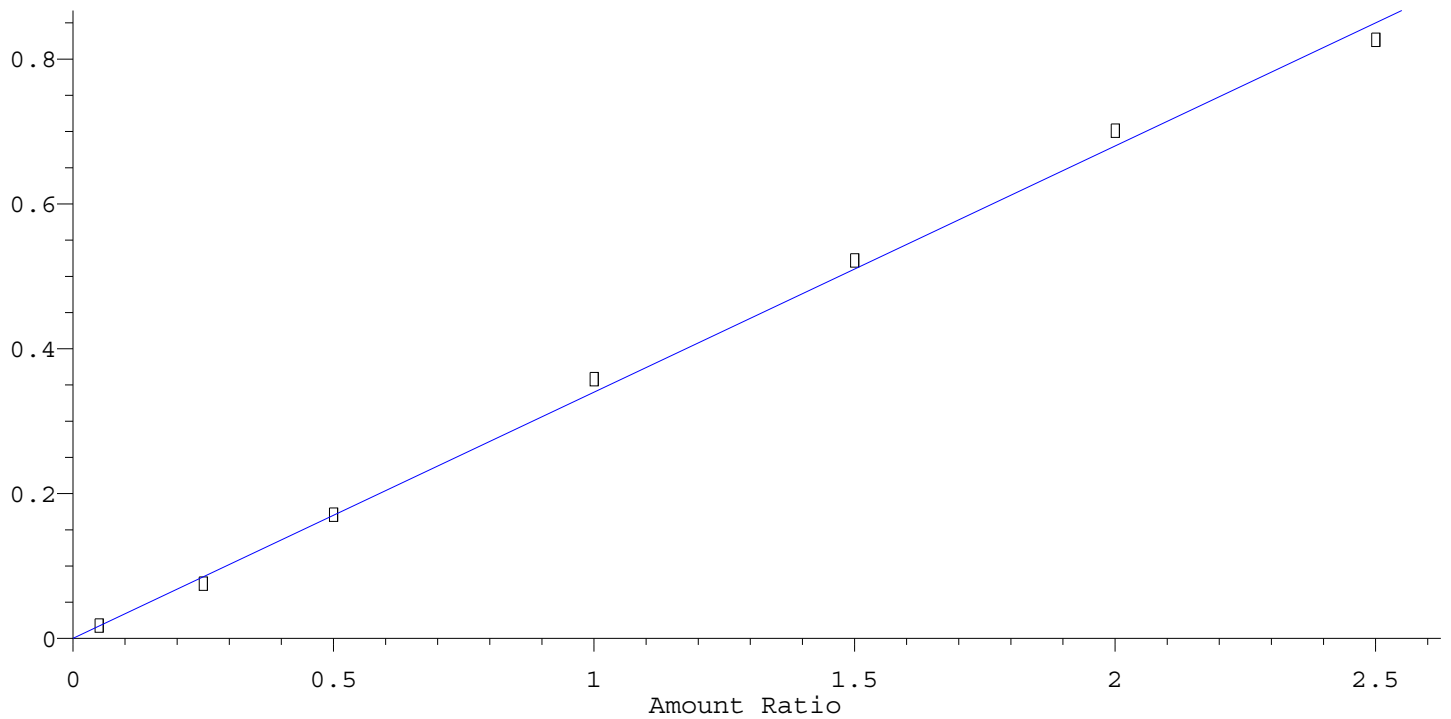
Response Ratio



Resp Ratio = 9.22×10^{-1} * Amt
RF Rel Std Dev = 5.7% Curve Fit: Avg RF

4-Cl-aniline

Response Ratio

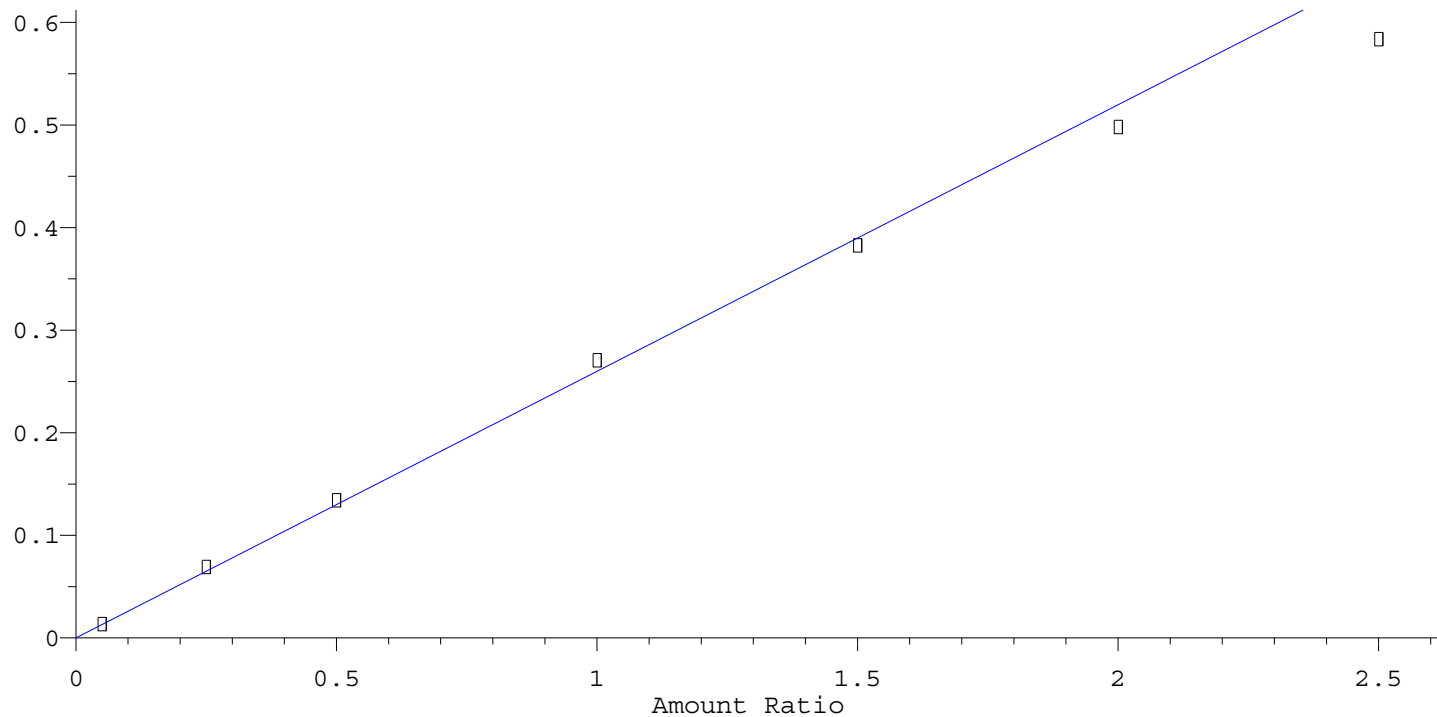


Resp Ratio = 3.40×10^{-1} * Amt
RF Rel Std Dev = 5.6% Curve Fit: Avg RF

Calibration Plot Report

26Diclphenol

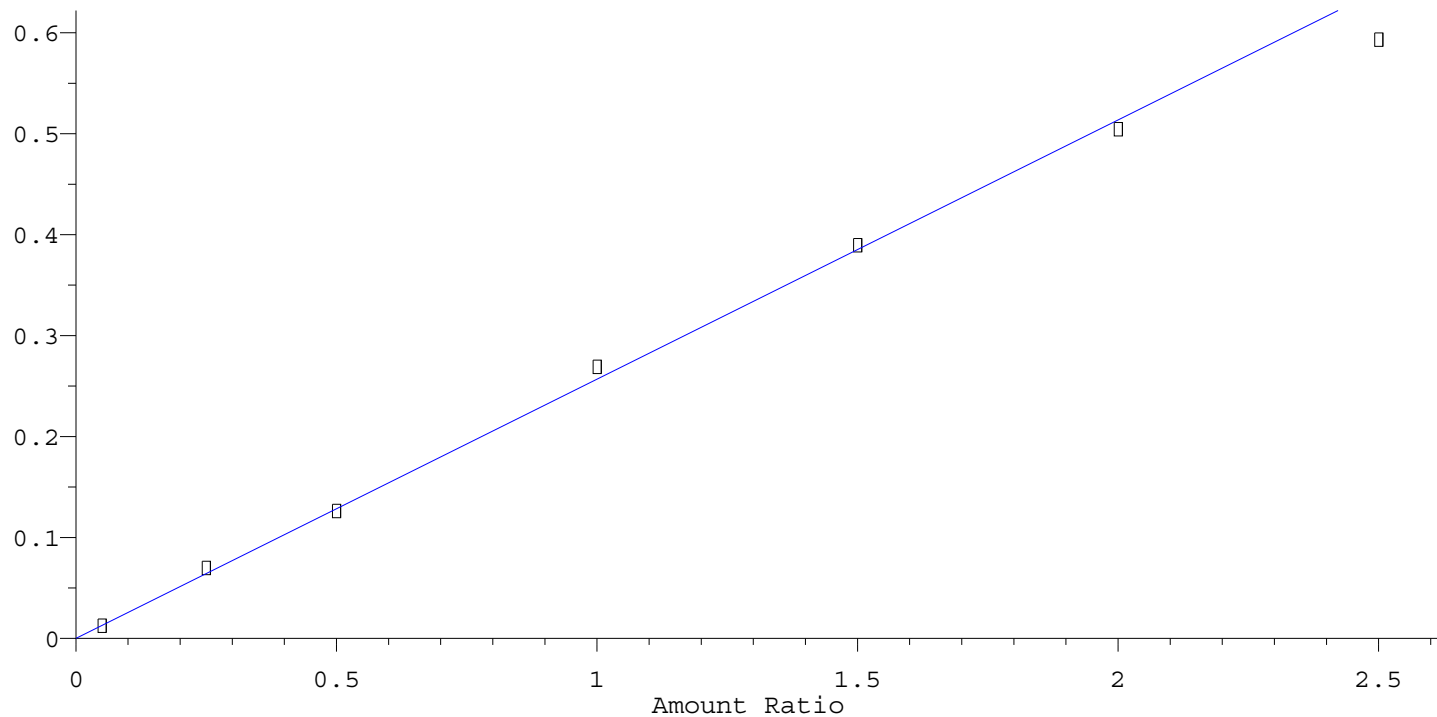
Response Ratio



Resp Ratio = 2.60e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

Hexaclprop

Response Ratio

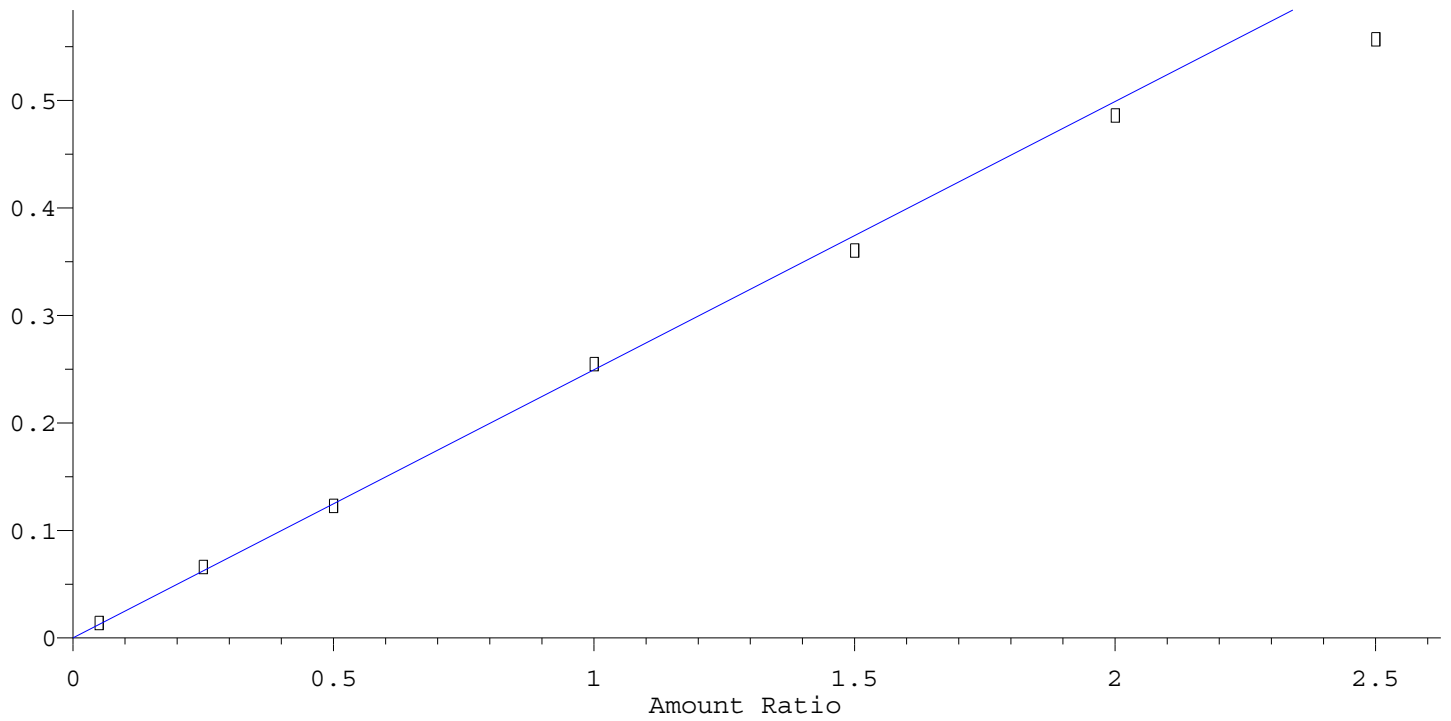


Resp Ratio = 2.57e-001 * Amt
RF Rel Std Dev = 5.3% Curve Fit: Avg RF

Calibration Plot Report

Hexaclbutdien

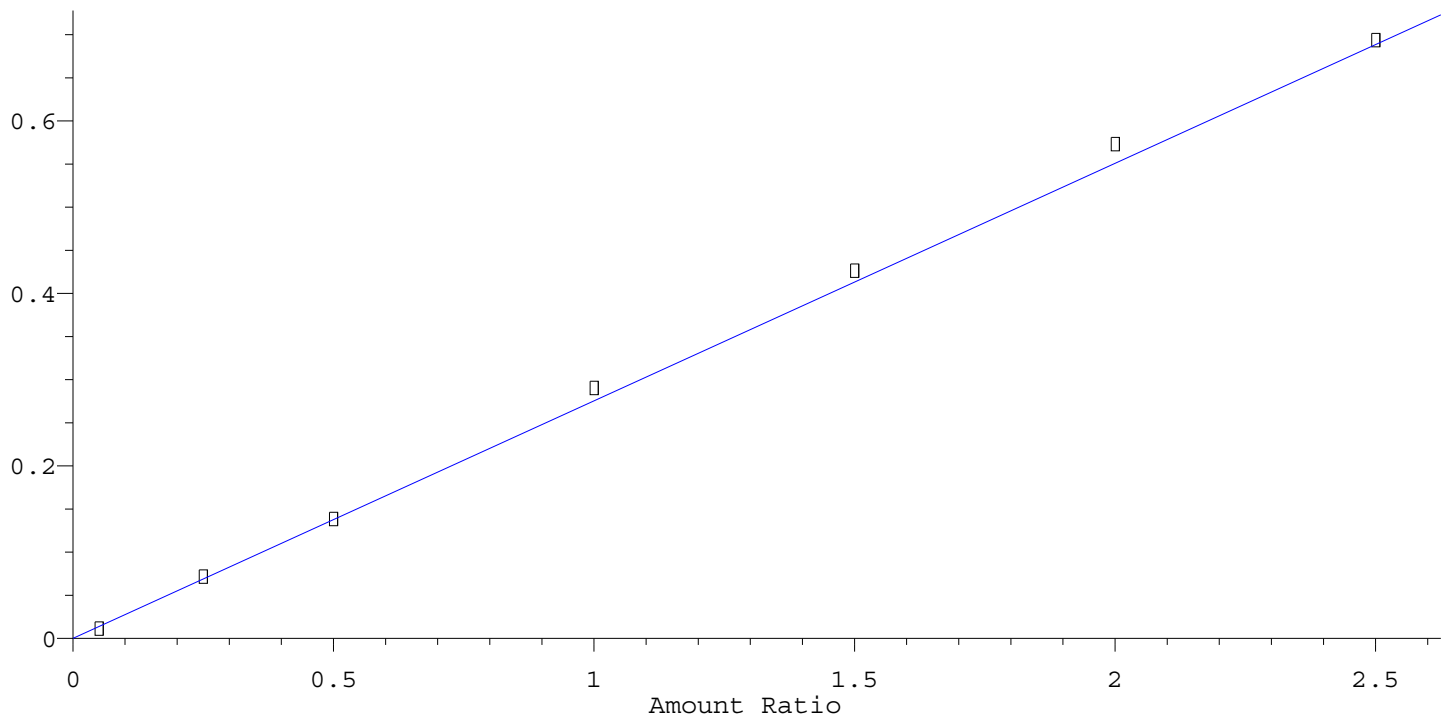
Response Ratio



Resp Ratio = 2.50×10^{-1} * Amt
RF Rel Std Dev = 7.1% Curve Fit: Avg RF

4Cl3methylnphe

Response Ratio

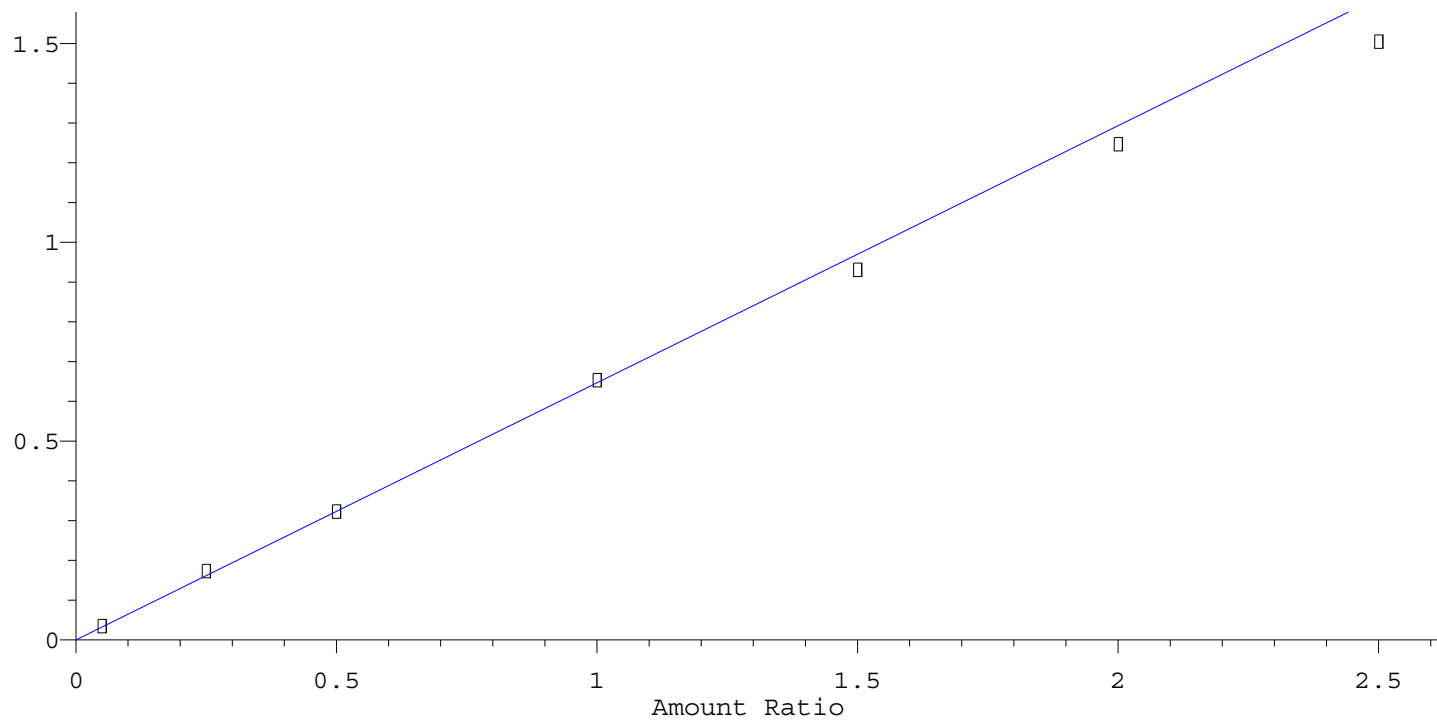


Resp Ratio = 2.76×10^{-1} * Amt
RF Rel Std Dev = 7.9% Curve Fit: Avg RF

Calibration Plot Report

2Methylnaphth

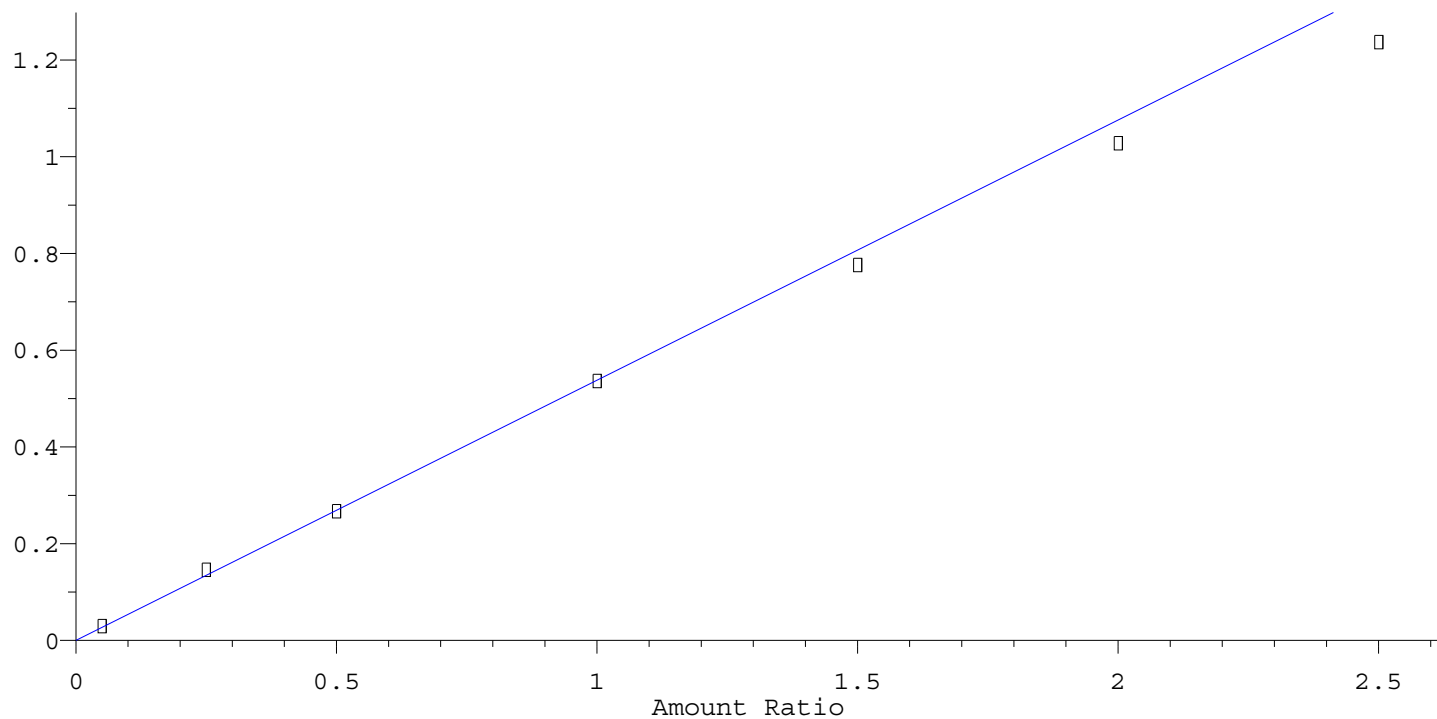
Response Ratio



Resp Ratio = 6.47×10^{-1} * Amt
RF Rel Std Dev = 5.4% Curve Fit: Avg RF

1Methylnaphth

Response Ratio

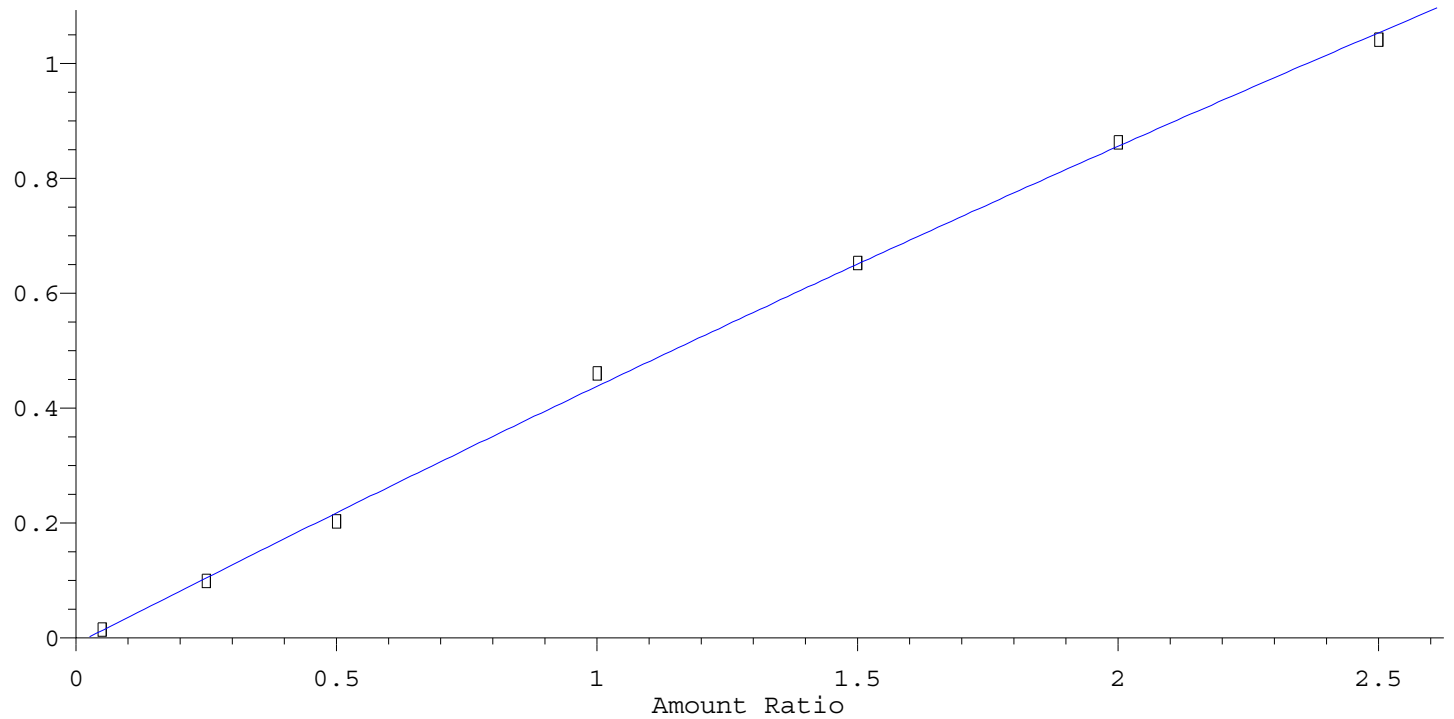


Resp Ratio = 5.38×10^{-1} * Amt
RF Rel Std Dev = 6.5% Curve Fit: Avg RF

Calibration Plot Report

Hxclcycpentdi

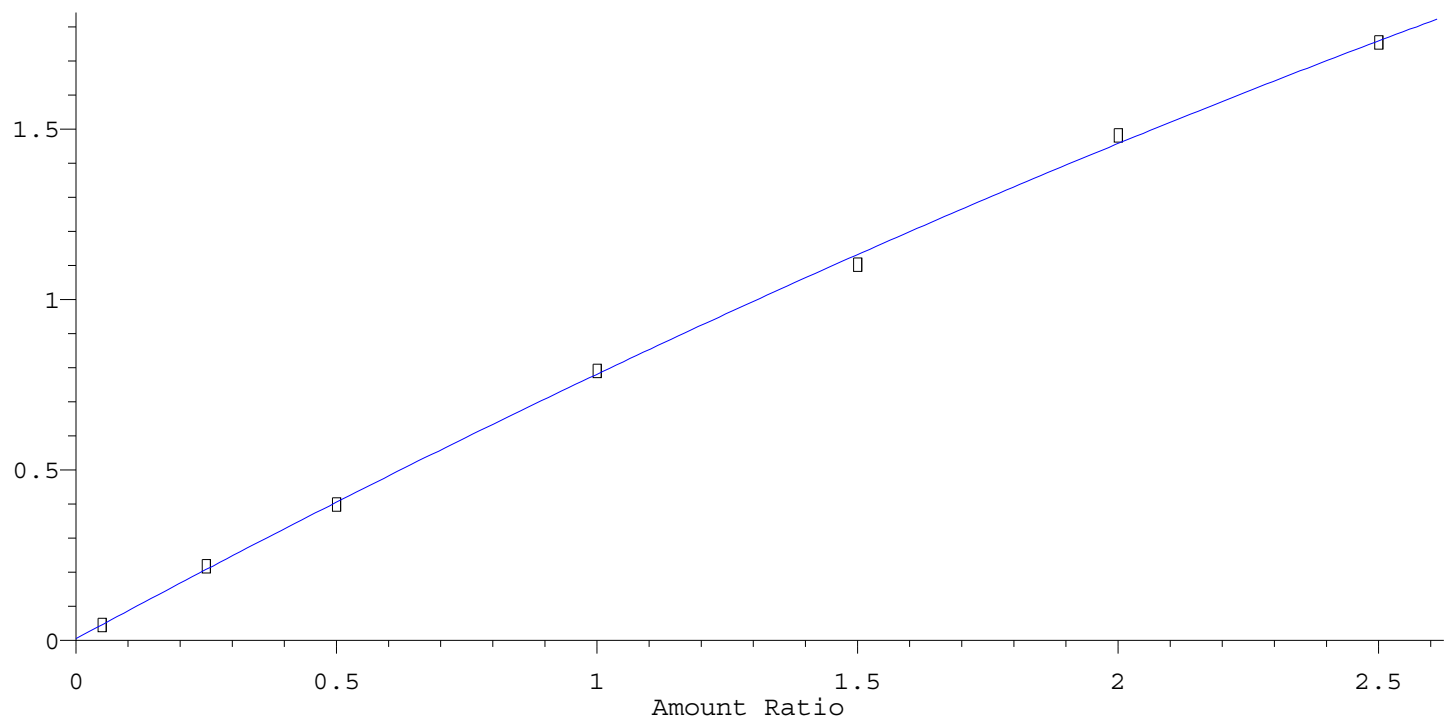
Response Ratio



$R = -1.52e-002 A^2 + 4.63e-001 A - 1.02e-002$
 Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

1245Tetrclbenz

Response Ratio

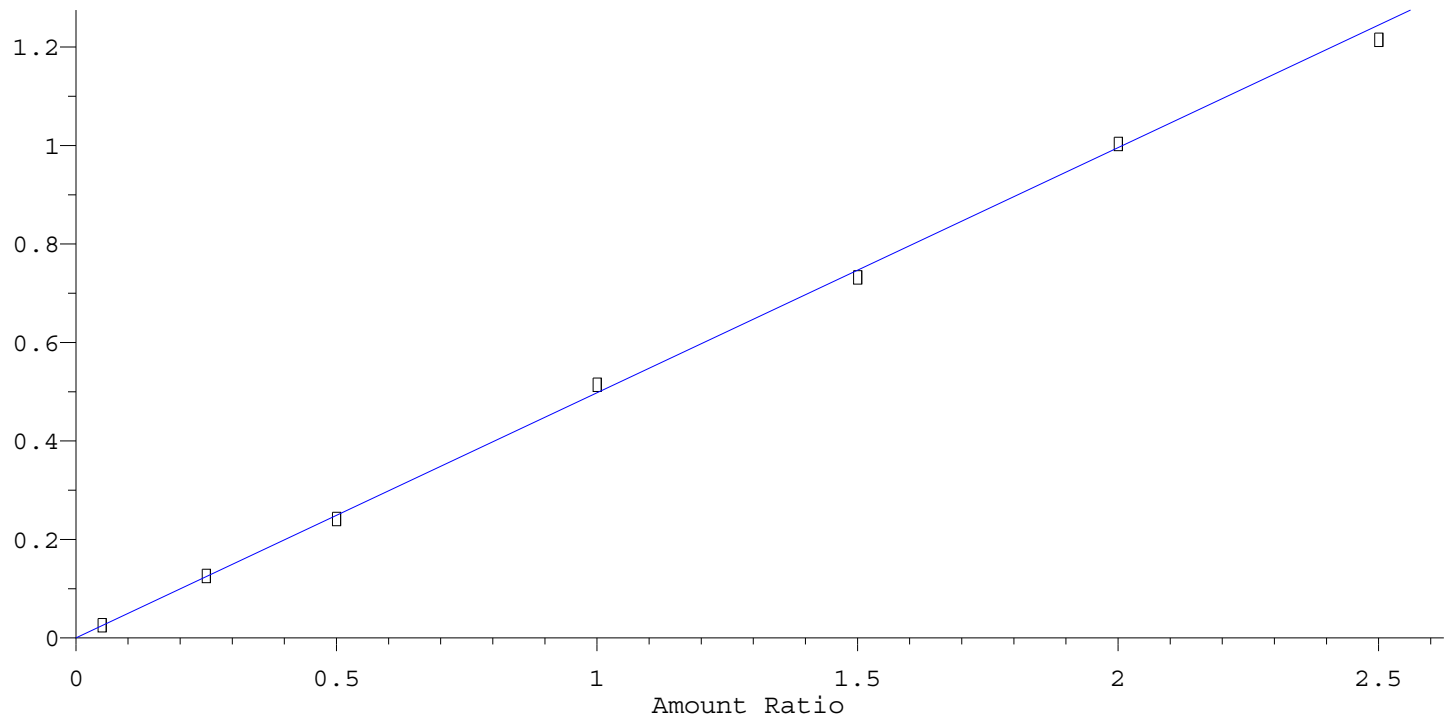


$R = -4.99e-002 A^2 + 8.26e-001 A + 4.90e-003$
 Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

246Triclpheno

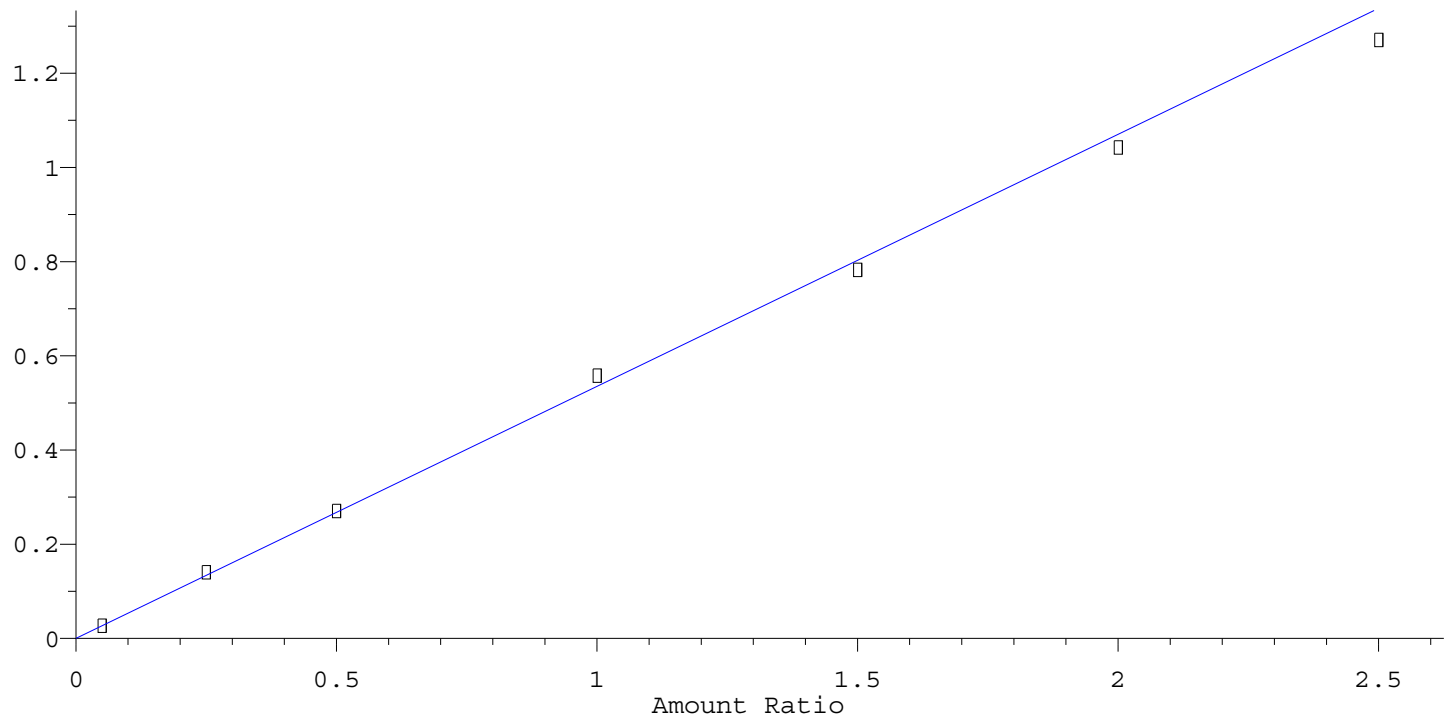
Response Ratio



Resp Ratio = 4.98×10^{-1} * Amt
RF Rel Std Dev = 2.5% Curve Fit: Avg RF

245Triclpheno

Response Ratio

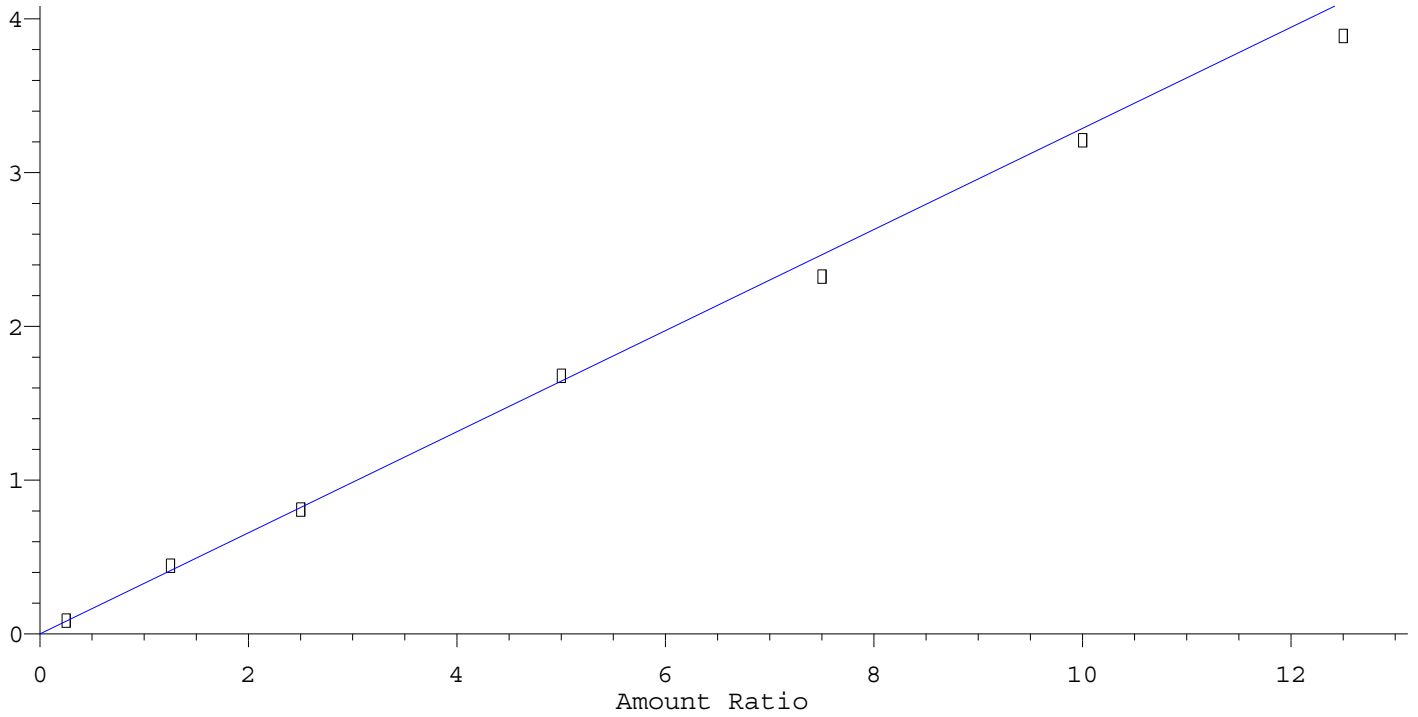


Resp Ratio = 5.35×10^{-1} * Amt
RF Rel Std Dev = 3.7% Curve Fit: Avg RF

Calibration Plot Report

SURR2Flbiphenyl

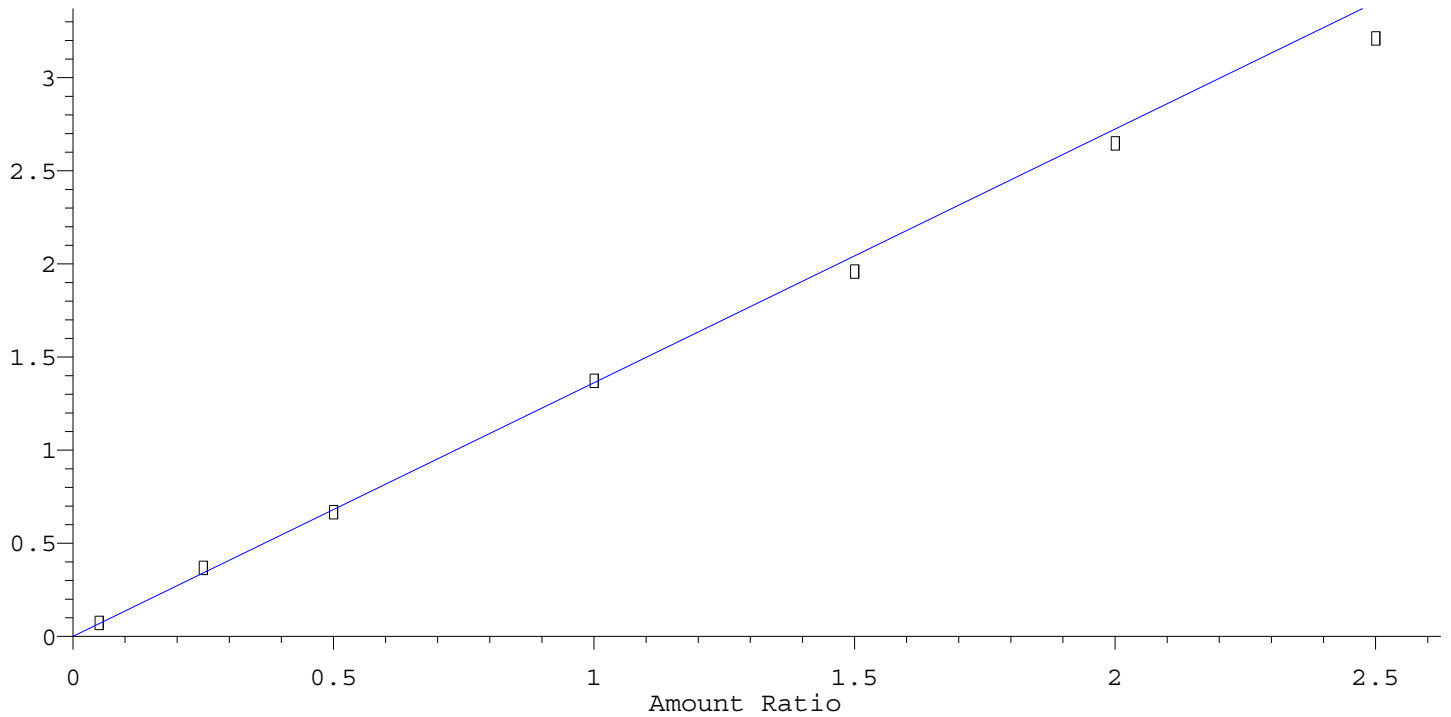
Response Ratio



Resp Ratio = 3.29×10^{-1} * Amt
RF Rel Std Dev = 5.2% Curve Fit: Avg RF

2Clnaphthalen

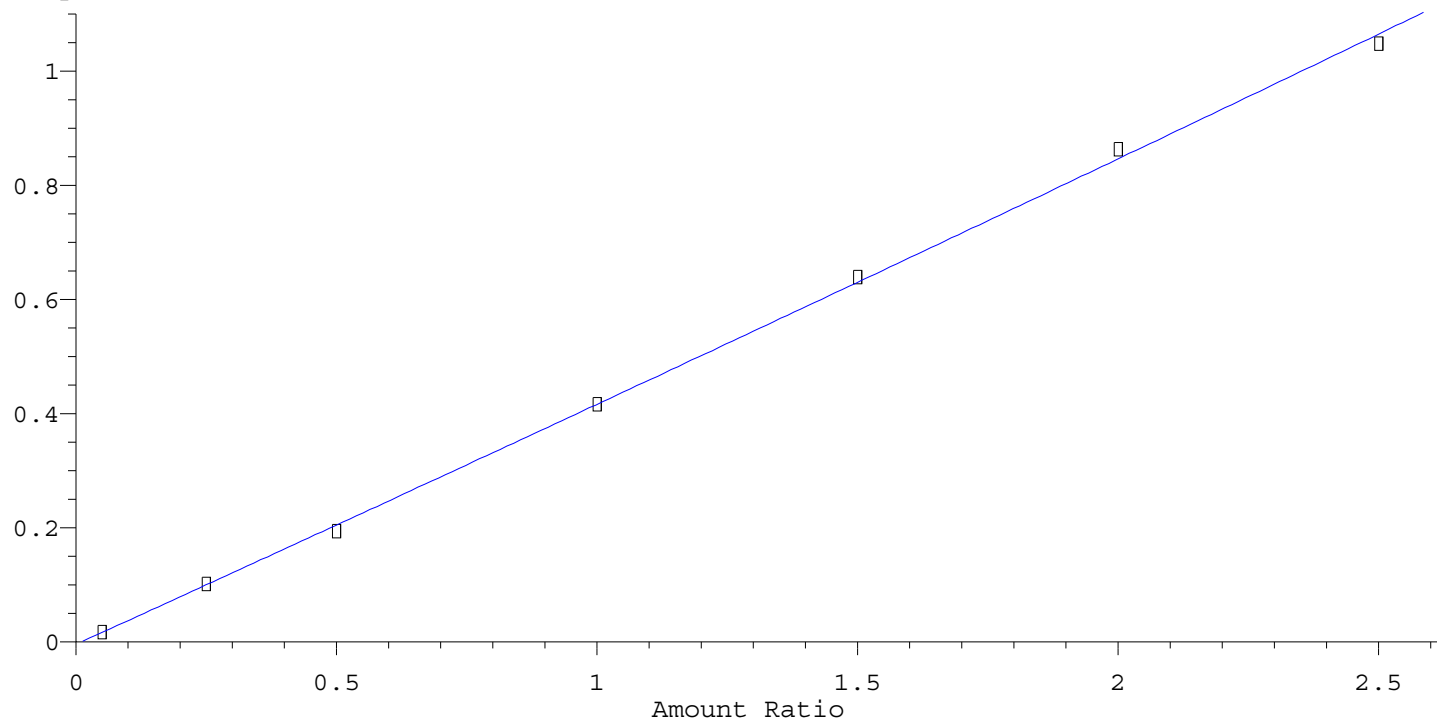
Response Ratio



Resp Ratio = 1.36×10^0 * Amt
RF Rel Std Dev = 5.3% Curve Fit: Avg RF

2Nitroaniline

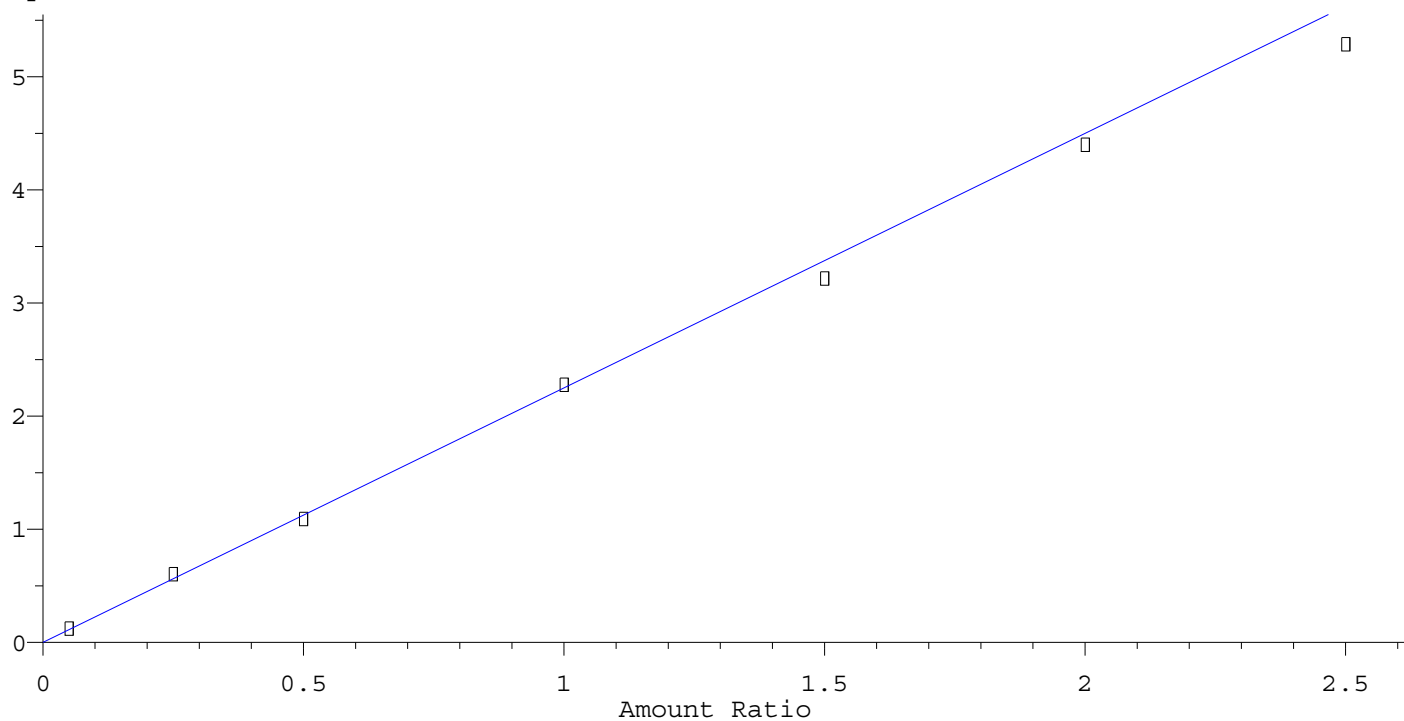
Response Ratio



$R = 4.80e-003 A^2 + 4.16e-001 A - 4.23e-003$
 Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Acnaphthylene

Response Ratio

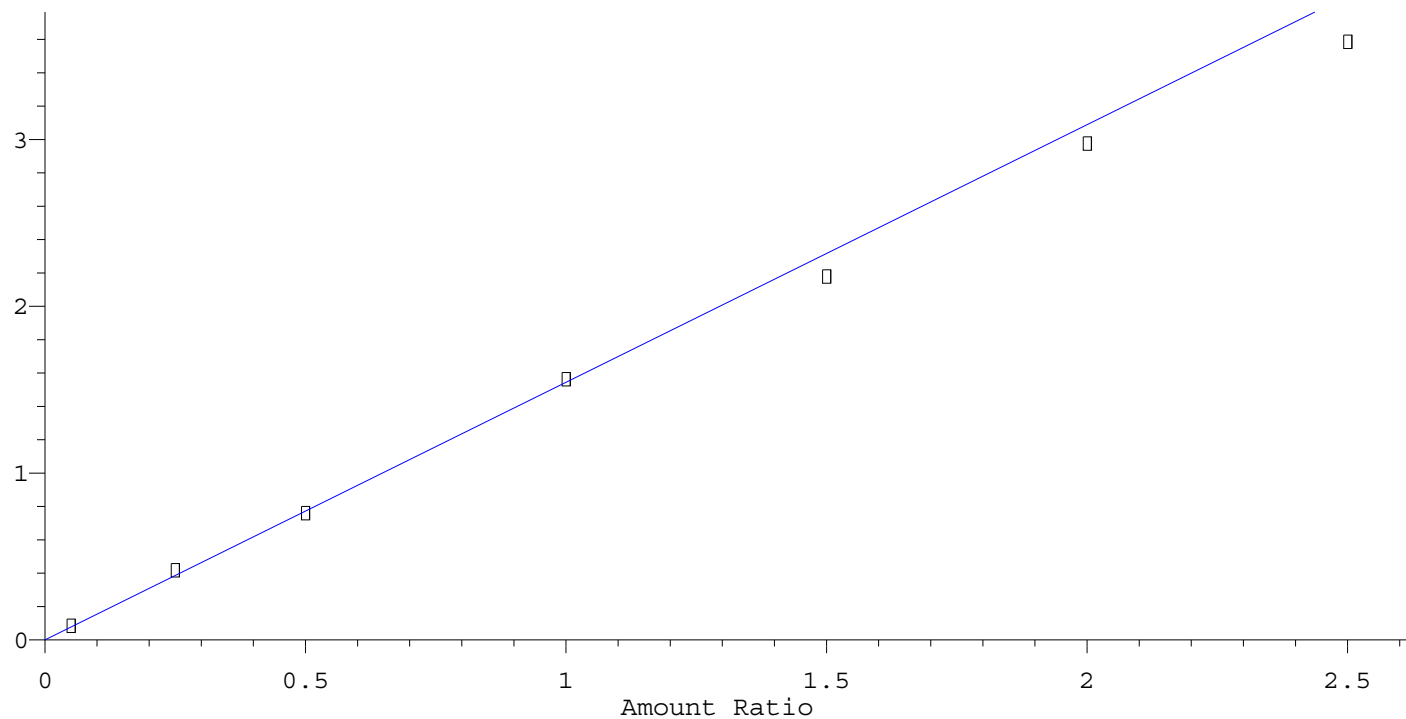


Resp Ratio = $2.25e+000 * Amt$
 RF Rel Std Dev = 5.5% Curve Fit: Avg RF

Calibration Plot Report

Dimethylphtha

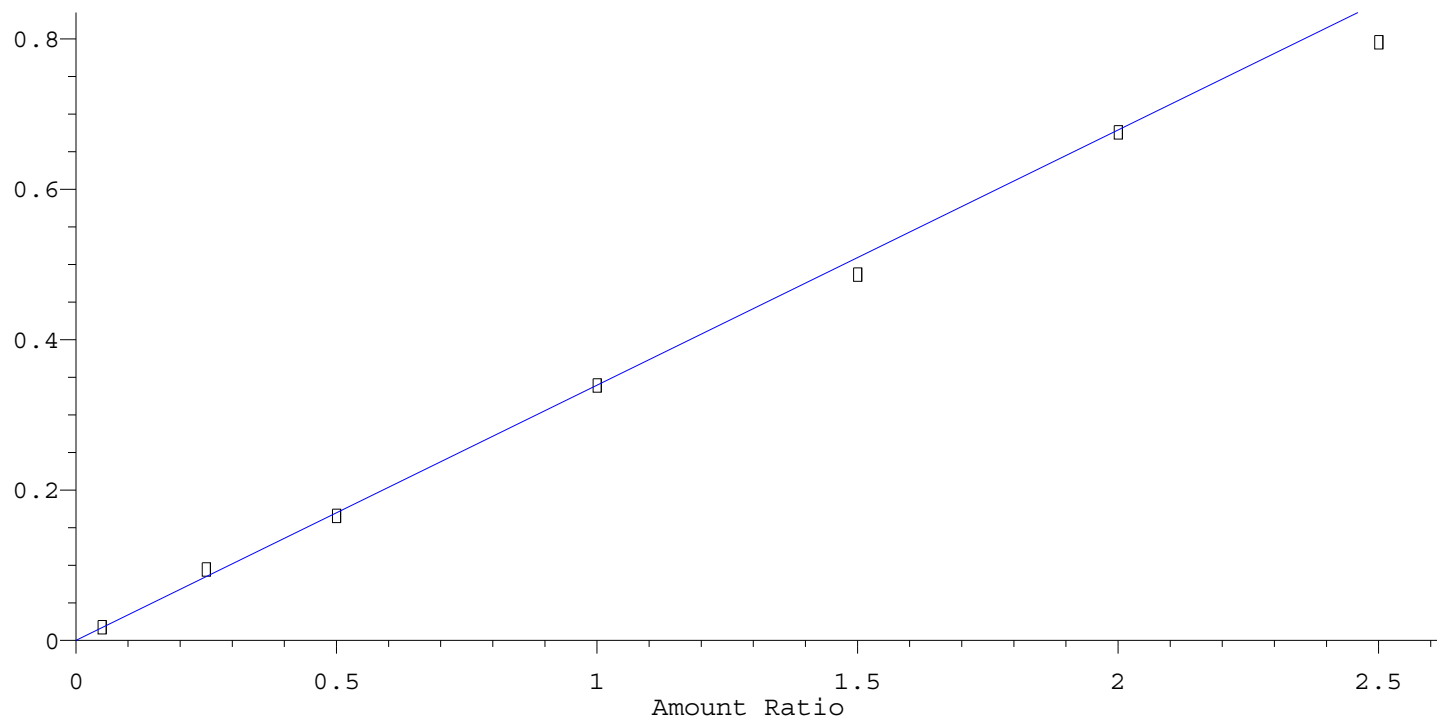
Response Ratio



Resp Ratio = 1.54e+000 * Amt
RF Rel Std Dev = 6.5% Curve Fit: Avg RF

26Dinitrotolu

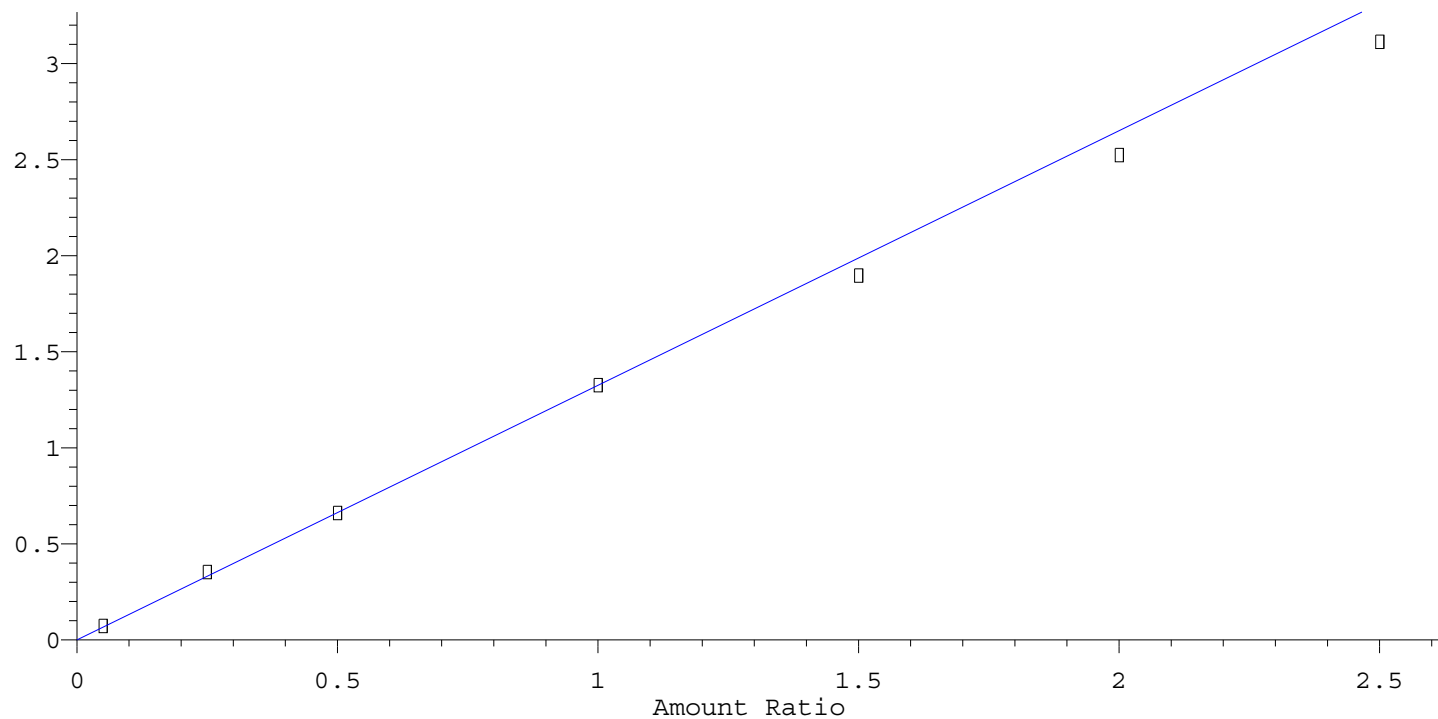
Response Ratio



Resp Ratio = 3.39e-001 * Amt
RF Rel Std Dev = 5.7% Curve Fit: Avg RF

Acenaphthene

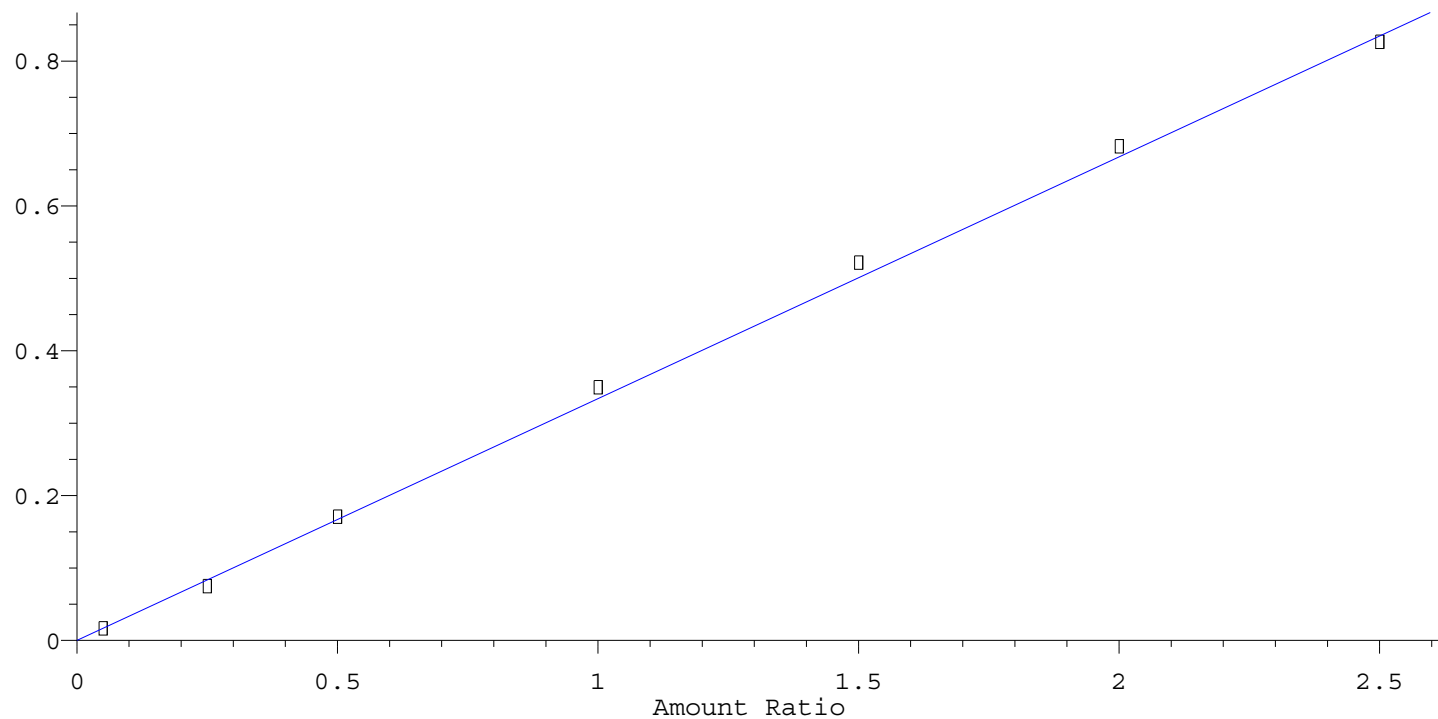
Response Ratio



Resp Ratio = $1.33\text{e}+000$ * Amt
RF Rel Std Dev = 5.9% Curve Fit: Avg RF

3Nitroaniline

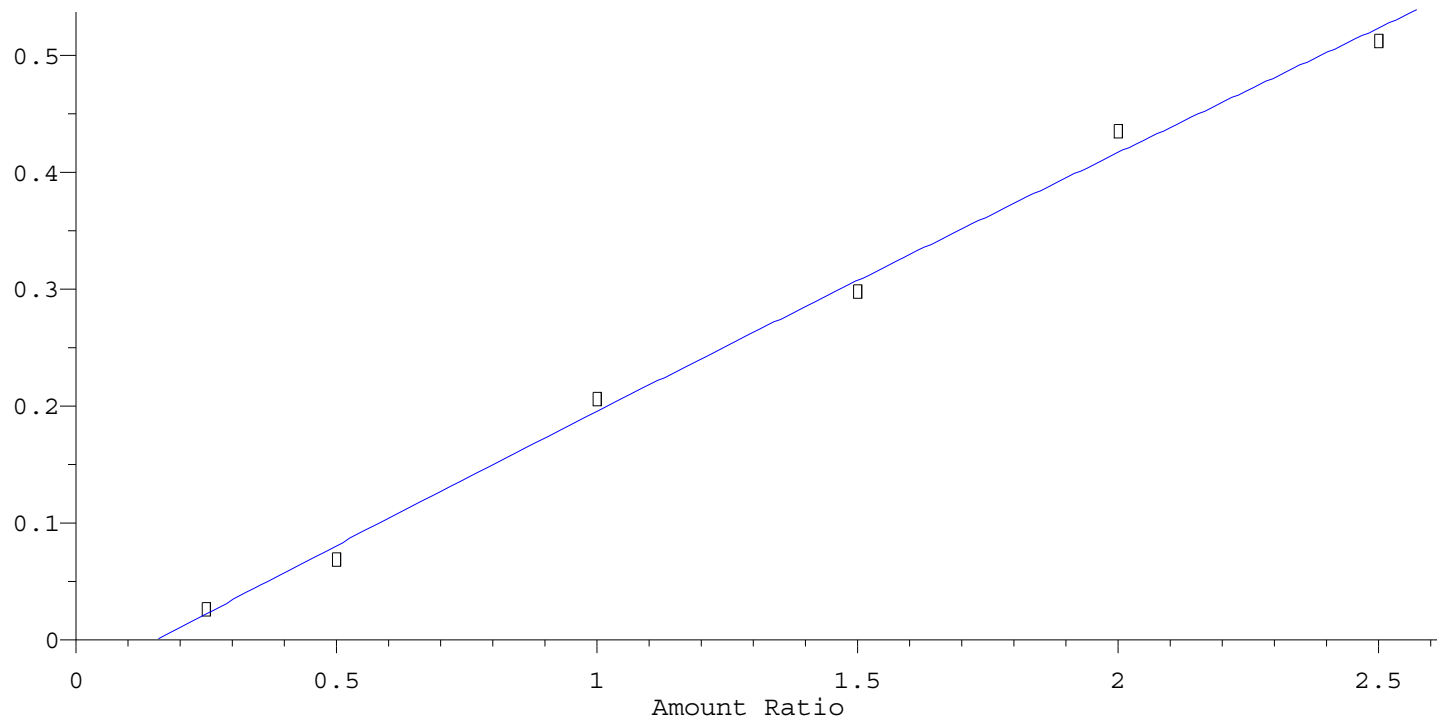
Response Ratio



Resp Ratio = $3.34\text{e}-001$ * Amt
RF Rel Std Dev = 5.1% Curve Fit: Avg RF

24Dinitphenol

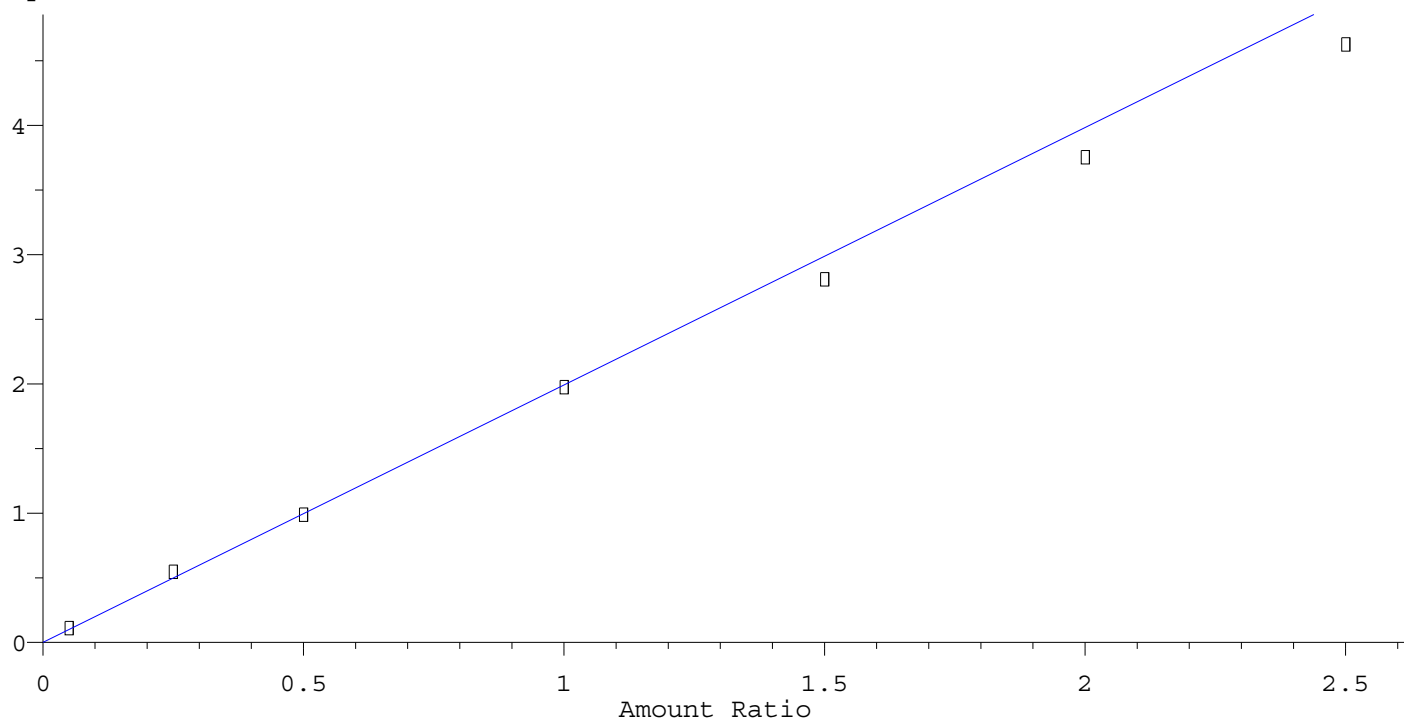
Response Ratio



$R = -5.32e-003 A^2 + 2.37e-001 A - 3.66e-002$
Coef of Det (r^2) = 0.996 Curve Fit: Quadratic w(1/a)

Dibenzofuran

Response Ratio

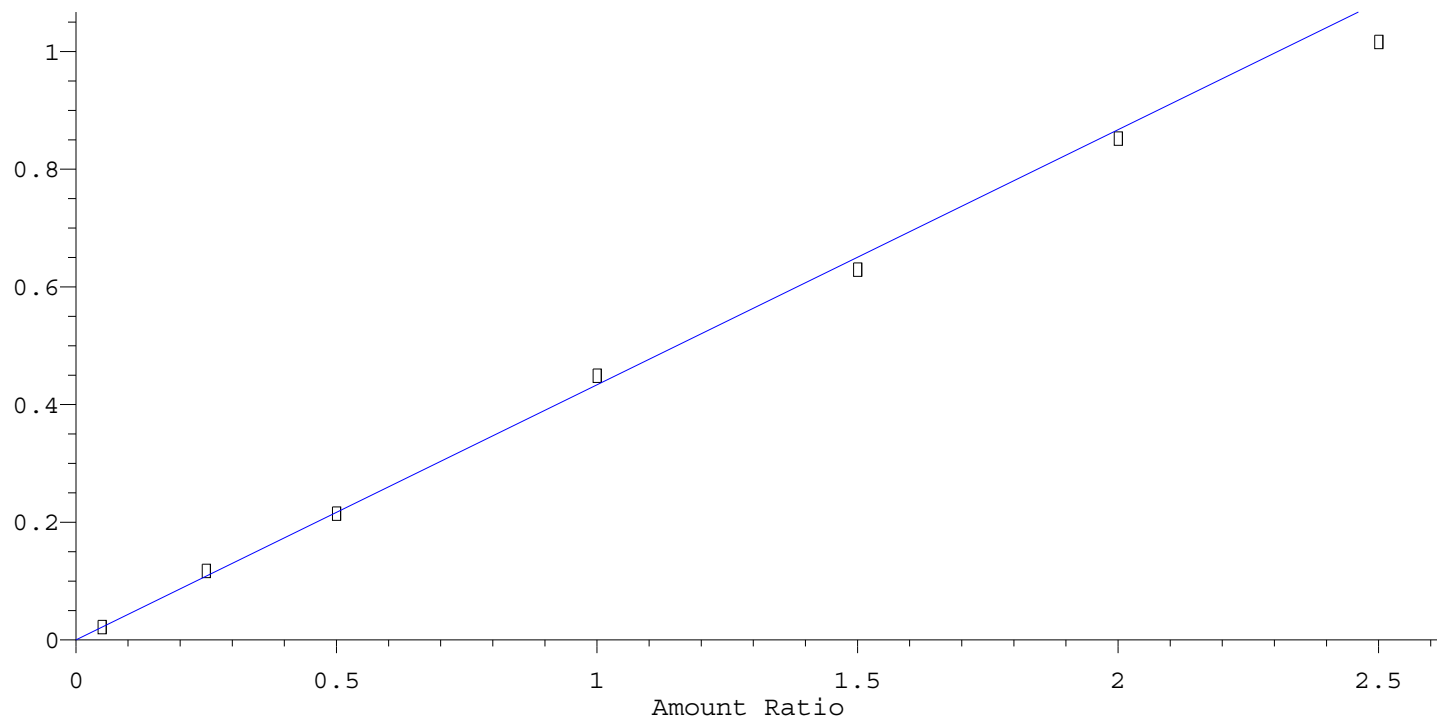


Resp Ratio = $1.99e+000 * \text{Amt}$
RF Rel Std Dev = 7.4% Curve Fit: Avg RF

Calibration Plot Report

24Dinitrotolu

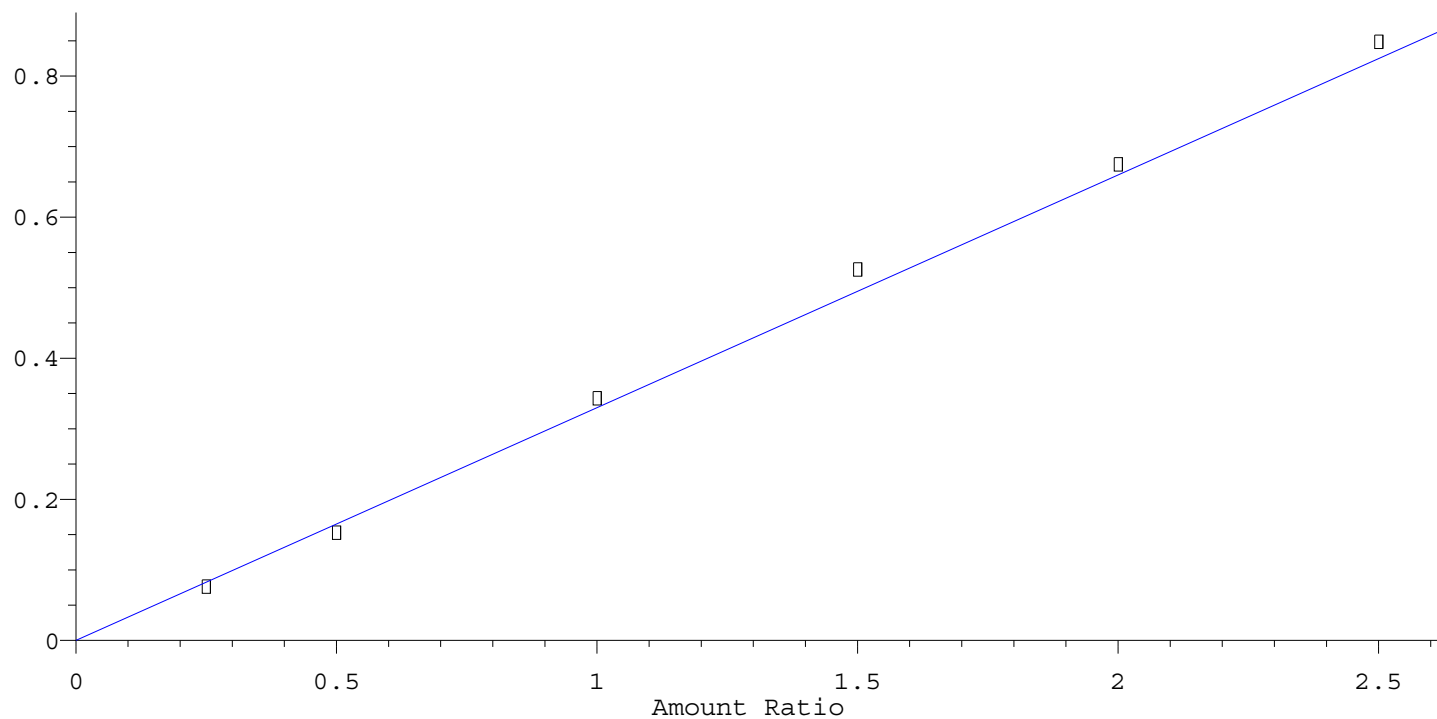
Response Ratio



Resp Ratio = 4.33×10^{-1} * Amt
RF Rel Std Dev = 4.7% Curve Fit: Avg RF

4-Nitrophenol

Response Ratio

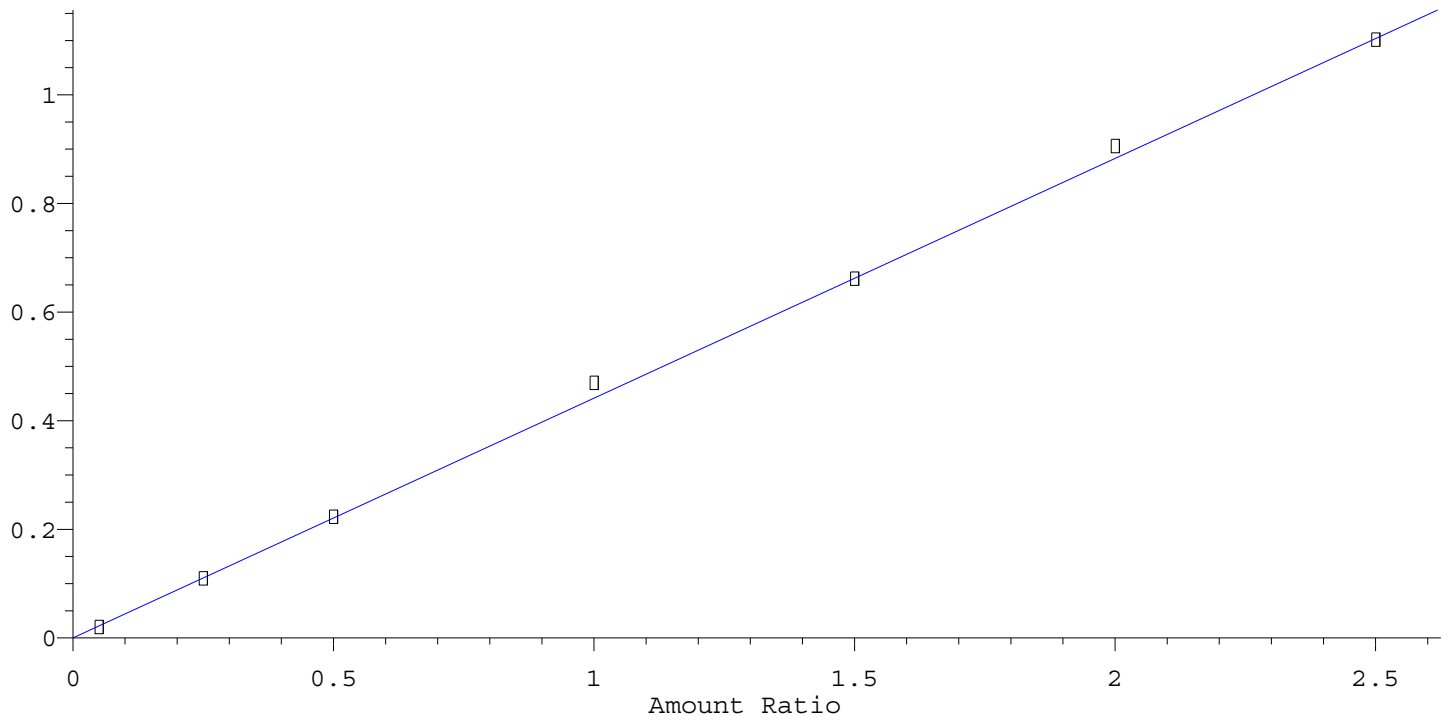


Resp Ratio = 3.30×10^{-1} * Amt
RF Rel Std Dev = 6.0% Curve Fit: Avg RF

Calibration Plot Report

2,3,5,6-Tetrachlorop

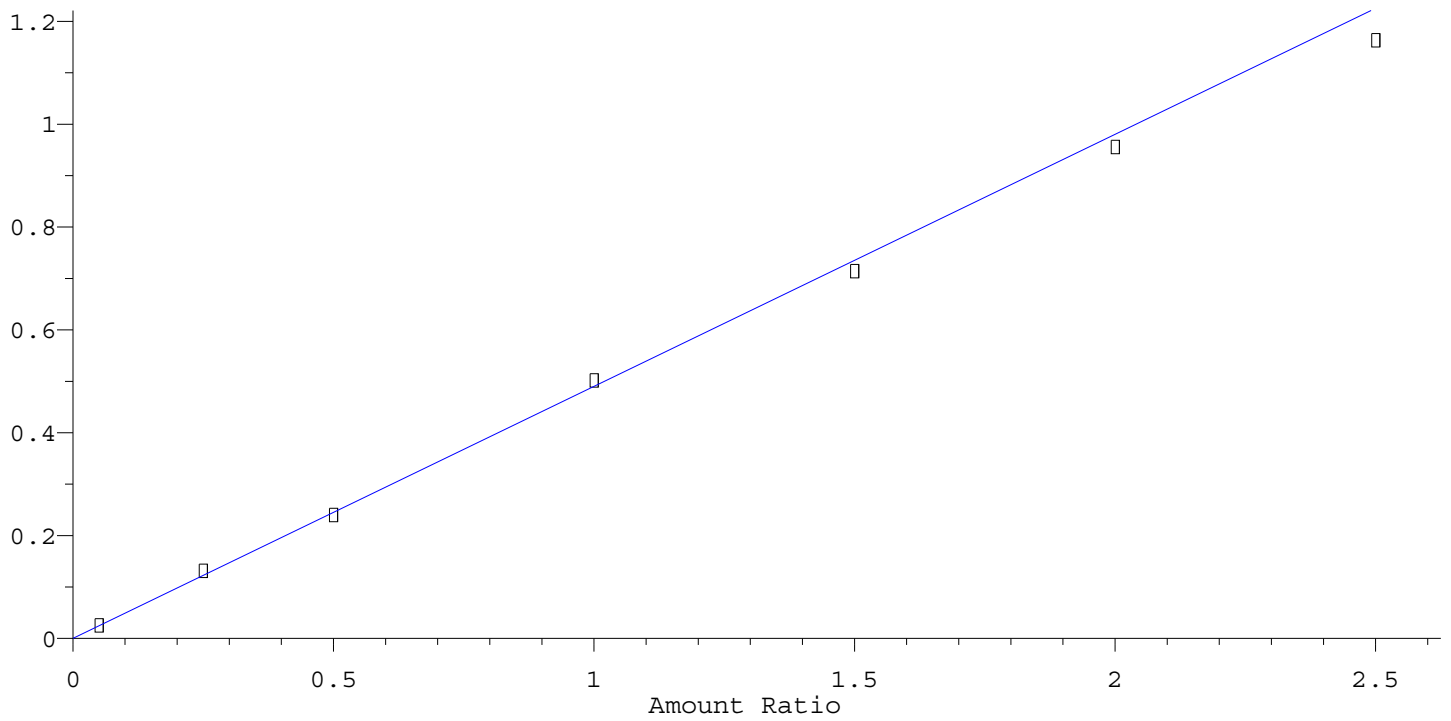
Response Ratio



Resp Ratio = 4.42×10^{-1} * Amt
RF Rel Std Dev = 4.6% Curve Fit: Avg RF

2,3,4,6-Tetrachlorop

Response Ratio

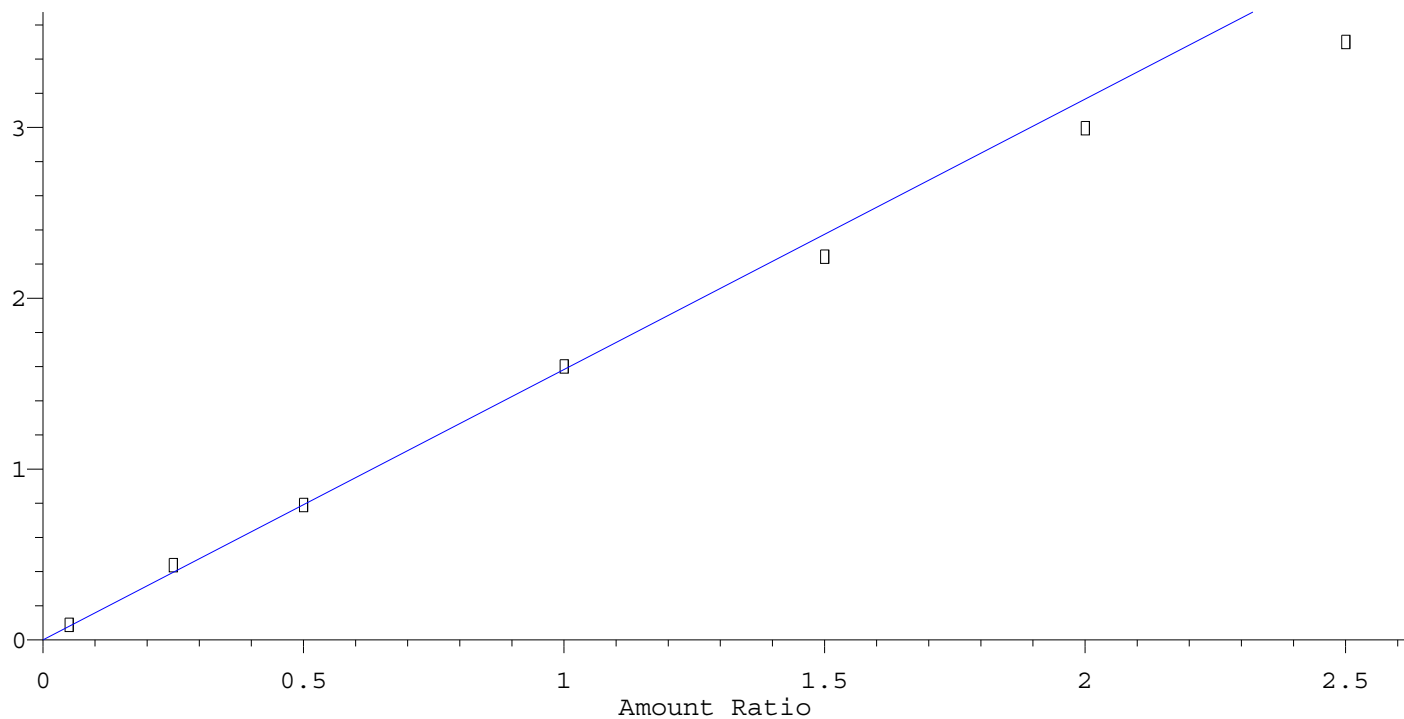


Resp Ratio = 4.90×10^{-1} * Amt
RF Rel Std Dev = 4.3% Curve Fit: Avg RF

Calibration Plot Report

Fluorene

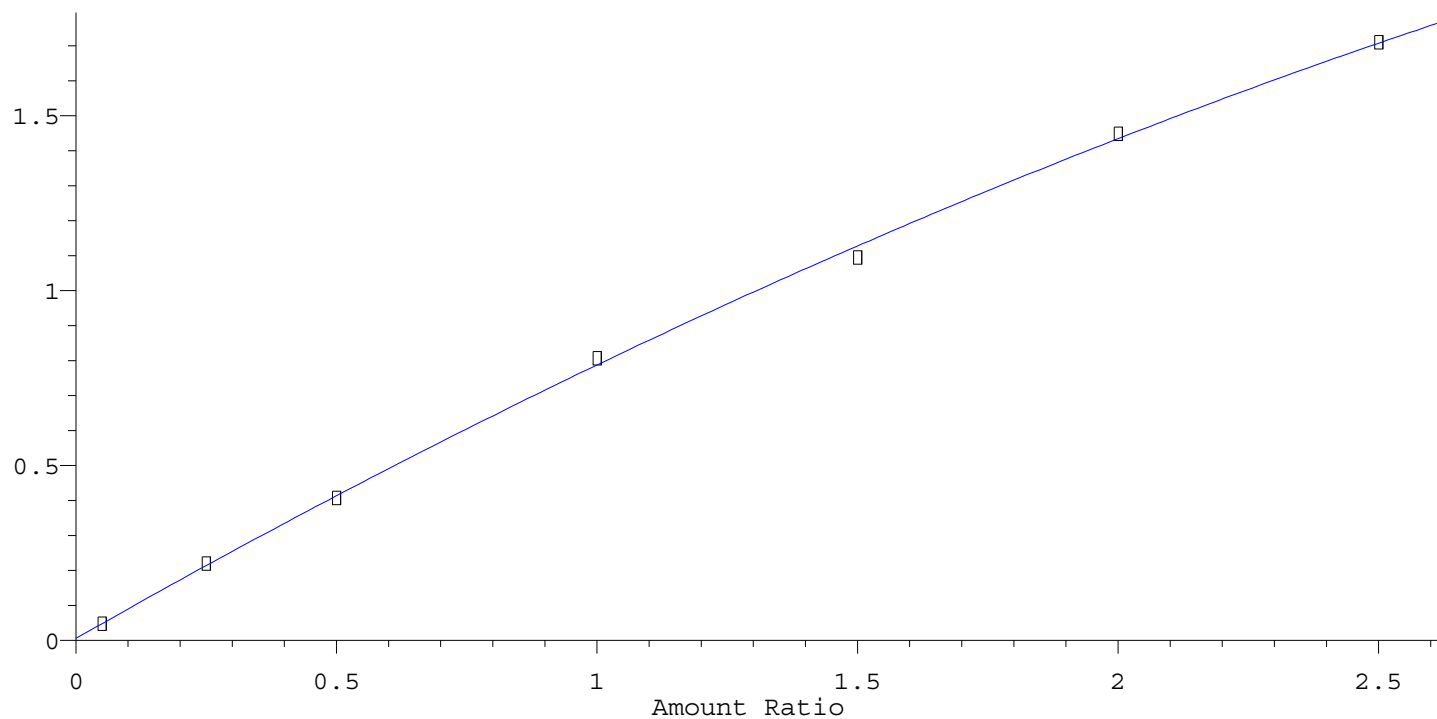
Response Ratio



Resp Ratio = 1.58e+000 * Amt
RF Rel Std Dev = 8.5% Curve Fit: Avg RF

4Clphlphlethr

Response Ratio

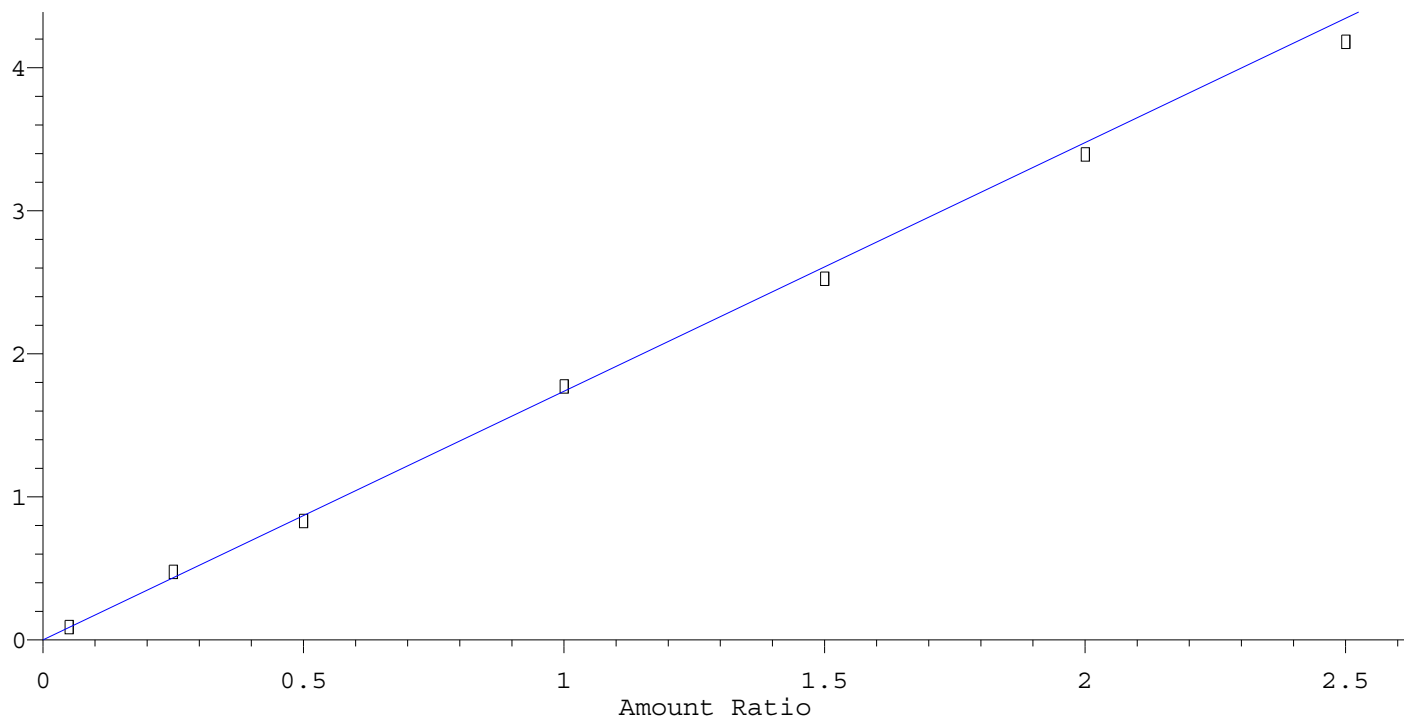


$R = -6.73e-002 A^2 + 8.49e-001 A + 5.86e-003$
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

Diethylphthal

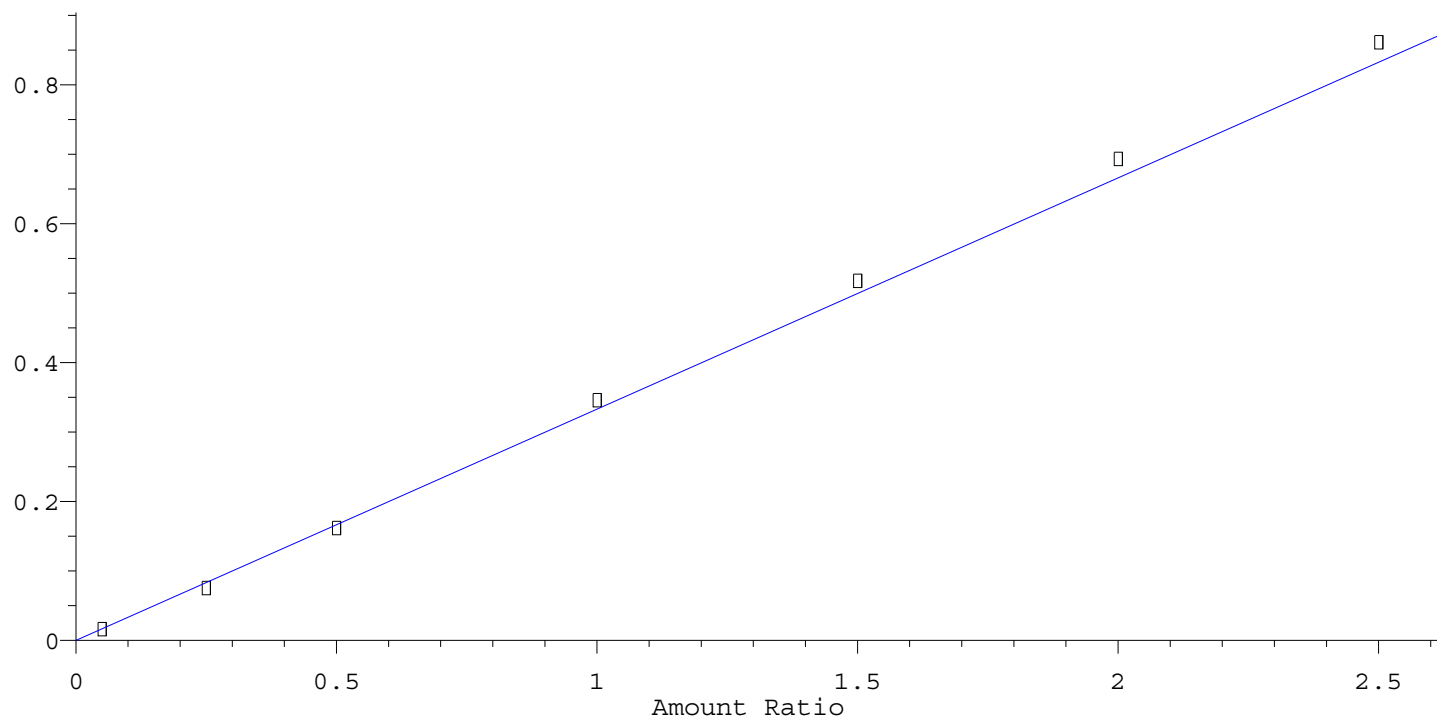
Response Ratio



Resp Ratio = 1.74e+000 * Amt
RF Rel Std Dev = 4.9% Curve Fit: Avg RF

4Nitroaniline

Response Ratio

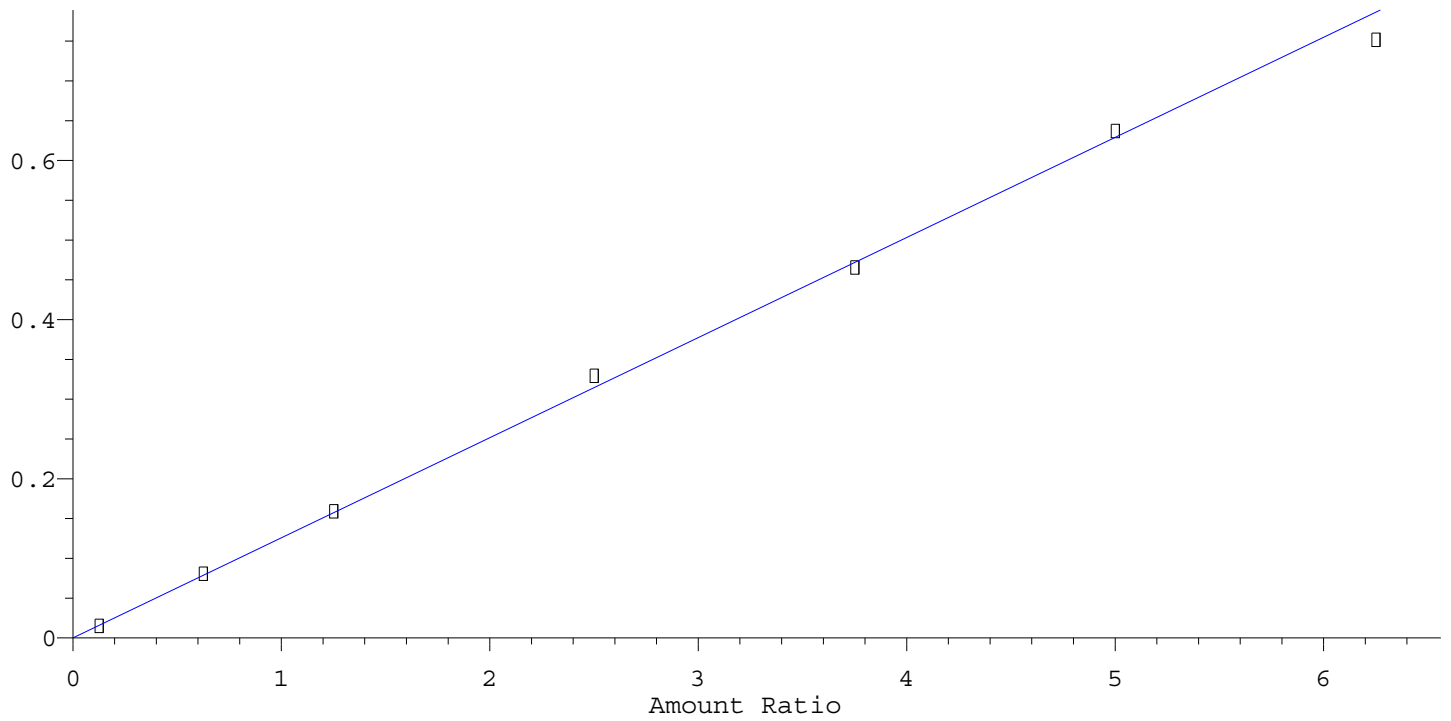


Resp Ratio = 3.33e-001 * Amt
RF Rel Std Dev = 5.2% Curve Fit: Avg RF

Calibration Plot Report

SURR246Tribphenl

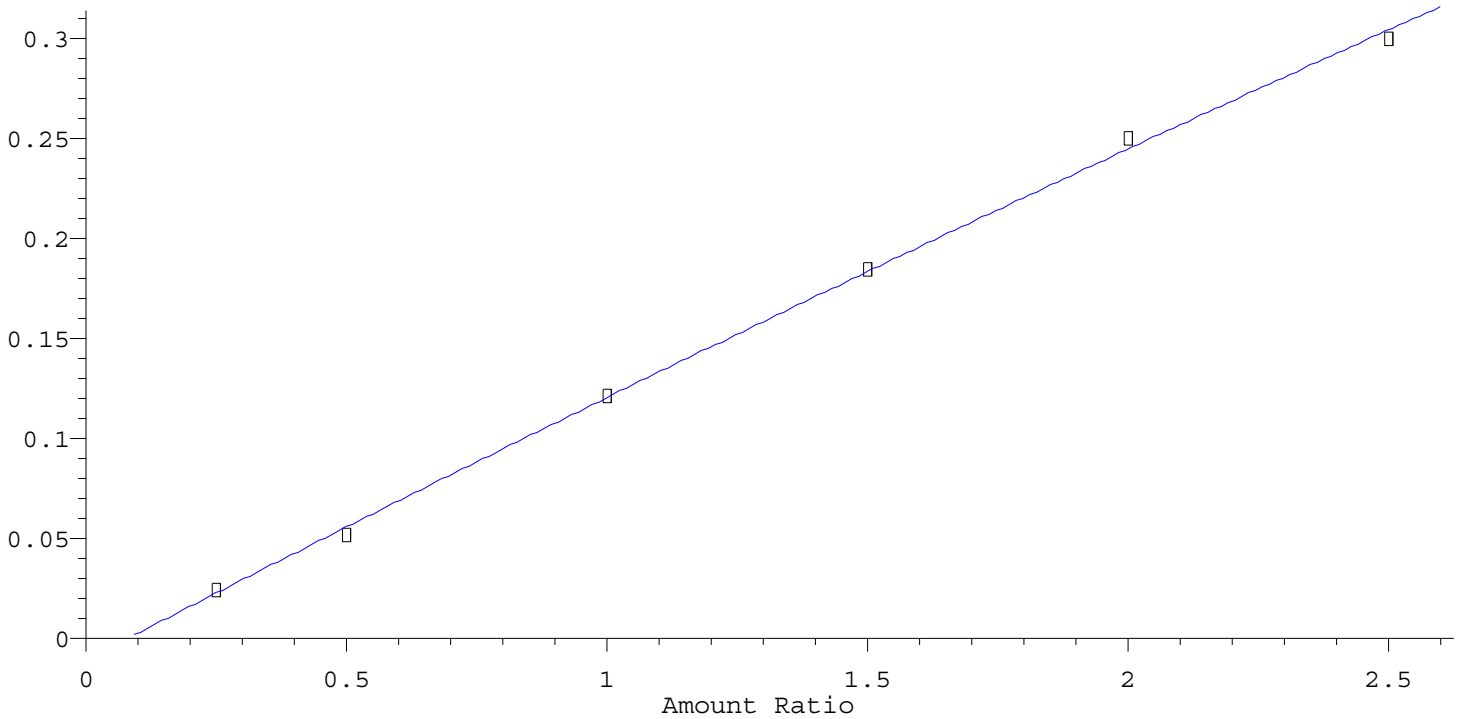
Response Ratio



Resp Ratio = $1.26 \times 10^{-1} \times \text{Amt}$
 RF Rel Std Dev = 3.3% Curve Fit: Avg RF

46Dinit2mylph

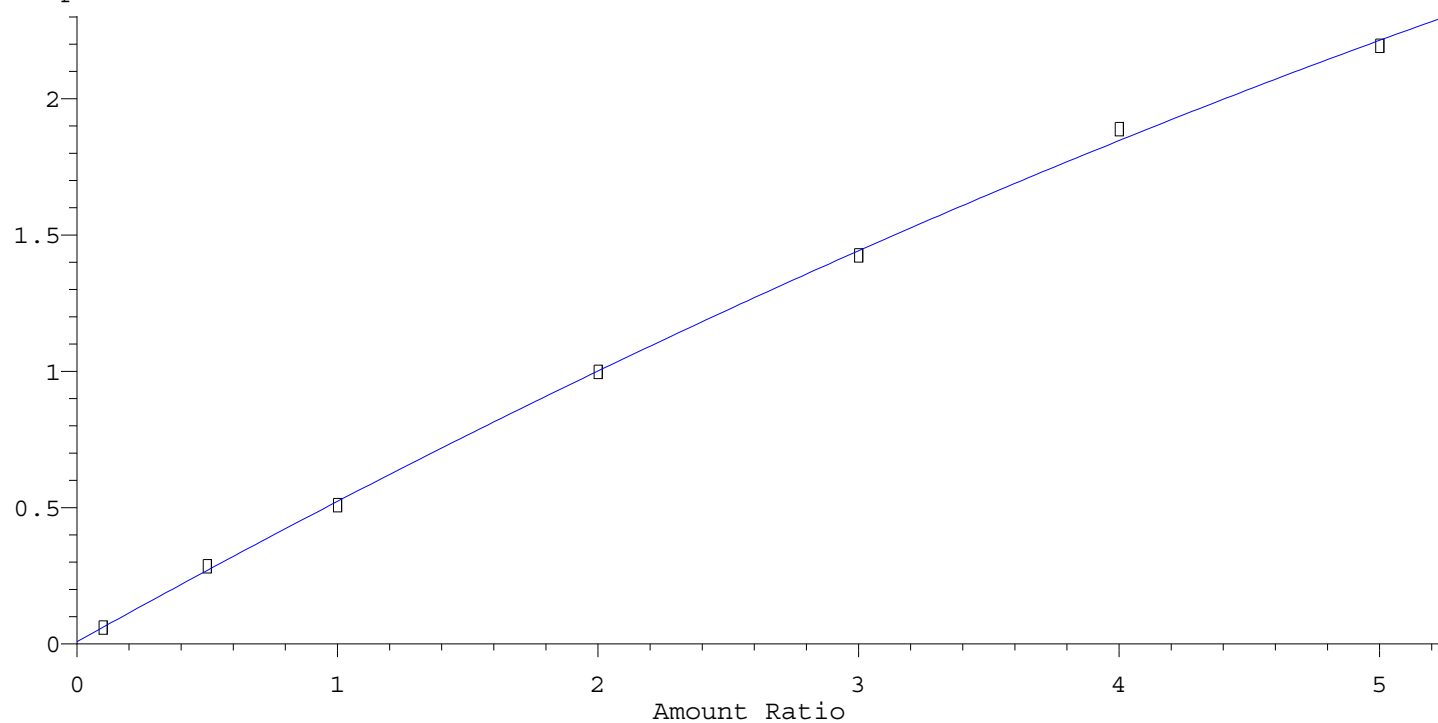
Response Ratio



$R = -3.47 \times 10^{-3} A^2 + 1.35 \times 10^{-1} A - 1.08 \times 10^{-2}$
 Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Ntrsdiphlam&Diphlam

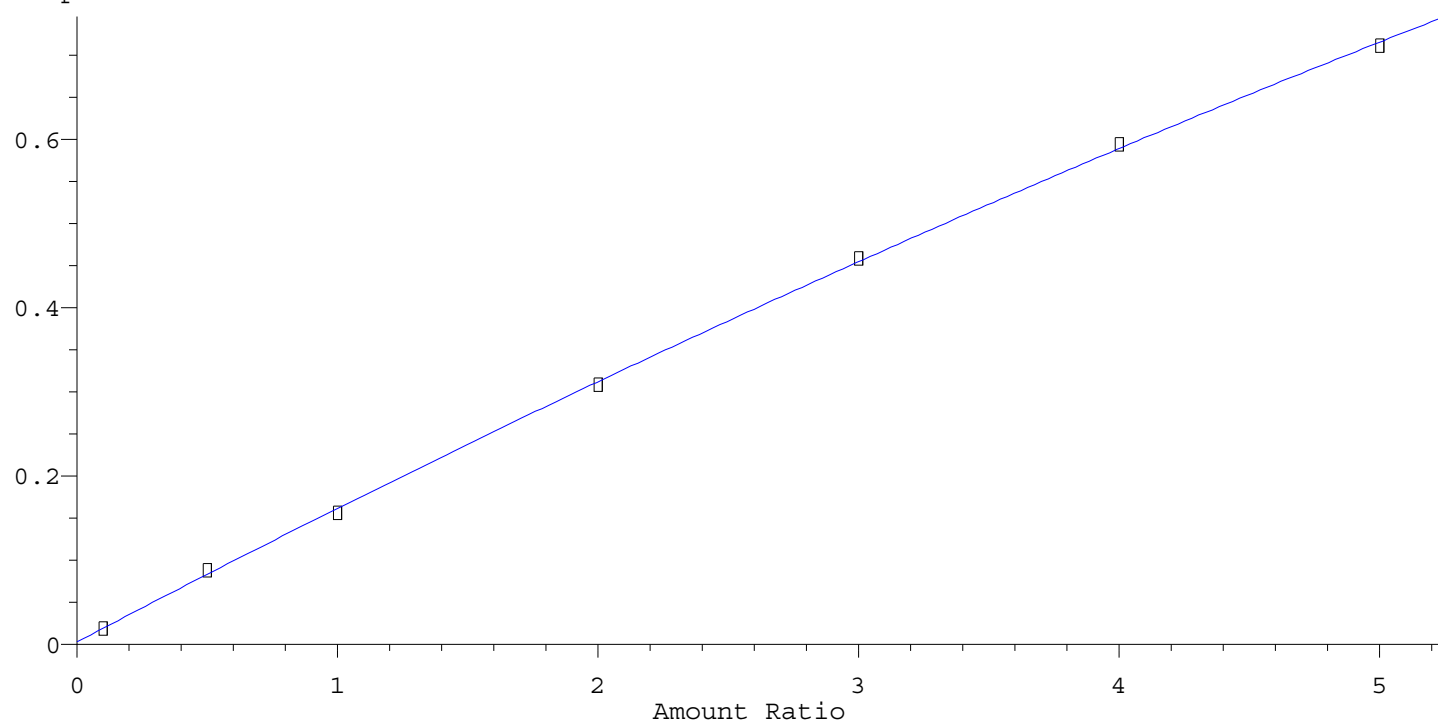
Response Ratio



$R = -1.84e-002 A^2 + 5.33e-001 A + 7.88e-003$
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)

Azobenz&12Diphlyhd

Response Ratio

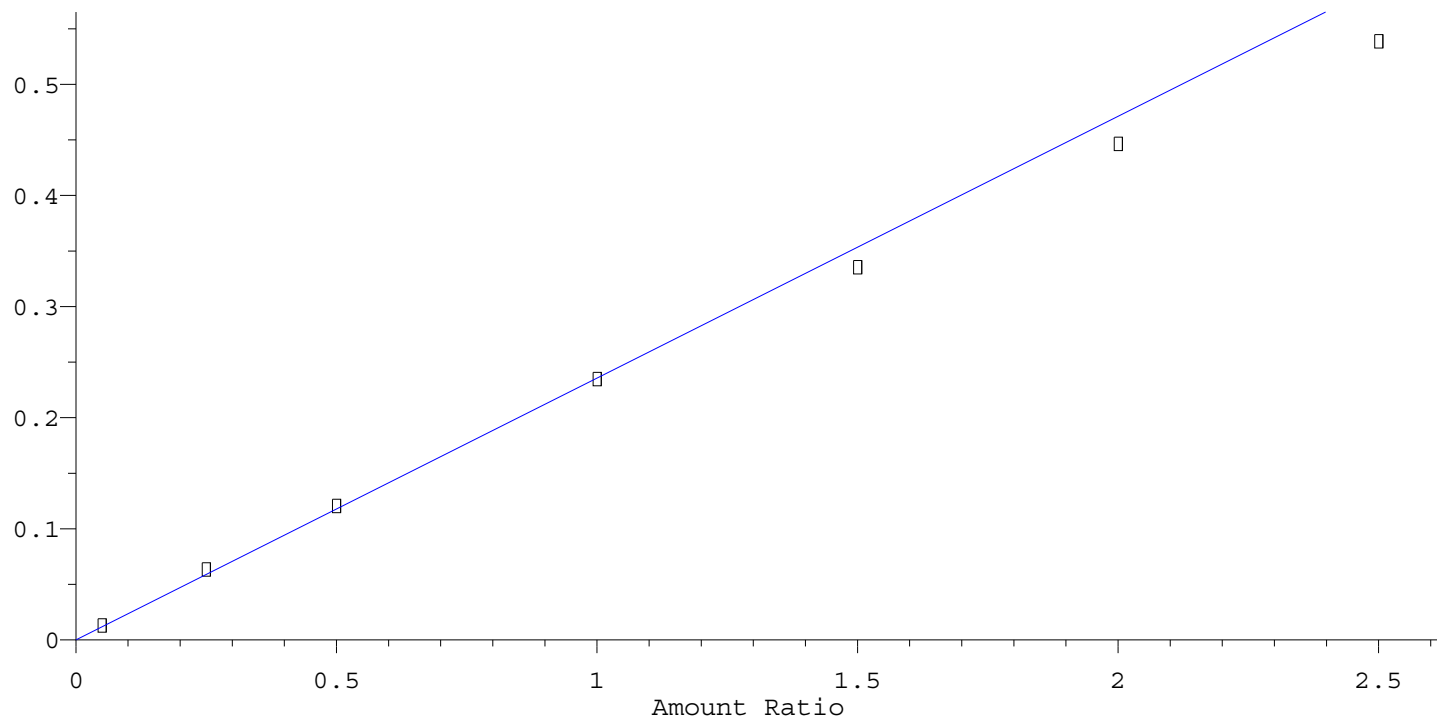


$R = -4.01e-003 A^2 + 1.63e-001 A + 2.97e-003$
Coef of Det (r^2) = 1.000 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

4Brphlphlethr

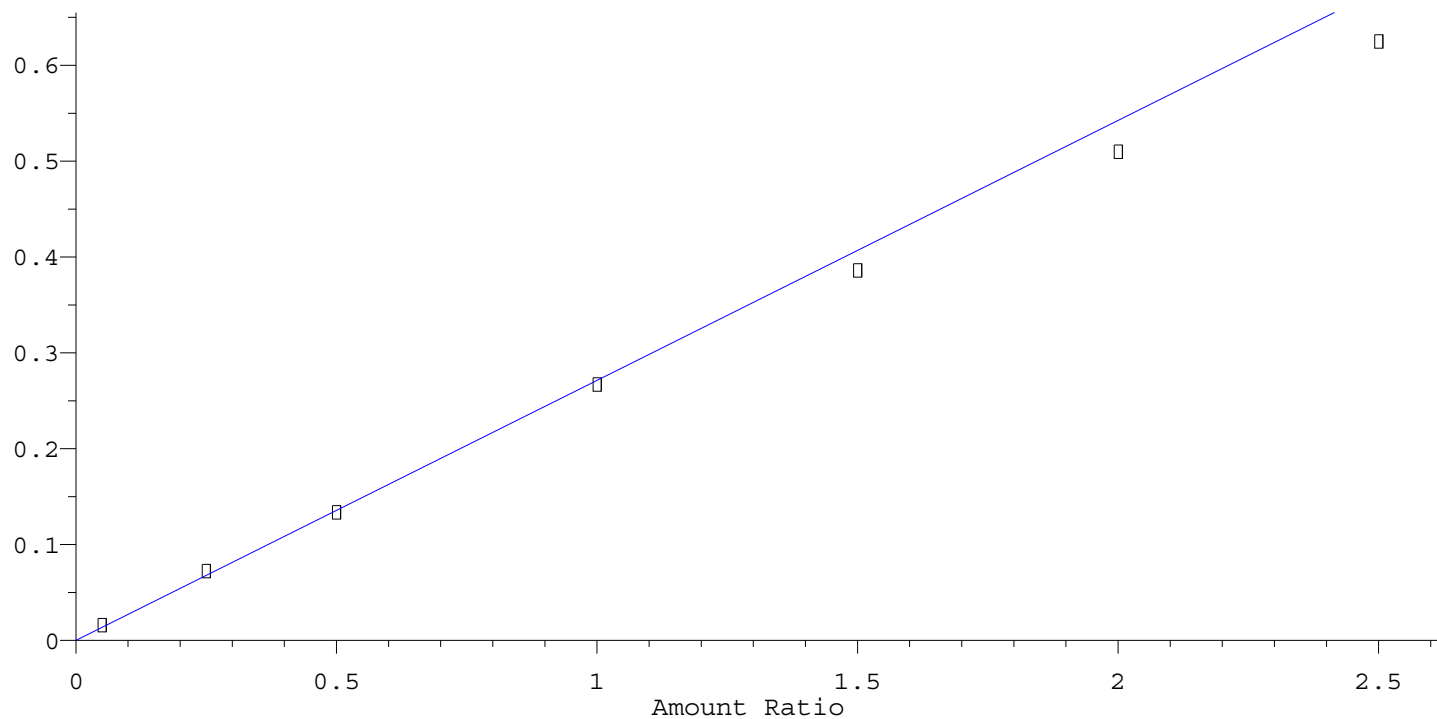
Response Ratio



Resp Ratio = 2.36e-001 * Amt
RF Rel Std Dev = 7.0% Curve Fit: Avg RF

Hexaclbenzene

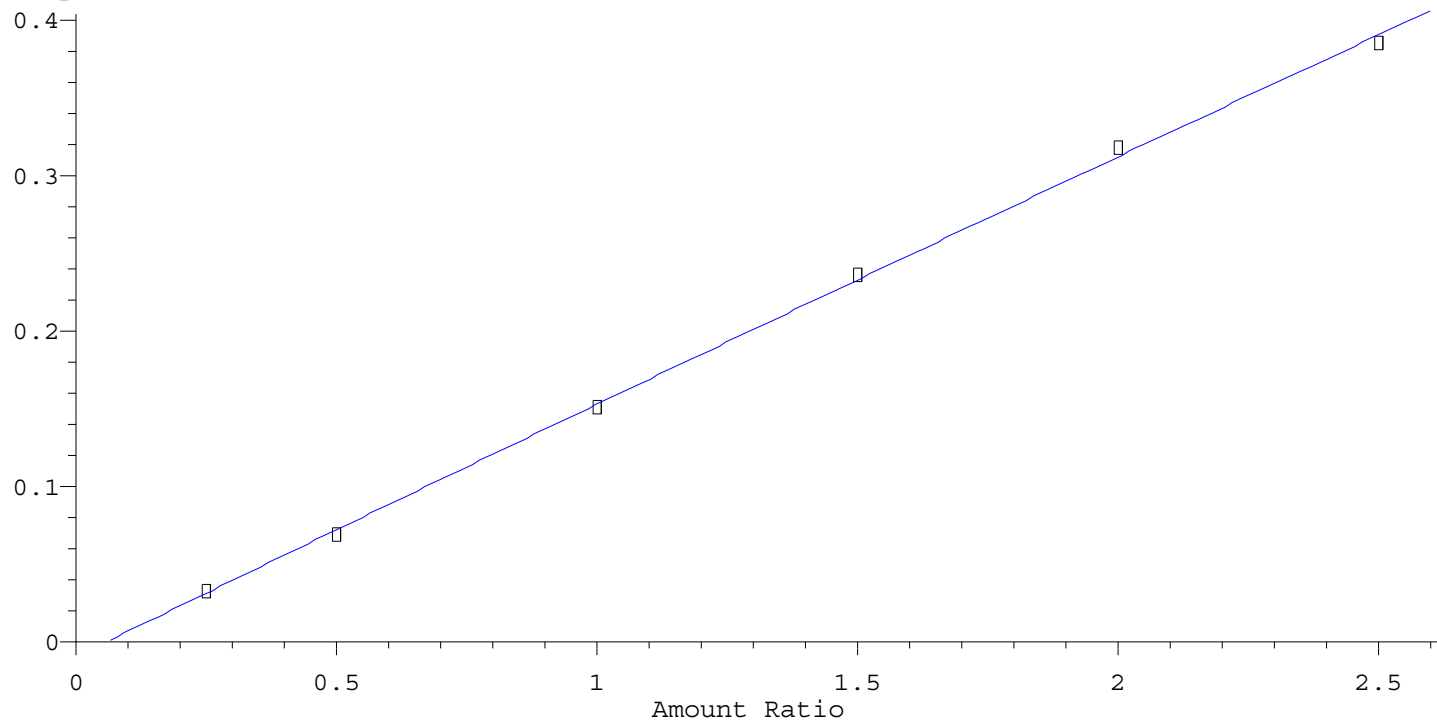
Response Ratio



Resp Ratio = 2.72e-001 * Amt
RF Rel Std Dev = 8.6% Curve Fit: Avg RF

Pentacclphenol

Response Ratio

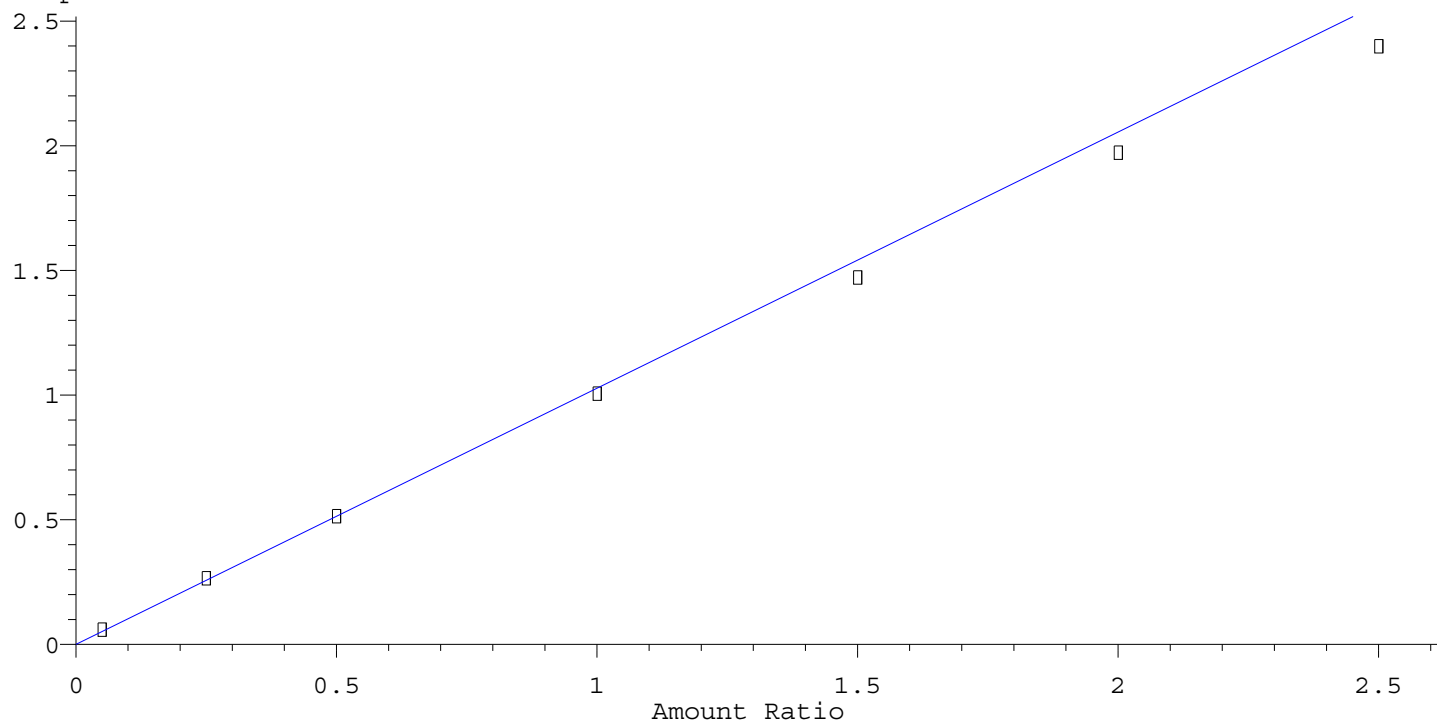


$$R = -1.60e-003 A^2 + 1.64e-001 A - 9.50e-003$$

Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Phenanthrene

Response Ratio

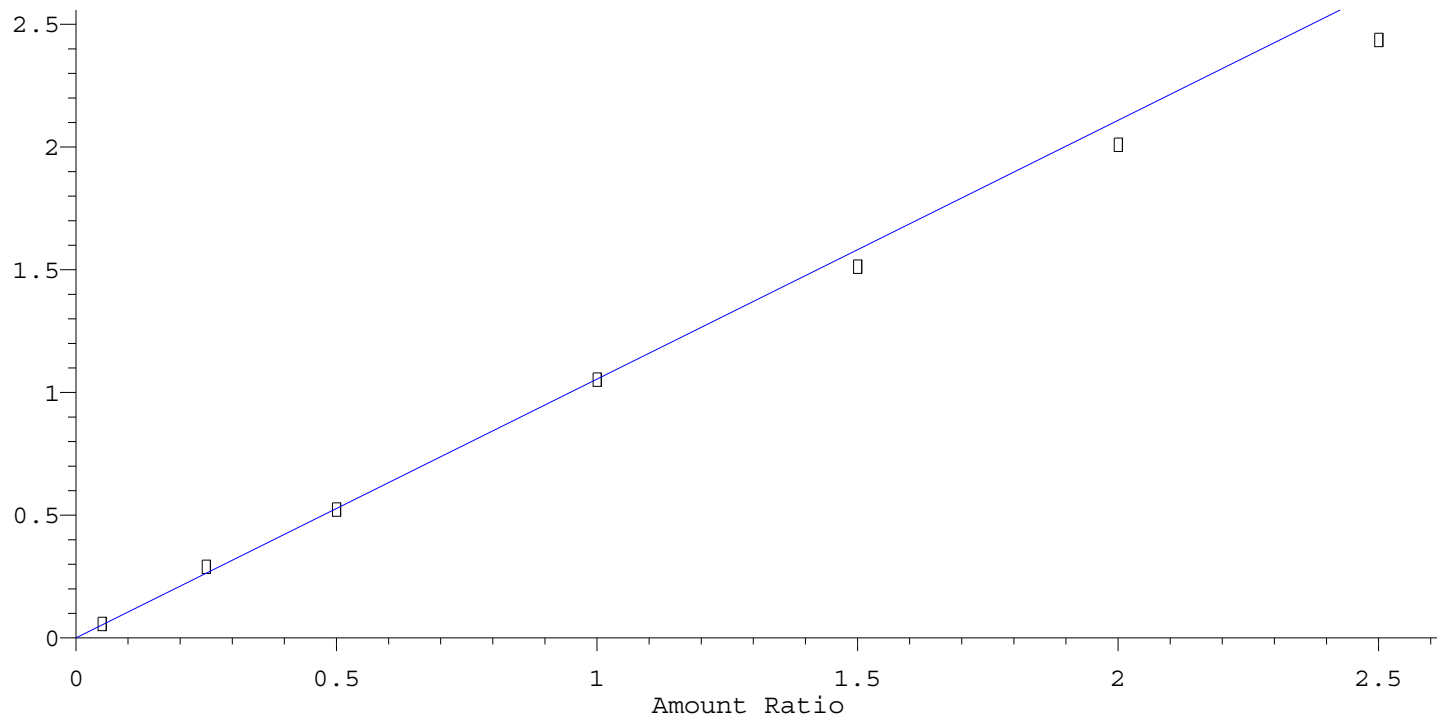


$$\text{Resp Ratio} = 1.03e+000 * \text{Amt}$$

RF Rel Std Dev = 7.1% Curve Fit: Avg RF

Anthracene

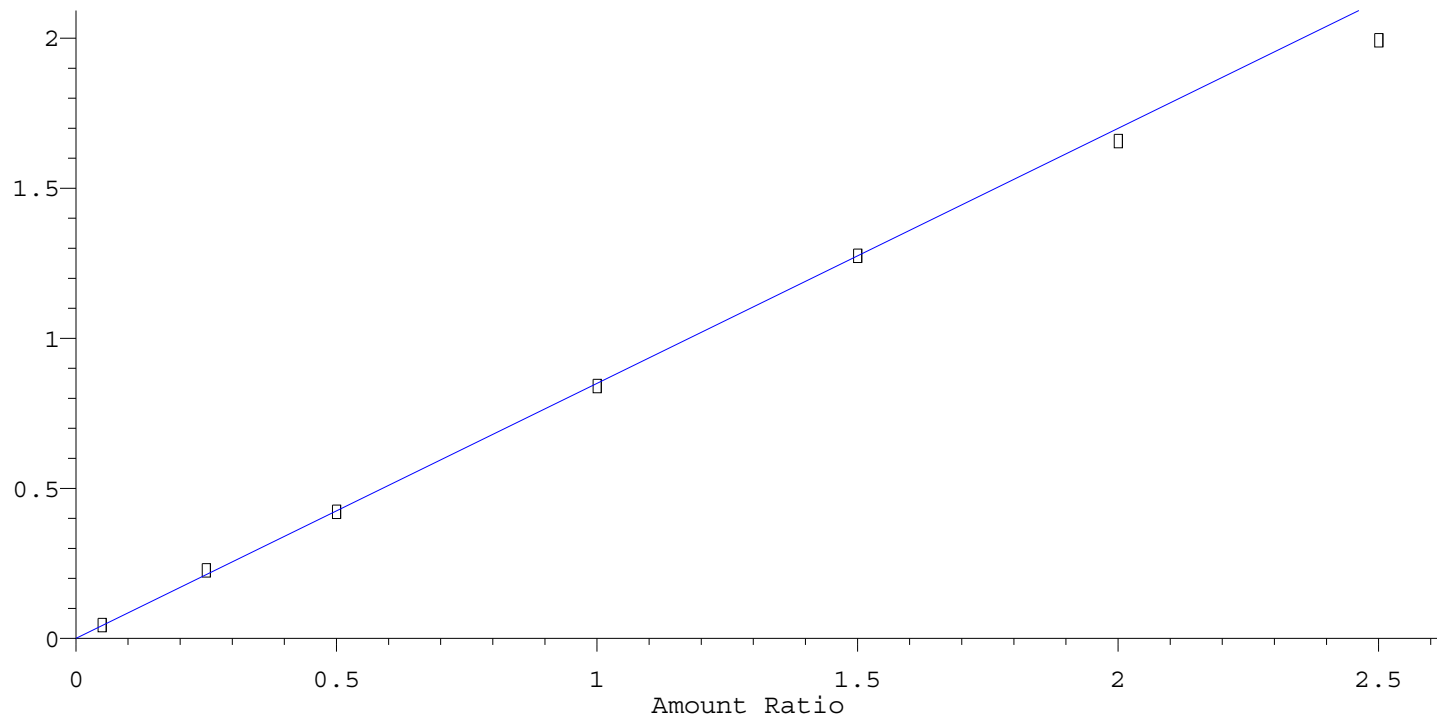
Response Ratio



Resp Ratio = 1.05e+000 * Amt
RF Rel Std Dev = 6.6% Curve Fit: Avg RF

Carbazole

Response Ratio

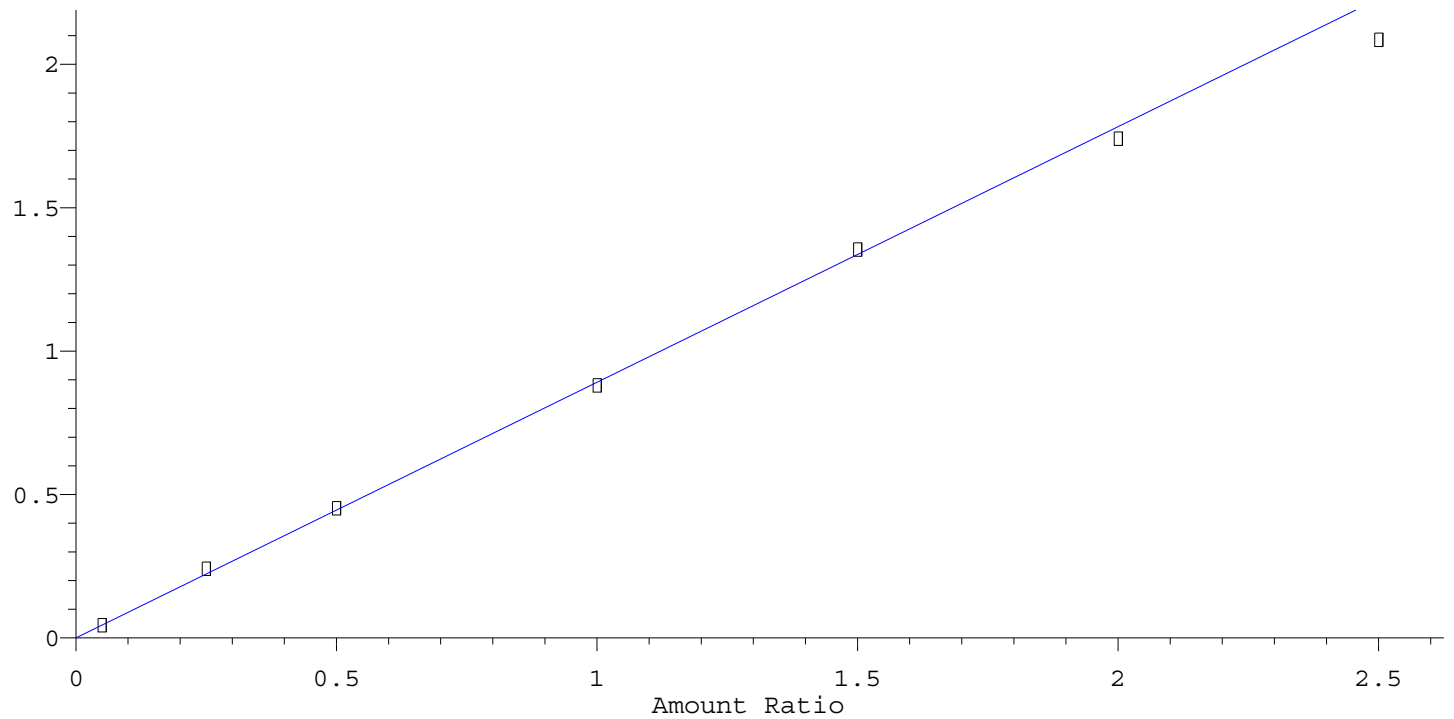


Resp Ratio = 8.50e-001 * Amt
RF Rel Std Dev = 4.2% Curve Fit: Avg RF

Calibration Plot Report

Dinbtylphthal

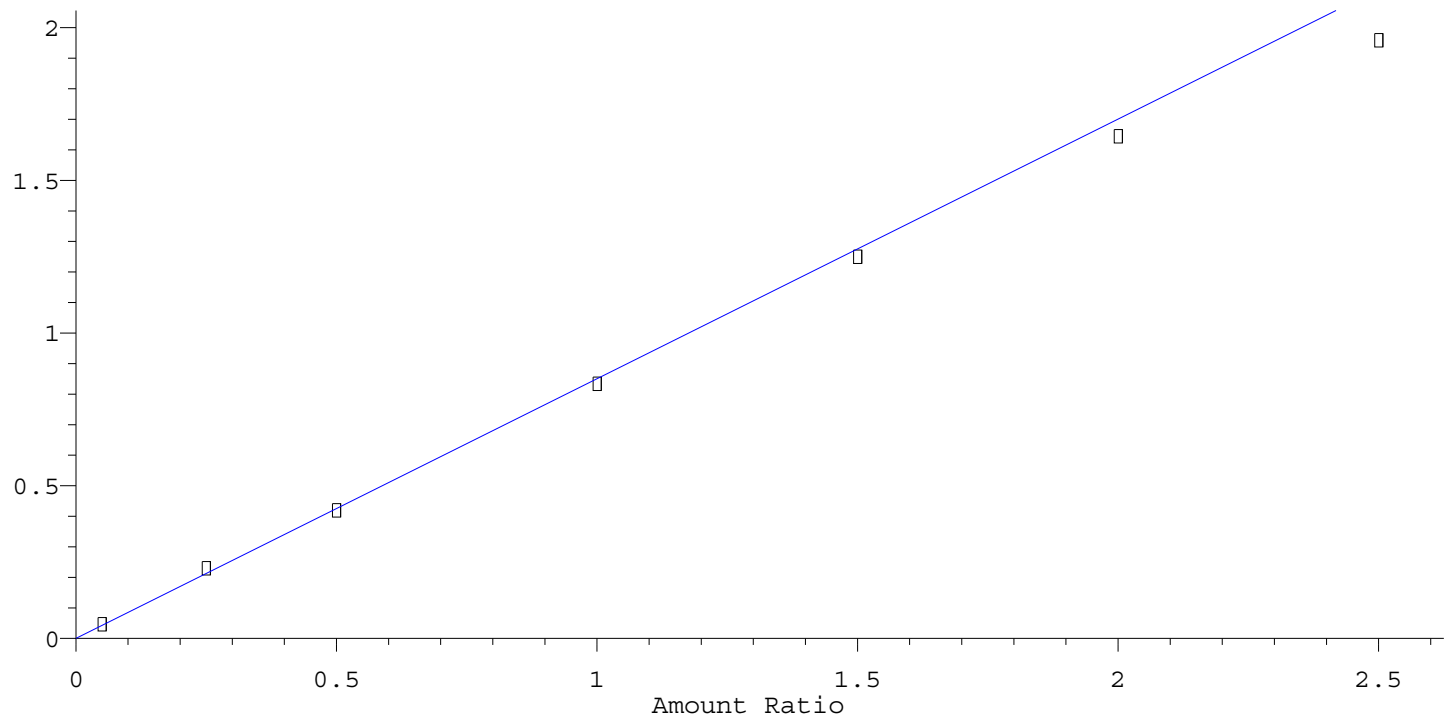
Response Ratio



Resp Ratio = 8.92×10^{-1} * Amt
RF Rel Std Dev = 4.4% Curve Fit: Avg RF

Fluoranthene

Response Ratio

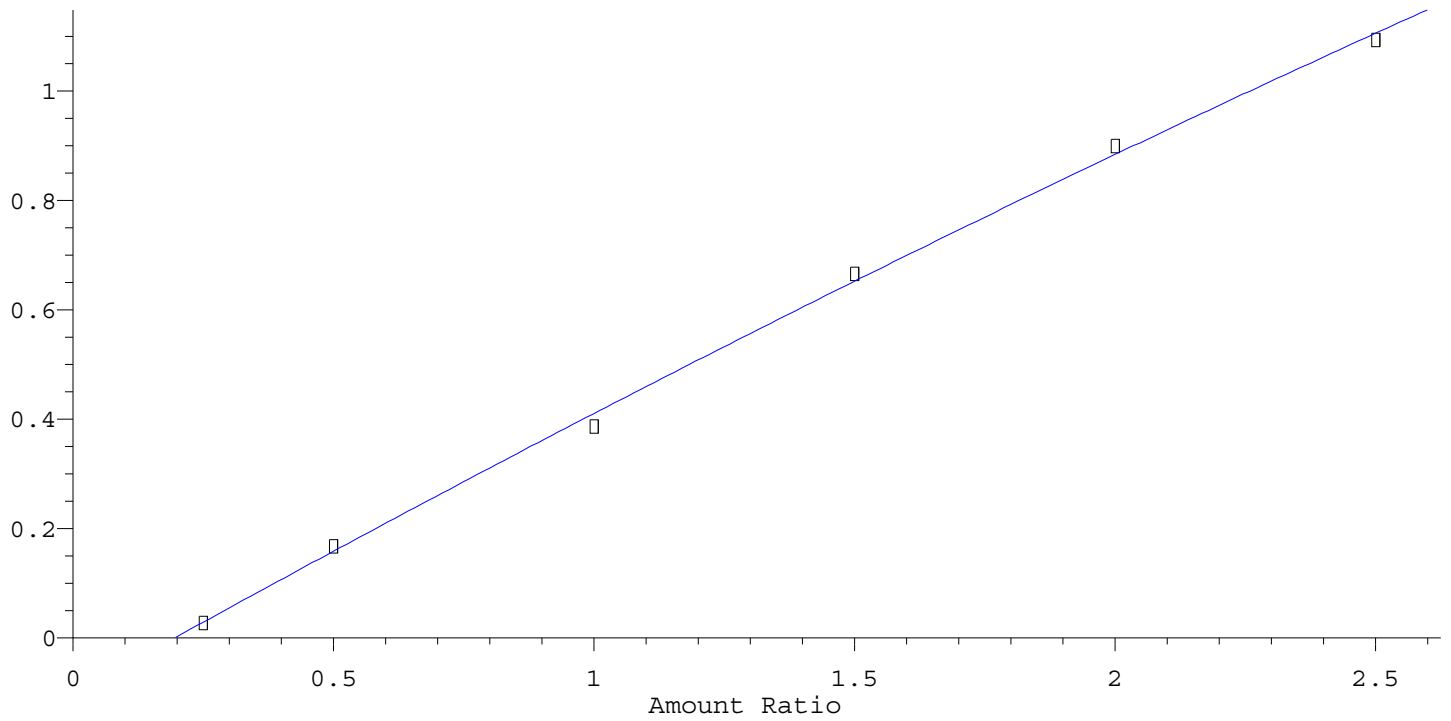


Resp Ratio = 8.51×10^{-1} * Amt
RF Rel Std Dev = 6.1% Curve Fit: Avg RF

Calibration Plot Report

Benzidine

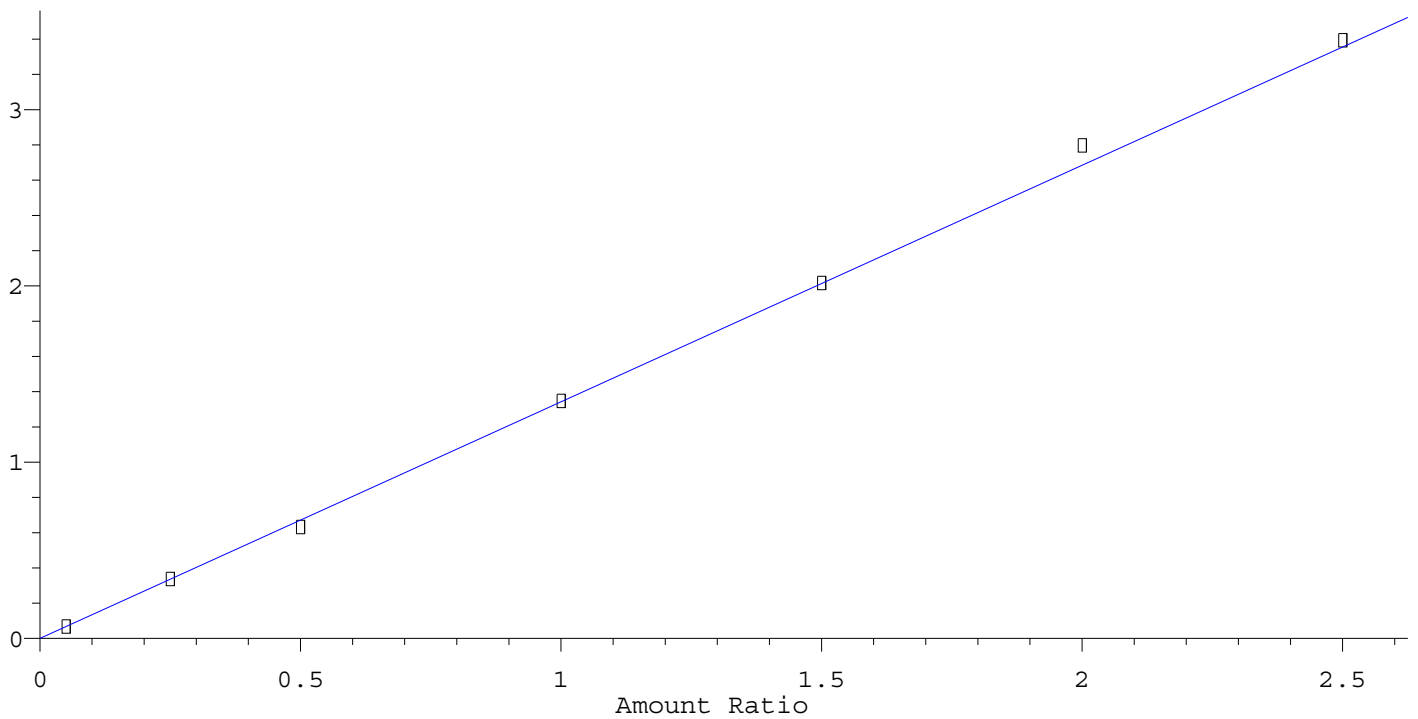
Response Ratio



$R = -2.01e-002 A^2 + 5.34e-001 A - 1.04e-001$
 Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Pyrene

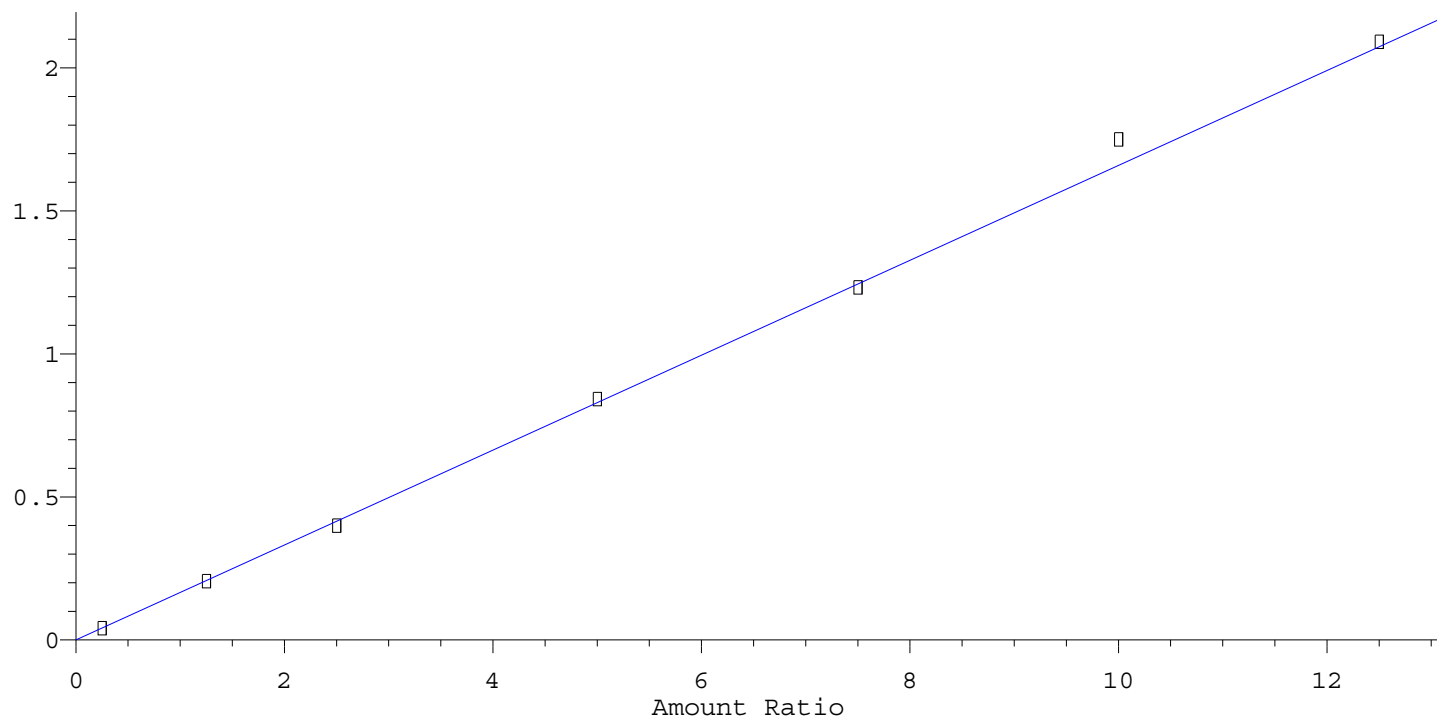
Response Ratio



Resp Ratio = $1.34e+000 * Amt$
 RF Rel Std Dev = 3.0% Curve Fit: Avg RF

SURRTerphenyl-d14

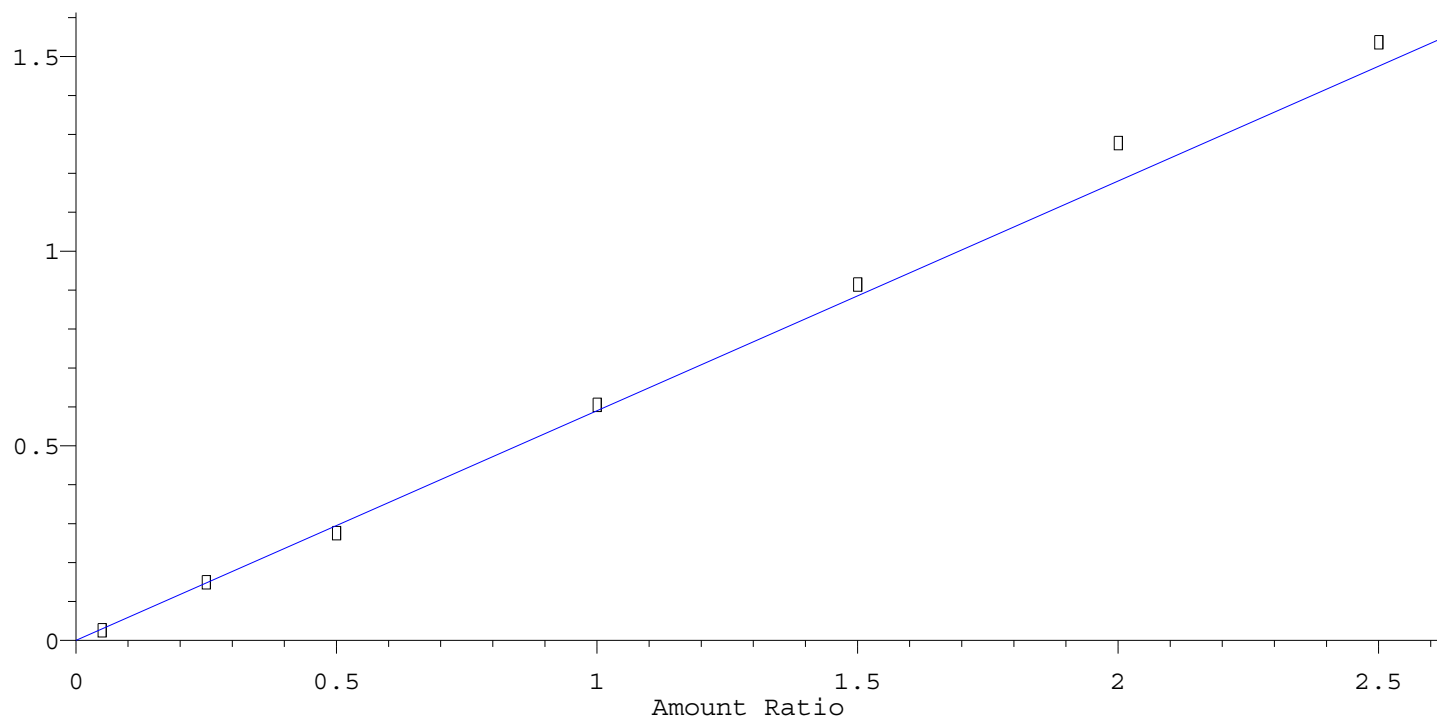
Response Ratio



Resp Ratio = 1.66e-001 * Amt
RF Rel Std Dev = 2.9% Curve Fit: Avg RF

Btylbzylphth

Response Ratio

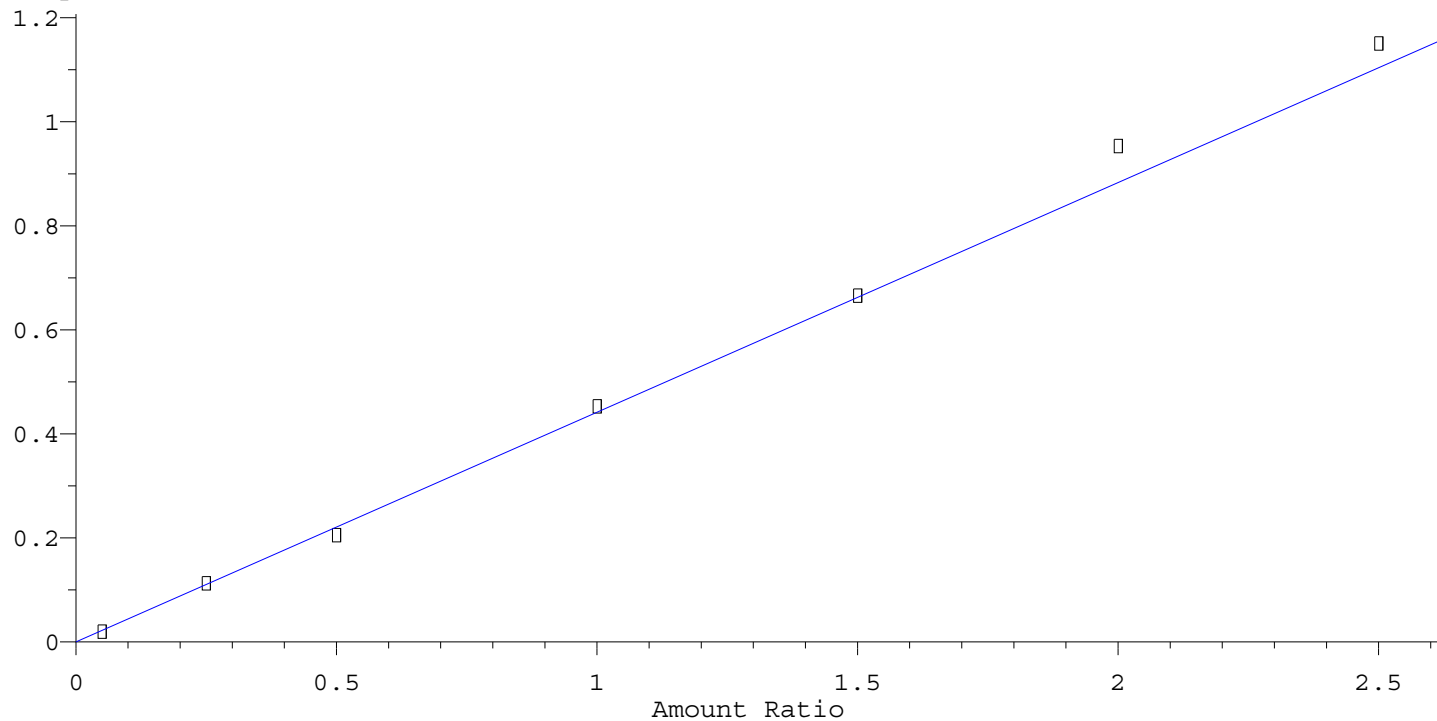


Resp Ratio = 5.90e-001 * Amt
RF Rel Std Dev = 7.2% Curve Fit: Avg RF

Calibration Plot Report

bis2Ethlhxlad

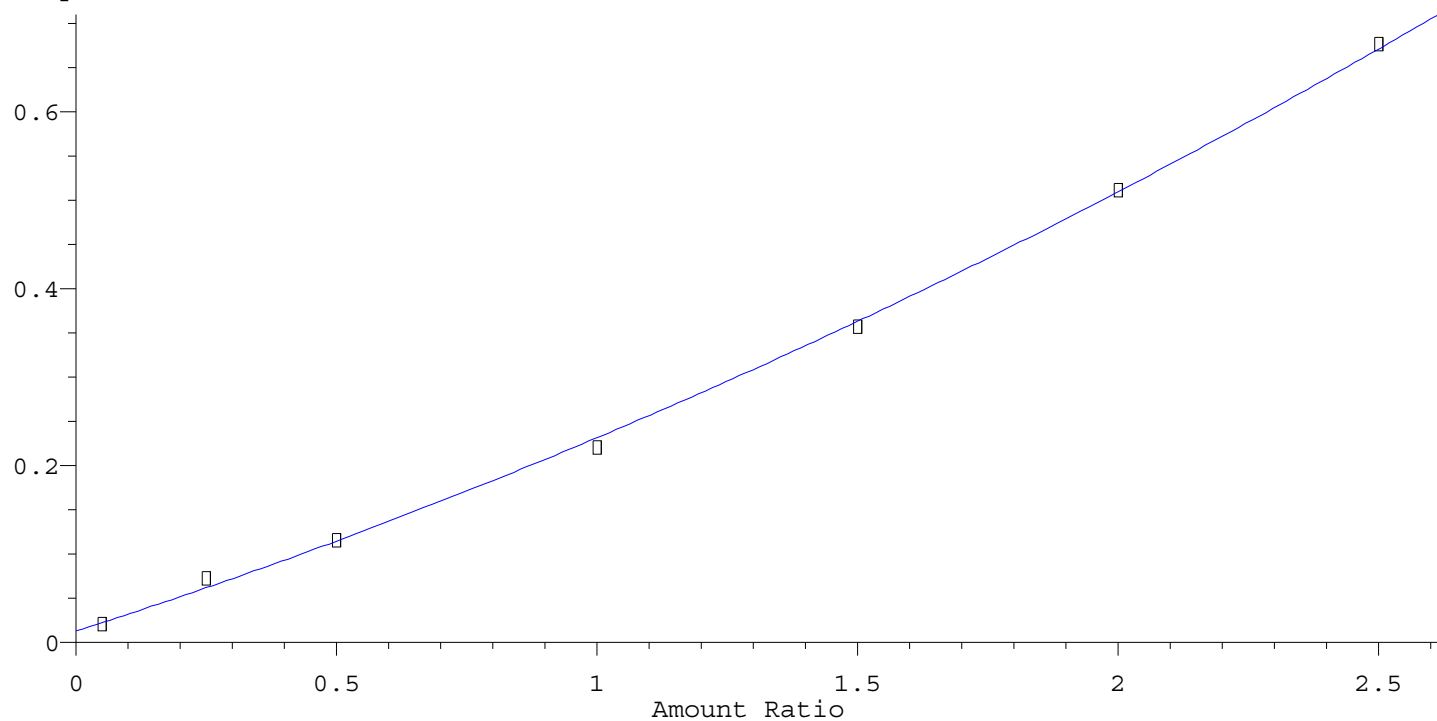
Response Ratio



Resp Ratio = $4.41e-001 * \text{Amt}$
 RF Rel Std Dev = 6.4% Curve Fit: Avg RF

33Diclbnzidin

Response Ratio

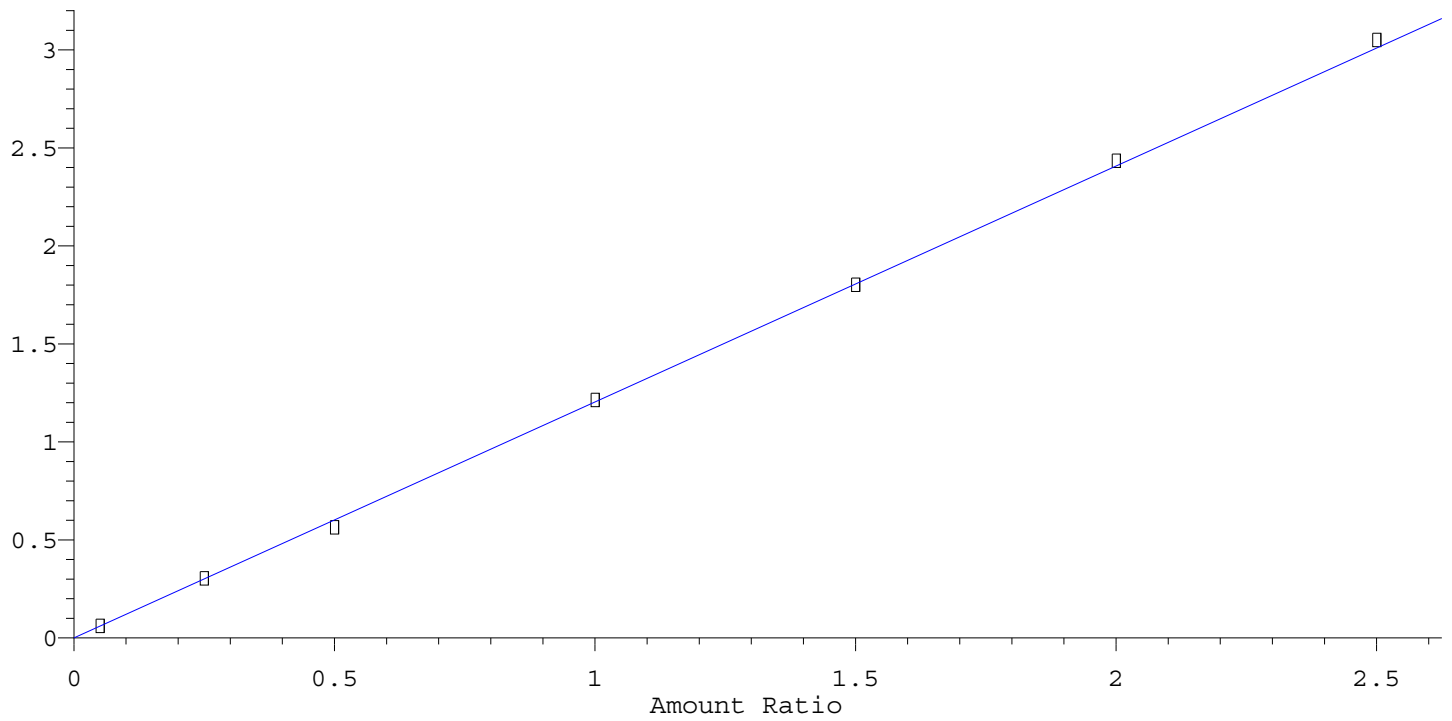


$R = 2.98e-002 A^2 + 1.89e-001 A + 1.27e-002$
 Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

B[a]anthracen

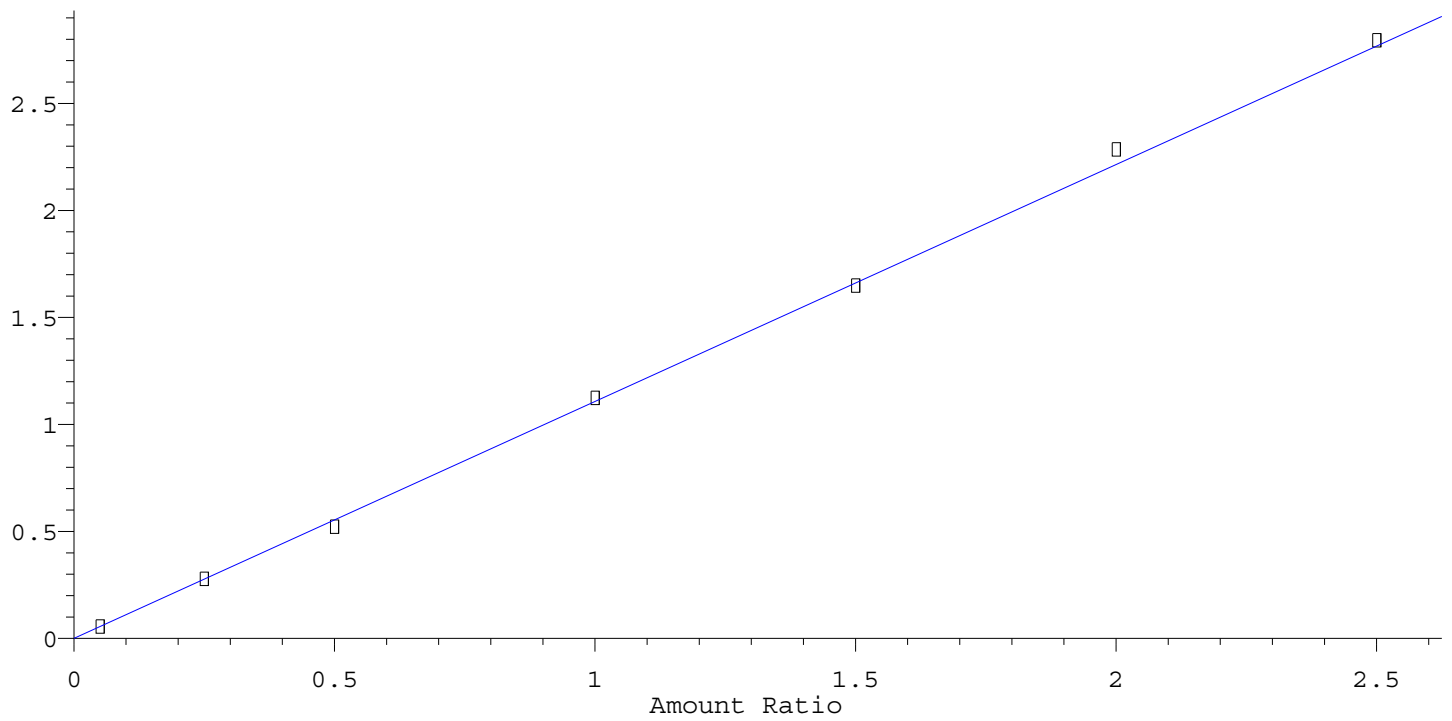
Response Ratio



Resp Ratio = 1.20e+000 * Amt
RF Rel Std Dev = 2.8% Curve Fit: Avg RF

Chrysene

Response Ratio

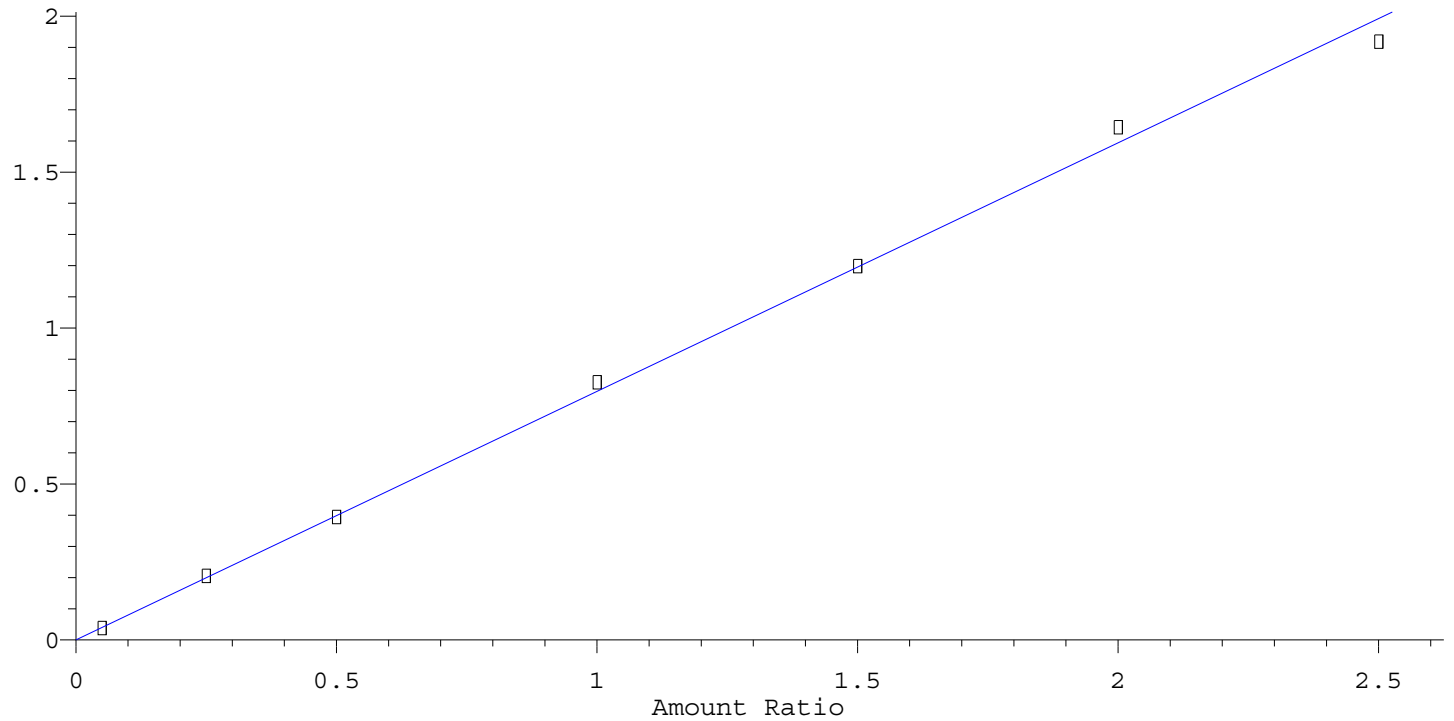


Resp Ratio = 1.11e+000 * Amt
RF Rel Std Dev = 2.8% Curve Fit: Avg RF

Calibration Plot Report

bis2Ethlhxlph

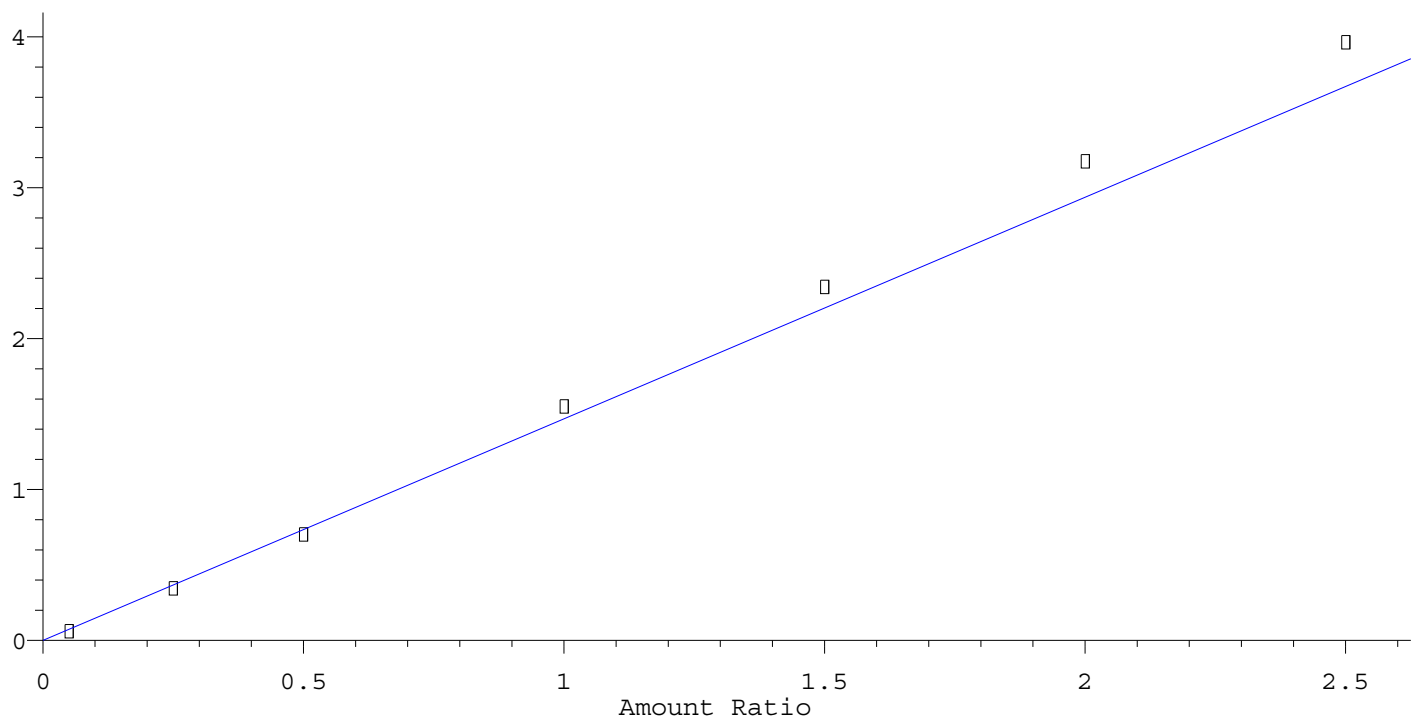
Response Ratio



Resp Ratio = 7.97e-001 * Amt
RF Rel Std Dev = 3.4% Curve Fit: Avg RF

Dinoctylphthl

Response Ratio

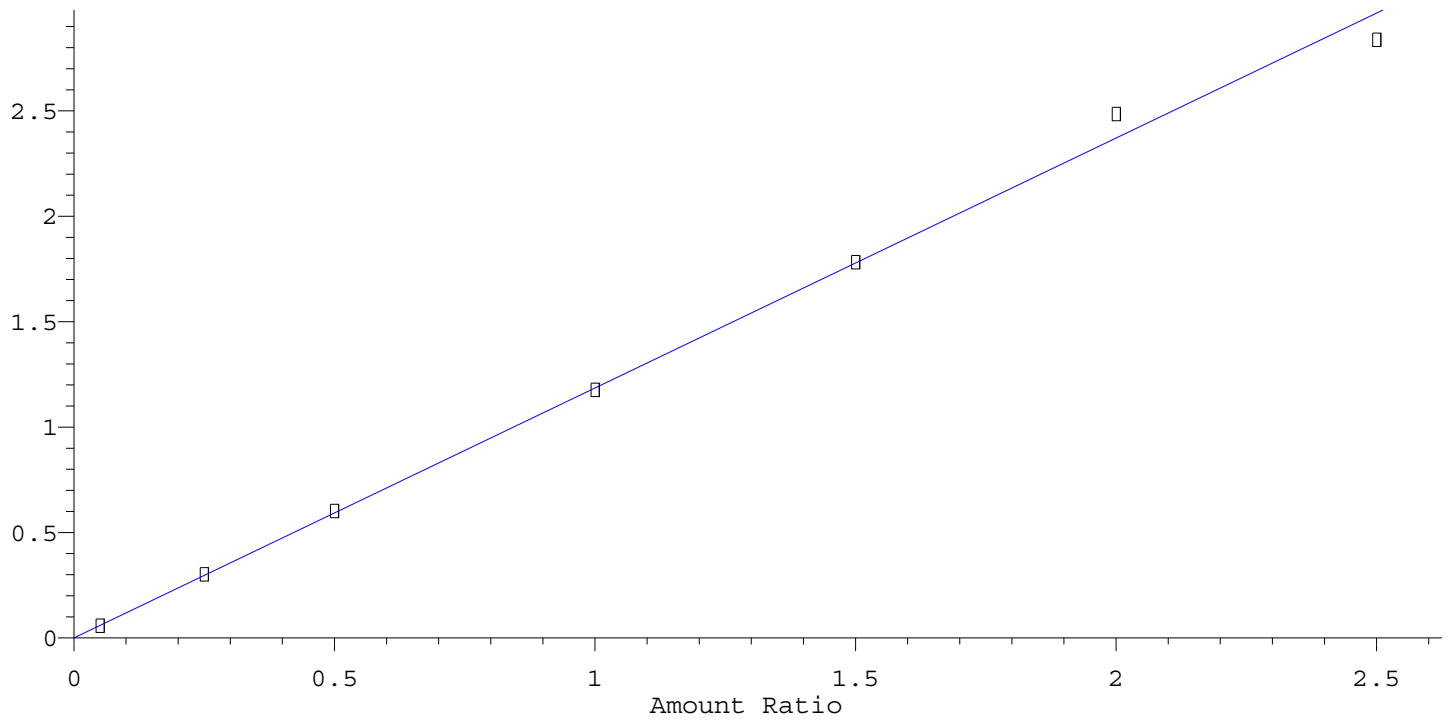


Resp Ratio = 1.47e+000 * Amt
RF Rel Std Dev = 9.7% Curve Fit: Avg RF

Calibration Plot Report

B[b] fluoranth

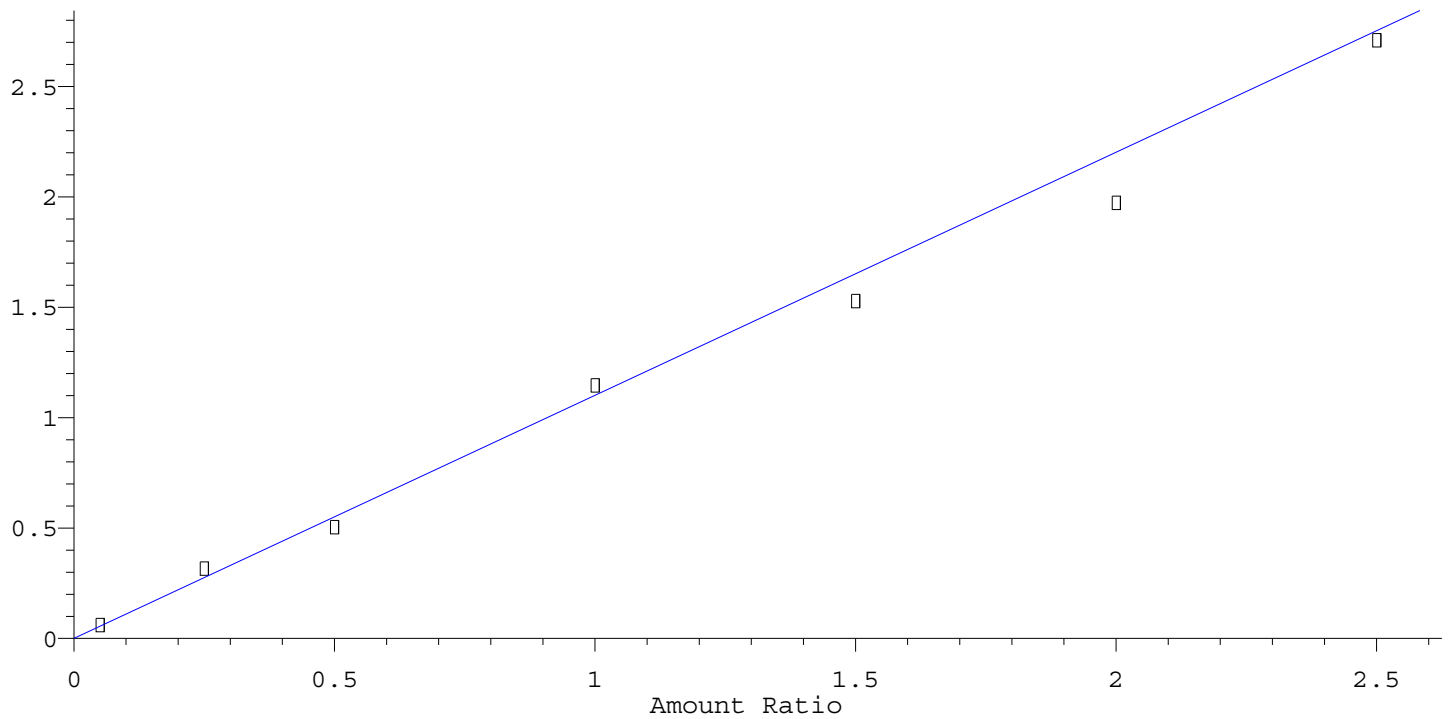
Response Ratio



Resp Ratio = 1.19e+000 * Amt
RF Rel Std Dev = 3.1% Curve Fit: Avg RF

B[k] fluoranth

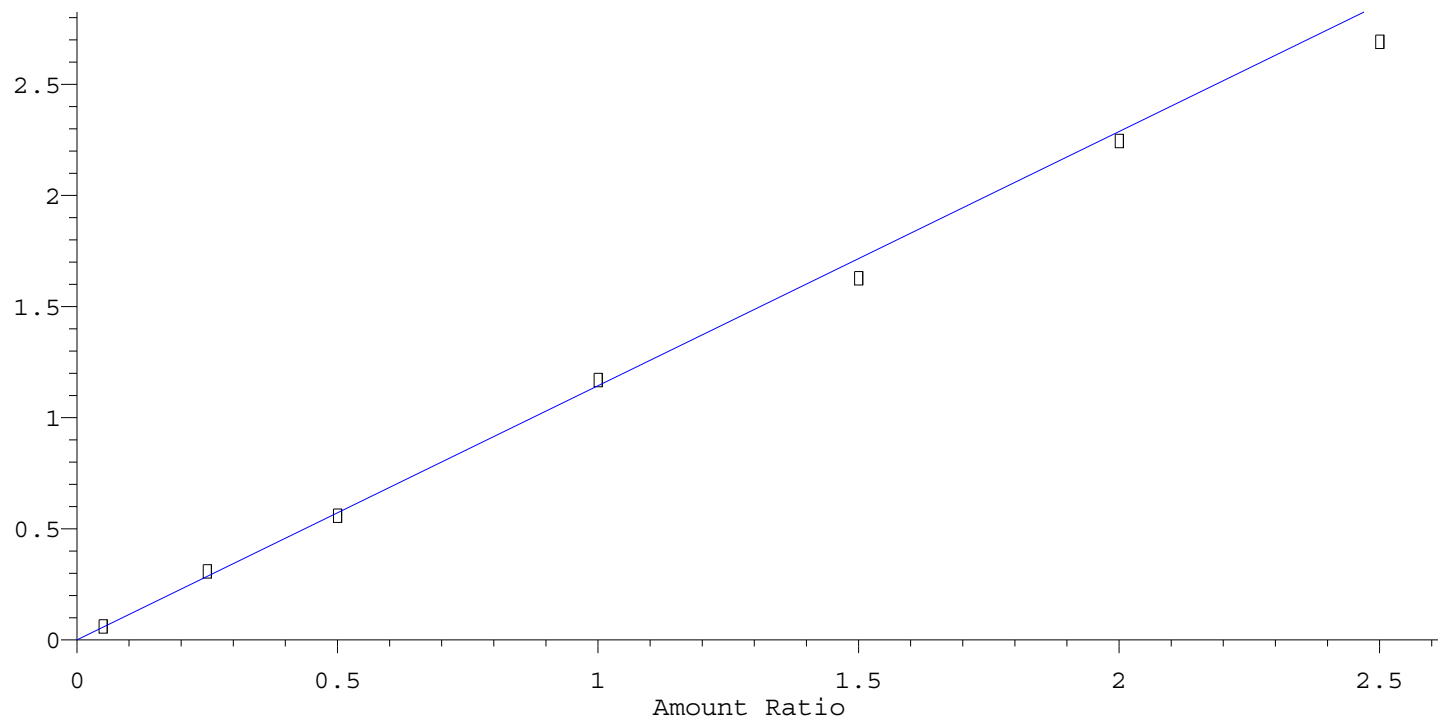
Response Ratio



Resp Ratio = 1.10e+000 * Amt
RF Rel Std Dev = 9.7% Curve Fit: Avg RF

Benz[a]pyrene

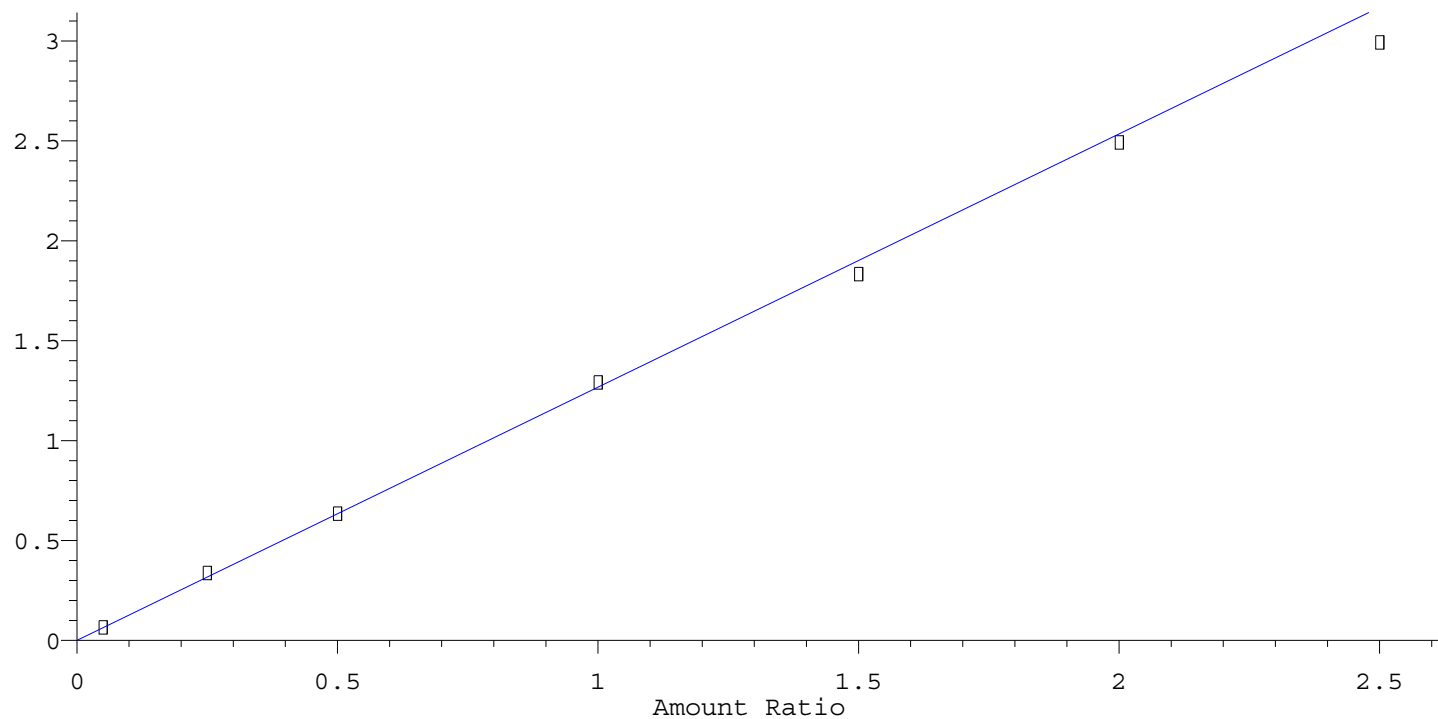
Response Ratio



Resp Ratio = 1.14×10^0 * Amt
RF Rel Std Dev = 5.2% Curve Fit: Avg RF

Indeno-pyrene

Response Ratio

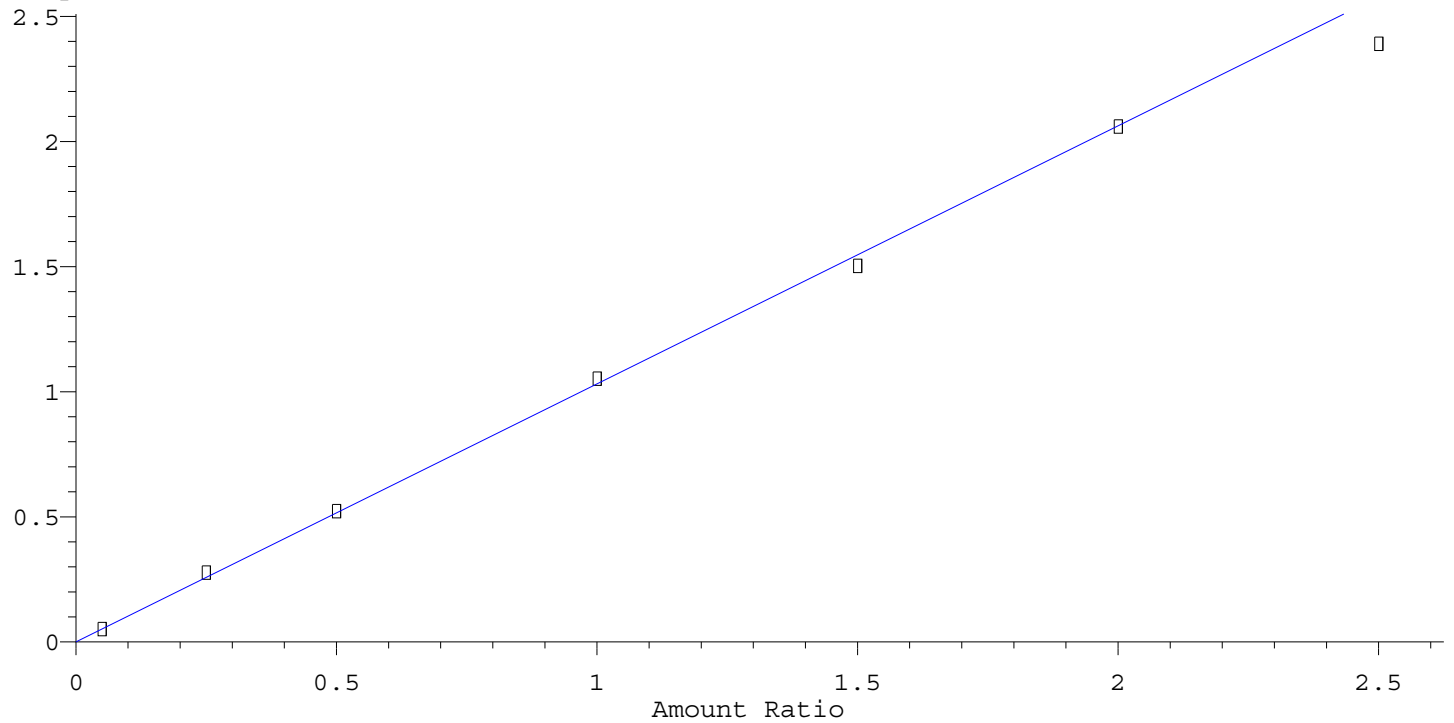


Resp Ratio = 1.27×10^0 * Amt
RF Rel Std Dev = 4.0% Curve Fit: Avg RF

Calibration Plot Report

Dib[ah]anthr

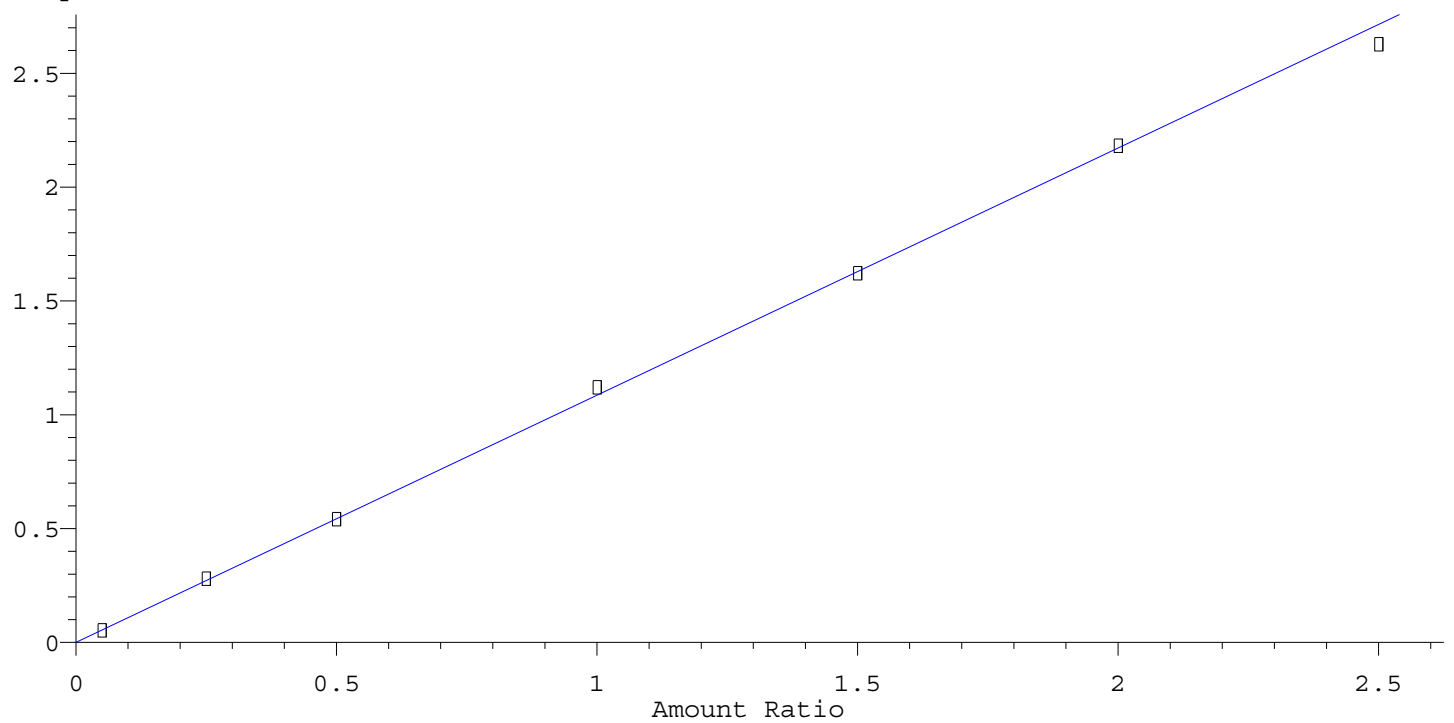
Response Ratio



Resp Ratio = 1.03e+000 * Amt
RF Rel Std Dev = 4.5% Curve Fit: Avg RF

B[ghi]perylene

Response Ratio



Resp Ratio = 1.09e+000 * Amt
RF Rel Std Dev = 2.5% Curve Fit: Avg RF

Data File : C:\INSTARCH\Data\1S110916\1IB01.D
 Acq On : 9 Nov 2016 11:04
 Sample : InstrumentBlank
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 21 18:17:03 2016

Vial: 2
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Mon Nov 21 18:16:53 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) 14Diclbenzd4	3.847	152	179217	20.00	ug/mL	0.00
21) Naphthalened8	5.487	136	839339	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	385305	20.00	ug/mL	0.00
63) Phenanthrd10	8.092	188	844654	20.00	ug/mL	0.00
75) Chrysene-d12	9.485	240	599851	20.00	ug/mL	0.00
86) Perylene-d12	10.363	264	584298	20.00	ug/mL	0.00

System Monitoring Compounds

4) SURR2Flphenol	0.000	112	0	0.00	%REC	
Spiked Amount	100.000	Range	20 - 110	Recovery	=	0.00%#
7) SURRPhenol-d5	0.000	99	0	0.00	%REC	
Spiked Amount	100.000	Range	10 - 115	Recovery	=	0.00%#
22) SURRNitrbenzened5	0.000	82	0	0.00	%REC	
Spiked Amount	100.000	Range	40 - 110	Recovery	=	0.00%#
44) SURR2Flbiphenyl	0.000	172	0	0.00	%REC	
Spiked Amount	100.000	Range	50 - 110	Recovery	=	0.00%#
62) SURR246Tribphenl	0.000	330	0	0.00	%REC	
Spiked Amount	100.000	Range	40 - 125	Recovery	=	0.00%#
78) SURRTerphenyl-d14	0.000	244	0	0.00	%REC	
Spiked Amount	100.000	Range	50 - 135	Recovery	=	0.00%#

Target Compounds

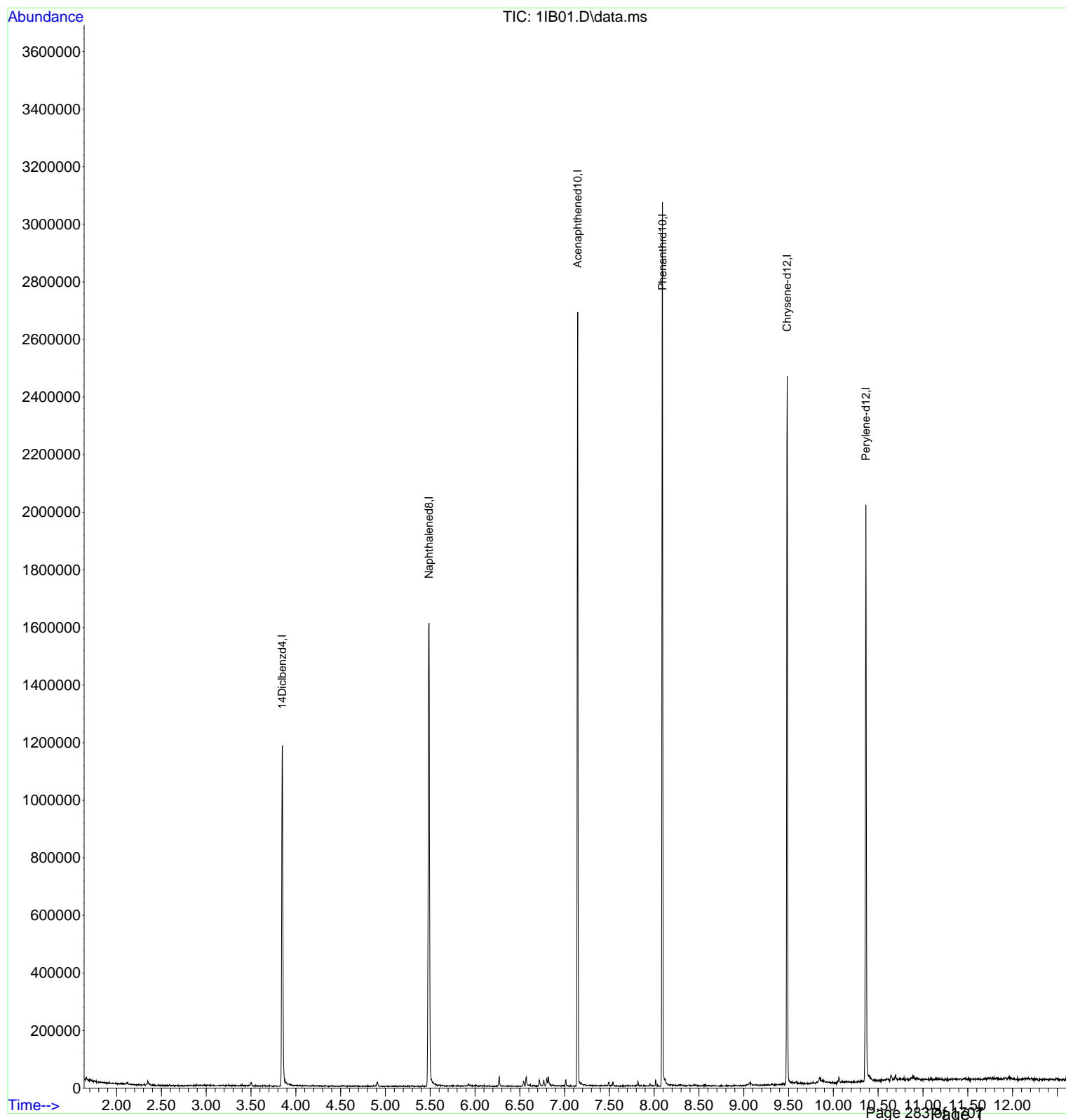
Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1IB01.D
Acq On : 9 Nov 2016 11:04
Sample : InstrumentBlank
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 21 18:17:03 2016

Vial: 2
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Mon Nov 21 18:16:53 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL7.D

Vial: 13

Acq On : 9 Nov 2016 14:41

Operator: JJY

Sample : ICAL 50ug/ml SVMS7214

Inst : SVMS1

Misc : 500uL+5uL IS S3553C

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 09 16:26:30 2016

Quant Method : C:\INSTARCH\METHODS\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Wed Nov 09 16:26:04 2016

Response via : Initial Calibration

DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.853	152	189865	20.00	ug/mL	0.00
21) Naphthalened8	5.493	136	888309	20.00	ug/mL	0.00
39) Acenaphthened10	7.152	164	383205	20.00	ug/mL	0.00
63) Phenanthrd10	8.098	188	841390	20.00	ug/mL	0.00
75) Chrysene-d12	9.493	240	499824	20.00	ug/mL	0.00
86) Perylene-d12	10.369	264	559911	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.722	112	553422	124.50	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	124.50%#	
7) SURRPhenol-d5	3.495	99	621141	125.12	%REC	0.01
Spiked Amount 100.000	Range 10	- 115	Recovery	=	125.12%#	
22) SURRNitrbenzened5	4.515	82	615054	240.61	%REC	0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	240.61%#	
44) SURR2Flbiphenyl	6.658	172	1490173	241.42	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	241.42%#	
62) SURR246Tribphenl	7.678	330	288018	117.65	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	117.65%	
78) SURRTerphenyl-d14	8.891	244	1045100	247.12	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	247.12%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.998	74	326284	50.7121	ug/mL	99
3) Pyridine	2.006	79	595191	50.9367	ug/mL	95
5) Aniline	3.524	93	831447	50.2985	ug/mL	97
6) bis2Clethletr	3.595	93	521846	50.4215	ug/mL	99
8) Phenol	3.509	94	717748	49.5392	ug/mL	95
9) 2-Cl-phenol	3.634	128	584952	49.5372	ug/mL	96
10) 13Diclbenz	3.794	146	671848	49.6098	ug/mL	97
11) 14Diclbenz	3.873	146	666894	48.9994	ug/mL	96
12) 12Diclbenz	4.038	146	623404	48.0231	ug/mL	98
13) Benzyl alcoho	4.027	108	383967	48.9010	ug/mL	91
14) bis2clispreth	4.190	45	1180352	47.9078	ug/mL	98
15) 2Methylphenol	4.166	107	439332	47.9177	ug/mL	95
16) Ntrspyrrol	4.328	100	282408	49.1720	ug/mL	92
17) Acetophenone	4.339	105	853063	48.6218	ug/mL	99
18) Hexaclethane	4.433	117	284120	49.0170	ug/mL	98
19) N-Ntrsdinprop	4.359	70	427462	49.1287	ug/mL	92
20) 3&4Methylphenol	4.373	107	583817	48.7164	ug/mL	99
23) Nitrobenzene	4.541	77	615954	47.7940	ug/mL	95
24) Isophorone	4.873	82	1099246	47.3610	ug/mL	97
25) 2-Nitrophenol	4.956	139	310171	47.0603	ug/mL	90
26) 24Dimthpheno	5.072	122	459071	47.3221	ug/mL	97
27) bis2clethoxym	5.211	93	706511	47.9537	ug/mL	98
28) 24Diclphenol	5.322	162	584999	46.3107	ug/mL	99
29) 124Triclbenz	5.430	180	704183	47.0353	ug/mL	97
30) Benzoic acid	5.359	122	347778	48.8838	ug/mL	94
31) Naphthalene	5.527	128	1904744	47.8148	ug/mL	99
32) 4-Cl-aniline	5.638	127	734240	46.9443	ug/mL	98
33) 26Diclphenol	5.635	162	518433	45.2063	ug/mL	94
34) Hexaclprop	5.649	213	526886	45.5758	ug/mL	94
35) Hexaclbutdien	5.717	225	494540	45.2726	ug/mL	98
36) 4Cl3methylphe	6.220	107	616141	48.3258	ug/mL	96
37) 2Methylnaphth	6.314	142	1336389	47.5841	ug/mL	98
38) 1Methylnaphth	6.405	141	1098529	47.3324	ug/mL	97
40) Hxclcycpentdi	6.470	237	399135	47.1053	ug/mL	97

Data File : C:\INSTARCH\Data\1S110916\1ICAL7.D
 Acq On : 9 Nov 2016 14:41
 Sample : ICAL 50ug/ml SVMS7214
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:26:30 2016

Vial: 13
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:26:04 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

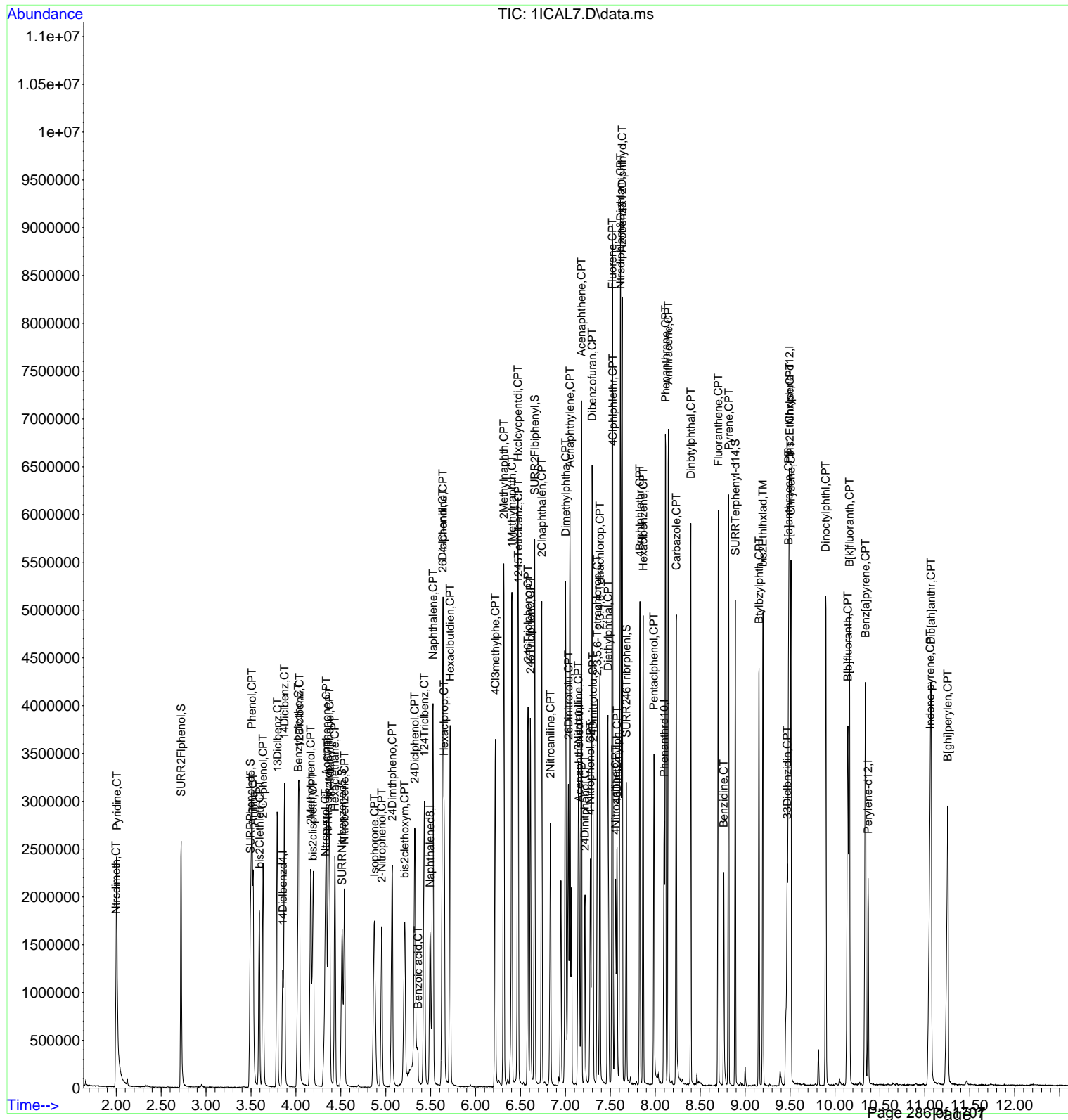
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.476	216	672292	46.4514	ug/mL	98
42) 246Triclpheno	6.584	196	465478	48.4790	ug/mL	98
43) 245Triclpheno	6.609	196	486823	47.6273	ug/mL	95
45) 2Clnaphthalen	6.737	162	1230385	48.1514	ug/mL	99
46) 2Nitroaniline	6.834	65	401648	49.3610	ug/mL	90
47) Acnaphthylene	7.050	152	2025792	47.9034	ug/mL	99
48) Dimethylphtha	7.002	163	1373892	47.7779	ug/mL	96
49) 26Dinitrotolu	7.033	165	304784	47.6664	ug/mL	96
50) Acenaphthene	7.178	154	1192962	48.4972	ug/mL	95
51) 3Nitroaniline	7.144	138	316736	47.7550	ug/mL	85
52) 24Dinitphenol	7.217	184	196304	49.4073	ug/mL	81
53) Dibenzofuran	7.297	168	1772666	48.4957	ug/mL	95
54) 24Dinitrotolu	7.306	165	389418	47.1058	ug/mL	89
55) 4-Nitrophenol	7.277	65	325133	49.3804	ug/mL	94
56) 2,3,5,6-Tetrachlorop	7.357	232	422144	48.4796	ug/mL	95
57) 2,3,4,6-Tetrachlorop	7.385	232	445710	47.9465	ug/mL	97
58) Fluorene	7.521	166	1341332	45.7238	ug/mL	97
59) 4Clphlphlethr	7.527	204	655186	45.3872	ug/mL	98
60) Diethylphthal	7.473	149	1602068	48.6946	ug/mL	95
61) 4Nitroaniline	7.558	138	330032	49.8089	ug/mL	97
64) 46Dinit2mylph	7.575	198	252297	48.7230	ug/mL	93
65) Ntrsdiphlam&Diphlam	7.612	169	1845808	91.0394	ug/mL	97
66) Azobenz&12Diphylhyd	7.632	182	598523	93.6717	ug/mL	94
67) 4Brphlphlethr	7.828	248	453228	47.4284	ug/mL	96
68) Hexaclbenzene	7.865	284	525639	48.1158	ug/mL	97
69) Pentaclphenol	7.985	266	324202	49.4555	ug/mL	98
70) Phenanthrene	8.115	178	2018445	48.4253	ug/mL	99
71) Anthracene	8.147	178	2049829	47.6940	ug/mL	100
72) Carbazole	8.235	167	1676754	47.4689	ug/mL	99
73) Dinbtylphthal	8.397	149	1754714	47.1651	ug/mL	99
74) Fluoranthene	8.701	202	1647988	47.2167	ug/mL	98
76) Benzidine	8.763	184	546483	51.2558	ug/mL	99
77) Pyrene	8.817	202	1695986	49.7860	ug/mL	99
79) Btylbzylphth	9.155	149	768089	49.7534	ug/mL	98
80) bis2Ethlhxlad	9.198	129	574926	50.2584	ug/mL	99
81) 33Diclbnzidin	9.468	252	338174	56.8441	ug/mL	98
82) B[a]anthracen	9.485	228	1524793	50.4014	ug/mL	98
83) Chrysene	9.510	228	1397049	49.8276	ug/mL	98
84) bis2Ethlhxlph	9.496	149	958610	47.0303	ug/mL	94
85) Dinocetylphthl	9.897	149	1980986	50.6063	ug/mL	97
87) B[b]fluoranth	10.144	252	1588301	47.1948	ug/mL	98
88) B[k]fluoranth	10.161	252	1516748	51.5877	ug/mL	98
89) Benz[a]pyrene	10.340	252	1506786	47.8190	ug/mL	99
90) Indeno-pyrene	11.059	276	1675523	47.7629	ug/mL	91
91) Dib[ah]anthr	11.070	278	1338323	46.5103	ug/mL	98
92) B[ghi]perylene	11.255	276	1471060	47.8816	ug/mL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL7.D
Acq On : 9 Nov 2016 14:41
Sample : ICAL 50ug/ml SVMS7214
Misc : 500uL+5uL IS S3553C
Integrator: RTE
Quant Time: Nov 09 16:26:30 2016

Vial: 13
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 16:26:04 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL6.D

Acq On : 9 Nov 2016 15:01
 Sample : ICAL 40ug/ml SVMS7213
 Misc : 500uL+5ul IS S3553C

Integrator: RTE

Quant Time: Nov 09 16:24:14 2016

Vial: 14

Operator: JJY

Inst : SVMS1

Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Wed Nov 09 16:24:03 2016

Response via : Initial Calibration

DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	181836	20.00	ug/mL	0.00
21) Naphthalened8	5.493	136	852789	20.00	ug/mL	0.00
39) Acenaphthened10	7.152	164	380124	20.00	ug/mL	0.00
63) Phenanthrd10	8.095	188	829993	20.00	ug/mL	0.00
75) Chrysene-d12	9.490	240	503545	20.00	ug/mL	0.00
86) Perylene-d12	10.366	264	552328	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.719	112	439215	104.84	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	104.84%	
7) SURRPhenol-d5	3.492	99	489039	104.35	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	104.35%	
22) SURRNitrbenzened5	4.512	82	492116	200.81	%REC	0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	200.81%#	
44) SURR2Flbiphenyl	6.658	172	1220335	198.96	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	198.96%#	
62) SURR246Tribphenl	7.675	330	242141	99.57	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	99.57%	
78) SURRTerphenyl-d14	8.891	244	881101	210.38	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	210.38%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.995	74	257150	42.6552	ug/mL	98
3) Pyridine	2.003	79	465084	42.3858	ug/mL	96
5) Aniline	3.521	93	658238	42.4153	ug/mL	99
6) bis2Clethletr	3.589	93	410232	42.1179	ug/mL	96
8) Phenol	3.506	94	581133	42.8895	ug/mL	96
9) 2-Cl-phenol	3.631	128	464758	41.6674	ug/mL	98
10) 13Diclbenz	3.791	146	532341	41.5870	ug/mL	98
11) 14Diclbenz	3.873	146	533926	41.4604	ug/mL	98
12) 12Diclbenz	4.035	146	503127	40.7077	ug/mL	99
13) Benzyl alcoho	4.024	108	314073	42.7082	ug/mL	85
14) bis2clispreth	4.188	45	967224	41.5049	ug/mL	98
15) 2Methylphenol	4.163	107	361661	41.8088	ug/mL	98
16) Ntrspyrrol	4.319	100	229299	42.5862	ug/mL	100
17) Acetophenone	4.336	105	688437	41.4748	ug/mL	99
18) Hexaclethane	4.433	117	229959	42.1759	ug/mL	92
19) N-Ntrsdinprop	4.356	70	342866	41.7439	ug/mL	90
20) 3&4Methylphenol	4.367	107	475211	42.1448	ug/mL	96
23) Nitrobenzene	4.535	77	506340	41.4038	ug/mL	94
24) Isophorone	4.867	82	884397	39.5388	ug/mL	97
25) 2-Nitrophenol	4.953	139	249920	39.2520	ug/mL	89
26) 24Dimthpheno	5.066	122	376324	40.6153	ug/mL	96
27) bis2clethoxym	5.208	93	561752	39.5762	ug/mL	98
28) 24Diclphenol	5.319	162	482153	39.6393	ug/mL	95
29) 124Triclbenz	5.427	180	575133	40.0234	ug/mL	93
30) Benzoic acid	5.333	122	282212	42.0132	ug/mL	83
31) Naphthalene	5.524	128	1529386	39.9870	ug/mL	99
32) 4-Cl-aniline	5.632	127	597872	39.7270	ug/mL	95
33) 26Diclphenol	5.632	162	424714	37.9024	ug/mL	91
34) Hexaclprop	5.649	213	430139	38.1638	ug/mL	93
35) Hexaclbutdien	5.714	225	414409	39.2801	ug/mL	96
36) 4Cl3methylphe	6.217	107	488754	39.8969	ug/mL	99
37) 2Methylnaphth	6.314	142	1063013	39.1461	ug/mL	97
38) 1Methylnaphth	6.402	141	876546	39.0194	ug/mL	95
40) Hxclcycpenti	6.467	237	327935	38.5420	ug/mL	93

Data File : C:\INSTARCH\Data\1S110916\1ICAL6.D
 Acq On : 9 Nov 2016 15:01
 Sample : ICAL 40ug/ml SVMS7213
 Misc : 500uL+5uL IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:24:14 2016

Vial: 14
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

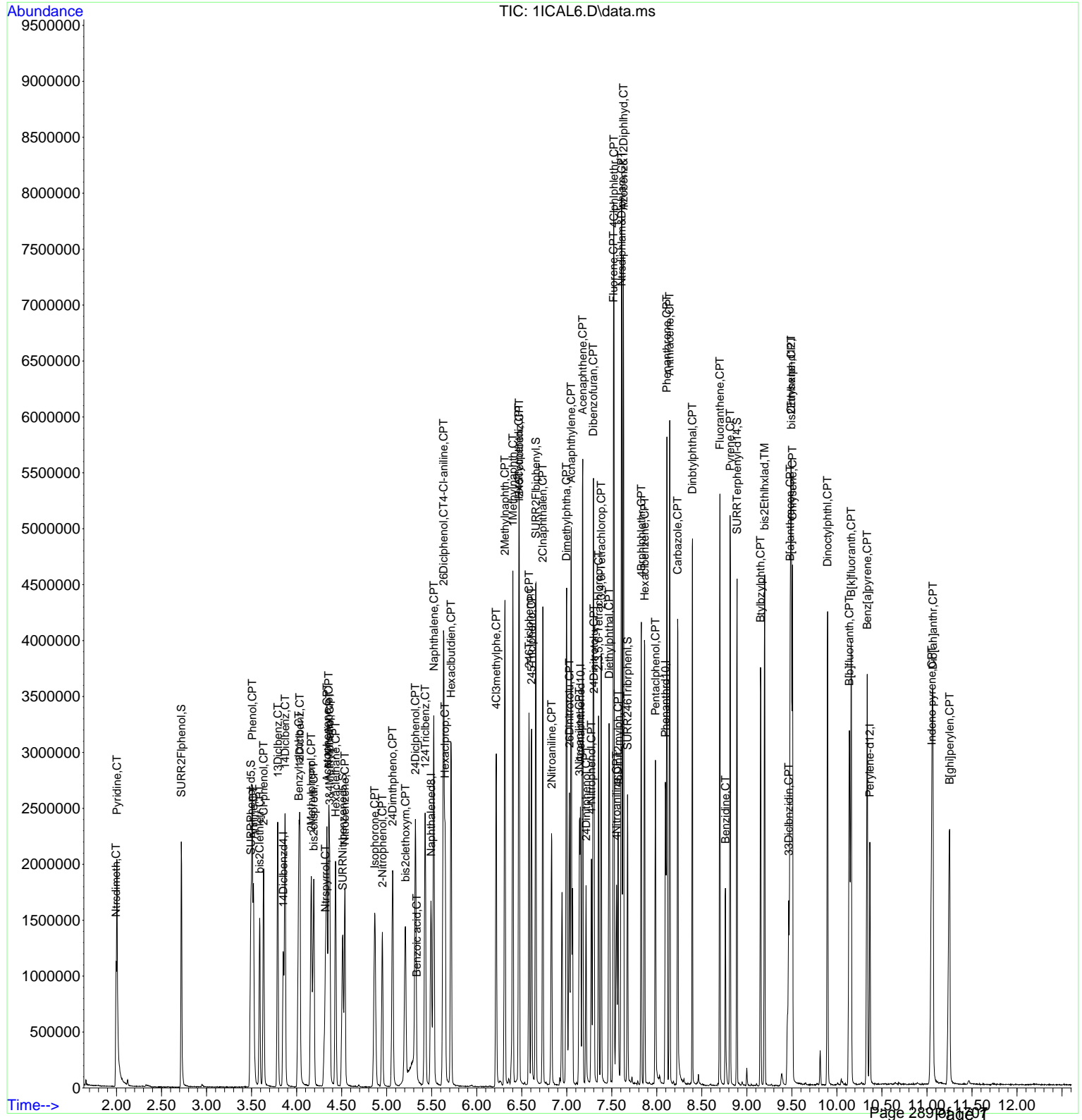
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:24:03 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 1245Tetrclbenz	6.473	216	563167	38.8514	ug/mL	98
42) 246Triclpheno	6.581	196	381234	40.0404	ug/mL	96
43) 245Triclpheno	6.609	196	396191	38.6279	ug/mL	96
45) 2Clnaphthalen	6.734	162	1005953	39.5328	ug/mL	99
46) 2Nitroaniline	6.831	65	328106	40.9827	ug/mL	89
47) Acnaphthylene	7.050	152	1672281	39.7972	ug/mL	99
48) Dimethylphtha	6.996	163	1130980	39.4762	ug/mL	98
49) 26Dinitrotolu	7.030	165	256852	40.7482	ug/mL	98
50) Acenaphthene	7.178	154	959104	38.9684	ug/mL	91
51) 3Nitroaniline	7.141	138	259322	39.1295	ug/mL	91
52) 24Dinitphenol	7.214	184	165384	43.0178	ug/mL	81
53) Dibenzofuran	7.294	168	1426341	39.0143	ug/mL	99
54) 24Dinitrotolu	7.303	165	323859	39.2443	ug/mL	89
55) 4-Nitrophenol	7.274	65	256467	38.9109	ug/mL	98
56) 2,3,5,6-Tetrachlorop	7.354	232	344290	39.7892	ug/mL	92
57) 2,3,4,6-Tetrachlorop	7.382	232	363272	39.0995	ug/mL	97
58) Fluorene	7.519	166	1138355	38.6931	ug/mL	96
59) 4Clphlphlethr	7.524	204	550573	37.7184	ug/mL	99
60) Diethylphthal	7.470	149	1289779	39.2849	ug/mL	96
61) 4Nitroaniline	7.553	138	263500	40.1354	ug/mL	98
64) 46Dinit2mylph	7.570	198	207532	40.9501	ug/mL	93
65) Ntrsdiphlam&Diphlam	7.609	169	1567063	77.5537	ug/mL	99
66) Azobenz&12Diphylhyd	7.629	182	493092	77.3754	ug/mL#	88
67) 4Brphlphlethr	7.828	248	370525	38.9685	ug/mL	94
68) Hexaclbenzene	7.865	284	423179	38.9130	ug/mL	96
69) Pentaclphenol	7.984	266	263944	41.2371	ug/mL	94
70) Phenanthrene	8.112	178	1636534	39.7035	ug/mL	98
71) Anthracene	8.144	178	1667671	39.0108	ug/mL	99
72) Carbazole	8.232	167	1375297	39.2092	ug/mL	98
73) Dinbtylphthal	8.397	149	1444678	39.0547	ug/mL	99
74) Fluoranthene	8.701	202	1364635	39.4553	ug/mL	98
76) Benzidine	8.763	184	452793	43.3214	ug/mL	98
77) Pyrene	8.814	202	1408180	41.5681	ug/mL	98
79) Btylbzylphth	9.152	149	643222	42.0709	ug/mL	98
80) bis2Ethlhxlad	9.198	129	479984	42.5252	ug/mL	99
81) 33Diclbnzidin	9.465	252	257505	44.6179	ug/mL	99
82) B[a]anthracen	9.482	228	1225735	40.3260	ug/mL	99
83) Chrysene	9.508	228	1150662	41.1152	ug/mL	99
84) bis2Ethlhxlph	9.493	149	827634	40.4584	ug/mL	99
85) Dinocetylphthl	9.897	149	1598923	40.8220	ug/mL	97
87) B[b]fluoranth	10.138	252	1372372	42.0419	ug/mL	98
88) B[k]fluoranth	10.158	252	1089760	36.4679	ug/mL	97
89) Benz[a]pyrene	10.337	252	1239985	39.8385	ug/mL	100
90) Indeno-pyrene	11.053	276	1376496	39.6672	ug/mL	96
91) Dib[ah]anthr	11.067	278	1137684	40.1207	ug/mL	96
92) B[ghi]perylen	11.252	276	1204976	39.6401	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 14
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 16:24:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL5.D

Acq On : 9 Nov 2016 15:45
 Sample : ICAL 30ug/ml SVMS7212
 Misc : 500uL+5ul IS S3553C

Integrator: RTE

Quant Time: Nov 09 16:22:33 2016

Vial: 15

Operator: JJY

Inst : SVMS1

Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Wed Nov 09 16:20:56 2016

Response via : Initial Calibration

DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.847	152	194303	20.00	ug/mL	0.00
21) Naphthalened8	5.487	136	866188	20.00	ug/mL	0.00
39) Acenaphthened10	7.143	164	392997	20.00	ug/mL	0.00
63) Phenanthrd10	8.090	188	854451	20.00	ug/mL	0.00
75) Chrysene-d12	9.493	240	545254	20.00	ug/mL	0.00
86) Perylene-d12	10.371	264	579987	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.716	112	336393	75.28	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	75.28%	
7) SURRPhenol-d5	3.486	99	367540	71.85	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	71.85%	
22) SURRNitrbenzened5	4.507	82	371132	148.20	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	148.20%#	
44) SURR2Flbiphenyl	6.649	172	913004	138.42	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	138.42%#	
62) SURR246Tribphenl	7.666	330	182921	70.65	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	70.65%	
78) SURRTerphenyl-d14	8.891	244	672006	146.40	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	146.40%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.995	74	188861	28.6655	ug/mL	98
3) Pyridine	2.006	79	352973	30.2097	ug/mL	91
5) Aniline	3.515	93	500134	30.3211	ug/mL	97
6) bis2Clethletr	3.586	93	312834	30.1150	ug/mL	96
8) Phenol	3.501	94	431894	29.6618	ug/mL	98
9) 2-Cl-phenol	3.629	128	355784	29.7031	ug/mL	98
10) 13Diclbenz	3.788	146	402826	28.9198	ug/mL	95
11) 14Diclbenz	3.867	146	409253	29.4850	ug/mL	95
12) 12Diclbenz	4.035	146	389514	29.0033	ug/mL	94
13) Benzyl alcoho	4.018	108	236567	30.2103	ug/mL	90
14) bis2clispreth	4.184	45	735884	29.1166	ug/mL	96
15) 2Methylphenol	4.157	107	273464	29.1807	ug/mL	95
16) Ntrspyrrol	4.308	100	172469	29.9526	ug/mL	94
17) Acetophenone	4.328	105	527411	29.4748	ug/mL	96
18) Hexaclethane	4.430	117	169266	28.1631	ug/mL	93
19) N-Ntrsdinprop	4.347	70	258032	28.8229	ug/mL	94
20) 3&4Methylphenol	4.356	107	357185	29.2982	ug/mL	97
23) Nitrobenzene	4.529	77	376228	30.5828	ug/mL	96
24) Isophorone	4.862	82	683500	30.1697	ug/mL	99
25) 2-Nitrophenol	4.947	139	192546	29.5497	ug/mL	89
26) 24Dimthpheno	5.061	122	280904	29.6976	ug/mL	96
27) bis2clethoxym	5.203	93	434843	30.3245	ug/mL	98
28) 24Diclphenol	5.311	162	366148	29.2818	ug/mL	99
29) 124Triclbenz	5.422	180	438050	30.0245	ug/mL	99
30) Benzoic acid	5.294	122	206777	30.6203	ug/mL	89
31) Naphthalene	5.518	128	1154391	29.4364	ug/mL	99
32) 4-Cl-aniline	5.623	127	452139	29.1691	ug/mL	96
33) 26Diclphenol	5.626	162	331318	28.2715	ug/mL	93
34) Hexaclprop	5.643	213	337349	28.9547	ug/mL	94
35) Hexaclbutdien	5.708	225	312111	28.3017	ug/mL	99
36) 4Cl3methylphe	6.209	107	369366	29.3762	ug/mL	97
37) 2Methylnaphth	6.305	142	806294	28.5042	ug/mL	98
38) 1Methylnaphth	6.393	141	672305	28.9481	ug/mL	95
40) Hxclcycpentdi	6.461	237	256450	28.3528	ug/mL	94

Data File : C:\INSTARCH\Data\1S110916\1ICAL5.D
 Acq On : 9 Nov 2016 15:45
 Sample : ICAL 30ug/ml SVMS7212
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:22:33 2016

Vial: 15
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

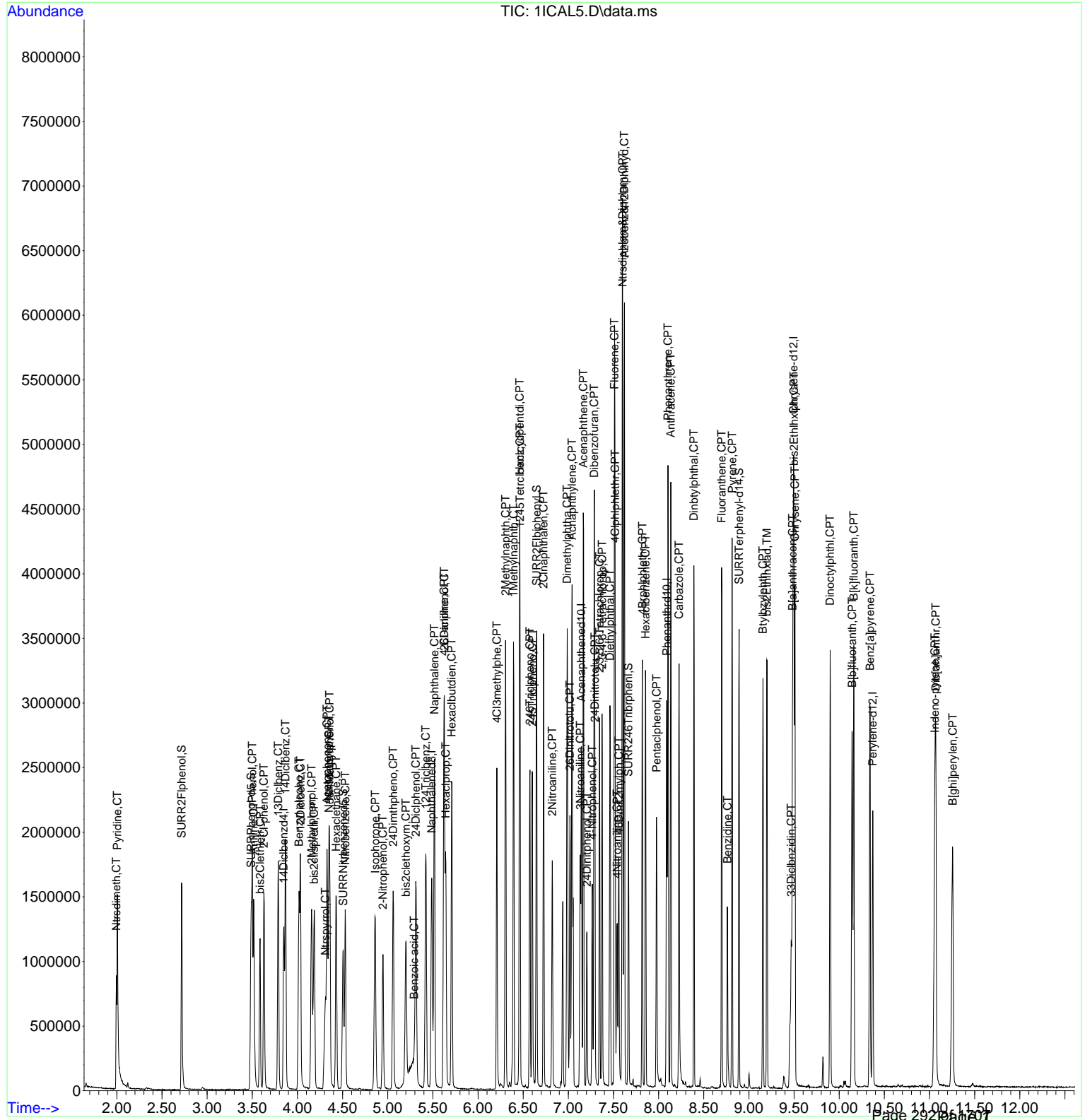
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:20:56 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.464	216	433176	27.8868	ug/mL	98
42) 246Triclpheno	6.575	196	287646	28.4822	ug/mL	95
43) 245Triclpheno	6.601	196	307431	28.0498	ug/mL	97
45) 2Clnaphthalen	6.726	162	769648	28.5472	ug/mL	98
46) 2Nitroaniline	6.822	65	251152	30.6941	ug/mL	90
47) Acnaphthylene	7.041	152	1264014	28.2446	ug/mL	98
48) Dimethylphtha	6.987	163	856011	27.8776	ug/mL	99
49) 26Dinitrotolu	7.018	165	191146	28.6912	ug/mL	92
50) Acenaphthene	7.166	154	745339	28.6150	ug/mL	96
51) 3Nitroaniline	7.132	138	205013	29.8433	ug/mL	89
52) 24Dinitphenol	7.206	184	117099	28.9406	ug/mL	83
53) Dibenzofuran	7.285	168	1103917	28.4530	ug/mL	98
54) 24Dinitrotolu	7.294	165	247320	28.0418	ug/mL	88
55) 4-Nitrophenol	7.266	65	206634	30.6538	ug/mL	94
56) 2,3,5,6-Tetrachlorop	7.345	232	259945	28.1725	ug/mL	88
57) 2,3,4,6-Tetrachlorop	7.374	232	280673	28.4790	ug/mL	98
58) Fluorene	7.510	166	881569	28.0334	ug/mL	97
59) 4Clphlphlethr	7.518	204	430125	27.1457	ug/mL	98
60) Diethylphthal	7.462	149	992056	28.4926	ug/mL	97
61) 4Nitroaniline	7.541	138	203422	29.9392	ug/mL	97
64) 46Dinit2mylph	7.561	198	157667	30.4437	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.601	169	1217463	57.1254	ug/mL	98
66) Azobenz&12Diphylhyd	7.621	182	391800	59.4445	ug/mL	93
67) 4Brphlphlethr	7.820	248	286570	28.5864	ug/mL	97
68) Hexaclbenzene	7.857	284	329733	28.9244	ug/mL	97
69) Pentaclphenol	7.976	266	201762	31.2658	ug/mL	99
70) Phenanthrene	8.104	178	1257142	29.2616	ug/mL	99
71) Anthracene	8.135	178	1292422	28.7610	ug/mL	98
72) Carbazole	8.226	167	1089250	30.3323	ug/mL	99
73) Dinbtylphthal	8.391	149	1156812	30.7647	ug/mL	99
74) Fluoranthene	8.698	202	1067659	29.9707	ug/mL	99
76) Benzidine	8.763	184	362925	34.4400	ug/mL	98
77) Pyrene	8.814	202	1099143	29.9276	ug/mL	99
79) Btylbzylphth	9.155	149	498424	30.2136	ug/mL	98
80) bis2Ethlhxlad	9.201	129	362977	29.4035	ug/mL	100
81) 33Diclbnzidin	9.468	252	194680	32.3957	ug/mL	93
82) B[a]anthracen	9.485	228	982091	29.6792	ug/mL	98
83) Chrysene	9.510	228	899038	29.3411	ug/mL	97
84) bis2Ethlhxlph	9.499	149	653514	29.0220	ug/mL	96
85) Dinocetylphthl	9.900	149	1277033	30.2205	ug/mL	98
87) B[b]fluoranth	10.144	252	1033346	30.2942	ug/mL	99
88) B[k]fluoranth	10.161	252	886059	26.6700	ug/mL	96
89) Benz[a]pyrene	10.343	252	943597	27.8226	ug/mL	99
90) Indeno-pyrene	11.059	276	1063219	28.4001	ug/mL	96
91) Dib[ah]anthr	11.070	278	871388	28.5637	ug/mL	96
92) B[ghi]perylene	11.258	276	940583	28.9521	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 15
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 16:20:56 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL4.D
 Acq On : 9 Nov 2016 16:05
 Sample : ICAL 20ug/ml SVMS7211
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:20:59 2016

Vial: 16
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:20:56 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	191851	20.00	ug/mL	0.00
21) Naphthalened8	5.490	136	867715	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	386418	20.00	ug/mL	0.00
63) Phenanthrd10	8.093	188	874898	20.00	ug/mL	0.00
75) Chrysene-d12	9.488	240	554927	20.00	ug/mL	0.00
86) Perylene-d12	10.366	264	566082	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.717	112	220600	50.00	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	50.00%	
7) SURRPhenol-d5	3.484	99	252529	50.00	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	50.00%	
22) SURRNitrbenzened5	4.501	82	250860	100.00	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	100.00%	
44) SURR2Flbiphenyl	6.652	172	648563	100.00	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	100.00%	
62) SURR246Tribphenl	7.669	330	127296	50.00	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	50.00%	
78) SURRTerphenyl-d14	8.888	244	467148	100.00	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	100.00%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.992	74	130106	20.0000	ug/mL	100
3) Pyridine	2.006	79	230733	20.0000	ug/mL	100
5) Aniline	3.515	93	325729	20.0000	ug/mL	100
6) bis2Clethletr	3.583	93	205138	20.0000	ug/mL	100
8) Phenol	3.495	94	287537	20.0000	ug/mL	100
9) 2-Cl-phenol	3.629	128	236537	20.0000	ug/mL	100
10) 13Diclbenz	3.788	146	275066	20.0000	ug/mL	100
11) 14Diclbenz	3.867	146	274098	20.0000	ug/mL	100
12) 12Diclbenz	4.032	146	265210	20.0000	ug/mL	100
13) Benzyl alcoho	4.015	108	154637	20.0000	ug/mL	100
14) bis2clispreth	4.183	45	499095	20.0000	ug/mL	100
15) 2Methylphenol	4.154	107	185063	20.0000	ug/mL	100
16) Ntrspyrrol	4.299	100	113708	20.0000	ug/mL	100
17) Acetophenone	4.325	105	353356	20.0000	ug/mL	100
18) Hexaclethane	4.427	117	118687	20.0000	ug/mL	100
19) N-Ntrsdinprop	4.342	70	176787	20.0000	ug/mL	100
20) 3&4Methylphenol	4.350	107	240750	20.0000	ug/mL	100
23) Nitrobenzene	4.527	77	246473	20.0000	ug/mL	100
24) Isophorone	4.856	82	453903	20.0000	ug/mL	100
25) 2-Nitrophenol	4.947	139	130550	20.0000	ug/mL	100
26) 24Dimthpheno	5.055	122	189510	20.0000	ug/mL	100
27) bis2clethoxym	5.200	93	287299	20.0000	ug/mL	100
28) 24Diclphenol	5.308	162	250527	20.0000	ug/mL	100
29) 124Triclbenz	5.422	180	292309	20.0000	ug/mL	100
30) Benzoic acid	5.257	122	135297	20.0000	ug/mL	100
31) Naphthalene	5.515	128	785711	20.0000	ug/mL	100
32) 4-Cl-aniline	5.623	127	310559	20.0000	ug/mL	100
33) 26Diclphenol	5.623	162	234796	20.0000	ug/mL	100
34) Hexaclprop	5.643	213	233429	20.0000	ug/mL	100
35) Hexaclbutdien	5.711	225	220949	20.0000	ug/mL	100
36) 4Cl3methylphe	6.209	107	251916	20.0000	ug/mL	100
37) 2Methylnaphth	6.308	142	566734	20.0000	ug/mL	100
38) 1Methylnaphth	6.396	141	465309	20.0000	ug/mL	100
40) Hxclcycpentdi	6.464	237	177871	20.0000	ug/mL	100

Data File : C:\INSTARCH\Data\1S110916\1ICAL4.D
 Acq On : 9 Nov 2016 16:05
 Sample : ICAL 20ug/ml SVMS7211
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:20:59 2016

Vial: 16
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

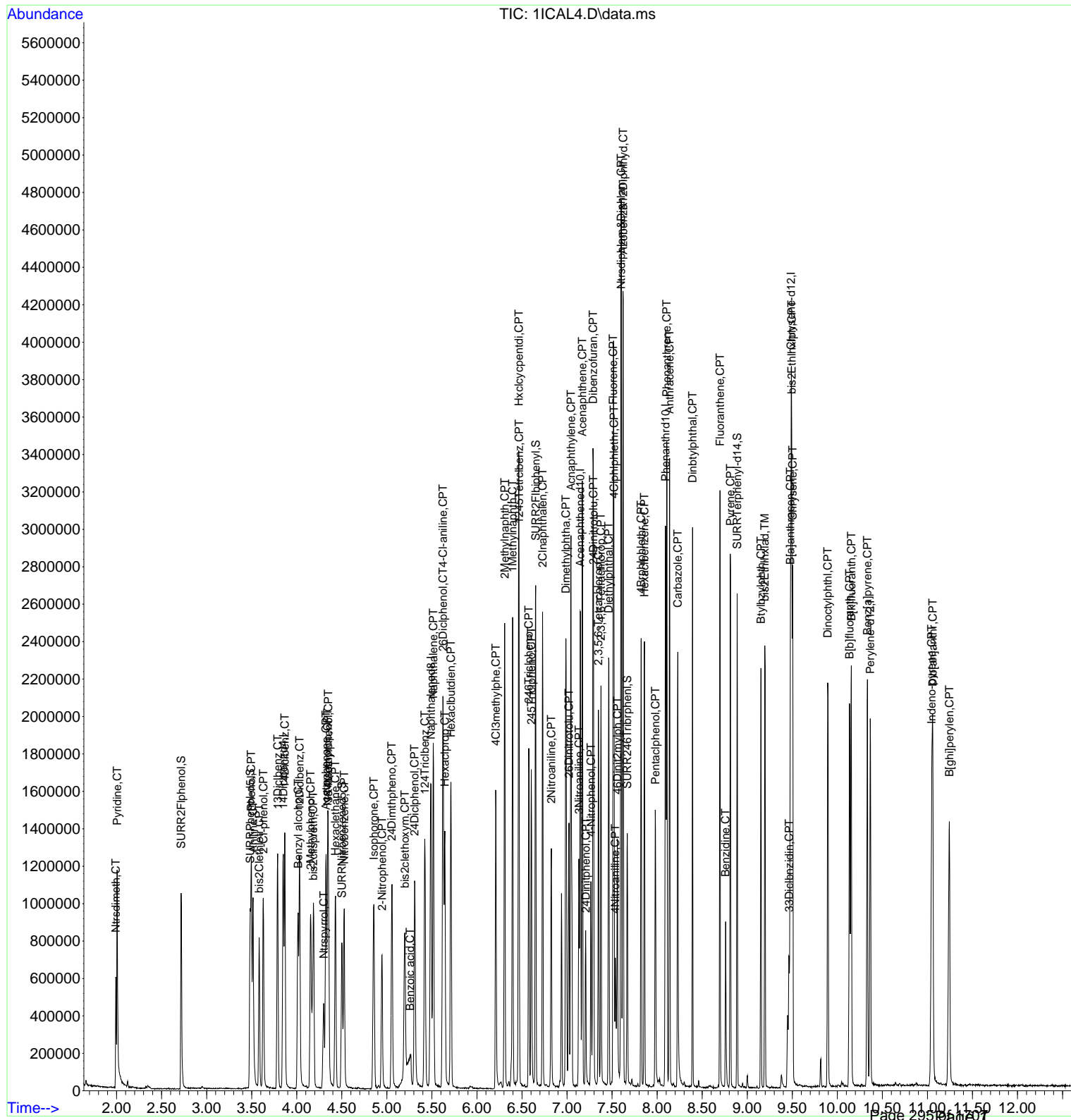
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:20:56 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.467	216	305467	20.0000	ug/mL	100
42) 246Triclpheno	6.575	196	198602	20.0000	ug/mL	100
43) 245Triclpheno	6.604	196	215534	20.0000	ug/mL	100
45) 2Clnaphthalen	6.729	162	530185	20.0000	ug/mL	100
46) 2Nitroaniline	6.825	65	160909	20.0000	ug/mL	100
47) Acnaphthylene	7.044	152	880065	20.0000	ug/mL	100
48) Dimethylphtha	6.987	163	603841	20.0000	ug/mL	100
49) 26Dinitrotolu	7.021	165	131013	20.0000	ug/mL	100
50) Acenaphthene	7.169	154	512222	20.0000	ug/mL	100
51) 3Nitroaniline	7.132	138	135093	20.0000	ug/mL	100
52) 24Dinitphenol	7.209	184	79569	20.0000	ug/mL	100
53) Dibenzofuran	7.288	168	762967	20.0000	ug/mL	100
54) 24Dinitrotolu	7.294	165	173441	20.0000	ug/mL	100
55) 4-Nitrophenol	7.266	65	132561	20.0000	ug/mL	100
56) 2,3,5,6-Tetrachlorop	7.348	232	181449	20.0000	ug/mL	100
57) 2,3,4,6-Tetrachlorop	7.377	232	193809	20.0000	ug/mL	100
58) Fluorene	7.513	166	618414	20.0000	ug/mL	100
59) 4Clphlphlethr	7.521	204	311596	20.0000	ug/mL	100
60) Diethylphthal	7.462	149	684704	20.0000	ug/mL	100
61) 4Nitroaniline	7.536	138	133615	20.0000	ug/mL	100
64) 46Dinit2mylph	7.558	198	106058	20.0000	ug/mL	100
65) Ntrsdiphlam&Diplam	7.601	169	872885	40.0000	ug/mL	100
66) Azobenz&12Diphlyhyd	7.624	182	269950	40.0000	ug/mL	100
67) 4Brphlphlethr	7.823	248	205292	20.0000	ug/mL	100
68) Hexaclbenzene	7.860	284	233452	20.0000	ug/mL	100
69) Pentaclphenol	7.982	266	132151	20.0000	ug/mL	100
70) Phenanthrene	8.107	178	879806	20.0000	ug/mL	100
71) Anthracene	8.138	178	920239	20.0000	ug/mL	100
72) Carbazole	8.229	167	735399	20.0000	ug/mL	100
73) Dinbtylphthal	8.394	149	770034	20.0000	ug/mL	100
74) Fluoranthene	8.698	202	729518	20.0000	ug/mL	100
76) Benzidine	8.760	184	214497	20.0000	ug/mL	100
77) Pyrene	8.814	202	747566	20.0000	ug/mL	100
79) Btylbzylphth	9.152	149	335787	20.0000	ug/mL	100
80) bis2Ethlhxlad	9.195	129	251274	20.0000	ug/mL	100
81) 33Diclbnzidin	9.465	252	122321	20.0000	ug/mL	100
82) B[a]anthracen	9.479	228	673546	20.0000	ug/mL	100
83) Chrysene	9.505	228	623689	20.0000	ug/mL	100
84) bis2Ethlhxlph	9.493	149	458347	20.0000	ug/mL	100
85) Dinocetylphthl	9.894	149	860138	20.0000	ug/mL	100
87) B[b]fluoranth	10.136	252	665851	20.0000	ug/mL	100
88) B[k]fluoranth	10.155	252	648530	20.0000	ug/mL	100
89) Benz[a]pyrene	10.334	252	662033	20.0000	ug/mL	100
90) Indeno-pyrene	11.048	276	730791	20.0000	ug/mL	100
91) Dib[ah]anthr	11.059	278	595509	20.0000	ug/mL	100
92) B[ghi]perylene	11.244	276	634174	20.0000	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 16
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL3.D

Acq On : 9 Nov 2016 16:24

Sample : ICAL 10ug/ml SVMS7210

Misc : 500uL+5uL IS S3553C

Integrator: RTE

Quant Time: Nov 09 16:37:34 2016

Vial: 17

Operator: JJY

Inst : SVMS1

Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Wed Nov 09 16:28:47 2016

Response via : Initial Calibration

DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	184084	20.00	ug/mL	0.00
21) Naphthalened8	5.487	136	841342	20.00	ug/mL	0.00
39) Acenaphthened10	7.149	164	387360	20.00	ug/mL	0.00
63) Phenanthrd10	8.092	188	849655	20.00	ug/mL	0.00
75) Chrysene-d12	9.485	240	579199	20.00	ug/mL	0.00
86) Perylene-d12	10.366	264	562031	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.716	112	100929	23.44	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	23.44%	
7) SURRPhenol-d5	3.478	99	117240	24.35	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	24.35%	
22) SURRNitrbenzened5	4.498	82	114577	47.77	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	47.77%	
44) SURR2Flbiphenyl	6.652	172	313130	50.62	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	50.62%	
62) SURR246Tribphenl	7.666	330	61612	25.27	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	25.27%#	
78) SURRTerphenyl-d14	8.888	244	231321	47.34	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	47.34%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.995	74	63181	10.0922	ug/mL	96
3) Pyridine	2.009	79	108754	9.5547	ug/mL	95
5) Aniline	3.512	93	152329	9.4904	ug/mL#	42
6) bis2Clethletr	3.583	93	92764	9.2250	ug/mL	95
8) Phenol	3.492	94	134429	9.5918	ug/mL	95
9) 2-Cl-phenol	3.626	128	109947	9.6256	ug/mL	95
10) 13Diclbenz	3.788	146	129345	9.8701	ug/mL	95
11) 14Diclbenz	3.867	146	131804	10.0385	ug/mL	97
12) 12Diclbenz	4.032	146	125433	10.0655	ug/mL	96
13) Benzyl alcoho	4.009	108	69287	9.1516	ug/mL	80
14) bis2clispreth	4.182	45	238422	10.0864	ug/mL	98
15) 2Methylphenol	4.151	107	89779	10.2059	ug/mL	94
16) Ntrspyrrol	4.291	100	56040	10.1058	ug/mL	77
17) Acetophenone	4.319	105	163720	9.6913	ug/mL	94
18) Hexaclethane	4.427	117	56222	10.0536	ug/mL	96
19) N-Ntrsdinprop	4.333	70	78875	9.3908	ug/mL	96
20) 3&4Methylphenol	4.345	107	112236	9.7220	ug/mL	97
23) Nitrobenzene	4.524	77	115462	9.5647	ug/mL	97
24) Isophorone	4.850	82	214525	9.8893	ug/mL	96
25) 2-Nitrophenol	4.941	139	60156	9.7804	ug/mL	87
26) 24Dimthpheno	5.052	122	88143	9.7234	ug/mL	89
27) bis2clethoxym	5.197	93	133639	9.6760	ug/mL	98
28) 24Diclphenol	5.305	162	122075	10.3951	ug/mL	94
29) 124Triclbenz	5.419	180	141871	10.1557	ug/mL	95
30) Benzoic acid	5.214	122	51314	7.6581	ug/mL	85
31) Naphthalene	5.515	128	387959	10.3962	ug/mL	98
32) 4-Cl-aniline	5.620	127	143628	9.8460	ug/mL	95
33) 26Diclphenol	5.623	162	112827	10.6426	ug/mL	92
34) Hexaclprop	5.643	213	106219	9.9203	ug/mL	93
35) Hexaclbutdien	5.711	225	103353	10.2315	ug/mL	93
36) 4Cl3methylphe	6.209	107	116486	9.7278	ug/mL	98
37) 2Methylnaphth	6.308	142	271583	10.3348	ug/mL	96
38) 1Methylnaphth	6.396	141	224696	10.3601	ug/mL	98
40) Hxclcycpentdi	6.464	237	78574	9.3084	ug/mL	98

Data File : C:\INSTARCH\Data\1S110916\1ICAL3.D
 Acq On : 9 Nov 2016 16:24
 Sample : ICAL 10ug/ml SVMS7210
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 16:37:34 2016

Vial: 17
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

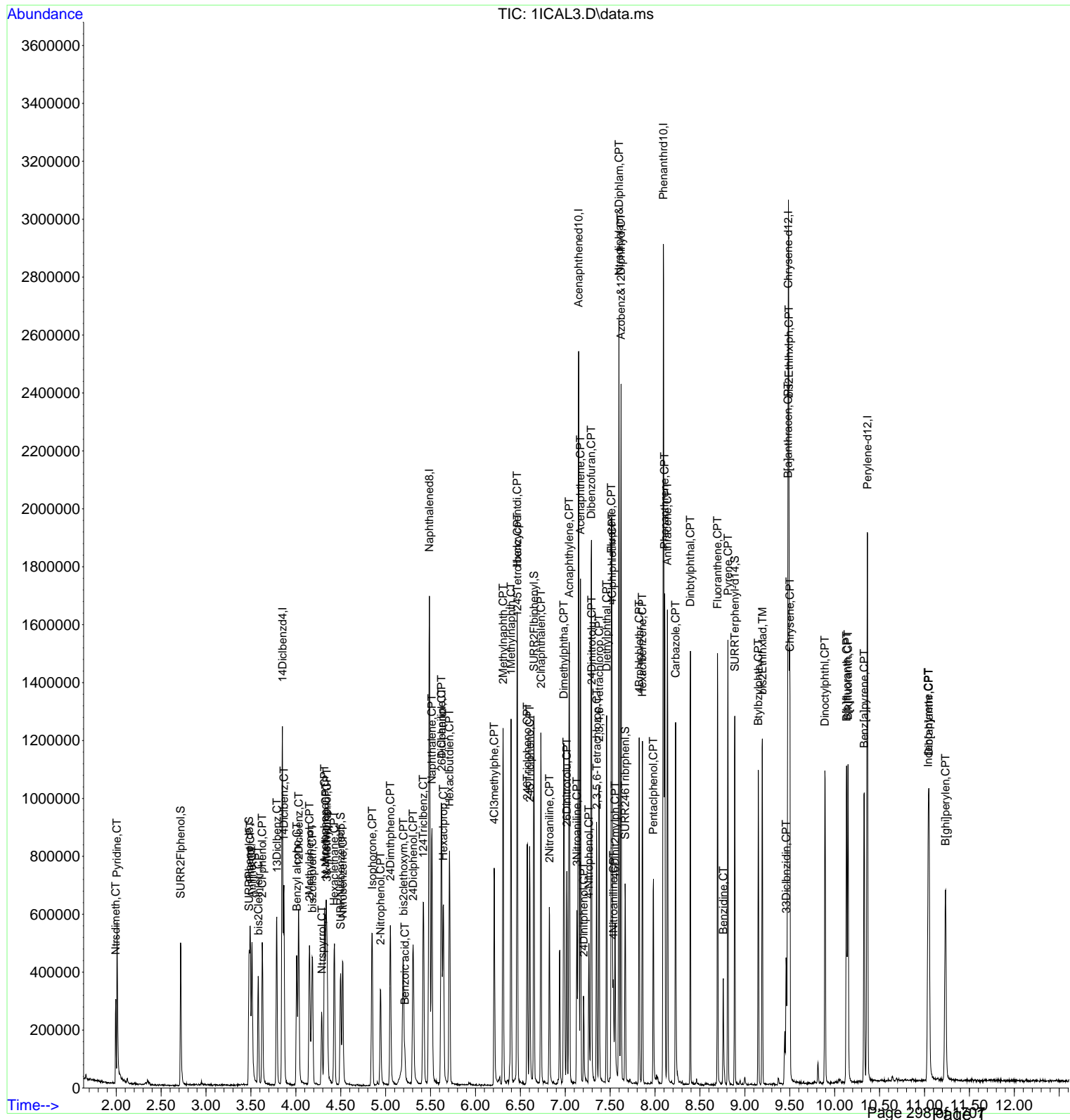
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:28:47 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.467	216	154409	10.7450	ug/mL	99
42) 246Triclpheno	6.578	196	93509	9.7082	ug/mL	92
43) 245Triclpheno	6.604	196	104799	10.2646	ug/mL	99
45) 2Clnaphthalen	6.729	162	258099	10.0856	ug/mL	97
46) 2Nitroaniline	6.822	65	75111	9.1611	ug/mL	93
47) Acnaphthylene	7.044	152	422440	9.9869	ug/mL	99
48) Dimethylphtha	6.984	163	294126	10.2324	ug/mL	98
49) 26Dinitrotolu	7.018	165	64135	10.0399	ug/mL	96
50) Acenaphthene	7.169	154	255723	10.3622	ug/mL	97
51) 3Nitroaniline	7.129	138	66125	9.9748	ug/mL	90
52) 24Dinitphenol	7.206	184	26630	6.6503	ug/mL	75
53) Dibenzofuran	7.288	168	382756	10.4374	ug/mL	98
54) 24Dinitrotolu	7.294	165	83126	10.0935	ug/mL	82
55) 4-Nitrophenol	7.263	65	59122	8.9106	ug/mL	95
56) 2,3,5,6-Tetrachlorop	7.351	232	86440	9.8956	ug/mL	97
57) 2,3,4,6-Tetrachlorop	7.376	232	92932	9.9924	ug/mL	97
58) Fluorene	7.513	166	305813	10.5382	ug/mL	98
59) 4Clphlphlethr	7.521	204	157627	11.0573	ug/mL	98
60) Diethylphthal	7.462	149	322099	9.7488	ug/mL	95
61) 4Nitroaniline	7.536	138	62603	9.3557	ug/mL	85
64) 46Dinit2mylph	7.555	198	43950	8.4590	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.598	169	432317	21.5993	ug/mL	97
66) Azobenz&12Diphylhyd	7.621	182	132730	20.9015	ug/mL	98
67) 4Brphlphlethr	7.823	248	102372	10.7468	ug/mL	96
68) Hexaclbenzene	7.859	284	113528	10.3889	ug/mL	97
69) Pentaclphenol	7.982	266	58712	8.8933	ug/mL	95
70) Phenanthrene	8.107	178	436613	10.4554	ug/mL	99
71) Anthracene	8.138	178	444103	10.3519	ug/mL	99
72) Carbazole	8.229	167	358329	10.1744	ug/mL	98
73) Dinbtylphthal	8.394	149	384077	10.3702	ug/mL	99
74) Fluoranthene	8.695	202	355932	10.2412	ug/mL	98
76) Benzydine	8.760	184	96992	7.8014	ug/mL	97
77) Pyrene	8.811	202	365905	9.2791	ug/mL	98
79) Btylbzylphth	9.149	149	159619	8.9335	ug/mL	99
80) bis2Ethlhxlad	9.195	129	118756	8.9471	ug/mL	99
81) 33Diclbnzidin	9.459	252	66872	9.3792	ug/mL	97
82) B[a]anthracen	9.479	228	326902	9.3061	ug/mL	98
83) Chrysene	9.502	228	302470	9.3176	ug/mL	98
84) bis2Ethlhxlph	9.490	149	228055	9.8008	ug/mL	99
85) Dinocetylphthl	9.891	149	406719	8.9391	ug/mL	99
87) B[b]fluoranth	10.133	252	338254	10.1554	ug/mL	99
88) B[k]fluoranth	10.150	252	282984	9.5130	ug/mL	97
89) Benz[a]pyrene	10.329	252	313967	10.0358	ug/mL	98
90) Indeno-pyrene	11.042	276	356624	10.2422	ug/mL	98
91) Dib[ah]anthr	11.050	278	293430	10.3394	ug/mL	93
92) B[ghi]perylen	11.235	276	303973	9.9622	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 17
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 16:28:47 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL2.D
 Acq On : 9 Nov 2016 16:44
 Sample : ICAL 5ug/ml SVMS7209
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:08:53 2016

Vial: 18
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:40:55 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	177126	20.00	ug/mL	0.00
21) Naphthalened8	5.487	136	810913	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	369861	20.00	ug/mL	0.00
63) Phenanthrd10	8.092	188	810464	20.00	ug/mL	0.00
75) Chrysene-d12	9.485	240	559367	20.00	ug/mL	0.00
86) Perylene-d12	10.363	264	535355	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.719	112	50914	12.45	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	12.45%#	
7) SURRPhenol-d5	3.478	99	57653	12.51	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	12.51%	
22) SURRNitrbenzened5	4.498	82	58502	25.54	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	25.54%#	
44) SURR2Flbiphenyl	6.652	172	164063	27.71	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	27.71%#	
62) SURR246Tribphenl	7.666	330	29792	12.77	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	12.77%#	
78) SURRTerphenyl-d14	8.888	244	114699	24.57	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	24.57%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.995	74	31677	5.2490	ug/mL	96
3) Pyridine	2.012	79	43386	3.9971	ug/mL	90
5) Aniline	3.512	93	58877	3.8515	ug/mL	87
6) bis2Clethletr	3.580	93	46698	4.9023	ug/mL	91
8) Phenol	3.492	94	67515	5.0478	ug/mL	94
9) 2-Cl-phenol	3.626	128	55699	5.1061	ug/mL	87
10) 13Diclbenz	3.785	146	63346	5.0368	ug/mL	93
11) 14Diclbenz	3.867	146	69137	5.4683	ug/mL	98
12) 12Diclbenz	4.032	146	62248	5.1846	ug/mL	87
13) Benzyl alcoho	4.006	108	35516	4.9595	ug/mL	85
14) bis2clispreth	4.182	45	124410	5.4605	ug/mL	96
15) 2Methylphenol	4.151	107	45402	5.3420	ug/mL	96
16) Ntrspyrrol	4.285	100	28347	5.3014	ug/mL	89
17) Acetophenone	4.316	105	87758	5.4324	ug/mL	96
18) Hexaclethane	4.427	117	29519	5.4800	ug/mL	94
19) N-Ntrsdinprop	4.330	70	42543	5.3290	ug/mL	96
20) 3&4Methylphenol	4.342	107	55622	5.0353	ug/mL	90
23) Nitrobenzene	4.521	77	56661	4.9126	ug/mL	99
24) Isophorone	4.845	82	108833	5.2168	ug/mL	98
25) 2-Nitrophenol	4.944	139	29825	5.0532	ug/mL	96
26) 24Dimthpheno	5.052	122	45296	5.2131	ug/mL	95
27) bis2clethoxym	5.191	93	73683	5.5712	ug/mL	95
28) 24Diclphenol	5.302	162	59884	5.2492	ug/mL	97
29) 124Triclbenz	5.422	180	75012	5.5539	ug/mL	91
30) Benzoic acid	5.183	122	24143	3.9220	ug/mL	94
31) Naphthalene	5.512	128	200947	5.5429	ug/mL	98
32) 4-Cl-aniline	5.618	127	61191	4.3656	ug/mL	97
33) 26Diclphenol	5.620	162	56083	5.4190	ug/mL	84
34) Hexaclprop	5.643	213	56585	5.4918	ug/mL	96
35) Hexaclbutdien	5.711	225	53428	5.4623	ug/mL	97
36) 4Cl3methylphe	6.209	107	58021	5.0547	ug/mL	93
37) 2Methylnaphth	6.308	142	140474	5.5093	ug/mL	90
38) 1Methylnaphth	6.396	141	118210	5.6144	ug/mL	98
40) Hxclcycpentdi	6.464	237	36675	4.6142	ug/mL	96

Data File : C:\INSTARCH\Data\1S110916\1ICAL2.D
 Acq On : 9 Nov 2016 16:44
 Sample : ICAL 5ug/ml SVMS7209
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:08:53 2016

Vial: 18
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

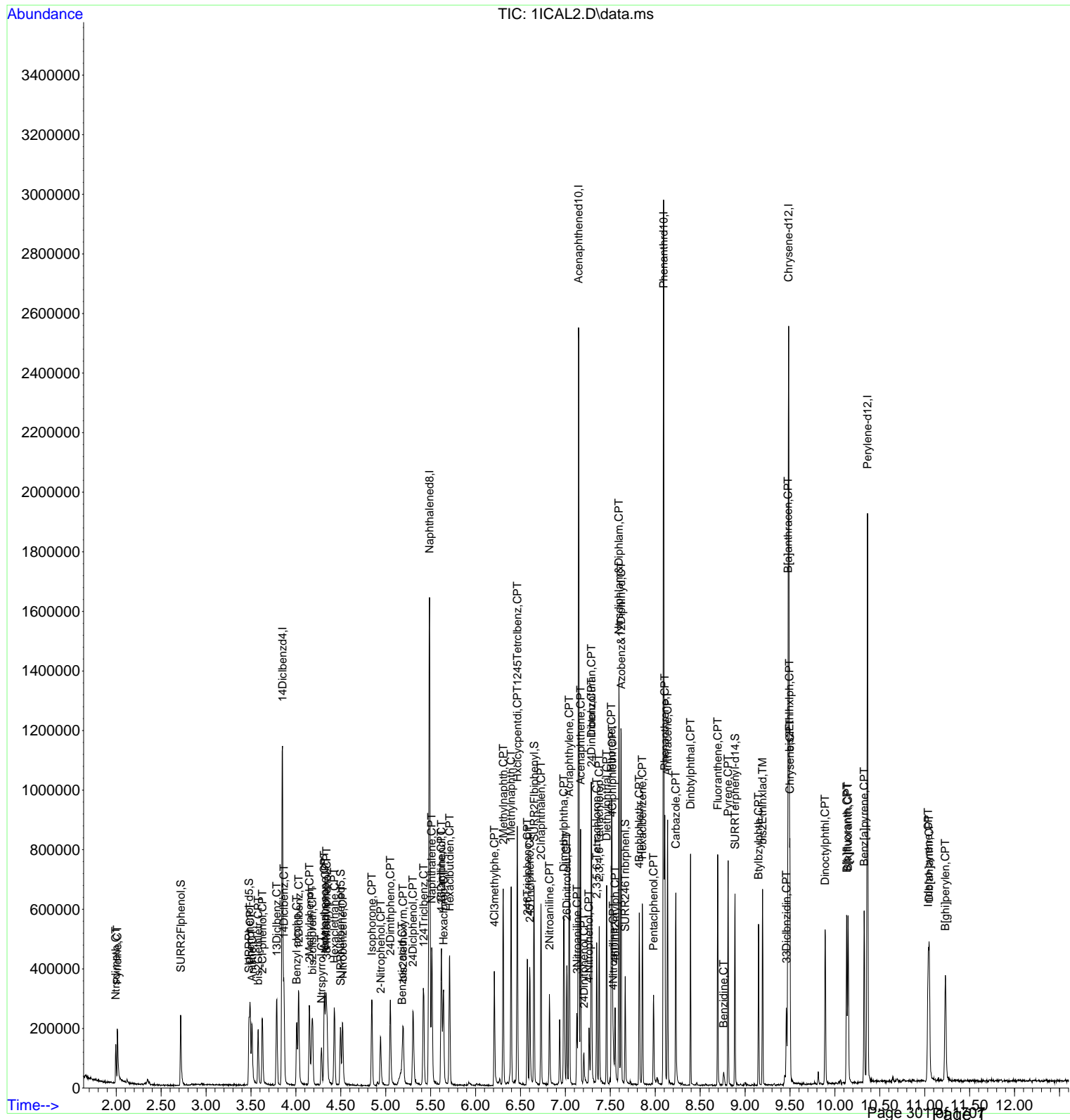
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 16:40:55 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 1245Tetrclbenz	6.464	216	80436	5.7761	ug/mL	92
42) 246Triclpheno	6.578	196	46476	5.0832	ug/mL	88
43) 245Triclpheno	6.604	196	51836	5.2893	ug/mL	98
45) 2Clnaphthalen	6.729	162	136109	5.5608	ug/mL	98
46) 2Nitroaniline	6.822	65	37510	4.8732	ug/mL	100
47) Acnaphthylene	7.041	152	222863	5.5194	ug/mL	98
48) Dimethylphtha	6.981	163	154440	5.6010	ug/mL	94
49) 26Dinitrotolu	7.016	165	34853	5.7096	ug/mL	90
50) Acenaphthene	7.169	154	130694	5.5065	ug/mL	98
51) 3Nitroaniline	7.129	138	27712	4.3803	ug/mL	97
52) 24Dinitphenol	7.206	184	9676	2.7124	ug/mL	87
53) Dibenzofuran	7.288	168	202117	5.7223	ug/mL	96
54) 24Dinitrotolu	7.291	165	43366	5.5045	ug/mL	97
55) 4-Nitrophenol	7.263	65	28192	4.5491	ug/mL	80
56) 2,3,5,6-Tetrachlorop	7.348	232	40583	4.8759	ug/mL	77
57) 2,3,4,6-Tetrachlorop	7.376	232	48602	5.4739	ug/mL	97
58) Fluorene	7.513	166	161745	5.7752	ug/mL	97
59) 4Clphlphlethr	7.521	204	81294	5.8488	ug/mL	94
60) Diethylphthal	7.459	149	175655	5.5961	ug/mL	96
61) 4Nitroaniline	7.533	138	27893	4.4227	ug/mL	94
64) 46Dinit2mylph	7.553	198	19558	4.0718	ug/mL	91
65) Ntrsdiphlam&Diphlam	7.595	169	230710	11.8938	ug/mL	95
66) Azobenz&12Diphylhyd	7.621	182	71278	11.6620	ug/mL#	80
67) 4Brphlphlethr	7.823	248	51348	5.5679	ug/mL	97
68) Hexaclbenzene	7.857	284	58552	5.5738	ug/mL	95
69) Pentaclphenol	7.982	266	26487	4.3013	ug/mL	78
70) Phenanthrene	8.107	178	214844	5.3449	ug/mL	97
71) Anthracene	8.138	178	234691	5.6950	ug/mL	98
72) Carbazole	8.229	167	183670	5.4483	ug/mL	98
73) Dinbtylphthal	8.394	149	195316	5.4880	ug/mL	99
74) Fluoranthene	8.695	202	186055	5.5853	ug/mL	99
76) Benzydine	8.763	184	15268	1.3301	ug/mL	94
77) Pyrene	8.811	202	188155	5.0129	ug/mL	97
79) Btylbzylphth	9.149	149	83401	4.9386	ug/mL	96
80) bis2Ethlhxlad	9.195	129	62927	5.0146	ug/mL	99
81) 33Diclbnzidin	9.459	252	40513	5.9576	ug/mL	96
82) B[a]anthracen	9.479	228	170027	5.0824	ug/mL	92
83) Chrysene	9.499	228	155567	5.0308	ug/mL	95
84) bis2Ethlhxlph	9.493	149	114775	5.1278	ug/mL	99
85) Dinocetylphthl	9.891	149	192847	4.4839	ug/mL	98
87) B[b]fluoranth	10.133	252	161226	5.0659	ug/mL	98
88) B[k]fluoranth	10.147	252	169365	6.0360	ug/mL	98
89) Benz[a]pyrene	10.326	252	164777	5.5255	ug/mL	98
90) Indeno-pyrene	11.039	276	180323	5.4107	ug/mL	97
91) Dib[ah]anthr	11.050	278	148245	5.4469	ug/mL	91
92) B[ghi]perylen	11.229	276	149792	5.1577	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 18
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL1.D
 Acq On : 9 Nov 2016 17:03
 Sample : ICAL 1ug/ml SVMS7208
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:16:34 2016

Vial: 19
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:11:40 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.847	152	178823	20.00	ug/mL	0.00
21) Naphthalened8	5.484	136	815700	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	377511	20.00	ug/mL	0.00
63) Phenanthrd10	8.093	188	827417	20.00	ug/mL	0.00
75) Chrysene-d12	9.485	240	570513	20.00	ug/mL	0.00
86) Perylene-d12	10.363	264	567070	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.719	112	8784	2.13	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	2.13%#	
7) SURRPhenol-d5	3.475	99	11376	2.44	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	2.44%#	
22) SURRNitrbenzened5	4.495	82	11178	4.83	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	4.83%#	
44) SURR2Flbiphenyl	6.652	172	32531	5.29	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	5.29%#	
62) SURR246Tribphenl	7.666	330	5717	2.39	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	2.39%#	
78) SURRTerphenyl-d14	8.888	244	23265	4.90	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	4.90%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.998	74	5406	0.8800	ug/mL	85
3) Pyridine	2.023	79	7859	0.7420	ug/mL	79
5) Aniline	3.509	93	13811	0.9305	ug/mL#	50
6) bis2Clethletr	3.578	93	10131	1.0569	ug/mL	95
8) Phenol	3.492	94	12042	0.8904	ug/mL	80
9) 2-Cl-phenol	3.629	128	10529	0.9527	ug/mL	88
10) 13Diclbenz	3.788	146	12567	0.9885	ug/mL	84
11) 14Diclbenz	3.867	146	13397	1.0334	ug/mL	90
12) 12Diclbenz	4.032	146	13548	1.1109	ug/mL	94
13) Benzyl alcoho	4.007	108	5893	0.8162	ug/mL#	73
14) bis2clispreth	4.181	45	24722	1.0585	ug/mL	95
15) 2Methylphenol	4.149	107	7650	0.8815	ug/mL#	85
16) Ntrspyrrol	4.282	100	4865	0.8923	ug/mL#	66
17) Acetophenone	4.316	105	15249	0.9217	ug/mL	93
18) Hexaclethane	4.427	117	5742	1.0392	ug/mL	89
19) N-Ntrsdinprop	4.330	70	7528	0.9239	ug/mL	79
20) 3&4Methylphenol	4.345	107	9962	0.8922	ug/mL	86
23) Nitrobenzene	4.521	77	12308	1.0640	ug/mL	90
24) Isophorone	4.845	82	20831	0.9855	ug/mL	99
25) 2-Nitrophenol	4.941	139	4955	0.8331	ug/mL	80
26) 24Dimthpheno	5.052	122	7947	0.9028	ug/mL	95
27) bis2clethoxym	5.194	93	14117	1.0413	ug/mL	99
28) 24Diclphenol	5.308	162	11427	0.9876	ug/mL	91
29) 124Triclbenz	5.422	180	14631	1.0574	ug/mL	80
30) Benzoic acid	5.137	122	2065	0.3459	ug/mL#	57
31) Naphthalene	5.513	128	40584	1.0931	ug/mL	93
32) 4-Cl-aniline	5.615	127	14379	1.0419	ug/mL	92
33) 26Diclphenol	5.621	162	10958	1.0381	ug/mL	95
34) Hexaclprop	5.638	213	10204	0.9687	ug/mL	85
35) Hexaclbutdien	5.709	225	11334	1.1345	ug/mL	85
36) 4Cl3methylphe	6.212	107	9269	0.8013	ug/mL	88
37) 2Methylnaphth	6.305	142	28151	1.0793	ug/mL	98
38) 1Methylnaphth	6.393	141	23964	1.1088	ug/mL	98
40) Hxclcycpentdi	6.464	237	5454	0.6810	ug/mL	75

Data File : C:\INSTARCH\Data\1S110916\1ICAL1.D
 Acq On : 9 Nov 2016 17:03
 Sample : ICAL 1ug/ml SVMS7208
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:16:34 2016

Vial: 19
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

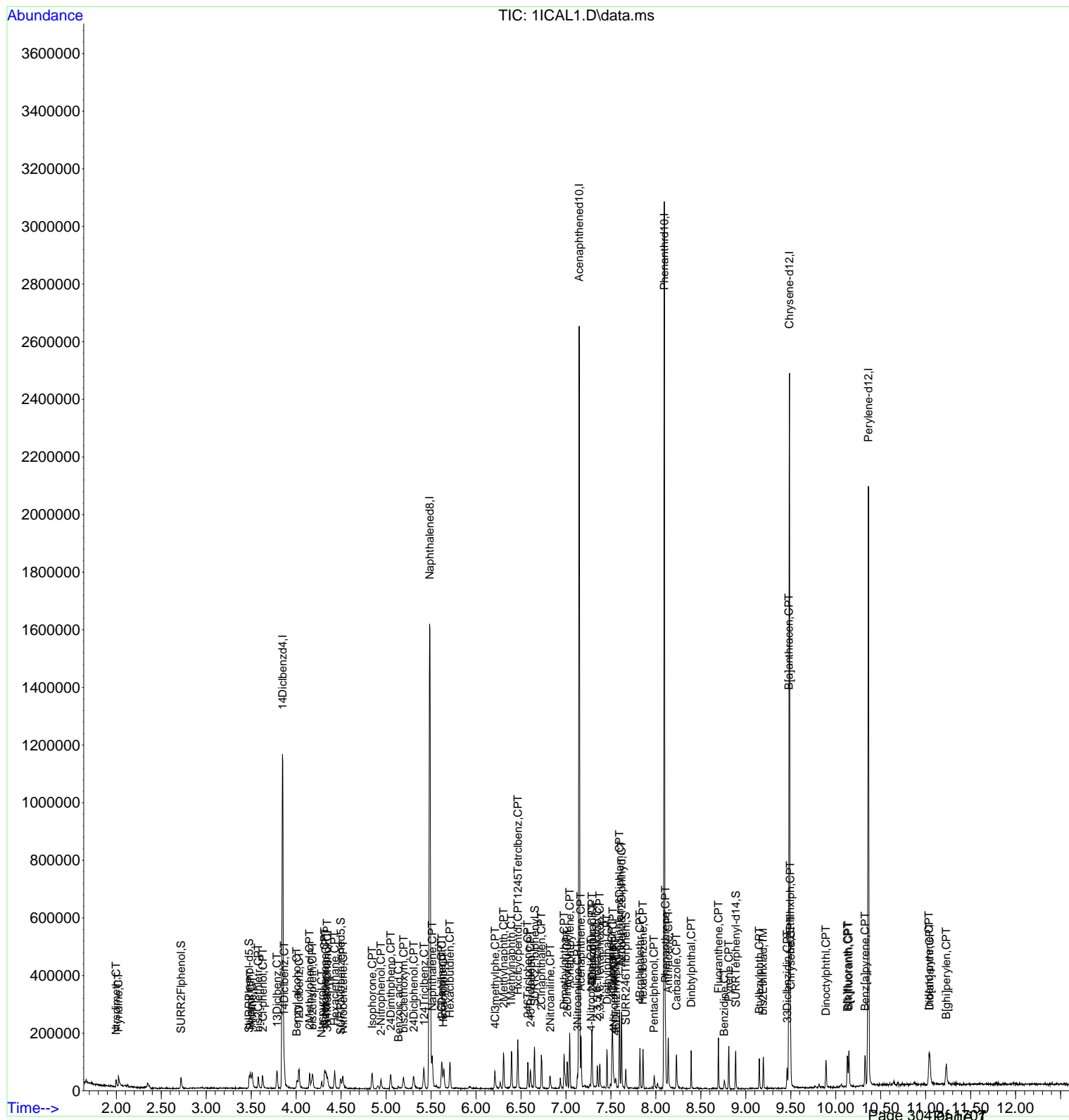
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:11:40 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.464	216	16978	1.1644	ug/mL	95
42) 246Triclpheno	6.575	196	9651	1.0313	ug/mL	84
43) 245Triclpheno	6.606	196	10158	1.0058	ug/mL	91
45) 2Clnaphthalen	6.726	162	27304	1.0729	ug/mL	89
46) 2Nitroaniline	6.825	65	6411	0.8195	ug/mL	80
47) Acnaphthylene	7.041	152	45716	1.0904	ug/mL	95
48) Dimethylphtha	6.979	163	31851	1.1095	ug/mL	97
49) 26Dinitrotolu	7.013	165	6587	1.0328	ug/mL	91
50) Acenaphthene	7.166	154	27305	1.1084	ug/mL	93
51) 3Nitroaniline	7.126	138	6217	0.9831	ug/mL	94
52) 24Dinitphenol	0.000		0	N.D.		
53) Dibenzofuran	7.288	168	41650	1.1281	ug/mL	100
54) 24Dinitrotolu	7.291	165	8218	1.0051	ug/mL	96
55) 4-Nitrophenol	7.280	65	2315	0.3716	ug/mL#	1
56) 2,3,5,6-Tetrachlorop	7.348	232	7596	0.8979	ug/mL	82
57) 2,3,4,6-Tetrachlorop	7.377	232	9552	1.0376	ug/mL	88
58) Fluorene	7.513	166	33205	1.1323	ug/mL	94
59) 4Clphlphlethr	7.521	204	17898	1.2269	ug/mL	90
60) Diethylphthal	7.456	149	33645	1.0297	ug/mL	94
61) 4Nitroaniline	7.533	138	6116	0.9687	ug/mL#	62
64) 46Dinit2mylph	7.556	198	2841	0.5979	ug/mL#	74
65) Ntrsdiphlam&Diphlam	7.595	169	49326	2.4146	ug/mL	98
66) Azobenz&12Diphylhyd	7.618	182	15546	2.4243	ug/mL#	82
67) 4Brphlphlethr	7.823	248	10731	1.1186	ug/mL	82
68) Hexaclbenzene	7.857	284	13086	1.1973	ug/mL	90
69) Pentaclphenol	7.979	266	3753	0.6112	ug/mL	68
70) Phenanthrene	8.107	178	48591	1.1706	ug/mL	96
71) Anthracene	8.138	178	47070	1.0935	ug/mL	95
72) Carbazole	8.229	167	36583	1.0473	ug/mL	93
73) Dinbtylphthal	8.394	149	36665	0.9930	ug/mL	98
74) Fluoranthene	8.695	202	38293	1.1044	ug/mL	94
76) Benzidine	8.760	184	10954	1.0660	ug/mL	93
77) Pyrene	8.811	202	38215	0.9978	ug/mL	97
79) Btylbzylphth	9.150	149	14674	0.8537	ug/mL	83
80) bis2Ethlhxlad	9.192	129	11296	0.8822	ug/mL	95
81) 33Diclbnzidin	9.459	252	11754	1.6423	ug/mL	82
82) B[a]anthracen	9.479	228	35093	1.0257	ug/mL	90
83) Chrysene	9.499	228	31653	1.0026	ug/mL	96
84) bis2Ethlhxlph	9.493	149	21621	0.9431	ug/mL	95
85) Dinocetylphthl	9.891	149	34563	0.8017	ug/mL	100
87) B[b]fluoranth	10.130	252	32589	0.9646	ug/mL	91
88) B[k]fluoranth	10.144	252	34098	1.1090	ug/mL	88
89) Benz[a]pyrene	10.326	252	34167	1.0630	ug/mL	86
90) Indeno-pyrene	11.036	276	36858	1.0300	ug/mL	87
91) Dib[ah]anthr	11.045	278	29180	0.9973	ug/mL	92
92) B[ghi]perylen	11.230	276	30030	0.9711	ug/mL	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 19
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 17:11:40 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	96	0.08
2 CT	Ntrsdimeth	20.000	20.981	-4.9	101	0.07
3 CT	Pyridine	20.000	21.503	-7.5	105	0.06
4 S	SURR2Flphenol	50.000	51.569	-3.1	98	0.06
5 CT	Aniline	20.000	21.633	-8.2	103	0.08
6 CPT	bis2Clethletr	20.000	20.959	-4.8	102	0.07
7 S	SURRPhenol-d5	50.000	49.912	0.2	95	0.07
8 CPT	Phenol	20.000	21.583	-7.9	103	0.07
9 CPT	2-Cl-phenol	20.000	21.224	-6.1	102	0.07
10 CT	13Diclbenz	20.000	20.709	-3.5	99	0.08
11 CT	14Diclbenz	20.000	20.352	-1.8	100	0.08
12 CT	12Diclbenz	20.000	20.771	-3.9	100	0.08
13 CT	Benzyl alcoho	20.000	21.607	-8.0	102	0.08
14 CPT	bis2clispreth	20.000	20.291	-1.5	99	0.08
15 CPT	2Methylphenol	20.000	21.422	-7.1	102	0.07
16 CT	Ntrspyrrol	20.000	20.614	-3.1	101	0.08
17 CPT	Acetophenone	20.000	20.099	-0.5	96	0.09
18 CPT	Hexacethane	20.000	19.954	0.2	97	0.09
19 CPT	N-Ntrsdinprop	20.000	21.237	-6.2	100	0.08
20 CPT	3&4Methylphenol	20.000	21.183	-5.9	100	0.08
21 I	Naphthalened8	20.000	20.000	0.0	96	0.09
22 S	SURRNitrbenzened5	100.000	100.313	-0.3	94	0.09
23 CPT	Nitrobenzene	20.000	21.454	-7.3	104	0.09
24 CPT	Isophorone	20.000	20.899	-4.5	99	0.09
25 CPT	2-Nitrophenol	20.000	21.247	-6.2	97	0.09
26 CPT	24Dimthpheno	20.000	21.382	-6.9	100	0.09
27 CPT	bis2clethoxym	20.000	20.594	-3.0	100	0.10
28 CPT	24Diclphenol	20.000	21.377	-6.9	101	0.09
29 CT	124Triclbenz	20.000	21.188	-5.9	103	0.10
30 CT	Benzoic acid	20.000	20.065	-0.3	95	0.29
31 CPT	Naphthalene	20.000	20.688	-3.4	101	0.09
32 CPT	4-Cl-aniline	20.000	22.151	-10.8	101	0.08
33 CT	26Diclphenol	20.000	20.188	-0.9	93	0.08
34 CT	Hexaclprop	20.000	21.291	-6.5	98	0.09
35 CPT	Hexaclbutdien	20.000	20.909	-4.5	99	0.08
36 CPT	4Cl3methylphe	20.000	21.423	-7.1	98	0.06
37 CPT	2Methylnaphth	20.000	20.656	-3.3	98	0.07
38 CT	1Methylnaphth	20.000	20.657	-3.3	100	0.07
39 I	Acenaphthened10	20.000	20.000	0.0	95	0.05
40 CPT	Hxclcycpentdi	20.000	22.008	-10.0	99	0.07
41 CPT	1245Tetrclbenz	20.000	20.919	-4.6	98	0.07
42 CPT	246Triclpheno	20.000	21.172	-5.9	98	0.06
43 CPT	245Triclpheno	20.000	20.874	-4.4	95	0.06
44 S	SURR2Flbiphenyl	100.000	101.044	-1.0	94	0.06
45 CPT	2Clnaphthalen	20.000	21.386	-6.9	101	0.06
46 CPT	2Nitroaniline	20.000	21.748	-8.7	104	0.06
47 CPT	Acnaphthylene	20.000	21.206	-6.0	100	0.06
48 CPT	Dimethylphtha	20.000	21.218	-6.1	100	0.05
49 CPT	26Dinitrotolu	20.000	21.443	-7.2	102	0.05
50 CPT	Acenaphthene	20.000	21.024	-5.1	100	0.05
51 CPT	3Nitroaniline	20.000	21.619	-8.1	98	0.05

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	20.000	20.997	-5.0	95	0.03
53 CPT	Dibenzofuran	20.000	20.890	-4.5	100	0.05
54 CPT	24Dinitrotolu	20.000	20.567	-2.8	94	0.05
55 CPT	4-Nitrophenol	20.000	21.208	-6.0	97	0.04
56 CT	2,3,5,6-Tetrachlorop	20.000	22.770	-13.8	102	0.05
57 CPT	2,3,4,6-Tetrachlorop	20.000	21.442	-7.2	100	0.05
58 CPT	Fluorene	20.000	21.227	-6.1	100	0.05
59 CPT	4Clphlphlethr	20.000	21.695	-8.5	100	0.05
60 CPT	Diethylphthal	20.000	21.176	-5.9	99	0.05
61 CPT	4Nitroaniline	20.000	22.000	-10.0	101	0.05
62 S	SURR246Tribphenl	50.000	51.755	-3.5	94	0.05
63 I	Phenanthrd10	20.000	20.000	0.0	93	0.05
64 CPT	46Dinit2mylph	20.000	20.453	-2.3	95	0.05
65 CPT	Ntrsdiphlam&Diphlam	40.000	42.076	-5.2	98	0.05
66 CT	Azobenz&12Diphlyd	40.000	42.209	-5.5	99	0.05
67 CPT	4Brphlphlethr	20.000	20.672	-3.4	97	0.05
68 CPT	Hexaclbenzene	20.000	20.118	-0.6	95	0.05
69 CPT	Pentaclphenol	20.000	21.651	-8.3	102	0.05
70 CPT	Phenanthrene	20.000	20.629	-3.1	98	0.05
71 CPT	Anthracene	20.000	20.843	-4.2	97	0.05
72 CPT	Carbazole	20.000	20.745	-3.7	98	0.05
73 CPT	Dinbtylphthal	20.000	21.602	-8.0	102	0.04
74 CPT	Fluoranthene	20.000	20.982	-4.9	99	0.04
75 I	Chrysene-d12	20.000	20.000	0.0	97	0.05
76 CT	Benzidine	20.000	18.599	7.0	94	0.04
77 CPT	Pyrene	20.000	20.643	-3.2	100	0.04
78 S	SURRTerphenyl-d14	100.000	97.623	2.4	93	0.04
79 CPT	Btylbzylphth	20.000	21.188	-5.9	100	0.05
80 TM	bis2Ethlhxlad	20.000	20.991	-5.0	99	0.04
81 CPT	33Diclbnzidin	20.000	20.670	-3.4	105	0.05
82 CPT	B[a]anthracen	20.000	21.350	-6.8	102	0.05
83 CPT	Chrysene	20.000	20.271	-1.4	97	0.05
84 CPT	bis2Ethlhxlph	20.000	20.975	-4.9	98	0.05
85 CPT	Dinoctylphthl	20.000	21.538	-7.7	99	0.05
86 I	Perylene-d12	20.000	20.000	0.0	98	0.06
87 CPT	B[b]fluoranth	20.000	20.533	-2.7	101	0.06
88 CPT	B[k]fluoranth	20.000	21.432	-7.2	101	0.05
89 CPT	Benz[a]pyrene	20.000	21.217	-6.1	101	0.06
90 CPT	Indeno-pyrene	20.000	21.498	-7.5	103	0.07
91 CPT	Dib[ah]anthr	20.000	21.502	-7.5	103	0.07
92 CPT	B[ghi]perylene	20.000	21.829	-9.1	103	0.08

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	96	0.08
2 CT	Ntrsdimeth	0.675	0.708	-4.9	101	0.07
3 CT	Pyridine	1.141	1.304	-14.3	105	0.06
4 S	SURR2Flphenol	0.452	0.466	-3.1	98	0.06
5 CT	Aniline	1.644	1.819	-10.6	103	0.08
6 CPT	bis2Clethletr	1.081	1.133	-4.8	102	0.07
7 S	SURRPhenol-d5	0.519	0.518	0.2	95	0.07
8 CPT	Phenol	1.489	1.607	-7.9	103	0.07
9 CPT	2-Cl-phenol	1.228	1.303	-6.1	102	0.07
10 CT	13Diclbenz	1.419	1.470	-3.6	99	0.08
11 CT	14Diclbenz	1.457	1.482	-1.7	100	0.08
12 CT	12Diclbenz	1.386	1.439	-3.8	100	0.08
13 CT	Benzyl alcoho	0.786	0.850	-8.1	102	0.08
14 CPT	bis2clispreth	2.634	2.672	-1.4	99	0.08
15 CPT	2Methylphenol	0.954	1.022	-7.1	102	0.07
16 CT	Ntrspyrrol	0.600	0.619	-3.2	101	0.08
17 CPT	Acetophenone	1.830	1.839	-0.5	96	0.09
18 CPT	Hexaclethane	0.621	0.620	0.2	97	0.09
19 CPT	N-Ntrsdinprop	0.901	0.957	-6.2	100	0.08
20 CPT	3&4Methylphenol	1.230	1.302	-5.9	100	0.08
21 I	Naphthalened8	1.000	1.000	0.0	96	0.09
22 S	SURRNitrbenzened5	0.056	0.057	-1.8	94	0.09
23 CPT	Nitrobenzene	0.286	0.307	-7.3	104	0.09
24 CPT	Isophorone	0.517	0.540	-4.4	99	0.09
25 CPT	2-Nitrophenol	0.142	0.151	-6.3	97	0.09
26 CPT	24Dimthpheno	0.213	0.228	-7.0	100	0.09
27 CPT	bis2clethoxym	0.334	0.344	-3.0	100	0.10
28 CPT	24Diclphenol	0.283	0.303	-7.1	101	0.09
29 CT	124Triclbenz	0.342	0.362	-5.8	103	0.10
30 CT	Benzoic acid	0.146	0.154	-5.5	95	0.29
31 CPT	Naphthalene	0.922	0.954	-3.5	101	0.09
32 CPT	4-Cl-aniline	0.340	0.377	-10.9	101	0.08
33 CT	26Diclphenol	0.260	0.263	-1.2	93	0.08
34 CT	Hexaclprop	0.257	0.274	-6.6	98	0.09
35 CPT	Hexaclbutdien	0.250	0.261	-4.4	99	0.08
36 CPT	4Cl3methylphe	0.276	0.295	-6.9	98	0.06
37 CPT	2Methylnaphth	0.647	0.668	-3.2	98	0.07
38 CT	1Methylnaphth	0.538	0.556	-3.3	100	0.07
39 I	Acenaphthened10	1.000	1.000	0.0	95	0.05
40 CPT	Hxclcycpentdi	0.405	0.481	-18.8	99	0.07
41 CPT	1245Tetrclbenz	0.791	0.815	-3.0	98	0.07
42 CPT	246Triclpheno	0.498	0.527	-5.8	98	0.06
43 CPT	245Triclpheno	0.535	0.559	-4.5	95	0.06
44 S	SURR2Flbiphenyl	0.329	0.332	-0.9	94	0.06
45 CPT	2Cl-naphthalen	1.362	1.457	-7.0	101	0.06
46 CPT	2Nitroaniline	0.404	0.453	-12.1	104	0.06
47 CPT	Acnaphthylene	2.250	2.386	-6.0	100	0.06
48 CPT	Dimethylphtha	1.545	1.639	-6.1	100	0.05
49 CPT	26Dinitrotolu	0.339	0.364	-7.4	102	0.05
50 CPT	Acenaphthene	1.325	1.393	-5.1	100	0.05
51 CPT	3Nitroaniline	0.334	0.361	-8.1	98	0.05

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	0.178	0.207	-16.3	95	0.03
53 CPT	Dibenzofuran	1.992	2.080	-4.4	100	0.05
54 CPT	24Dinitrotolu	0.433	0.446	-3.0	94	0.05
55 CPT	4-Nitrophenol	0.330	0.350	-6.1	97	0.04
56 CT	2,3,5,6-Tetrachlorop	0.442	0.503	-13.8	102	0.05
57 CPT	2,3,4,6-Tetrachlorop	0.490	0.526	-7.3	100	0.05
58 CPT	Fluorene	1.583	1.680	-6.1	100	0.05
59 CPT	4Clphlphlethr	0.798	0.848	-6.3	100	0.05
60 CPT	Diethylphthal	1.738	1.841	-5.9	99	0.05
61 CPT	4Nitroaniline	0.333	0.366	-9.9	101	0.05
62 S	SURR246Tribrphenl	0.126	0.130	-3.2	94	0.05
63 I	Phenanthrd10	1.000	1.000	0.0	93	0.05
64 CPT	46Dinit2mylph	0.115	0.123	-7.0	95	0.05
65 CPT	Ntrsdiphlam&Diphlam	0.508	0.524	-3.1	98	0.05
66 CT	Azobenz&12Diphlyd	0.160	0.164	-2.5	99	0.05
67 CPT	4Brphlphlethr	0.236	0.244	-3.4	97	0.05
68 CPT	Hexaclbenzene	0.272	0.273	-0.4	95	0.05
69 CPT	Pentaclphenol	0.148	0.166	-12.2	102	0.05
70 CPT	Phenanthrene	1.028	1.060	-3.1	98	0.05
71 CPT	Anthracene	1.054	1.099	-4.3	97	0.05
72 CPT	Carbazole	0.850	0.882	-3.8	98	0.05
73 CPT	Dinbtylphthal	0.892	0.963	-8.0	102	0.04
74 CPT	Fluoranthene	0.851	0.892	-4.8	99	0.04
75 I	Chrysene-d12	1.000	1.000	0.0	97	0.05
76 CT	Benzidine	0.360	0.376	-4.4	94	0.04
77 CPT	Pyrene	1.342	1.385	-3.2	100	0.04
78 S	SURRTerphenyl-d14	0.166	0.162	2.4	93	0.04
79 CPT	Btylbzylphth	0.590	0.625	-5.9	100	0.05
80 TM	bis2Ethlhxlad	0.441	0.463	-5.0	99	0.04
81 CPT	33Diclbnzidin	0.274	0.240	12.4	105	0.05
82 CPT	B[a]anthracen	1.204	1.285	-6.7	102	0.05
83 CPT	Chrysene	1.107	1.122	-1.4	97	0.05
84 CPT	bis2Ethlhxlph	0.797	0.836	-4.9	98	0.05
85 CPT	Dinoctylphthl	1.469	1.581	-7.6	99	0.05
86 I	Perylene-d12	1.000	1.000	0.0	98	0.06
87 CPT	B[b]fluoranth	1.186	1.217	-2.6	101	0.06
88 CPT	B[k]fluoranth	1.101	1.180	-7.2	101	0.05
89 CPT	Benz[a]pyrene	1.144	1.213	-6.0	101	0.06
90 CPT	Indeno-pyrene	1.267	1.362	-7.5	103	0.07
91 CPT	Dib[ah]anthr	1.032	1.109	-7.5	103	0.07
92 CPT	B[ghi]perylene	1.086	1.186	-9.2	103	0.08

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	96	0.00
2 CT	Ntrsdimeth	20.000	20.981	-4.9	101	0.00
3 CT	Pyridine	20.000	21.503	-7.5	105	0.00
4 S	SURR2Flphenol	50.000	51.569	-3.1	98	0.00
5 CT	Aniline	20.000	21.633	-8.2	103	0.00
6 CPT	bis2Clethletr	20.000	20.959	-4.8	102	0.00
7 S	SURRPhenol-d5	50.000	49.912	0.2	95	0.00
8 CPT	Phenol	20.000	21.583	-7.9	103	0.00
9 CPT	2-Cl-phenol	20.000	21.224	-6.1	102	0.00
10 CT	13Diclbenz	20.000	20.709	-3.5	99	0.00
11 CT	14Diclbenz	20.000	20.352	-1.8	100	0.00
12 CT	12Diclbenz	20.000	20.771	-3.9	100	0.00
13 CT	Benzyl alcoho	20.000	21.607	-8.0	102	0.00
14 CPT	bis2clispreth	20.000	20.291	-1.5	99	0.00
15 CPT	2Methylphenol	20.000	21.422	-7.1	102	0.00
16 CT	Ntrspyrrol	20.000	20.614	-3.1	101	0.00
17 CPT	Acetophenone	20.000	20.099	-0.5	96	0.00
18 CPT	Hexacethane	20.000	19.954	0.2	97	0.00
19 CPT	N-Ntrsdinprop	20.000	21.237	-6.2	100	0.00
20 CPT	3&4Methylphenol	20.000	21.183	-5.9	100	0.00
21 I	Naphthalened8	20.000	20.000	0.0	96	0.00
22 S	SURRNitrbenzened5	100.000	100.313	-0.3	94	0.00
23 CPT	Nitrobenzene	20.000	21.454	-7.3	104	0.00
24 CPT	Isophorone	20.000	20.899	-4.5	99	0.00
25 CPT	2-Nitrophenol	20.000	21.247	-6.2	97	0.00
26 CPT	24Dimthpheno	20.000	21.382	-6.9	100	0.00
27 CPT	bis2clethoxym	20.000	20.594	-3.0	100	0.00
28 CPT	24Diclphenol	20.000	21.377	-6.9	101	0.00
29 CT	124Triclbenz	20.000	21.188	-5.9	103	0.00
30 CT	Benzoic acid	20.000	20.065	-0.3	95	0.00
31 CPT	Naphthalene	20.000	20.688	-3.4	101	0.00
32 CPT	4-Cl-aniline	20.000	22.151	-10.8	101	0.00
33 CT	26Diclphenol	20.000	20.188	-0.9	93	0.00
34 CT	Hexaclprop	20.000	21.291	-6.5	98	0.00
35 CPT	Hexaclbutdien	20.000	20.909	-4.5	99	0.00
36 CPT	4Cl3methylphe	20.000	21.423	-7.1	98	0.00
37 CPT	2Methylnaphth	20.000	20.656	-3.3	98	0.00
38 CT	1Methylnaphth	20.000	20.657	-3.3	100	0.00
39 I	Acenaphthened10	20.000	20.000	0.0	95	0.00
40 CPT	Hxclcycpentdi	20.000	22.008	-10.0	99	0.00
41 CPT	1245Tetrclbenz	20.000	20.919	-4.6	98	0.00
42 CPT	246Triclpheno	20.000	21.172	-5.9	98	0.00
43 CPT	245Triclpheno	20.000	20.874	-4.4	95	0.00
44 S	SURR2Flbiphenyl	100.000	101.044	-1.0	94	0.00
45 CPT	2Cl-naphthalen	20.000	21.386	-6.9	101	0.00
46 CPT	2Nitroaniline	20.000	21.748	-8.7	104	0.00
47 CPT	Acnaphthylene	20.000	21.206	-6.0	100	0.00
48 CPT	Dimethylphtha	20.000	21.218	-6.1	100	0.00
49 CPT	26Dinitrotolu	20.000	21.443	-7.2	102	0.00
50 CPT	Acenaphthene	20.000	21.024	-5.1	100	0.00
51 CPT	3Nitroaniline	20.000	21.619	-8.1	98	0.00

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
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 Integrator: RTE
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Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	20.000	20.997	-5.0	95	0.00
53 CPT	Dibenzofuran	20.000	20.890	-4.5	100	0.00
54 CPT	24Dinitrotolu	20.000	20.567	-2.8	94	0.00
55 CPT	4-Nitrophenol	20.000	21.208	-6.0	97	0.00
56 CT	2,3,5,6-Tetrachlorop	20.000	22.770	-13.8	102	0.00
57 CPT	2,3,4,6-Tetrachlorop	20.000	21.442	-7.2	100	0.00
58 CPT	Fluorene	20.000	21.227	-6.1	100	0.00
59 CPT	4Clphlphlethr	20.000	21.695	-8.5	100	0.00
60 CPT	Diethylphthal	20.000	21.176	-5.9	99	0.00
61 CPT	4Nitroaniline	20.000	22.000	-10.0	101	0.00
62 S	SURR246Tribphenl	50.000	51.755	-3.5	94	0.00
63 I	Phenanthrd10	20.000	20.000	0.0	93	0.00
64 CPT	46Dinit2mylph	20.000	20.453	-2.3	95	0.00
65 CPT	Ntrsdiphlam&Diphlam	40.000	42.076	-5.2	98	0.00
66 CT	Azobenz&12Diphlyd	40.000	42.209	-5.5	99	0.00
67 CPT	4Brphlphlethr	20.000	20.672	-3.4	97	0.00
68 CPT	Hexaclbenzene	20.000	20.118	-0.6	95	0.00
69 CPT	Pentaclphenol	20.000	21.651	-8.3	102	0.00
70 CPT	Phenanthrene	20.000	20.629	-3.1	98	0.00
71 CPT	Anthracene	20.000	20.843	-4.2	97	0.00
72 CPT	Carbazole	20.000	20.745	-3.7	98	0.00
73 CPT	Dinbtylphthal	20.000	21.602	-8.0	102	0.00
74 CPT	Fluoranthene	20.000	20.982	-4.9	99	0.00
75 I	Chrysene-d12	20.000	20.000	0.0	97	0.00
76 CT	Benzidine	20.000	18.599	7.0	94	0.00
77 CPT	Pyrene	20.000	20.643	-3.2	100	0.00
78 S	SURRTerphenyl-d14	100.000	97.623	2.4	93	0.00
79 CPT	Btylbzylphth	20.000	21.188	-5.9	100	0.00
80 TM	bis2Ethlhxlad	20.000	20.991	-5.0	99	0.00
81 CPT	33Diclbnzidin	20.000	20.670	-3.4	105	0.00
82 CPT	B[a]anthracen	20.000	21.350	-6.8	102	0.00
83 CPT	Chrysene	20.000	20.271	-1.4	97	0.00
84 CPT	bis2Ethlhxlph	20.000	20.975	-4.9	98	0.00
85 CPT	Dinoctylphthl	20.000	21.538	-7.7	99	0.00
86 I	Perylene-d12	20.000	20.000	0.0	98	0.00
87 CPT	B[b]fluoranth	20.000	20.533	-2.7	101	0.00
88 CPT	B[k]fluoranth	20.000	21.432	-7.2	101	0.00
89 CPT	Benz[a]pyrene	20.000	21.217	-6.1	101	0.00
90 CPT	Indeno-pyrene	20.000	21.498	-7.5	103	0.00
91 CPT	Dib[ah]anthr	20.000	21.502	-7.5	103	0.00
92 CPT	B[ghi]perylene	20.000	21.829	-9.1	103	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	96	0.00
2 CT	Ntrsdimeth	0.675	0.708	-4.9	101	0.00
3 CT	Pyridine	1.141	1.304	-14.3	105	0.00
4 S	SURR2Flphenol	0.452	0.466	-3.1	98	0.00
5 CT	Aniline	1.644	1.819	-10.6	103	0.00
6 CPT	bis2Clethletr	1.081	1.133	-4.8	102	0.00
7 S	SURRPhenol-d5	0.519	0.518	0.2	95	0.00
8 CPT	Phenol	1.489	1.607	-7.9	103	0.00
9 CPT	2-Cl-phenol	1.228	1.303	-6.1	102	0.00
10 CT	13Diclbenz	1.419	1.470	-3.6	99	0.00
11 CT	14Diclbenz	1.457	1.482	-1.7	100	0.00
12 CT	12Diclbenz	1.386	1.439	-3.8	100	0.00
13 CT	Benzyl alcoho	0.786	0.850	-8.1	102	0.00
14 CPT	bis2clispreth	2.634	2.672	-1.4	99	0.00
15 CPT	2Methylphenol	0.954	1.022	-7.1	102	0.00
16 CT	Ntrspyrrol	0.600	0.619	-3.2	101	0.00
17 CPT	Acetophenone	1.830	1.839	-0.5	96	0.00
18 CPT	Hexaclethane	0.621	0.620	0.2	97	0.00
19 CPT	N-Ntrsdinprop	0.901	0.957	-6.2	100	0.00
20 CPT	3&4Methylphenol	1.230	1.302	-5.9	100	0.00
21 I	Naphthalened8	1.000	1.000	0.0	96	0.00
22 S	SURRNitrbenzened5	0.056	0.057	-1.8	94	0.00
23 CPT	Nitrobenzene	0.286	0.307	-7.3	104	0.00
24 CPT	Isophorone	0.517	0.540	-4.4	99	0.00
25 CPT	2-Nitrophenol	0.142	0.151	-6.3	97	0.00
26 CPT	24Dimthpheno	0.213	0.228	-7.0	100	0.00
27 CPT	bis2clethoxym	0.334	0.344	-3.0	100	0.00
28 CPT	24Diclphenol	0.283	0.303	-7.1	101	0.00
29 CT	124Triclbenz	0.342	0.362	-5.8	103	0.00
30 CT	Benzoic acid	0.146	0.154	-5.5	95	0.00
31 CPT	Naphthalene	0.922	0.954	-3.5	101	0.00
32 CPT	4-Cl-aniline	0.340	0.377	-10.9	101	0.00
33 CT	26Diclphenol	0.260	0.263	-1.2	93	0.00
34 CT	Hexaclprop	0.257	0.274	-6.6	98	0.00
35 CPT	Hexaclbutdien	0.250	0.261	-4.4	99	0.00
36 CPT	4Cl3methylphe	0.276	0.295	-6.9	98	0.00
37 CPT	2Methylnaphth	0.647	0.668	-3.2	98	0.00
38 CT	1Methylnaphth	0.538	0.556	-3.3	100	0.00
39 I	Acenaphthened10	1.000	1.000	0.0	95	0.00
40 CPT	Hxclcycpentdi	0.405	0.481	-18.8	99	0.00
41 CPT	1245Tetrclbenz	0.791	0.815	-3.0	98	0.00
42 CPT	246Triclpheno	0.498	0.527	-5.8	98	0.00
43 CPT	245Triclpheno	0.535	0.559	-4.5	95	0.00
44 S	SURR2Flbiphenyl	0.329	0.332	-0.9	94	0.00
45 CPT	2Clnaphthalen	1.362	1.457	-7.0	101	0.00
46 CPT	2Nitroaniline	0.404	0.453	-12.1	104	0.00
47 CPT	Acnaphthylene	2.250	2.386	-6.0	100	0.00
48 CPT	Dimethylphtha	1.545	1.639	-6.1	100	0.00
49 CPT	26Dinitrotolu	0.339	0.364	-7.4	102	0.00
50 CPT	Acenaphthene	1.325	1.393	-5.1	100	0.00
51 CPT	3Nitroaniline	0.334	0.361	-8.1	98	0.00

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	0.178	0.207	-16.3	95	0.00
53 CPT	Dibenzofuran	1.992	2.080	-4.4	100	0.00
54 CPT	24Dinitrotolu	0.433	0.446	-3.0	94	0.00
55 CPT	4-Nitrophenol	0.330	0.350	-6.1	97	0.00
56 CT	2,3,5,6-Tetrachlorop	0.442	0.503	-13.8	102	0.00
57 CPT	2,3,4,6-Tetrachlorop	0.490	0.526	-7.3	100	0.00
58 CPT	Fluorene	1.583	1.680	-6.1	100	0.00
59 CPT	4Clphlphlethr	0.798	0.848	-6.3	100	0.00
60 CPT	Diethylphthal	1.738	1.841	-5.9	99	0.00
61 CPT	4Nitroaniline	0.333	0.366	-9.9	101	0.00
62 S	SURR246Tribrphenl	0.126	0.130	-3.2	94	0.00
63 I	Phenanthrd10	1.000	1.000	0.0	93	0.00
64 CPT	46Dinit2mylph	0.115	0.123	-7.0	95	0.00
65 CPT	Ntrsdiphlam&Diphlam	0.508	0.524	-3.1	98	0.00
66 CT	Azobenz&12Diphlyd	0.160	0.164	-2.5	99	0.00
67 CPT	4Brphlphlethr	0.236	0.244	-3.4	97	0.00
68 CPT	Hexaclbenzene	0.272	0.273	-0.4	95	0.00
69 CPT	Pentaclphenol	0.148	0.166	-12.2	102	0.00
70 CPT	Phenanthrene	1.028	1.060	-3.1	98	0.00
71 CPT	Anthracene	1.054	1.099	-4.3	97	0.00
72 CPT	Carbazole	0.850	0.882	-3.8	98	0.00
73 CPT	Dinbtylphthal	0.892	0.963	-8.0	102	0.00
74 CPT	Fluoranthene	0.851	0.892	-4.8	99	0.00
75 I	Chrysene-d12	1.000	1.000	0.0	97	0.00
76 CT	Benzidine	0.360	0.376	-4.4	94	0.00
77 CPT	Pyrene	1.342	1.385	-3.2	100	0.00
78 S	SURRTerphenyl-d14	0.166	0.162	2.4	93	0.00
79 CPT	Btylbzylphth	0.590	0.625	-5.9	100	0.00
80 TM	bis2Ethlhxlad	0.441	0.463	-5.0	99	0.00
81 CPT	33Diclbnzidin	0.274	0.240	12.4	105	0.00
82 CPT	B[a]anthracen	1.204	1.285	-6.7	102	0.00
83 CPT	Chrysene	1.107	1.122	-1.4	97	0.00
84 CPT	bis2Ethlhxlph	0.797	0.836	-4.9	98	0.00
85 CPT	Dinoctylphthl	1.469	1.581	-7.6	99	0.00
86 I	Perylene-d12	1.000	1.000	0.0	98	0.00
87 CPT	B[b]fluoranth	1.186	1.217	-2.6	101	0.00
88 CPT	B[k]fluoranth	1.101	1.180	-7.2	101	0.00
89 CPT	Benz[a]pyrene	1.144	1.213	-6.0	101	0.00
90 CPT	Indeno-pyrene	1.267	1.362	-7.5	103	0.00
91 CPT	Dib[ah]anthr	1.032	1.109	-7.5	103	0.00
92 CPT	B[ghi]perylene	1.086	1.186	-9.2	103	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	185066	20.00	ug/mL	0.00
21) Naphthalened8	5.490	136	834575	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	367531	20.00	ug/mL	0.00
63) Phenanthrd10	8.092	188	813274	20.00	ug/mL	0.00
75) Chrysene-d12	9.488	240	537144	20.00	ug/mL	0.00
86) Perylene-d12	10.368	264	552504	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.716	112	215592	51.57	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	51.57%	
7) SURRPhenol-d5	3.481	99	239601	49.91	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	49.91%	
22) SURRNitrbenzened5	4.501	82	236235	100.31	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	100.31%	
44) SURR2Flbiphenyl	6.652	172	610227	101.04	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	101.04%	
62) SURR246Tribphenl	7.669	330	119675	51.75	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	51.75%	
78) SURRTerphenyl-d14	8.888	244	435178	97.62	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	97.62%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.995	74	131101	20.9805	ug/mL	99
3) Pyridine	2.006	79	241399	21.5025	ug/mL	97
5) Aniline	3.515	93	336720	21.6333	ug/mL	99
6) bis2Clethletr	3.583	93	209607	20.9589	ug/mL	96
8) Phenol	3.498	94	297371	21.5834	ug/mL	97
9) 2-Cl-phenol	3.629	128	241107	21.2237	ug/mL	97
10) 13Diclbenz	3.788	146	272009	20.7088	ug/mL	94
11) 14Diclbenz	3.867	146	274352	20.3521	ug/mL	98
12) 12Diclbenz	4.032	146	266321	20.7712	ug/mL	97
13) Benzyl alcoho	4.015	108	157215	21.6075	ug/mL	94
14) bis2clispreth	4.184	45	494548	20.2912	ug/mL	99
15) 2Methylphenol	4.154	107	189144	21.4223	ug/mL	94
16) Ntrspyrrol	4.299	100	114533	20.6143	ug/mL	96
17) Acetophenone	4.325	105	340283	20.0988	ug/mL	96
18) Hexaclethane	4.430	117	114741	19.9543	ug/mL	95
19) N-Ntrsdinprop	4.342	70	177136	21.2370	ug/mL	92
20) 3&4Methylphenol	4.353	107	241006	21.1831	ug/mL	98
23) Nitrobenzene	4.527	77	256250	21.4545	ug/mL	96
24) Isophorone	4.856	82	451028	20.8992	ug/mL	99
25) 2-Nitrophenol	4.947	139	126212	21.2474	ug/mL	88
26) 24Dimthpheno	5.058	122	189891	21.3819	ug/mL	97
27) bis2clethoxym	5.200	93	287343	20.5943	ug/mL	90
28) 24Diclphenol	5.311	162	252621	21.3767	ug/mL	99
29) 124Triclbenz	5.424	180	302424	21.1884	ug/mL	91
30) Benzoic acid	5.265	122	128894	20.0655	ug/mL#	70
31) Naphthalene	5.518	128	796290	20.6876	ug/mL	98
32) 4-Cl-aniline	5.623	127	314652	22.1509	ug/mL	95
33) 26Diclphenol	5.626	162	219221	20.1882	ug/mL	87
34) Hexaclprop	5.643	213	228447	21.2910	ug/mL	90
35) Hexaclbutdien	5.711	225	217829	20.9087	ug/mL	97
36) 4Cl3methylphe	6.211	107	246348	21.4231	ug/mL	97
37) 2Methylnaphth	6.308	142	557495	20.6561	ug/mL	100
38) 1Methylnaphth	6.396	141	463888	20.6572	ug/mL	99
40) Hxclcycpentdi	6.464	237	176911	22.0077	ug/mL	98

Data File : C:\INSTARCH\Data\1S110916\1ICV1.D
 Acq On : 9 Nov 2016 17:22
 Sample : ICV 20ug/ml SVMS7215
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:36:31 2016

Vial: 20
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

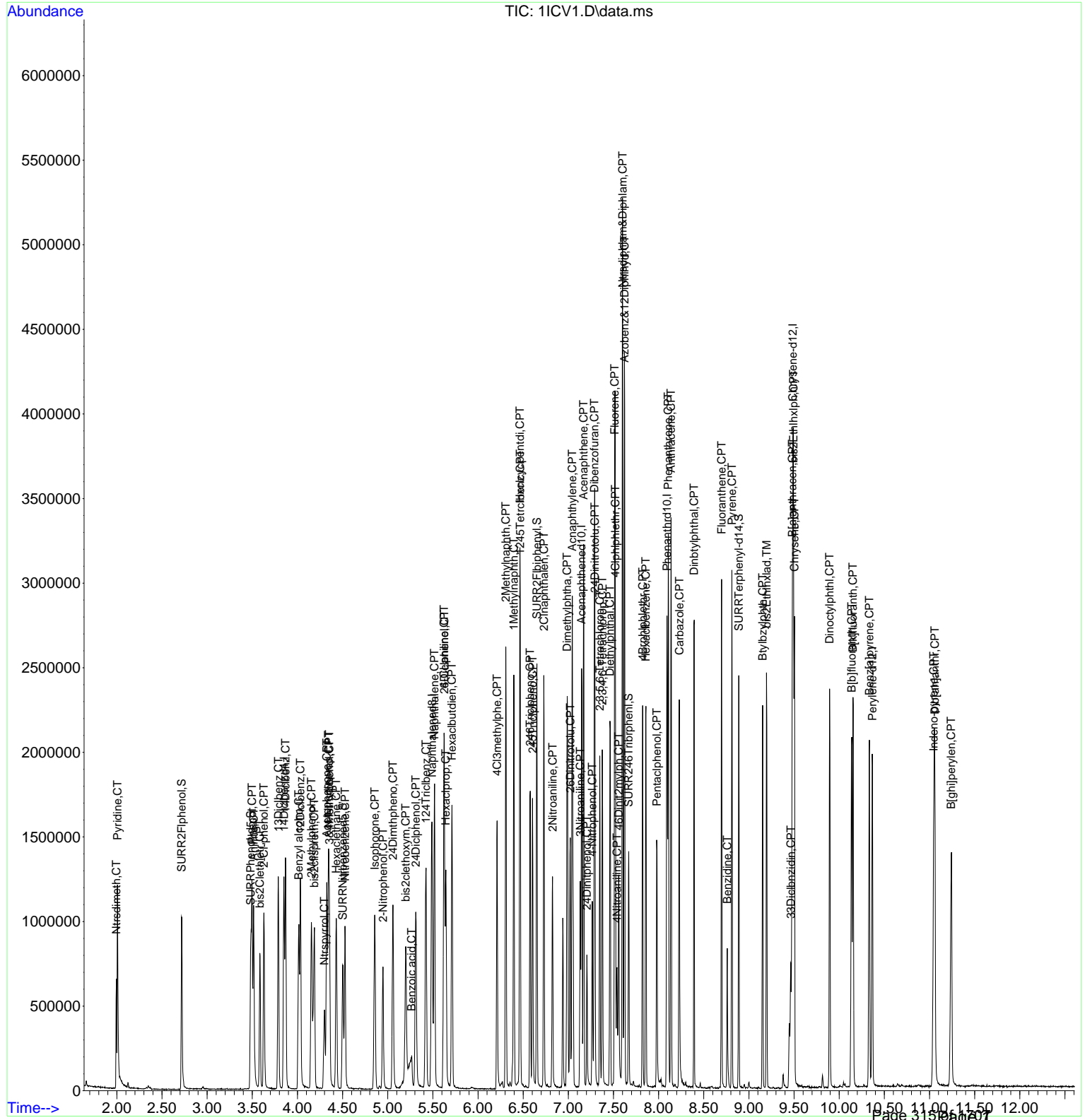
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.467	216	299357	20.9189	ug/mL	94
42) 246Triclpheno	6.578	196	193751	21.1716	ug/mL	94
43) 245Triclpheno	6.604	196	205405	20.8735	ug/mL	99
45) 2Clnaphthalen	6.729	162	535384	21.3855	ug/mL	98
46) 2Nitroaniline	6.825	65	166666	21.7483	ug/mL	96
47) Acnaphthylene	7.044	152	876776	21.2062	ug/mL	99
48) Dimethylphtha	6.987	163	602283	21.2176	ug/mL	97
49) 26Dinitrotolu	7.021	165	133772	21.4433	ug/mL	98
50) Acenaphthene	7.169	154	512036	21.0243	ug/mL	96
51) 3Nitroaniline	7.132	138	132781	21.6188	ug/mL	92
52) 24Dinitphenol	7.206	184	75963	20.9972	ug/mL	77
53) Dibenzofuran	7.288	168	764613	20.8902	ug/mL	98
54) 24Dinitrotolu	7.294	165	163841	20.5674	ug/mL	96
55) 4-Nitrophenol	7.266	65	128639	21.2078	ug/mL	94
56) 2,3,5,6-Tetrachlorop	7.348	232	184806	22.7697	ug/mL	95
57) 2,3,4,6-Tetrachlorop	7.376	232	193199	21.4417	ug/mL	97
58) Fluorene	7.513	166	617491	21.2275	ug/mL	99
59) 4Clphlphlethr	7.521	204	311516	21.6949	ug/mL	98
60) Diethylphthal	7.462	149	676500	21.1765	ug/mL	98
61) 4Nitroaniline	7.538	138	134617	21.9998	ug/mL	91
64) 46Dinit2mylph	7.558	198	100334	20.4531	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.601	169	852688	42.0756	ug/mL	98
66) Azobenz&12Diphylhyd	7.624	182	266943	42.2091	ug/mL	90
67) 4Brphlphlethr	7.823	248	198224	20.6719	ug/mL	97
68) Hexaclbenzene	7.859	284	222212	20.1176	ug/mL	98
69) Pentaclphenol	7.982	266	135182	21.6509	ug/mL	97
70) Phenanthrene	8.107	178	862155	20.6288	ug/mL	98
71) Anthracene	8.138	178	893666	20.8432	ug/mL	99
72) Carbazole	8.229	167	717074	20.7452	ug/mL	98
73) Dinbtylphthal	8.394	149	783221	21.6016	ug/mL	100
74) Fluoranthene	8.698	202	725711	20.9817	ug/mL	96
76) Benzidine	8.760	184	201797	18.5990	ug/mL	96
77) Pyrene	8.811	202	744117	20.6430	ug/mL	98
79) Btylbzylphth	9.152	149	335733	21.1882	ug/mL	93
80) bis2Ethlhxlad	9.195	129	248813	20.9914	ug/mL	100
81) 33Diclbnzidin	9.465	252	128793	20.6704	ug/mL	98
82) B[a]anthracen	9.482	228	690266	21.3497	ug/mL	97
83) Chrysene	9.505	228	602786	20.2714	ug/mL	98
84) bis2Ethlhxlph	9.493	149	449067	20.9751	ug/mL	95
85) Dinocetylphthl	9.894	149	849465	21.5382	ug/mL	98
87) B[b]fluoranth	10.138	252	672473	20.5331	ug/mL	99
88) B[k]fluoranth	10.153	252	652043	21.4317	ug/mL	97
89) Benz[a]pyrene	10.334	252	670390	21.2166	ug/mL	98
90) Indeno-pyrene	11.048	276	752755	21.4982	ug/mL	99
91) Dib[ah]anthr	11.059	278	612723	21.5023	ug/mL	97
92) B[ghi]perylene	11.241	276	655006	21.8294	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 20
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 17:33:09 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
 Sample : ICV 40ug/ml SVMS7216
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:55:48 2016

Vial: 21
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	102	0.08
2 CT	Ntrsdimeth	40.000	41.262	-3.2	101	0.07
3 CT	Pyridine	40.000	40.518	-1.3	101	0.06
4 S	SURR2Flphenol	100.000	100.396	-0.4	96	0.06
5 CT	Aniline	40.000	39.836	0.4	98	0.08
6 CPT	bis2Clethletr	40.000	41.113	-2.8	101	0.08
7 S	SURRPhenol-d5	100.000	97.208	2.8	96	0.08
8 CPT	Phenol	40.000	41.817	-4.5	99	0.08
9 CPT	2-Cl-phenol	40.000	40.374	-0.9	99	0.08
10 CT	13Diclbenz	40.000	39.552	1.1	98	0.08
11 CT	14Diclbenz	40.000	38.907	2.7	99	0.08
12 CT	12Diclbenz	40.000	39.831	0.4	102	0.09
13 CT	Benzyl alcoho	40.000	43.057	-7.6	100	0.09
14 CPT	bis2clispreth	40.000	39.082	2.3	99	0.08
15 CPT	2Methylphenol	40.000	41.148	-2.9	101	0.08
16 CT	Ntrspyrrol	40.000	40.692	-1.7	99	0.10
17 CPT	Acetophenone	40.000	38.986	2.5	96	0.09
18 CPT	Hexacethane	40.000	39.592	1.0	99	0.09
19 CPT	N-Ntrsdinprop	40.000	40.707	-1.8	99	0.09
20 CPT	3&4Methylphenol	40.000	40.483	-1.2	97	0.09
21 I	Naphthalened8	20.000	20.000	0.0	96	0.09
22 S	SURRNitrbenzened5	200.000	203.022	-1.5	95	0.09
23 CPT	Nitrobenzene	40.000	42.615	-6.5	98	0.09
24 CPT	Isophorone	40.000	41.888	-4.7	100	0.10
25 CPT	2-Nitrophenol	40.000	43.785	-9.5	102	0.09
26 CPT	24Dimthpheno	40.000	42.157	-5.4	97	0.09
27 CPT	bis2clethoxym	40.000	41.103	-2.8	100	0.10
28 CPT	24Diclphenol	40.000	40.916	-2.3	98	0.10
29 CT	124Triclbenz	40.000	40.429	-1.1	98	0.10
30 CT	Benzoic acid	40.000	42.023	-5.1	97	0.35
31 CPT	Naphthalene	40.000	39.518	1.2	97	0.10
32 CPT	4-Cl-aniline	40.000	41.985	-5.0	98	0.09
33 CT	26Diclphenol	40.000	38.379	4.1	96	0.09
34 CT	Hexaclprop	40.000	40.048	-0.1	98	0.09
35 CPT	Hexaclbutdien	40.000	38.903	2.7	96	0.08
36 CPT	4Cl3methylphe	40.000	41.313	-3.3	95	0.07
37 CPT	2Methylnaphth	40.000	39.788	0.5	99	0.07
38 CT	1Methylnaphth	40.000	38.783	3.0	97	0.07
39 I	Acenaphthened10	20.000	20.000	0.0	97	0.05
40 CPT	Hxclcycpentdi	40.000	42.735	-6.8	103	0.07
41 CPT	1245Tetrclbenz	40.000	40.213	-0.5	96	0.07
42 CPT	246Triclpheno	40.000	39.043	2.4	94	0.06
43 CPT	245Triclpheno	40.000	39.693	0.8	99	0.06
44 S	SURR2Flbiphenyl	200.000	187.296	6.4	93	0.06
45 CPT	2Cl-naphthalen	40.000	38.833	2.9	97	0.06
46 CPT	2Nitroaniline	40.000	41.094	-2.7	98	0.06
47 CPT	Acnaphthylene	40.000	39.710	0.7	99	0.06
48 CPT	Dimethylphtha	40.000	38.040	4.9	96	0.06
49 CPT	26Dinitrotolu	40.000	39.264	1.8	96	0.06
50 CPT	Acenaphthene	40.000	39.349	1.6	100	0.06
51 CPT	3Nitroaniline	40.000	42.112	-5.3	100	0.06

Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
 Sample : ICV 40ug/ml SVMS7216
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:55:48 2016

Vial: 21
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	40.000	40.338	-0.8	94	0.04
53 CPT	Dibenzofuran	40.000	38.375	4.1	99	0.05
54 CPT	24Dinitrotolu	40.000	39.296	1.8	97	0.06
55 CPT	4-Nitrophenol	40.000	41.740	-4.4	99	0.05
56 CT	2,3,5,6-Tetrachlorop	40.000	41.548	-3.9	98	0.05
57 CPT	2,3,4,6-Tetrachlorop	40.000	39.374	1.6	98	0.05
58 CPT	Fluorene	40.000	36.706	8.2	94	0.06
59 CPT	4Clphlphlethr	40.000	40.676	-1.7	98	0.05
60 CPT	Diethylphthal	40.000	39.104	2.2	97	0.05
61 CPT	4Nitroaniline	40.000	42.053	-5.1	98	0.06
62 S	SURR246Tribphenl	100.000	96.100	3.9	92	0.05
63 I	Phenanthrd10	20.000	20.000	0.0	98	0.05
64 CPT	46Dinit2mylph	40.000	40.165	-0.4	96	0.05
65 CPT	Ntrsdiphlam&Diphlam	80.000	83.185	-4.0	99	0.05
66 CT	Azobenz&12Diphlyd	80.000	79.820	0.2	97	0.05
67 CPT	4Brphlphlethr	40.000	37.841	5.4	98	0.05
68 CPT	Hexaclbenzene	40.000	37.165	7.1	97	0.05
69 CPT	Pentaclphenol	40.000	41.512	-3.8	100	0.05
70 CPT	Phenanthrene	40.000	38.698	3.3	99	0.05
71 CPT	Anthracene	40.000	38.055	4.9	98	0.05
72 CPT	Carbazole	40.000	38.938	2.7	98	0.05
73 CPT	Dinbtylphthal	40.000	39.283	1.8	98	0.04
74 CPT	Fluoranthene	40.000	38.523	3.7	97	0.05
75 I	Chrysene-d12	20.000	20.000	0.0	98	0.05
76 CT	Benzidine	40.000	39.249	1.9	95	0.05
77 CPT	Pyrene	40.000	42.211	-5.5	99	0.05
78 S	SURRTerphenyl-d14	200.000	198.926	0.5	93	0.05
79 CPT	Btylbzylphth	40.000	43.439	-8.6	98	0.05
80 TM	bis2Ethlhxlad	40.000	42.867	-7.2	97	0.05
81 CPT	33Diclbnzidin	40.000	43.614	-9.0	109	0.05
82 CPT	B[a]anthracen	40.000	43.075	-7.7	104	0.05
83 CPT	Chrysene	40.000	40.313	-0.8	96	0.06
84 CPT	bis2Ethlhxlph	40.000	41.211	-3.0	98	0.05
85 CPT	Dinoctylphthl	40.000	44.144	-10.4	100	0.05
86 I	Perylene-d12	20.000	20.000	0.0	99	0.06
87 CPT	B[b]fluoranth	40.000	41.756	-4.4	99	0.06
88 CPT	B[k]fluoranth	40.000	36.561	8.6	101	0.07
89 CPT	Benz[a]pyrene	40.000	39.616	1.0	100	0.07
90 CPT	Indeno-pyrene	40.000	39.486	1.3	99	0.09
91 CPT	Dib[ah]anthr	40.000	40.216	-0.5	100	0.09
92 CPT	B[ghi]perylen	40.000	40.509	-1.3	100	0.09

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
 Sample : ICV 40ug/ml SVMS7216
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:55:48 2016

Vial: 21
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	102	0.00
2 CT	Ntrsdimeth	40.000	41.262	-3.2	101	0.00
3 CT	Pyridine	40.000	40.518	-1.3	101	0.00
4 S	SURR2Flphenol	100.000	100.396	-0.4	96	0.00
5 CT	Aniline	40.000	39.836	0.4	98	0.00
6 CPT	bis2Clethletr	40.000	41.113	-2.8	101	0.00
7 S	SURRPhenol-d5	100.000	97.208	2.8	96	0.00
8 CPT	Phenol	40.000	41.817	-4.5	99	0.01
9 CPT	2-Cl-phenol	40.000	40.374	-0.9	99	0.00
10 CT	13Diclbenz	40.000	39.552	1.1	98	0.00
11 CT	14Diclbenz	40.000	38.907	2.7	99	0.00
12 CT	12Diclbenz	40.000	39.831	0.4	102	0.00
13 CT	Benzyl alcoho	40.000	43.057	-7.6	100	0.00
14 CPT	bis2clispreth	40.000	39.082	2.3	99	0.00
15 CPT	2Methylphenol	40.000	41.148	-2.9	101	0.00
16 CT	Ntrspyrrol	40.000	40.692	-1.7	99	0.02
17 CPT	Acetophenone	40.000	38.986	2.5	96	0.00
18 CPT	Hexacethane	40.000	39.592	1.0	99	0.00
19 CPT	N-Ntrsdinprop	40.000	40.707	-1.8	99	0.01
20 CPT	3&4Methylphenol	40.000	40.483	-1.2	97	0.01
21 I	Naphthalened8	20.000	20.000	0.0	96	0.00
22 S	SURRNitrbenzened5	200.000	203.022	-1.5	95	0.00
23 CPT	Nitrobenzene	40.000	42.615	-6.5	98	0.00
24 CPT	Isophorone	40.000	41.888	-4.7	100	0.01
25 CPT	2-Nitrophenol	40.000	43.785	-9.5	102	0.00
26 CPT	24Dimthpheno	40.000	42.157	-5.4	97	0.01
27 CPT	bis2clethoxym	40.000	41.103	-2.8	100	0.00
28 CPT	24Diclphenol	40.000	40.916	-2.3	98	0.01
29 CT	124Triclbenz	40.000	40.429	-1.1	98	0.00
30 CT	Benzoic acid	40.000	42.023	-5.1	97	0.07
31 CPT	Naphthalene	40.000	39.518	1.2	97	0.00
32 CPT	4-Cl-aniline	40.000	41.985	-5.0	98	0.00
33 CT	26Diclphenol	40.000	38.379	4.1	96	0.00
34 CT	Hexaclprop	40.000	40.048	-0.1	98	0.00
35 CPT	Hexaclbutdien	40.000	38.903	2.7	96	0.00
36 CPT	4Cl3methylphe	40.000	41.313	-3.3	95	0.00
37 CPT	2Methylnaphth	40.000	39.788	0.5	99	0.00
38 CT	1Methylnaphth	40.000	38.783	3.0	97	0.00
39 I	Acenaphthened10	20.000	20.000	0.0	97	0.00
40 CPT	Hxclcycpentdi	40.000	42.735	-6.8	103	0.00
41 CPT	1245Tetrclbenz	40.000	40.213	-0.5	96	0.00
42 CPT	246Triclpheno	40.000	39.043	2.4	94	0.00
43 CPT	245Triclpheno	40.000	39.693	0.8	99	0.00
44 S	SURR2Flbiphenyl	200.000	187.296	6.4	93	0.00
45 CPT	2Cl-naphthalen	40.000	38.833	2.9	97	0.00
46 CPT	2Nitroaniline	40.000	41.094	-2.7	98	0.00
47 CPT	Acnaphthylene	40.000	39.710	0.7	99	0.00
48 CPT	Dimethylphtha	40.000	38.040	4.9	96	0.00
49 CPT	26Dinitrotolu	40.000	39.264	1.8	96	0.00
50 CPT	Acenaphthene	40.000	39.349	1.6	100	0.00
51 CPT	3Nitroaniline	40.000	42.112	-5.3	100	0.00

Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
 Sample : ICV 40ug/ml SVMS7216
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:55:48 2016

Vial: 21
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	40.000	40.338	-0.8	94	0.00
53 CPT	Dibenzofuran	40.000	38.375	4.1	99	0.00
54 CPT	24Dinitrotolu	40.000	39.296	1.8	97	0.00
55 CPT	4-Nitrophenol	40.000	41.740	-4.4	99	0.00
56 CT	2,3,5,6-Tetrachlorop	40.000	41.548	-3.9	98	0.00
57 CPT	2,3,4,6-Tetrachlorop	40.000	39.374	1.6	98	0.00
58 CPT	Fluorene	40.000	36.706	8.2	94	0.00
59 CPT	4Clphlphlethr	40.000	40.676	-1.7	98	0.00
60 CPT	Diethylphthal	40.000	39.104	2.2	97	0.00
61 CPT	4Nitroaniline	40.000	42.053	-5.1	98	0.01
62 S	SURR246Tribphenl	100.000	96.100	3.9	92	0.00
63 I	Phenanthrd10	20.000	20.000	0.0	98	0.00
64 CPT	46Dinit2mylph	40.000	40.165	-0.4	96	0.00
65 CPT	Ntrsdiphlam&Diphlam	80.000	83.185	-4.0	99	0.00
66 CT	Azobenz&12Diphlyd	80.000	79.820	0.2	97	0.00
67 CPT	4Brphlphlethr	40.000	37.841	5.4	98	0.00
68 CPT	Hexaclbenzene	40.000	37.165	7.1	97	0.00
69 CPT	Pentaclphenol	40.000	41.512	-3.8	100	0.00
70 CPT	Phenanthrene	40.000	38.698	3.3	99	0.00
71 CPT	Anthracene	40.000	38.055	4.9	98	0.00
72 CPT	Carbazole	40.000	38.938	2.7	98	0.00
73 CPT	Dinbtylphthal	40.000	39.283	1.8	98	0.00
74 CPT	Fluoranthene	40.000	38.523	3.7	97	0.00
75 I	Chrysene-d12	20.000	20.000	0.0	98	0.00
76 CT	Benzidine	40.000	39.249	1.9	95	0.00
77 CPT	Pyrene	40.000	42.211	-5.5	99	0.00
78 S	SURRTerphenyl-d14	200.000	198.926	0.5	93	0.00
79 CPT	Btylbzylphth	40.000	43.439	-8.6	98	0.00
80 TM	bis2Ethlhxlad	40.000	42.867	-7.2	97	0.00
81 CPT	33Diclbnzidin	40.000	43.614	-9.0	109	0.00
82 CPT	B[a]anthracen	40.000	43.075	-7.7	104	0.00
83 CPT	Chrysene	40.000	40.313	-0.8	96	0.00
84 CPT	bis2Ethlhxlph	40.000	41.211	-3.0	98	0.00
85 CPT	Dinoctylphthl	40.000	44.144	-10.4	100	0.00
86 I	Perylene-d12	20.000	20.000	0.0	99	0.00
87 CPT	B[b]fluoranth	40.000	41.756	-4.4	99	0.00
88 CPT	B[k]fluoranth	40.000	36.561	8.6	101	0.00
89 CPT	Benz[a]pyrene	40.000	39.616	1.0	100	0.00
90 CPT	Indeno-pyrene	40.000	39.486	1.3	99	0.01
91 CPT	Dib[ah]anthr	40.000	40.216	-0.5	100	0.01
92 CPT	B[ghi]perylene	40.000	40.509	-1.3	100	0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
 Sample : ICV 40ug/ml SVMS7216
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 17:55:48 2016

Vial: 21
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.853	152	185578	20.00	ug/mL	0.00
21) Naphthalened8	5.490	136	817438	20.00	ug/mL	0.00
39) Acenaphthened10	7.146	164	369371	20.00	ug/mL	0.00
63) Phenanthrd10	8.090	188	810760	20.00	ug/mL	0.00
75) Chrysene-d12	9.493	240	493707	20.00	ug/mL	0.00
86) Perylene-d12	10.371	264	546492	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.719	112	420876	100.40	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	100.40%	
7) SURRPhenol-d5	3.492	99	467936	97.21	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	97.21%	
22) SURRNitrbenzened5	4.509	82	468297	203.02	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	203.02%#	
44) SURR2Flbiphenyl	6.652	172	1136787	187.30	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	187.30%#	
62) SURR246Tribphenl	7.669	330	223329	96.10	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	96.10%	
78) SURRTerphenyl-d14	8.891	244	815054	198.93	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	198.93%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.998	74	258547	41.2619	ug/mL	94
3) Pyridine	2.003	79	470037	40.5178	ug/mL	92
5) Aniline	3.521	93	647868	39.8362	ug/mL	99
6) bis2Clethletr	3.589	93	412302	41.1128	ug/mL	94
8) Phenol	3.506	94	577740	41.8171	ug/mL	98
9) 2-Cl-phenol	3.631	128	459932	40.3742	ug/mL	95
10) 13Diclbenz	3.790	146	520951	39.5520	ug/mL	95
11) 14Diclbenz	3.870	146	525925	38.9067	ug/mL	96
12) 12Diclbenz	4.035	146	512111	39.8309	ug/mL	97
13) Benzyl alcoho	4.023	108	314149	43.0572	ug/mL	93
14) bis2clispreth	4.188	45	955163	39.0820	ug/mL	97
15) 2Methylphenol	4.163	107	364316	41.1484	ug/mL	99
16) Ntrspyrrol	4.316	100	226709	40.6918	ug/mL	87
17) Acetophenone	4.333	105	661885	38.9864	ug/mL	98
18) Hexaclethane	4.433	117	228292	39.5920	ug/mL	97
19) N-Ntrsdinprop	4.353	70	340470	40.7067	ug/mL	93
20) 3&4Methylphenol	4.364	107	461855	40.4826	ug/mL	96
23) Nitrobenzene	4.535	77	498538	42.6150	ug/mL	96
24) Isophorone	4.867	82	885426	41.8880	ug/mL	99
25) 2-Nitrophenol	4.953	139	254746	43.7848	ug/mL	91
26) 24Dimthpheno	5.066	122	366705	42.1570	ug/mL	97
27) bis2clethoxym	5.208	93	561711	41.1026	ug/mL	98
28) 24Diclphenol	5.319	162	473604	40.9164	ug/mL	99
29) 124Triclbenz	5.427	180	565198	40.4290	ug/mL	88
30) Benzoic acid	5.328	122	274761	42.0226	ug/mL	80
31) Naphthalene	5.521	128	1489841	39.5175	ug/mL	99
32) 4-Cl-aniline	5.629	127	584147	41.9849	ug/mL	94
33) 26Diclphenol	5.629	162	408201	38.3795	ug/mL	94
34) Hexaclprop	5.646	213	420876	40.0475	ug/mL	95
35) Hexaclbutdien	5.711	225	396975	38.9031	ug/mL	99
36) 4Cl3methylphe	6.214	107	465304	41.3125	ug/mL	96
37) 2Methylnaphth	6.311	142	1051816	39.7885	ug/mL	92
38) 1Methylnaphth	6.399	141	853044	38.7828	ug/mL	98
40) Hxclcycpentdi	6.464	237	336386	42.7348	ug/mL	97

Data File : C:\INSTARCH\Data\1S110916\1ICV2.D
 Acq On : 9 Nov 2016 17:42
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Vial: 21
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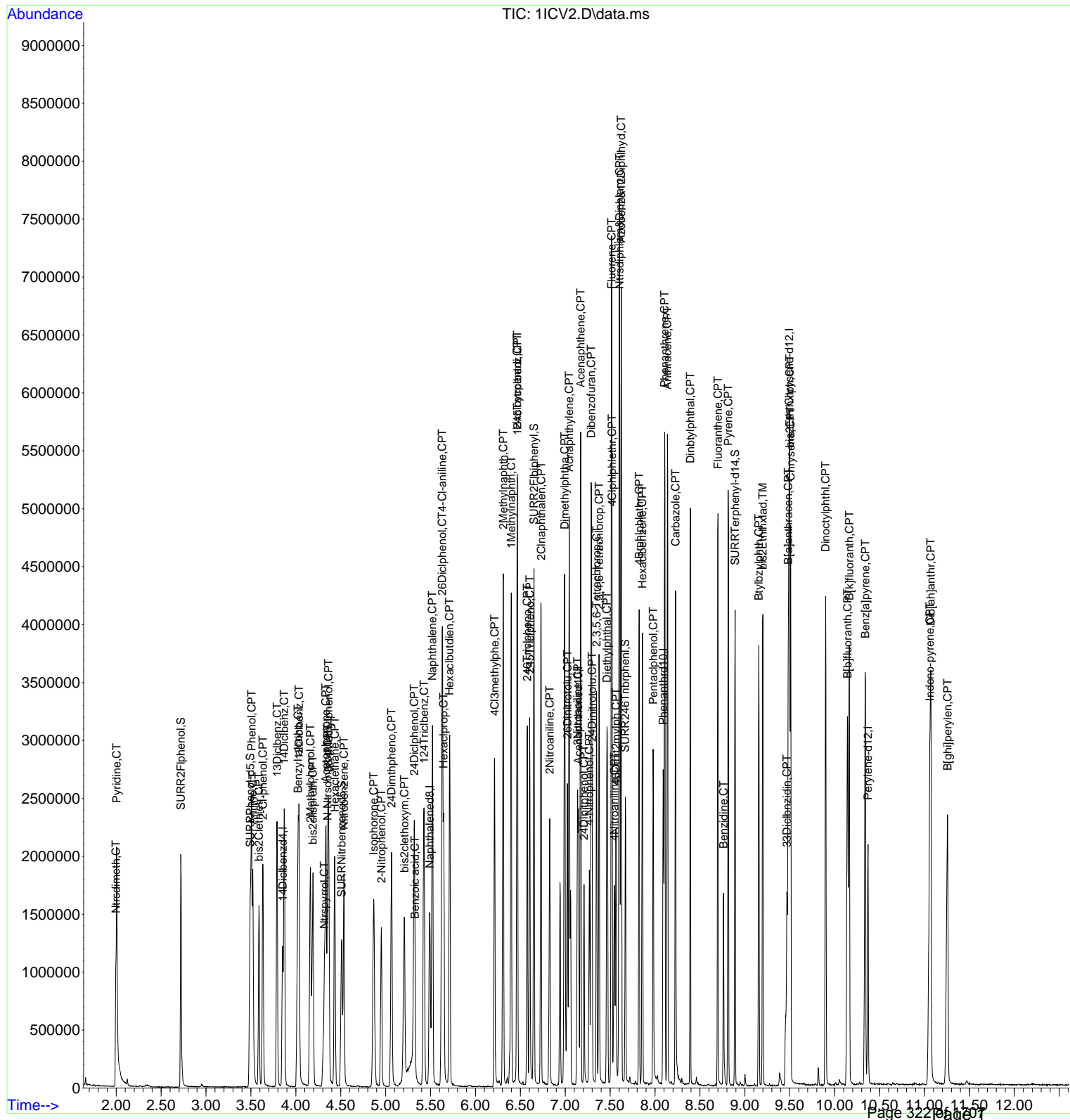
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 17:33:09 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.467	216	540944	40.2131	ug/mL	98
42) 246Triclpheno	6.578	196	359088	39.0428	ug/mL	95
43) 245Triclpheno	6.604	196	392553	39.6930	ug/mL	96
45) 2Clnaphthalen	6.731	162	977053	38.8333	ug/mL	97
46) 2Nitroaniline	6.828	65	321407	41.0940	ug/mL	94
47) Acnaphthylene	7.044	152	1650054	39.7103	ug/mL	99
48) Dimethylphtha	6.993	163	1085198	38.0396	ug/mL	96
49) 26Dinitrotolu	7.024	165	246170	39.2639	ug/mL	98
50) Acenaphthene	7.172	154	963116	39.3488	ug/mL	95
51) 3Nitroaniline	7.138	138	259943	42.1119	ug/mL	94
52) 24Dinitphenol	7.209	184	155284	40.3375	ug/mL	79
53) Dibenzofuran	7.288	168	1411626	38.3753	ug/mL	98
54) 24Dinitrotolu	7.300	165	314603	39.2962	ug/mL	84
55) 4-Nitrophenol	7.268	65	254446	41.7397	ug/mL	99
56) 2,3,5,6-Tetrachlorop	7.348	232	338902	41.5477	ug/mL	96
57) 2,3,4,6-Tetrachlorop	7.376	232	356554	39.3742	ug/mL	98
58) Fluorene	7.516	166	1073097	36.7061	ug/mL	98
59) 4Clphlphlethr	7.521	204	537089	40.6756	ug/mL	99
60) Diethylphthal	7.464	149	1255455	39.1037	ug/mL	98
61) 4Nitroaniline	7.547	138	258613	42.0533	ug/mL	98
64) 46Dinit2mylph	7.564	198	199265	40.1652	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.604	169	1546514	83.1855	ug/mL	99
66) Azobenz&12Diphylhyd	7.624	182	476699	79.8198	ug/mL#	88
67) 4Brphlphlethr	7.822	248	361736	37.8408	ug/mL	96
68) Hexaclbenzene	7.859	284	409249	37.1655	ug/mL	96
69) Pentaclphenol	7.979	266	262775	41.5124	ug/mL	97
70) Phenanthrene	8.107	178	1612336	38.6980	ug/mL	98
71) Anthracene	8.138	178	1626596	38.0552	ug/mL	100
72) Carbazole	8.229	167	1341755	38.9378	ug/mL	99
73) Dinbtylphthal	8.394	149	1419895	39.2828	ug/mL	99
74) Fluoranthene	8.700	202	1328316	38.5232	ug/mL	99
76) Benzidine	8.763	184	428005	39.2487	ug/mL	98
77) Pyrene	8.814	202	1398545	42.2113	ug/mL	99
79) Btylbzylphth	9.155	149	632646	43.4393	ug/mL	96
80) bis2Ethlhxlad	9.201	129	467014	42.8666	ug/mL	99
81) 33Diclbnzidin	9.468	252	279592	43.6144	ug/mL	92
82) B[a]anthracen	9.485	228	1280041	43.0745	ug/mL	99
83) Chrysene	9.510	228	1101813	40.3135	ug/mL	99
84) bis2Ethlhxlph	9.499	149	810962	41.2111	ug/mL	97
85) Dinocetylphthl	9.900	149	1600248	44.1442	ug/mL	99
87) B[b]fluoranth	10.144	252	1352648	41.7557	ug/mL	99
88) B[k]fluoranth	10.164	252	1100236	36.5610	ug/mL	99
89) Benz[a]pyrene	10.343	252	1238158	39.6165	ug/mL	98
90) Indeno-pyrene	11.059	276	1367546	39.4858	ug/mL	97
91) Dib[ah]anthr	11.070	278	1133515	40.2161	ug/mL	98
92) B[ghi]perylene	11.258	276	1202286	40.5094	ug/mL	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 21
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 17:33:09 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Injection Log Summary Report

Method : X:\METHODS\1A110916.M (RTE Integrator)
Title : Method for 8270 analysis
Start (Tune) File ID : X:\DATA\1S110916\1DFTP207.D
Injection Date : 9 Nov 2016 Log Time Period (hrs) : ALL
Injection Time : 10:49 Total files within period : 53
Sample Directory : X:\DATA\1S110916\

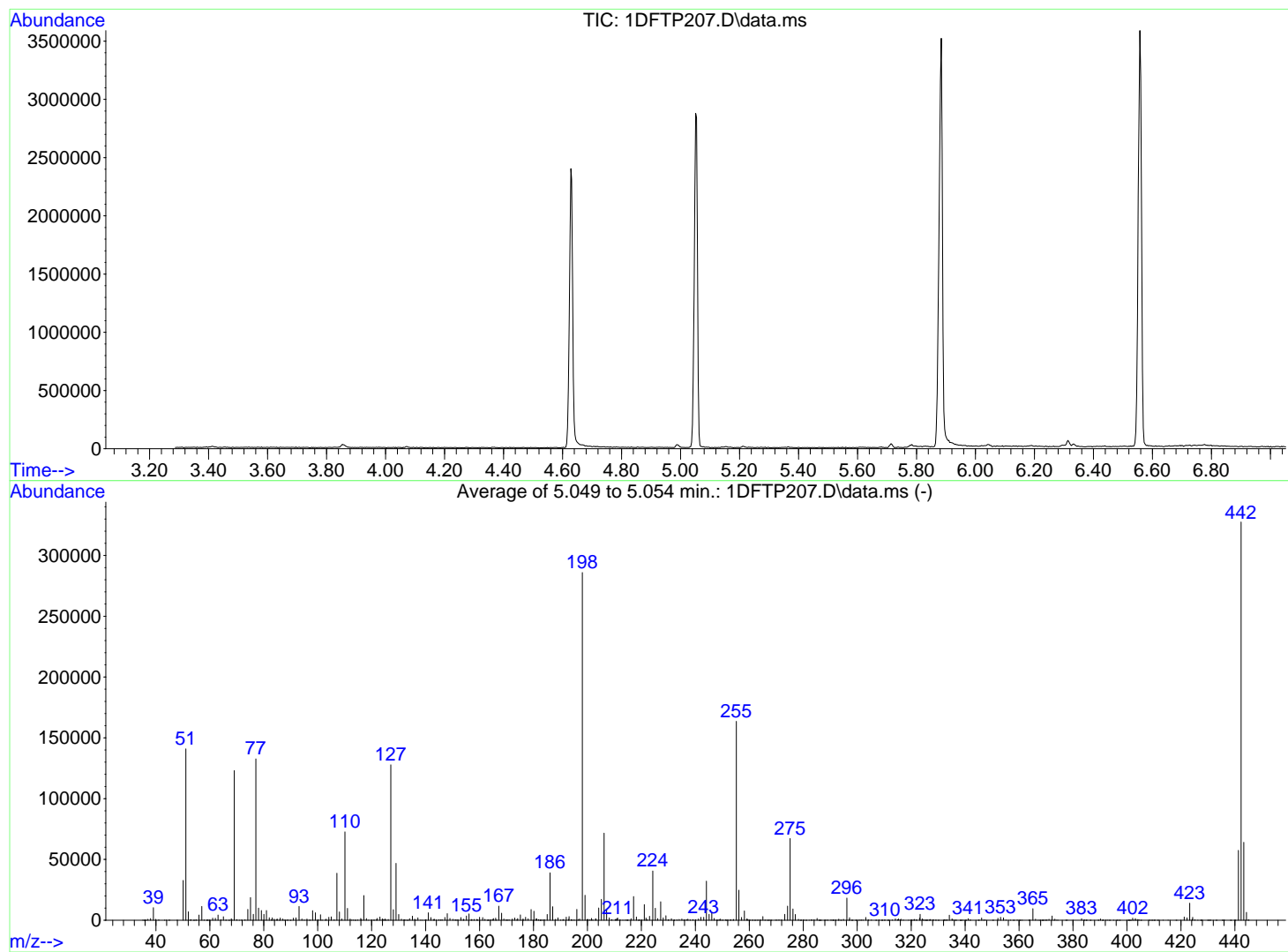
Injection Log Summary Table

File ID	Multiplier			Sample Name	Date	Time
	I	S	T	Misc Info		
1IB01	1.00	1.00	1.00	InstrumentBlank	9 Nov 2016	11:04
				500uL+5ul IS S3553C		
1ICAL7A	1.00	1.00	1.00	ICAL 50ug/ml SVMS7280	9 Nov 2016	11:24
				500uL+5ul IS S3553C		
1ICAL6A	1.00	1.00	1.00	ICAL 40ug/ml SVMS7279	9 Nov 2016	11:44
				500uL+5ul IS S3553C		
1ICAL5A	1.00	1.00	1.00	ICAL 30ug/ml SVMS7278	9 Nov 2016	12:04
				500uL+5ul IS S3553C		
1ICAL4A	1.00	1.00	1.00	ICAL 20ug/ml SVMS7277	9 Nov 2016	12:23
				500uL+5ul IS S3553C		
1ICAL3A	1.00	1.00	1.00	ICAL 10ug/ml SVMS7276	9 Nov 2016	12:43
				500uL+5ul IS S3553C		
1ICAL2A	1.00	1.00	1.00	ICAL 5ug/ml SVMS7275	9 Nov 2016	13:03
				500uL+5ul IS S3553C		
1ICAL1A	1.00	1.00	1.00	ICAL 1ug/ml SVMS7274	9 Nov 2016	13:22
				500uL+5ul IS S3553C		
1ICV1A	1.00	1.00	1.00	ICV 20ug/ml SVMS7281	9 Nov 2016	13:42
				500uL+5ul IS S3553C		
1ICV2A	1.00	1.00	1.00	ICV 40ug/ml SVMS7282	9 Nov 2016	14:02
				500uL+5ul IS S3553C		

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
Acq On : 9 Nov 2016 10:49
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE

Vial: 1
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
Title : DFTPP TUNE Method
Last Update : Fri Nov 04 12:05:16 2016



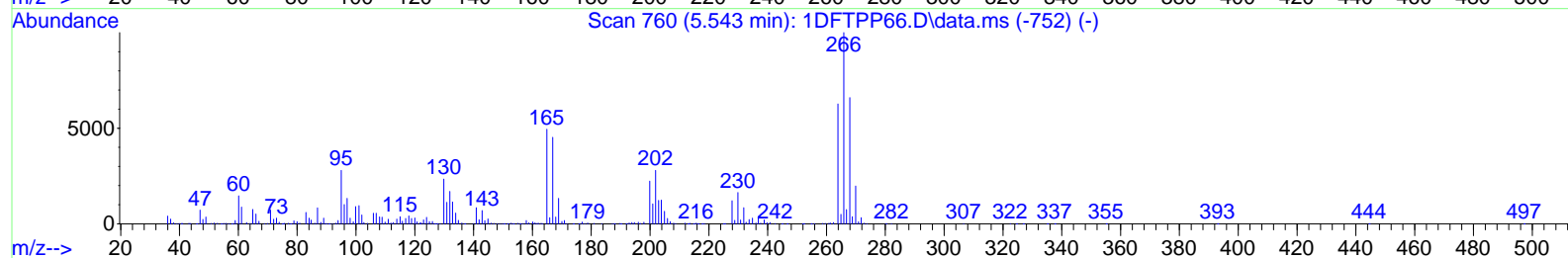
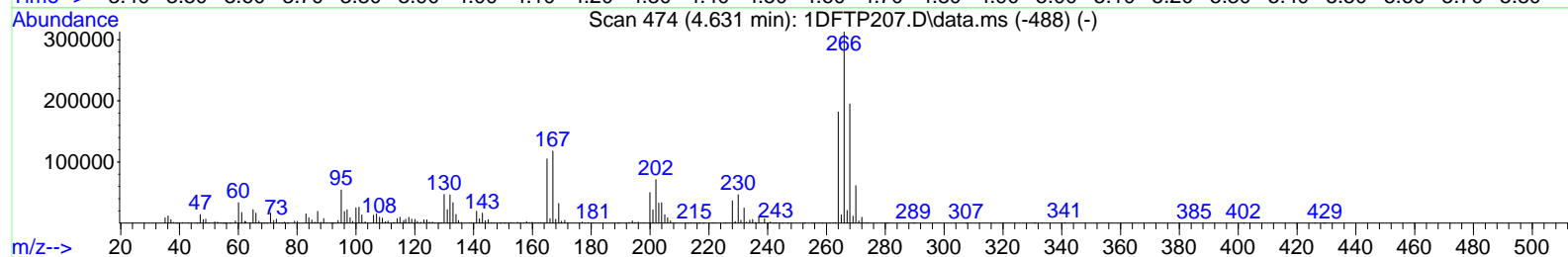
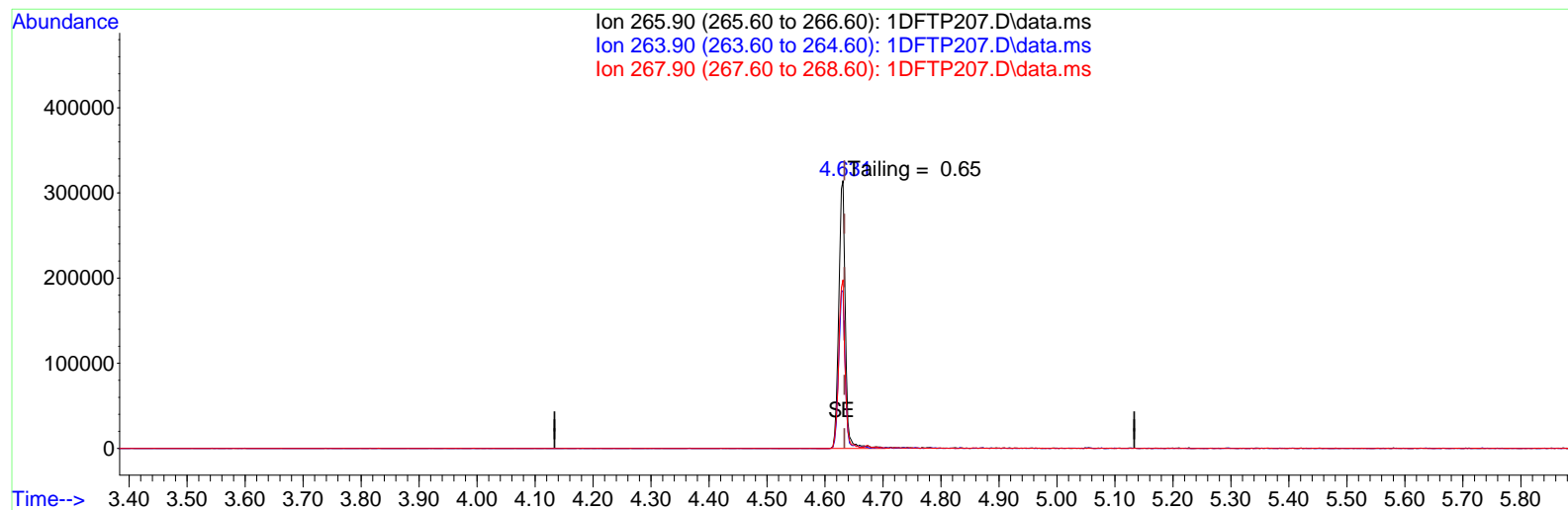
AutoFind: Scans 621, 622, 623; Background Corrected with Scan 610

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	43.0	140970	PASS
68	69	0.00	2	1.1	1338	PASS
70	69	0.00	2	0.5	584	PASS
127	442	10	80	39.0	127829	PASS
197	198	0.00	2	0.3	996	PASS
198	442	50	100	87.3	285973	PASS
199	198	5	9	7.2	20509	PASS
275	442	10	60	20.5	67229	PASS
365	198	1	100	3.3	9562	PASS
441	442	0.01	24	17.6	57528	PASS
442	442	50	100	100.0	327509	PASS
443	442	15	24	19.6	64053	PASS

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
Acq On : 9 Nov 2016 10:49
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Nov 09 11:00:26 2016

Vial: 1
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Fri Nov 04 12:05:16 2016
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP207.D\data.ms

(1) Pentachlorophenol

4.631min (-0.003) 16.32 ng

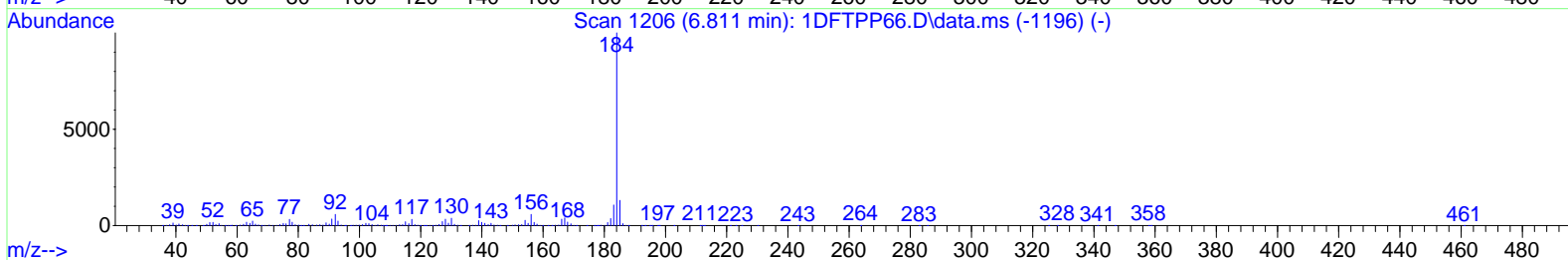
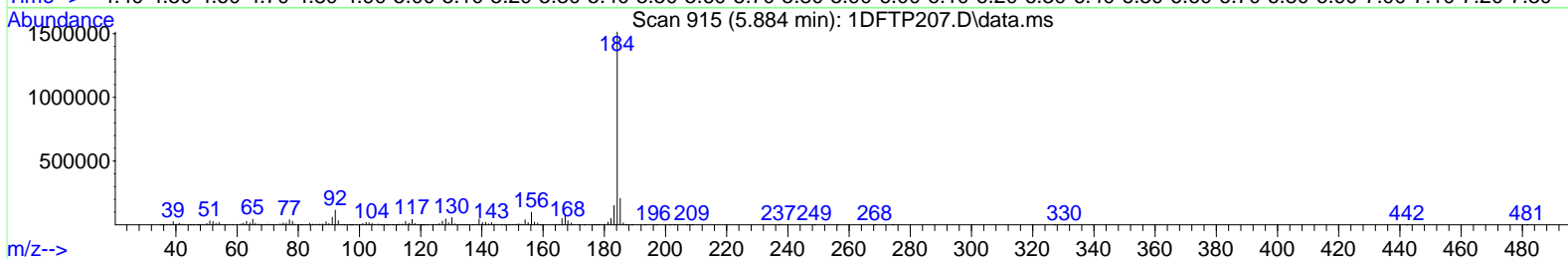
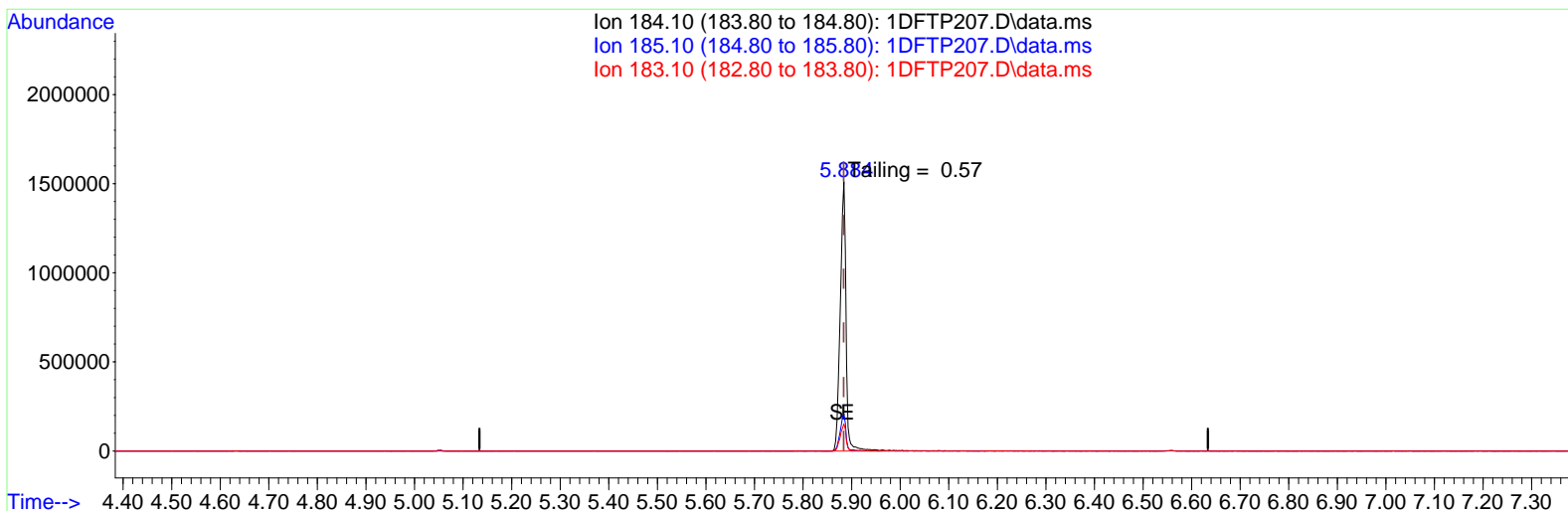
response 242676

Ion	Exp%	Act%
265.90	100	100
263.90	66.20	58.42
267.90	60.90	62.92
0.00	0.00	0.00

Data File : C:\INSTARCH\Data\1S110916\1DFTP207.D
Acq On : 9 Nov 2016 10:49
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Nov 09 11:00:26 2016

Vial: 1
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Fri Nov 04 12:05:16 2016
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP207.D\data.ms

(3) Benzidine

5.884min (+0.000) 14.06 ng

response 1232833

Ion	Exp%	Act%
184.10	100	100
185.10	13.80	14.18
183.10	12.20	10.45
0.00	0.00	0.00

Data File : 1DFTP207.D
Data File Path : C:\INSTARCH\Data\1S110916\
Date Acquired : 11/9/2016 10:49
Sample Name : DFTPP TUNE SVMS7269
Misc Info : SVMS1,25 ug DFTPP

Vial Number : 1
Operator : JJY
Instrument Name: SVMS1
Sample Multiplier: 1

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Calibration Title : DFTPP TUNE Method
Last Update : Fri Nov 04 12:05:16 2016

Compound	R.T.	Qlon	Response
1) Pentachlorophenol	4.63	266	242676
2) DFTPP	5.05	198	233091
3) Benzidine	5.88	184	1232833
4) DDE	6.04	246	1699
5) DDD	6.32	235	11294
6) DDT	6.56	235	589426

DDT %Degradation

DDD + DDE	x	100%	2.16 %
DDD + DDE + DDT			

Method Path : C:\INSTARCH\Methods\
 Method File : 1A110916.M
 Title : Method for 8270 analysis
 Last Update : Wed Nov 09 15:04:03 2016
 Response Via : Initial Calibration

Calibration Files

1 =1ICAL1A.D 5 =1ICAL2A.D 10 =1ICAL3A.D 20 =1ICAL4A.D 30 =1ICAL5A.D 40 =1ICAL6A.D 50 =1ICAL7A.D

Compound		1	5	10	20	30	40	50	Avg	%RSD

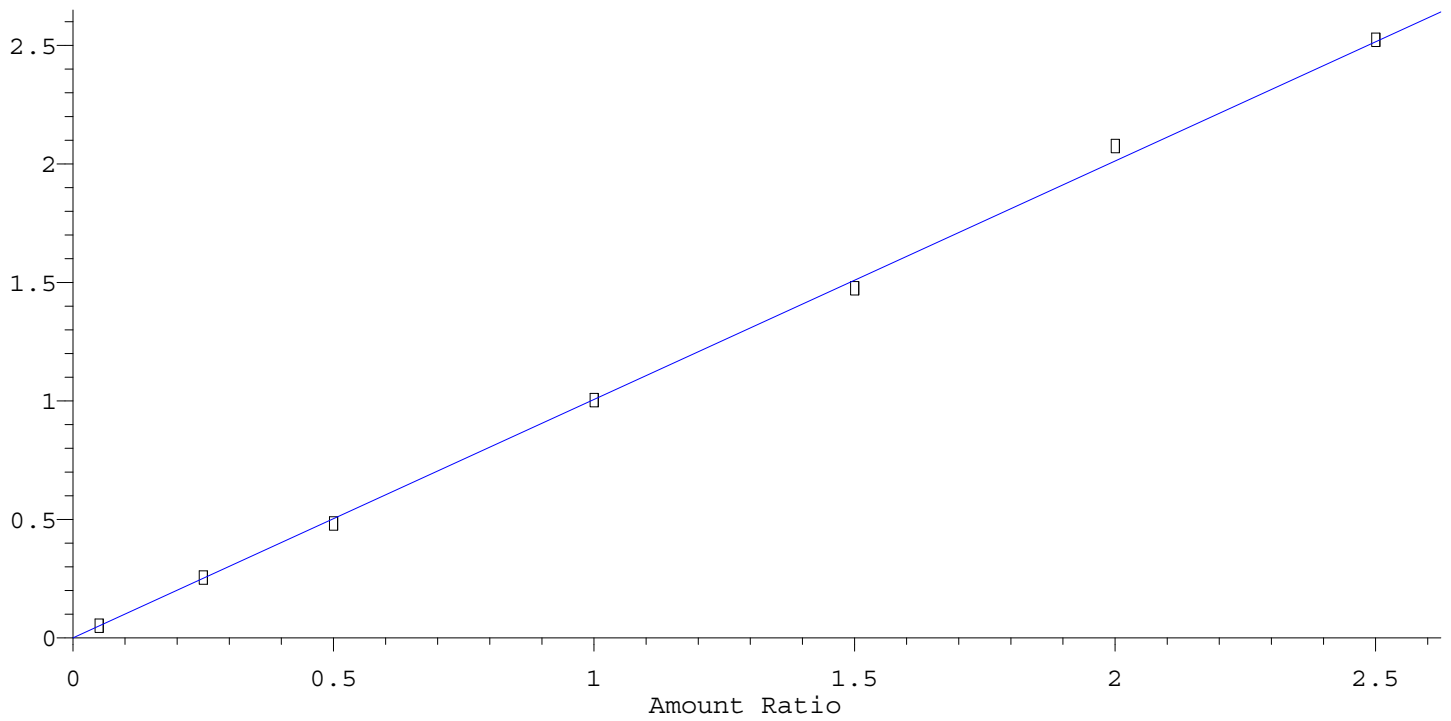
1) I	14Diclbenzd4	-----ISTD-----								
2) CPT	Benzaldehyde	1.024	1.019	0.966	1.003	0.983	1.038	1.009	1.006	2.45
3) I	Naphthalened8	-----ISTD-----								
4) CPT	Caprolactam	0.143	0.170	0.187	0.202	0.199	0.192	0.195	0.184	11.26
5) I	Acenaphthened10	-----ISTD-----								
6) CPT	Biphenyl	1.924	1.875	1.747	1.717	1.664	1.644	1.651	1.746	6.42
7) I	Phenanthhrd10	-----ISTD-----								
8) CPT	Atrazine	0.199	0.223	0.209	0.212	0.205	0.205	0.198	0.207	4.20
9) I	Chrysene-d12	-----ISTD-----								

(#) = Out of Range

Calibration Plot Report

Benzaldehyde

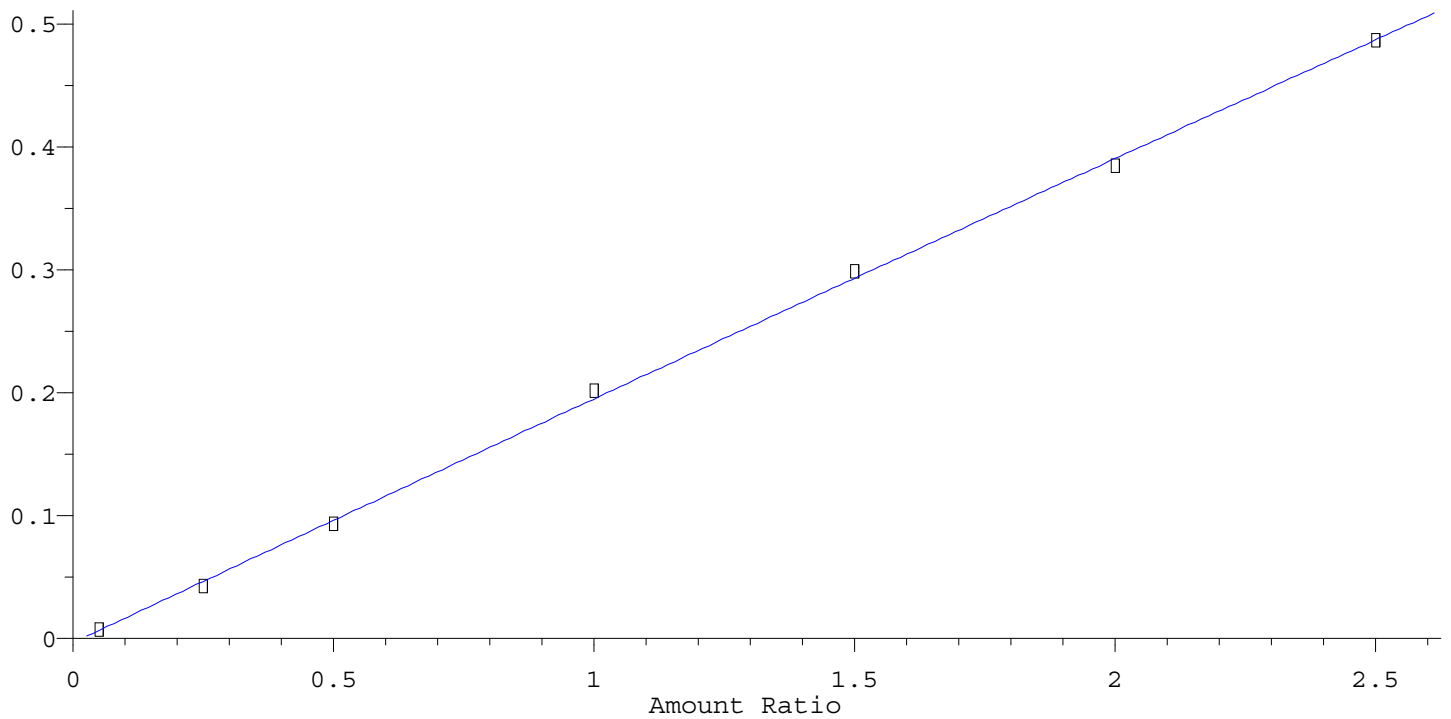
Response Ratio



Resp Ratio = 1.01e+000 * Amt
RF Rel Std Dev = 2.4% Curve Fit: Avg RF

Caprolactam

Response Ratio

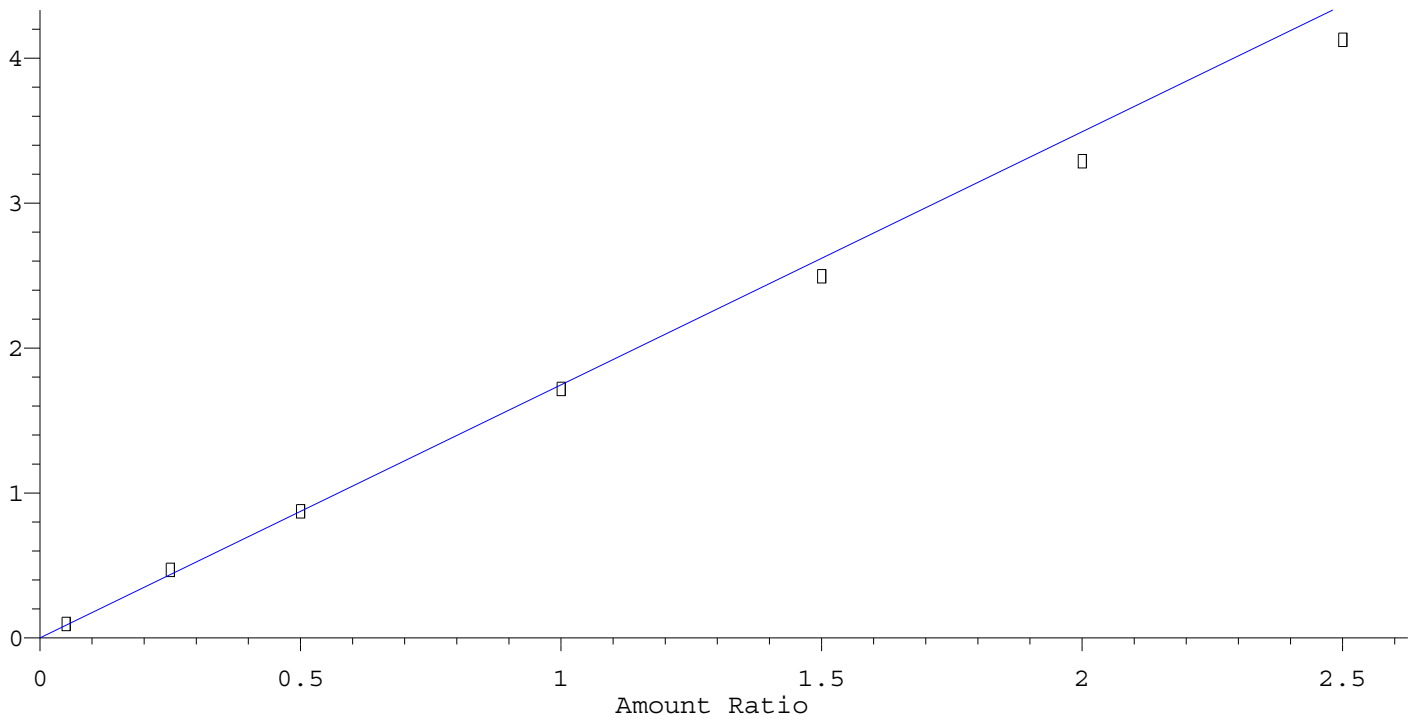


$R = -1.48e-003 A^2 + 2.00e-001 A - 3.52e-003$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

Biphenyl

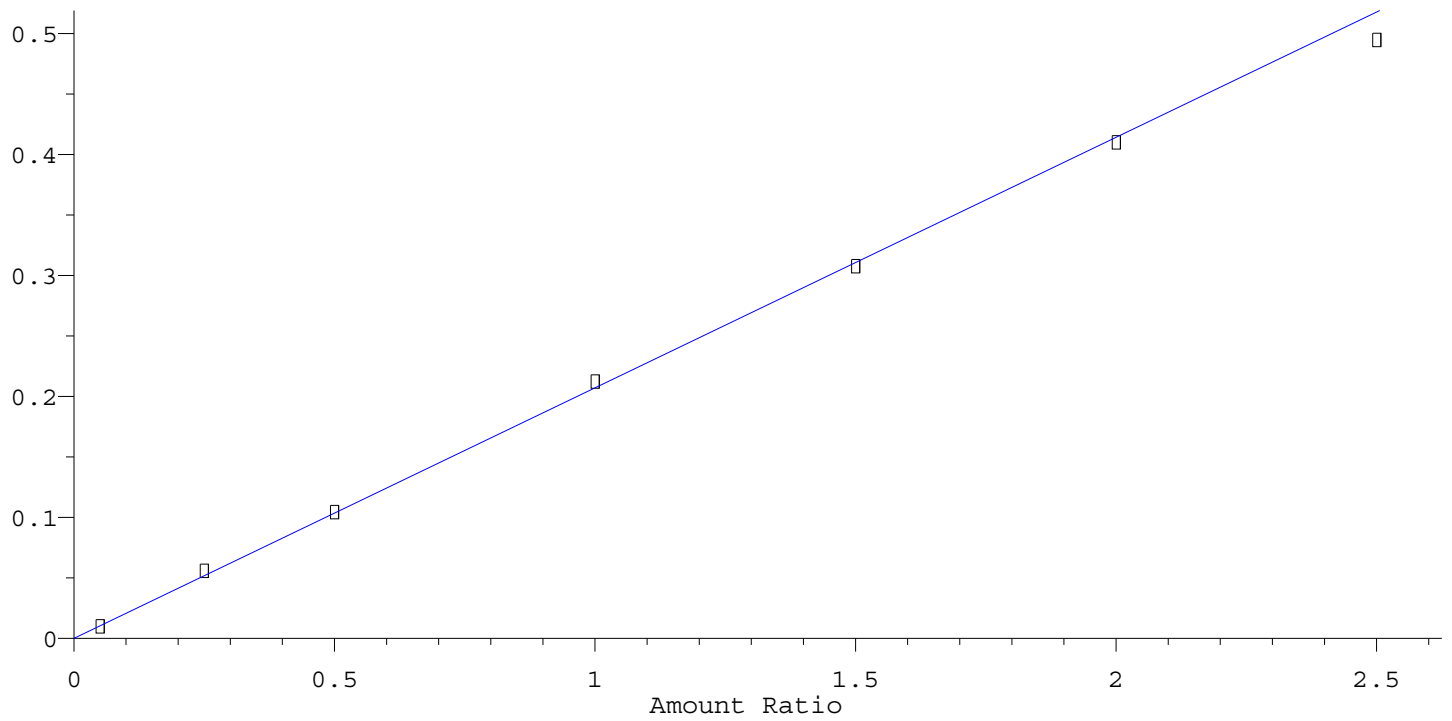
Response Ratio



Resp Ratio = 1.75e+000 * Amt
RF Rel Std Dev = 6.4% Curve Fit: Avg RF

Atrazine

Response Ratio



Resp Ratio = 2.07e-001 * Amt
RF Rel Std Dev = 4.2% Curve Fit: Avg RF

Data File : C:\INSTARCH\Data\1S110916\1IB02.D
Acq On : 9 Nov 2016 14:22
Sample : InstrumentBlank
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 21 18:19:29 2016

Vial: 12
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Mon Nov 21 18:19:20 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.850	152	186042	20.00	ug/mL	0.00
3) Naphthalened8	5.487	136	840499	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	387933	20.00	ug/mL	0.00
7) Phenanthrd10	8.093	188	838802	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	586961	20.00	ug/mL	0.00

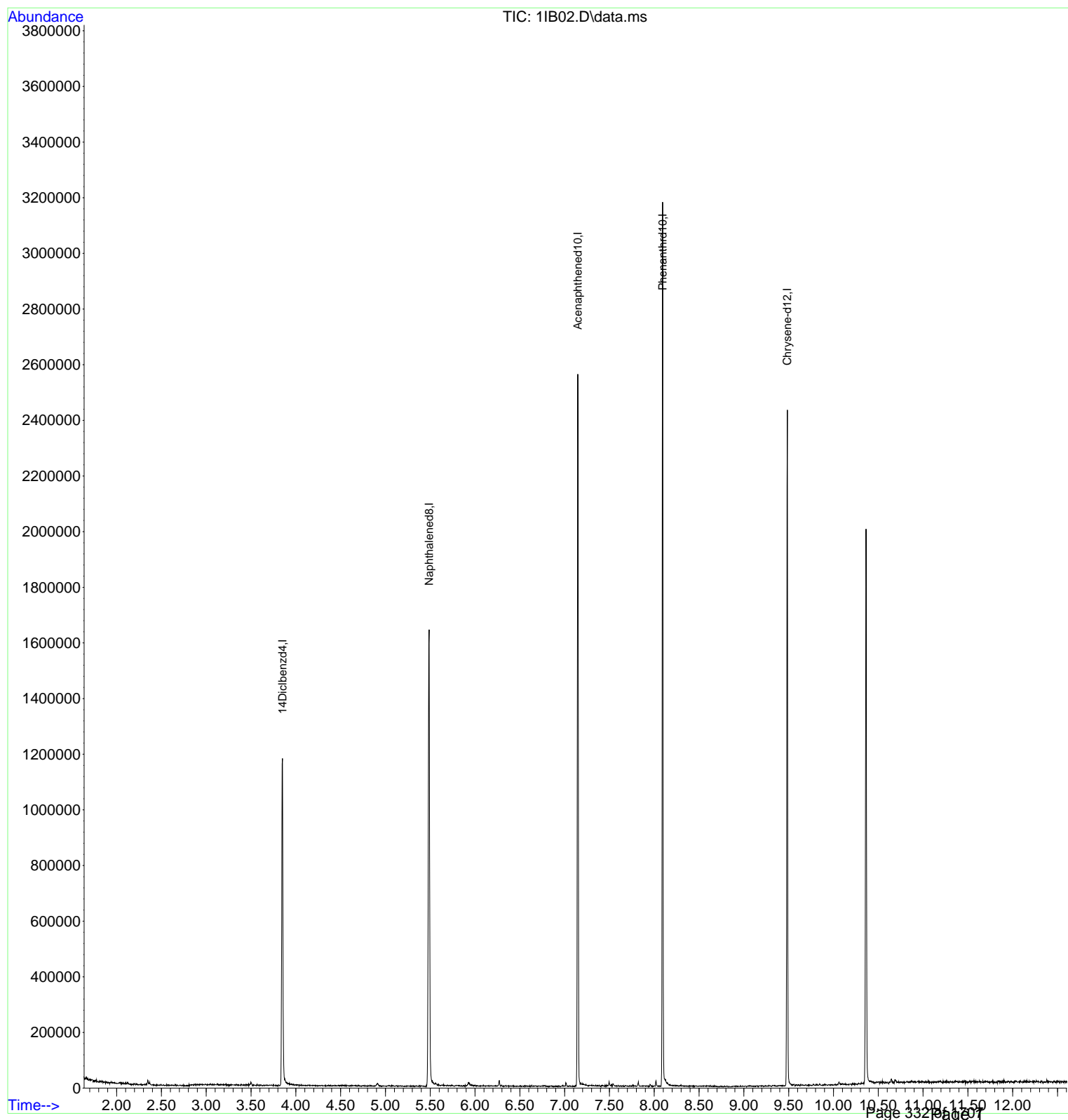
Target Compounds	Qvalue
------------------	--------

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1IB02.D
Acq On : 9 Nov 2016 14:22
Sample : InstrumentBlank
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 21 18:19:29 2016

Vial: 12
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Mon Nov 21 18:19:20 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL7A.D
 Acq On : 9 Nov 2016 11:24
 Sample : ICAL 50ug/ml SVMS7280
 Misc : 500uL+5uL IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 14:59:30 2016

Vial: 3
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 14:58:29 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

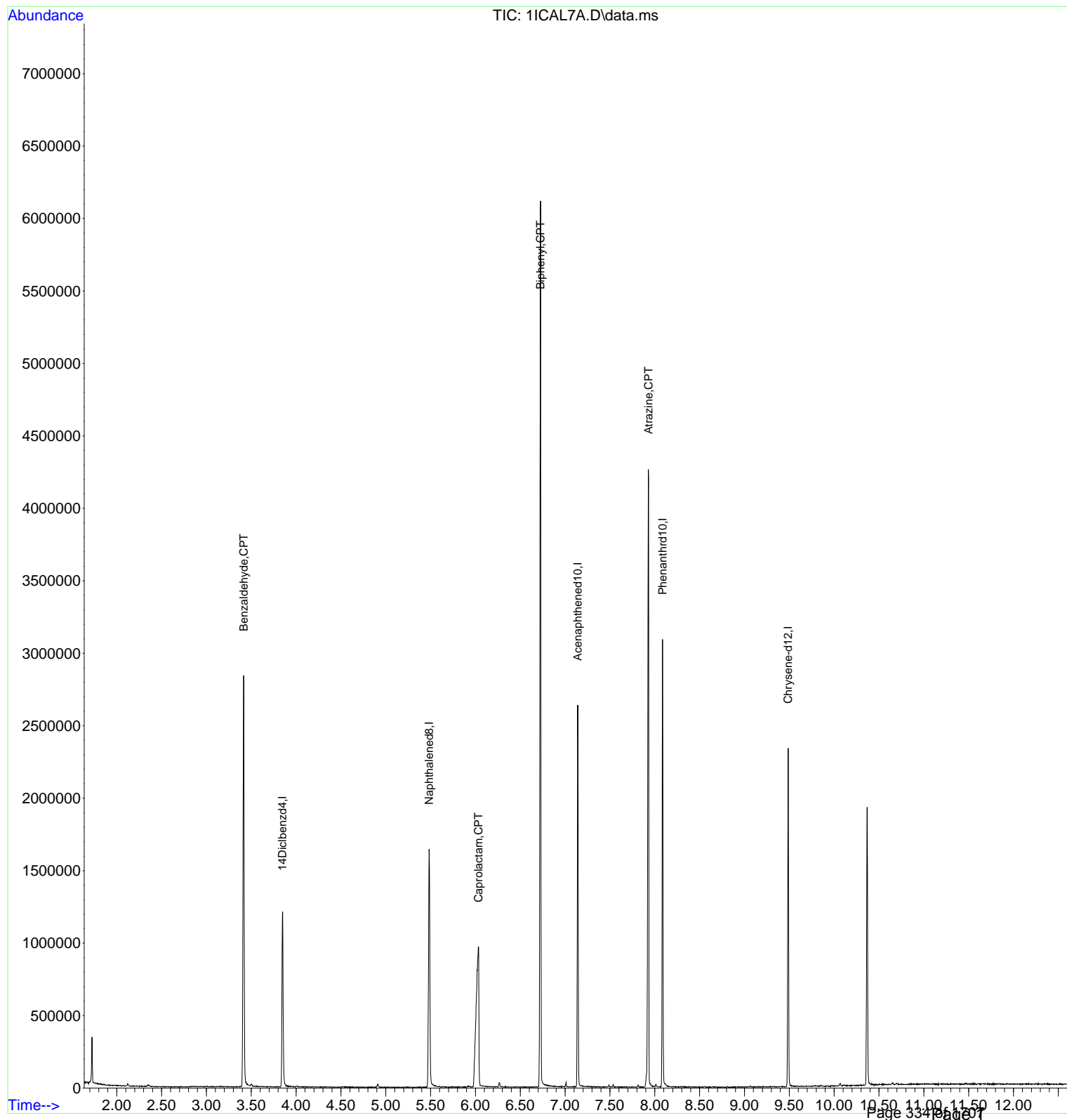
Internal Standards						
1) 14Diclbenzd4	3.847	152	184622	20.00	ug/mL	0.00
3) Naphthalened8	5.484	136	834963	20.00	ug/mL	0.00
5) Acenaphthened10	7.141	164	373789	20.00	ug/mL	0.00
7) Phenanthrd10	8.087	188	822116	20.00	ug/mL	0.00
9) Chrysene-d12	9.488	240	573001	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.415	77	465856	50.0603	ug/mL	98
4) Caprolactam	6.032	55	406479	49.2507	ug/mL	95
6) Biphenyl	6.726	154	1542362	49.2690	ug/mL	99
8) Atrazine	7.930	200	406699	47.6944	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL7A.D
Acq On : 9 Nov 2016 11:24
Sample : ICAL 50ug/ml SVMS7280
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 14:59:30 2016

Vial: 3
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 14:58:29 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL6A.D
 Acq On : 9 Nov 2016 11:44
 Sample : ICAL 40ug/ml SVMS7279
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 14:57:32 2016

Vial: 4
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 14:56:48 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

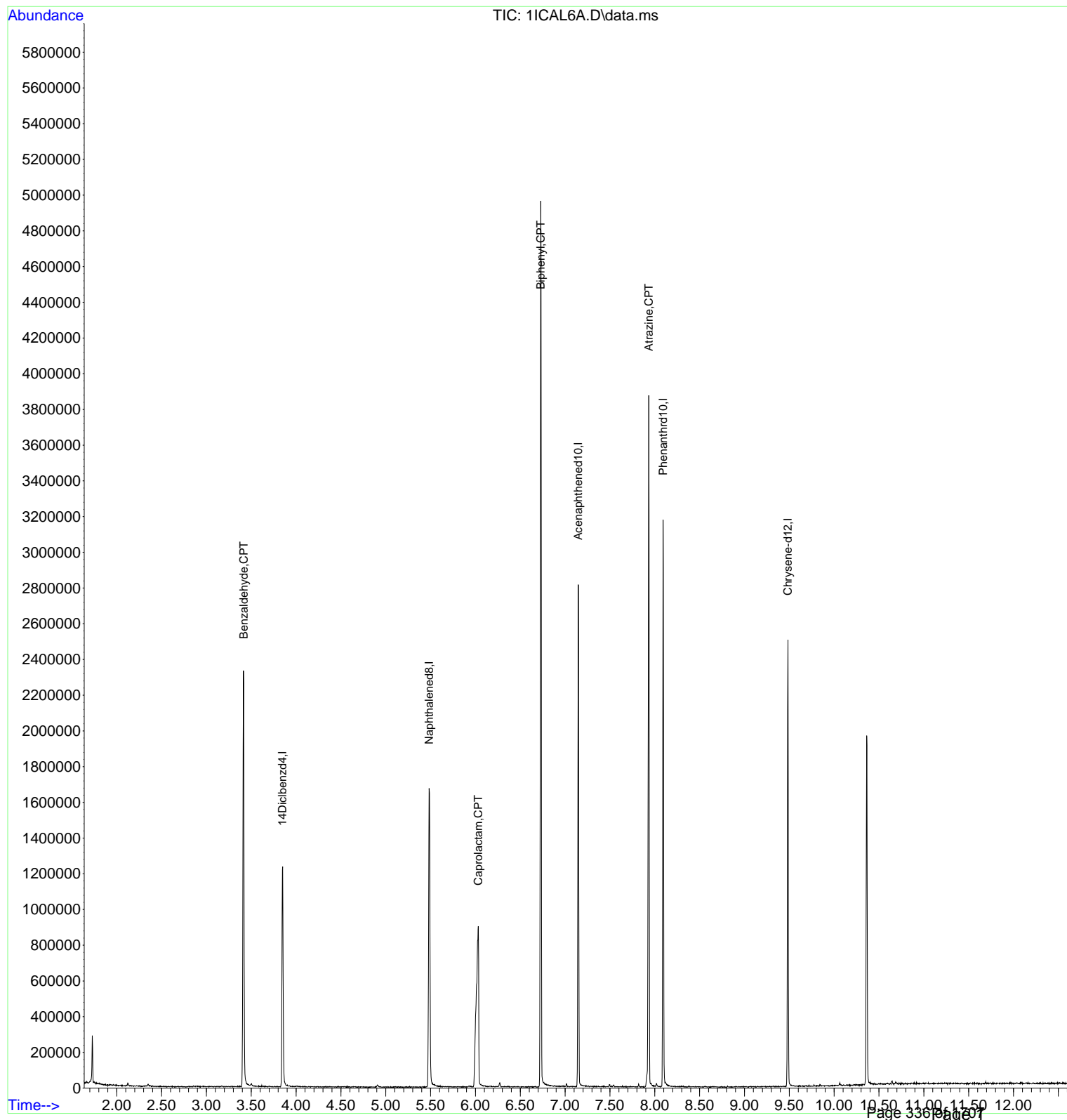
Internal Standards						
1) 14Diclbenzd4	3.847	152	190496	20.00	ug/mL	0.00
3) Naphthalened8	5.484	136	873757	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	400966	20.00	ug/mL	0.00
7) Phenanthrd10	8.092	188	869683	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	607875	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.415	77	395292	41.7776	ug/mL	94
4) Caprolactam	6.030	55	336157	38.4042	ug/mL	98
6) Biphenyl	6.729	154	1318470	38.9037	ug/mL	100
8) Atrazine	7.933	200	356624	39.3059	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL6A.D
Acq On : 9 Nov 2016 11:44
Sample : ICAL 40ug/ml SVMS7279
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 14:57:32 2016

Vial: 4
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 14:56:48 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL5A.D
 Acq On : 9 Nov 2016 12:04
 Sample : ICAL 30ug/ml SVMS7278
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 14:56:26 2016

Vial: 5
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 14:44:53 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

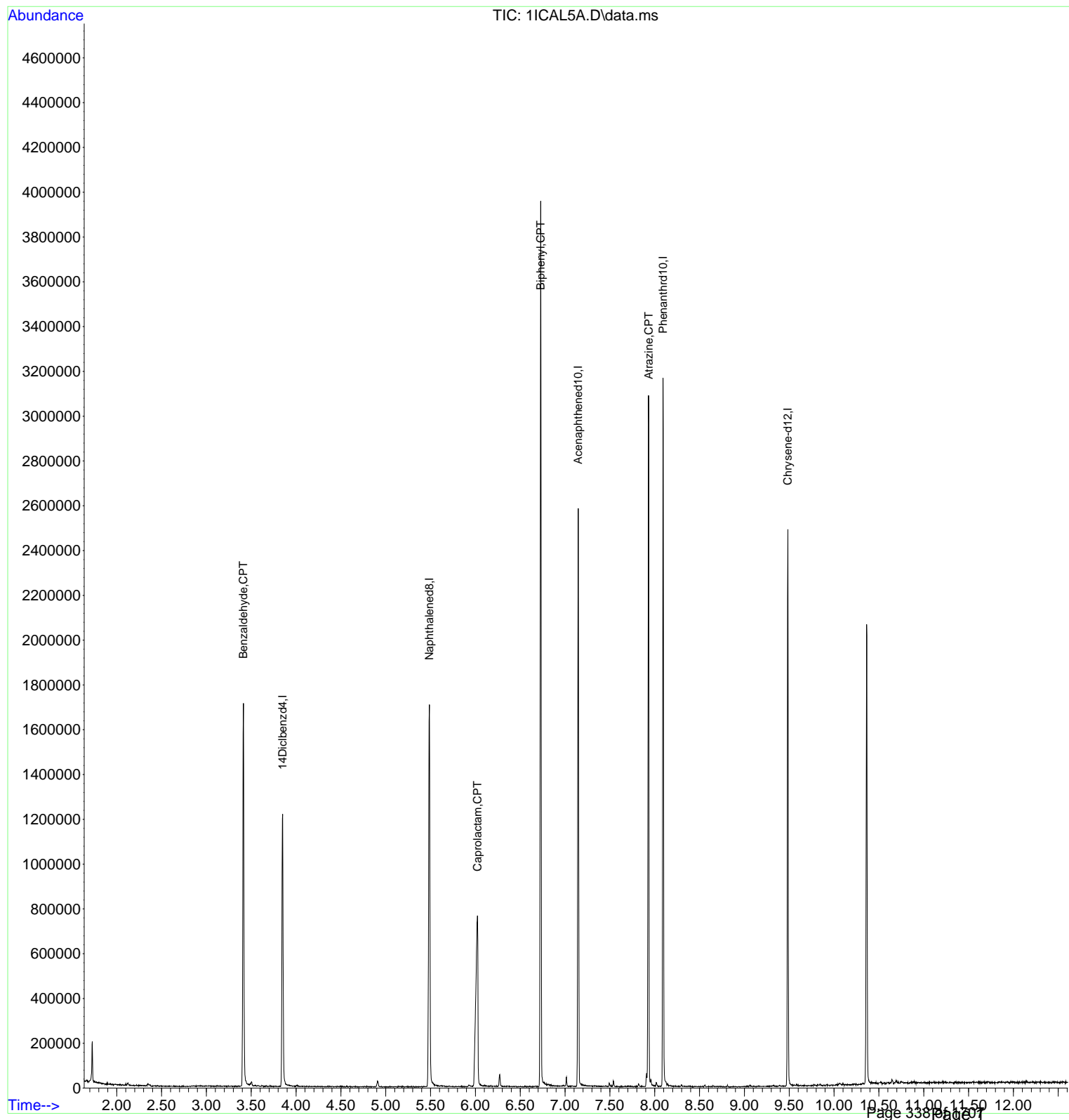
Internal Standards						
1) 14Diclbenzd4	3.850	152	188990	20.00	ug/mL	0.00
3) Naphthalened8	5.487	136	852889	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	401671	20.00	ug/mL	0.00
7) Phenanthrd10	8.092	188	849447	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	611482	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.413	77	278752	29.3971	ug/mL	99
4) Caprolactam	6.024	55	254739	29.6316	ug/mL	95
6) Biphenyl	6.729	154	1002362	29.0638	ug/mL	99
8) Atrazine	7.933	200	261314	28.9918	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL5A.D
Acq On : 9 Nov 2016 12:04
Sample : ICAL 30ug/ml SVMS7278
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 14:56:26 2016

Vial: 5
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 14:44:53 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL4A.D
 Acq On : 9 Nov 2016 12:23
 Sample : ICAL 20ug/ml SVMS7277
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 14:44:57 2016

Vial: 6
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 14:44:53 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

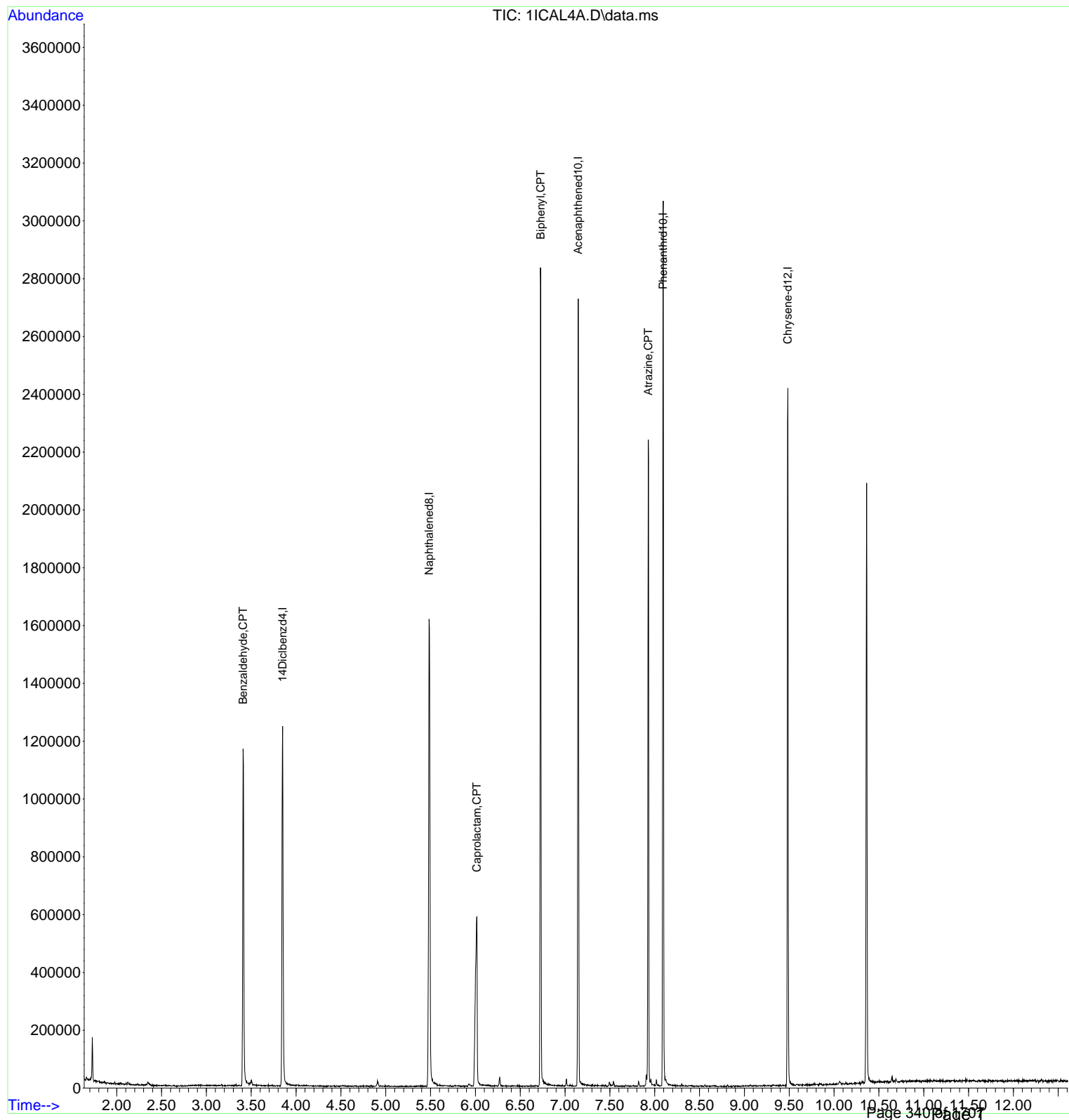
Internal Standards						
1) 14Diclbenzd4	3.850	152	186336	20.00	ug/mL	0.00
3) Naphthalened8	5.484	136	865100	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	397595	20.00	ug/mL	0.00
7) Phenanthrd10	8.092	188	861909	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	621641	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.410	77	186983	20.0000	ug/mL	100
4) Caprolactam	6.015	55	174399	20.0000	ug/mL	100
6) Biphenyl	6.729	154	682768	20.0000	ug/mL	100
8) Atrazine	7.928	200	182912	20.0000	ug/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL4A.D
Acq On : 9 Nov 2016 12:23
Sample : ICAL 20ug/ml SVMS7277
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 14:44:57 2016

Vial: 6
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 14:44:53 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL3A.D
 Acq On : 9 Nov 2016 12:43
 Sample : ICAL 10ug/ml SVMS7276
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 15:00:39 2016

Vial: 7
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 14:59:47 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

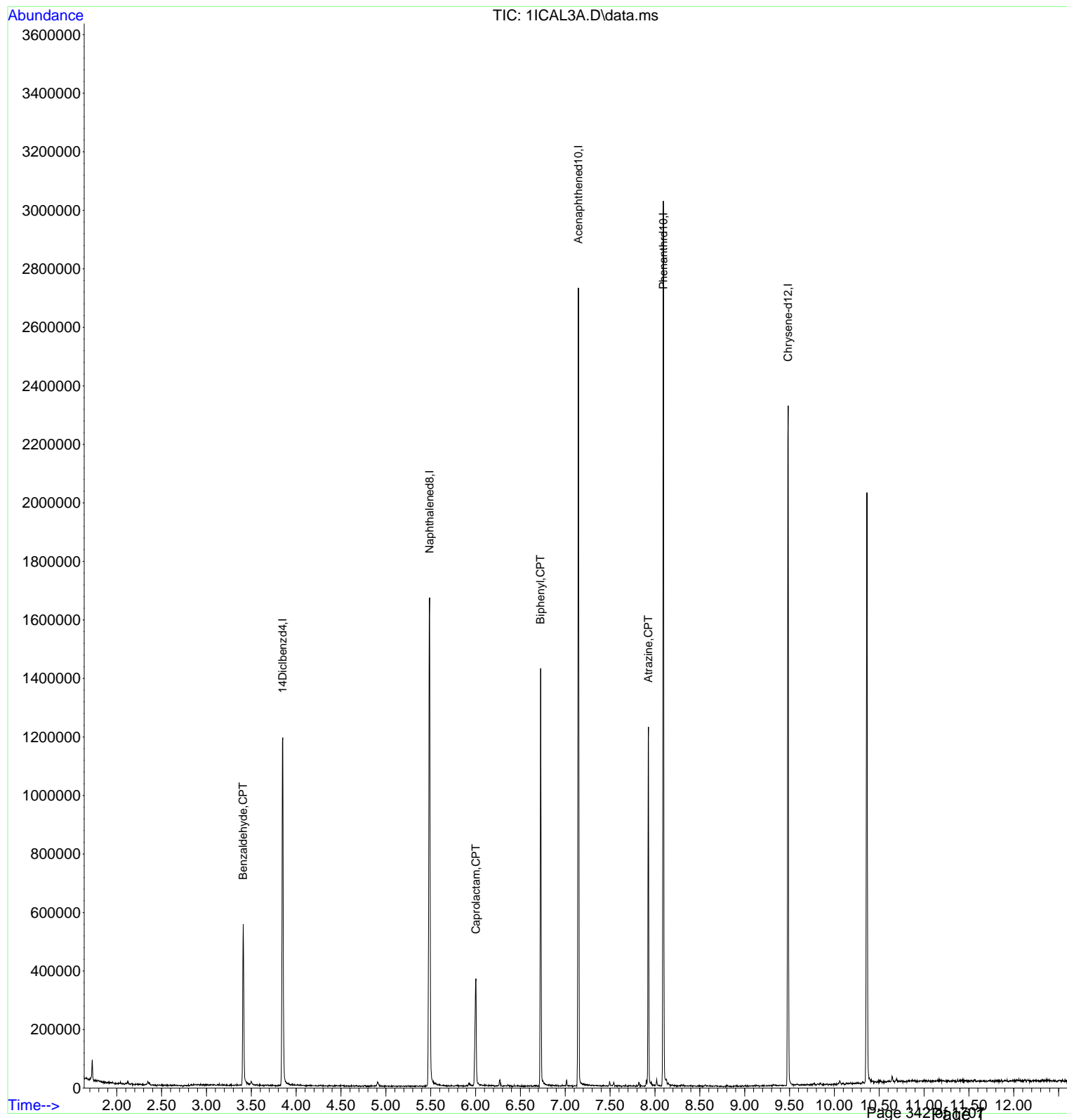
Internal Standards						
1) 14Diclbenzd4	3.850	152	183661	20.00	ug/mL	0.00
3) Naphthalened8	5.487	136	850938	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	389223	20.00	ug/mL	0.00
7) Phenanthrd10	8.093	188	843193	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	594594	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.410	77	88683	9.5767	ug/mL	98
4) Caprolactam	6.004	55	79397	9.4750	ug/mL	96
6) Biphenyl	6.726	154	340025	10.4693	ug/mL	98
8) Atrazine	7.928	200	88009	10.1804	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL3A.D
Acq On : 9 Nov 2016 12:43
Sample : ICAL 10ug/ml SVMS7276
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:00:39 2016

Vial: 7
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 14:59:47 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL2A.D
 Acq On : 9 Nov 2016 13:03
 Sample : ICAL 5ug/ml SVMS7275
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 15:01:38 2016

Vial: 8
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 15:01:19 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

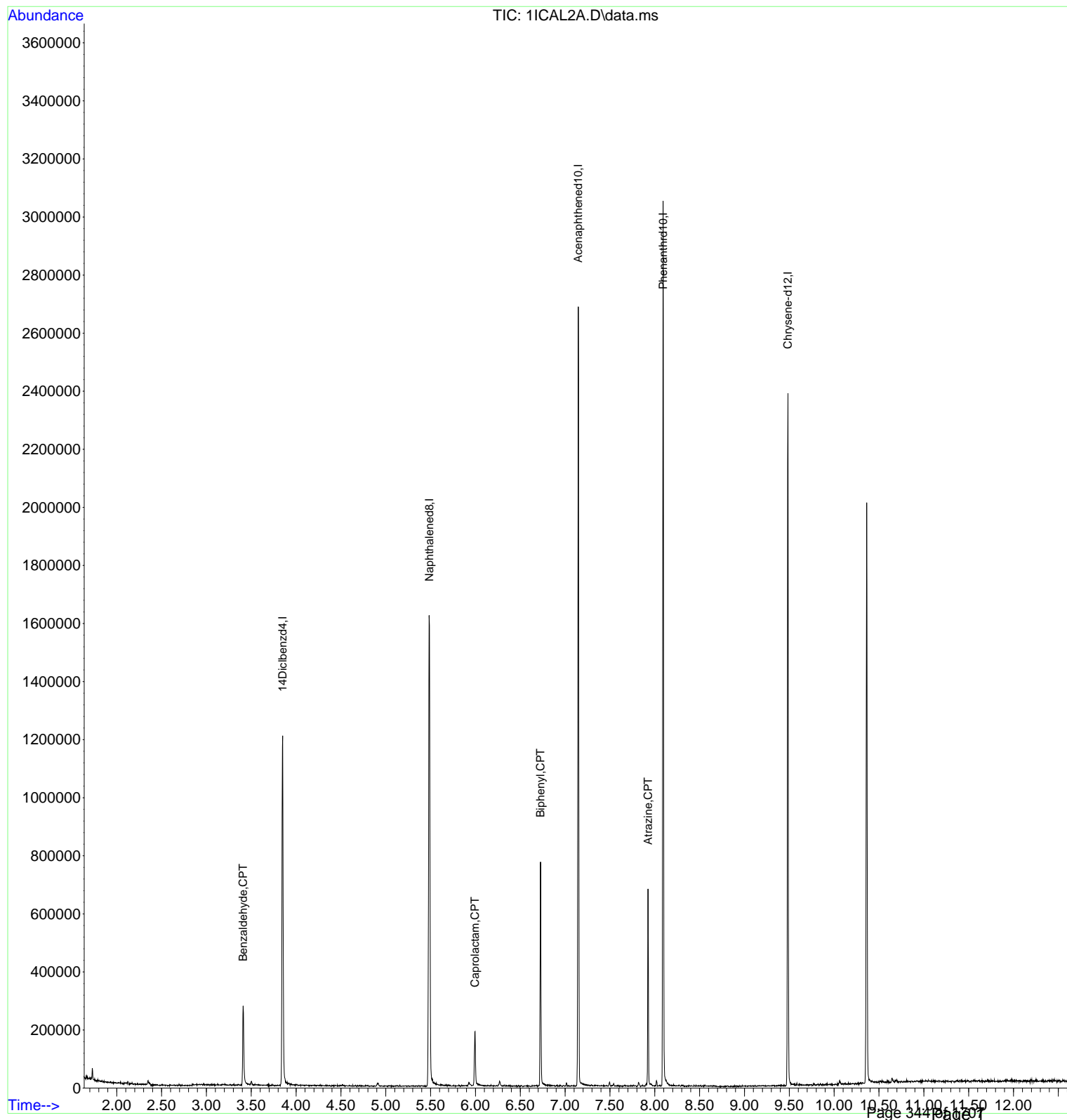
Internal Standards						
1) 14Diclbenzd4	3.850	152	184063	20.00	ug/mL	0.00
3) Naphthalened8	5.487	136	849653	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	392307	20.00	ug/mL	0.00
7) Phenanthrd10	8.092	188	819766	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	583501	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.410	77	46900	5.0967	ug/mL	94
4) Caprolactam	5.995	55	36165	4.3682	ug/mL	97
6) Biphenyl	6.726	154	183921	5.5661	ug/mL	98
8) Atrazine	7.925	200	45754	5.4242	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL2A.D
Acq On : 9 Nov 2016 13:03
Sample : ICAL 5ug/ml SVMS7275
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:01:38 2016

Vial: 8
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:01:19 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICAL1A.D
 Acq On : 9 Nov 2016 13:22
 Sample : ICAL 1ug/ml SVMS7274
 Misc : 500uL+5uL IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 15:02:30 2016

Vial: 9
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 15:01:54 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

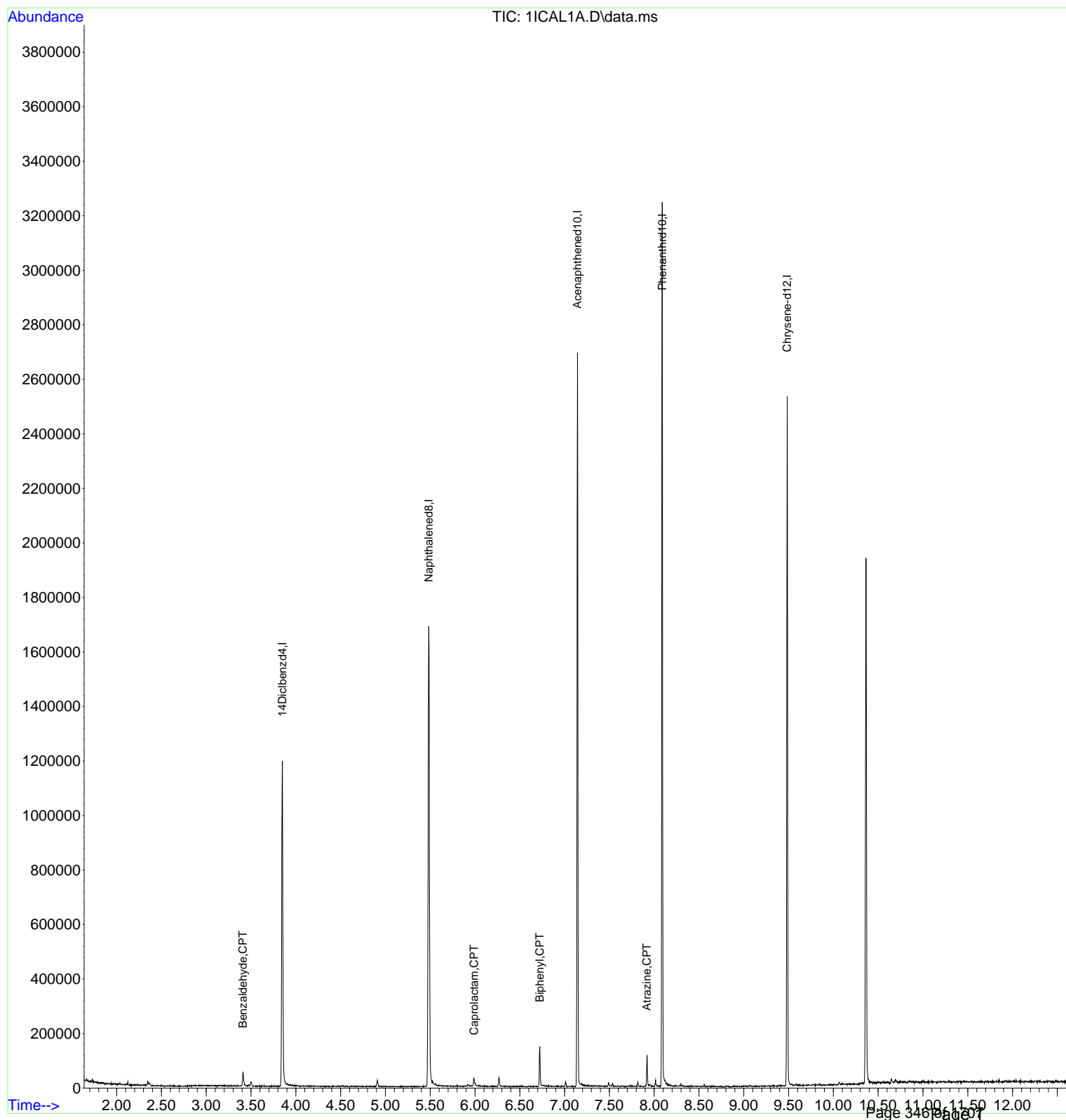
Internal Standards						
1) 14Diclbenzd4	3.850	152	185384	20.00	ug/mL	0.00
3) Naphthalened8	5.484	136	854412	20.00	ug/mL	0.00
5) Acenaphthened10	7.143	164	383326	20.00	ug/mL	0.00
7) Phenanthrd10	8.090	188	845643	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	614180	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.410	77	9488	1.0204	ug/mL#	81
4) Caprolactam	5.990	55	6121	0.7510	ug/mL	80
6) Biphenyl	6.723	154	36876	1.1210	ug/mL	97
8) Atrazine	7.919	200	8398	0.9517	ug/mL	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICAL1A.D
Acq On : 9 Nov 2016 13:22
Sample : ICAL 1ug/ml SVMS7274
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:02:30 2016

Vial: 9
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:01:54 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
Acq On : 9 Nov 2016 13:42
Sample : ICV 20ug/ml SVMS7281
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:05:42 2016

Vial: 10
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	100	0.00
2 CPT	Benzaldehyde	20.000	20.464	-2.3	103	0.00
3 I	Naphthalened8	20.000	20.000	0.0	100	0.00
4 CPT	Caprolactam	20.000	19.423	2.9	94	0.00
5 I	Acenaphthened10	20.000	20.000	0.0	98	0.00
6 CPT	Biphenyl	20.000	20.098	-0.5	101	0.00
7 I	Phenanthrd10	20.000	20.000	0.0	97	0.00
8 CPT	Atrazine	20.000	20.589	-2.9	98	0.00
9 I	Chrysene-d12	20.000	20.000	0.0	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
Acq On : 9 Nov 2016 13:42
Sample : ICV 20ug/ml SVMS7281
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:05:42 2016

Vial: 10
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	100	0.00
2 CPT	Benzaldehyde	1.006	1.029	-2.3	103	0.00
3 I	Naphthalened8	1.000	1.000	0.0	100	0.00
4 CPT	Caprolactam	0.184	0.189	-2.7	94	0.00
5 I	Acenaphthened10	1.000	1.000	0.0	98	0.00
6 CPT	Biphenyl	1.746	1.755	-0.5	101	0.00
7 I	Phenanthrd10	1.000	1.000	0.0	97	0.00
8 CPT	Atrazine	0.207	0.213	-2.9	98	0.00
9 I	Chrysene-d12	1.000	1.000	0.0	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
Acq On : 9 Nov 2016 13:42
Sample : ICV 20ug/ml SVMS7281
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:05:42 2016

Vial: 10
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	100	0.00
2 CPT	Benzaldehyde	20.000	20.464	-2.3	103	0.00
3 I	Naphthalened8	20.000	20.000	0.0	100	0.00
4 CPT	Caprolactam	20.000	19.423	2.9	94	0.00
5 I	Acenaphthened10	20.000	20.000	0.0	98	0.00
6 CPT	Biphenyl	20.000	20.098	-0.5	101	0.00
7 I	Phenanthrd10	20.000	20.000	0.0	97	0.00
8 CPT	Atrazine	20.000	20.589	-2.9	98	0.00
9 I	Chrysene-d12	20.000	20.000	0.0	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
Acq On : 9 Nov 2016 13:42
Sample : ICV 20ug/ml SVMS7281
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:05:42 2016

Vial: 10
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	100	0.00
2 CPT	Benzaldehyde	1.006	1.029	-2.3	103	0.00
3 I	Naphthalened8	1.000	1.000	0.0	100	0.00
4 CPT	Caprolactam	0.184	0.189	-2.7	94	0.00
5 I	Acenaphthened10	1.000	1.000	0.0	98	0.00
6 CPT	Biphenyl	1.746	1.755	-0.5	101	0.00
7 I	Phenanthrd10	1.000	1.000	0.0	97	0.00
8 CPT	Atrazine	0.207	0.213	-2.9	98	0.00
9 I	Chrysene-d12	1.000	1.000	0.0	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
 Acq On : 9 Nov 2016 13:42
 Sample : ICV 20ug/ml SVMS7281
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 15:05:42 2016

Vial: 10
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 15:04:03 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

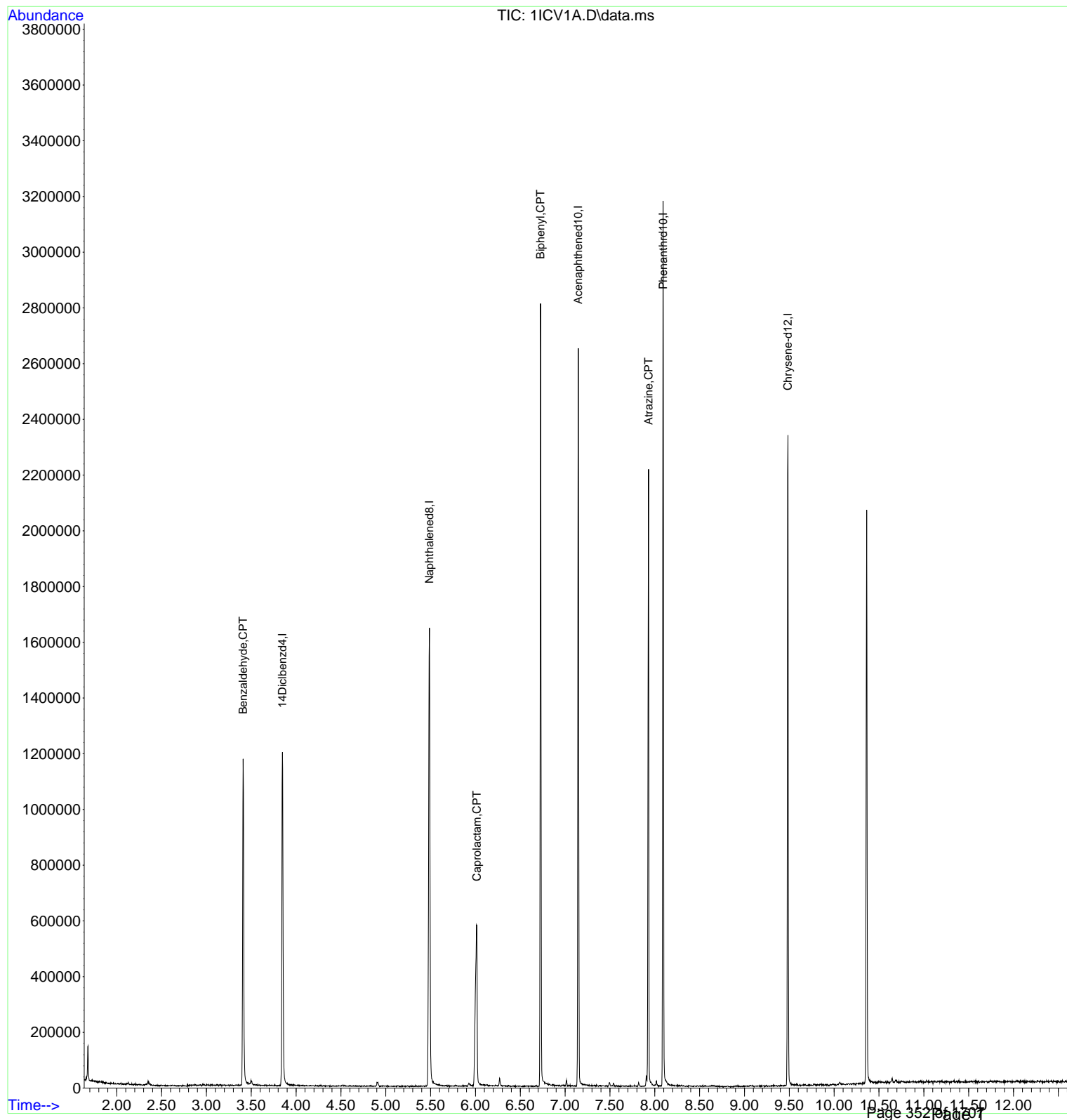
Internal Standards						
1) 14Diclbenzd4	3.847	152	187045	20.00	ug/mL	0.00
3) Naphthalened8	5.487	136	861571	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	391110	20.00	ug/mL	0.00
7) Phenanthrd10	8.092	188	839821	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	589925	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.410	77	192538	20.4641	ug/mL	99
4) Caprolactam	6.015	55	163100	19.4229	ug/mL	98
6) Biphenyl	6.726	154	686237	20.0984	ug/mL	99
8) Atrazine	7.930	200	179189	20.5889	ug/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICV1A.D
Acq On : 9 Nov 2016 13:42
Sample : ICV 20ug/ml SVMS7281
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:05:42 2016

Vial: 10
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S110916\1ICV2A.D
Acq On : 9 Nov 2016 14:02
Sample : ICV 40ug/ml SVMS7282
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:08:04 2016

Vial: 11
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	95	0.00
2 CPT	Benzaldehyde	40.000	41.199	-3.0	95	0.00
3 I	Naphthalened8	20.000	20.000	0.0	95	0.00
4 CPT	Caprolactam	40.000	38.888	2.8	94	0.02
5 I	Acenaphthened10	20.000	20.000	0.0	93	0.00
6 CPT	Biphenyl	40.000	38.115	4.7	94	0.00
7 I	Phenanthrd10	20.000	20.000	0.0	93	0.00
8 CPT	Atrazine	40.000	37.491	6.3	88	0.00
9 I	Chrysene-d12	20.000	20.000	0.0	91	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV2A.D
Acq On : 9 Nov 2016 14:02
Sample : ICV 40ug/ml SVMS7282
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:08:04 2016

Vial: 11
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	95	0.00
2 CPT	Benzaldehyde	40.000	41.199	-3.0	95	0.00
3 I	Naphthalened8	20.000	20.000	0.0	95	0.00
4 CPT	Caprolactam	40.000	38.888	2.8	94	0.01
5 I	Acenaphthened10	20.000	20.000	0.0	93	0.00
6 CPT	Biphenyl	40.000	38.115	4.7	94	0.00
7 I	Phenanthrd10	20.000	20.000	0.0	93	0.00
8 CPT	Atrazine	40.000	37.491	6.3	88	0.00
9 I	Chrysene-d12	20.000	20.000	0.0	91	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S110916\1ICV2A.D
 Acq On : 9 Nov 2016 14:02
 Sample : ICV 40ug/ml SVMS7282
 Misc : 500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 09 15:08:04 2016

Vial: 11
 Operator: JJY
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Nov 09 15:04:03 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

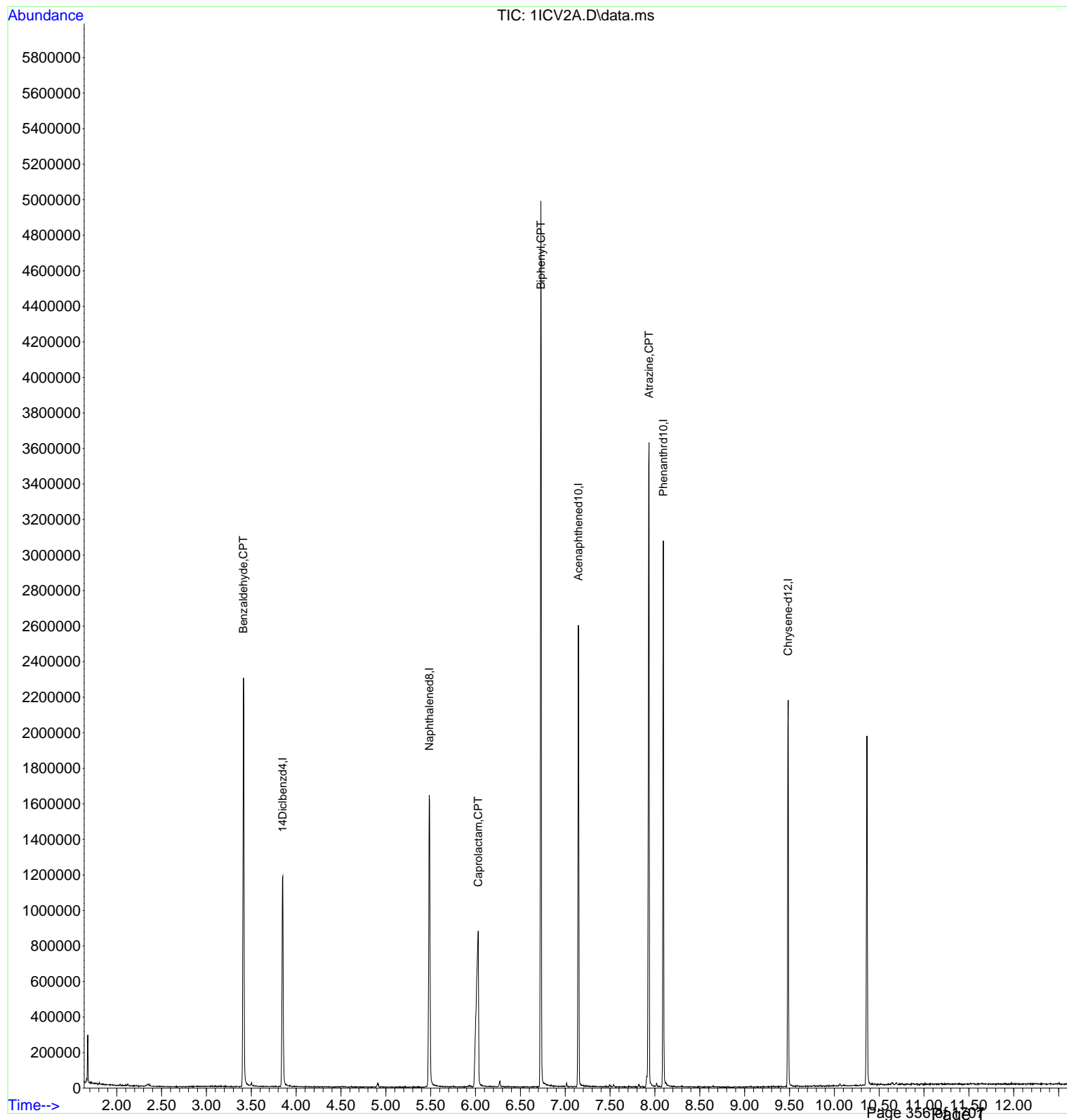
Internal Standards						
1) 14Diclbenzd4	3.850	152	181569	20.00	ug/mL	0.00
3) Naphthalened8	5.484	136	834180	20.00	ug/mL	0.00
5) Acenaphthened10	7.146	164	373088	20.00	ug/mL	0.00
7) Phenanthrd10	8.093	188	812262	20.00	ug/mL	0.00
9) Chrysene-d12	9.485	240	554138	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.413	77	376280	41.1994	ug/mL	94
4) Caprolactam	6.030	55	316776	38.8879	ug/mL	97
6) Biphenyl	6.729	154	1241423	38.1148	ug/mL	99
8) Atrazine	7.934	200	315587	37.4915	ug/mL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S110916\1ICV2A.D
Acq On : 9 Nov 2016 14:02
Sample : ICV 40ug/ml SVMS7282
Misc : 500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 09 15:08:04 2016

Vial: 11
Operator: JJY
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Nov 09 15:04:03 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

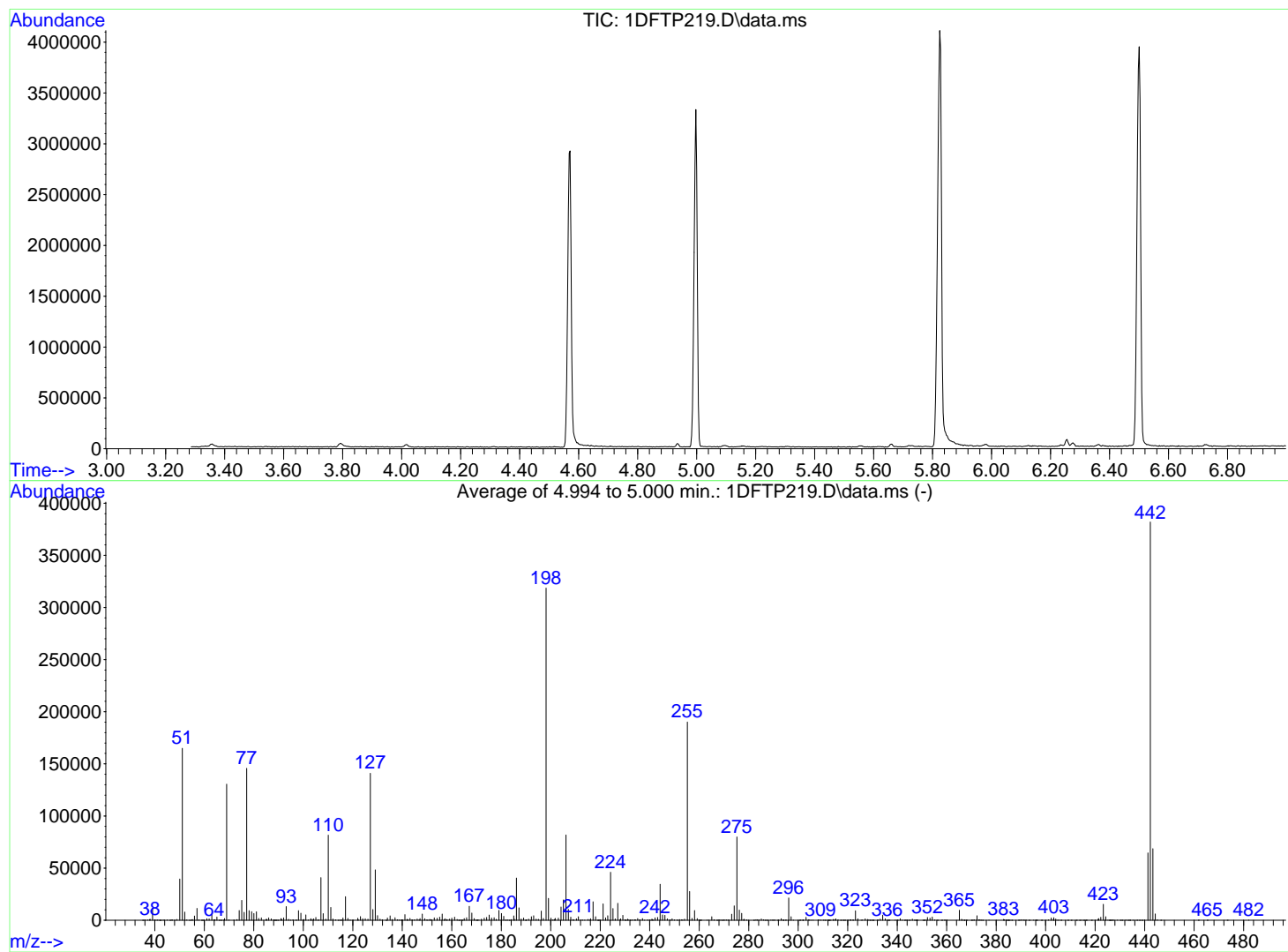


**SEMI - VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S111716\1DFTP219.D
 Acq On : 17 Nov 2016 12:18
 Sample : DFTPP TUNE SVMS7269
 Misc : SVMS1,25 ug DFTPP
 Integrator: RTE

Vial: 1
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTP.M
 Title : DFTPP TUNE Method
 Last Update : Tue Nov 15 19:28:39 2016



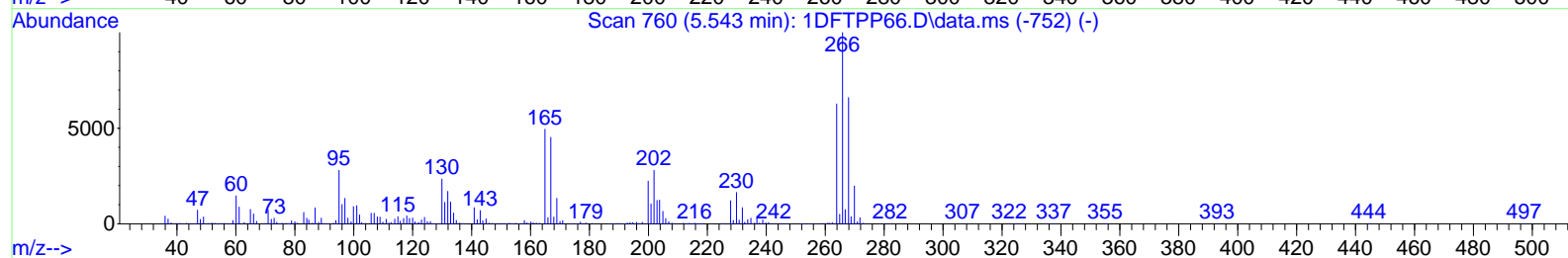
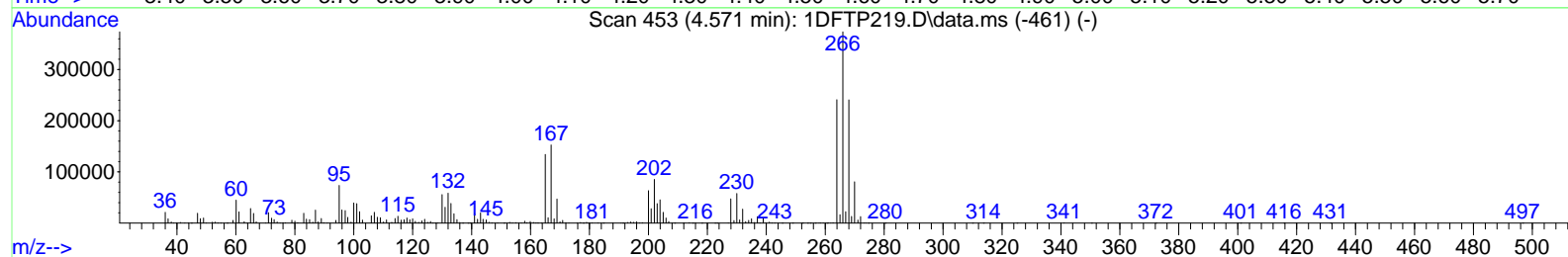
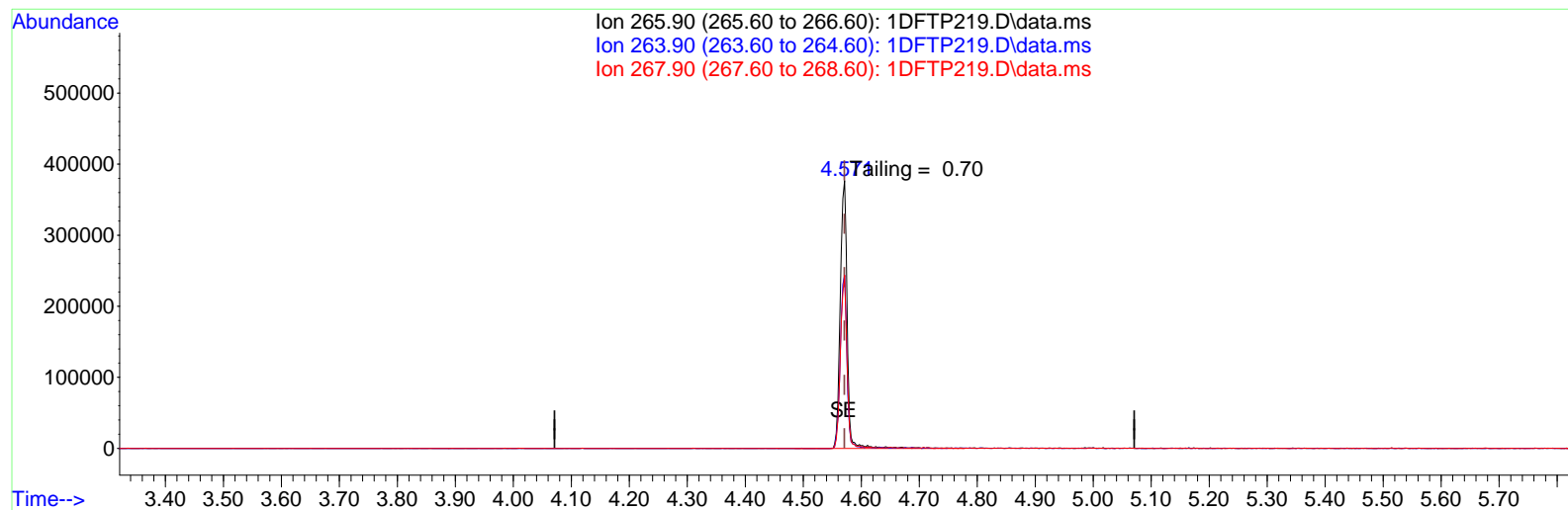
AutoFind: Scans 602, 603, 604; Background Corrected with Scan 594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	43.2	164909	PASS
68	69	0.00	2	1.3	1670	PASS
70	69	0.00	2	0.3	380	PASS
127	442	10	80	36.9	141000	PASS
197	198	0.00	2	0.5	1719	PASS
198	442	50	100	83.4	318592	PASS
199	198	5	9	6.6	21066	PASS
275	442	10	60	20.9	79896	PASS
365	198	1	100	3.0	9626	PASS
441	442	0.01	24	16.9	64578	PASS
442	442	50	100	100.0	381994	PASS
443	442	15	24	18.0	68730	PASS

Data File : C:\INSTARCH\Data\1S111716\1DFTP219.D
Acq On : 17 Nov 2016 12:18
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Nov 18 13:12:49 2016

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Fri Nov 18 13:12:46 2016
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP219.D\data.ms

(1) Pentachlorophenol

4.571min (0.000) 20.29 ng

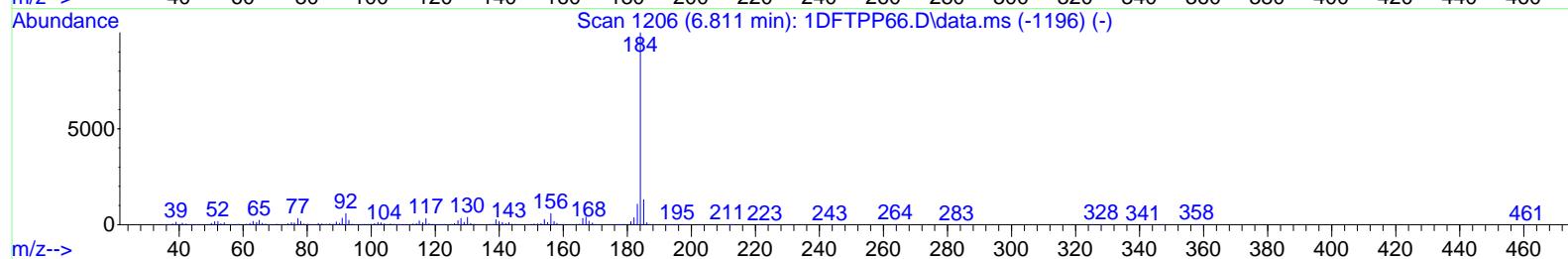
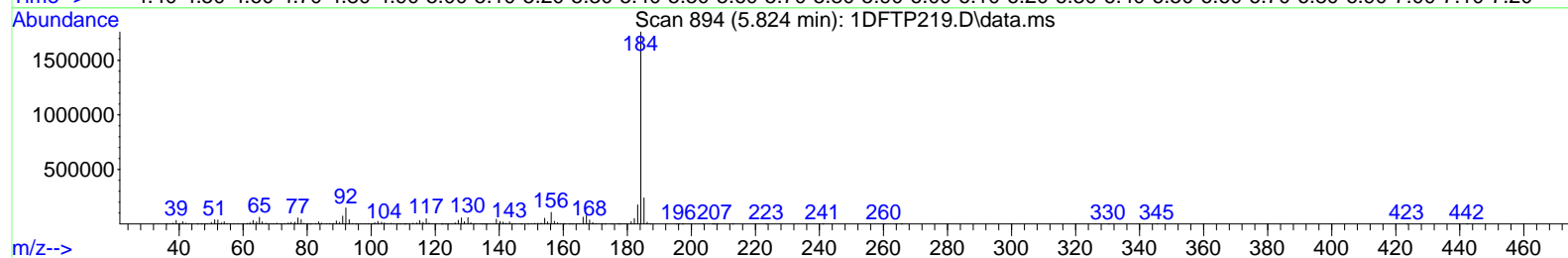
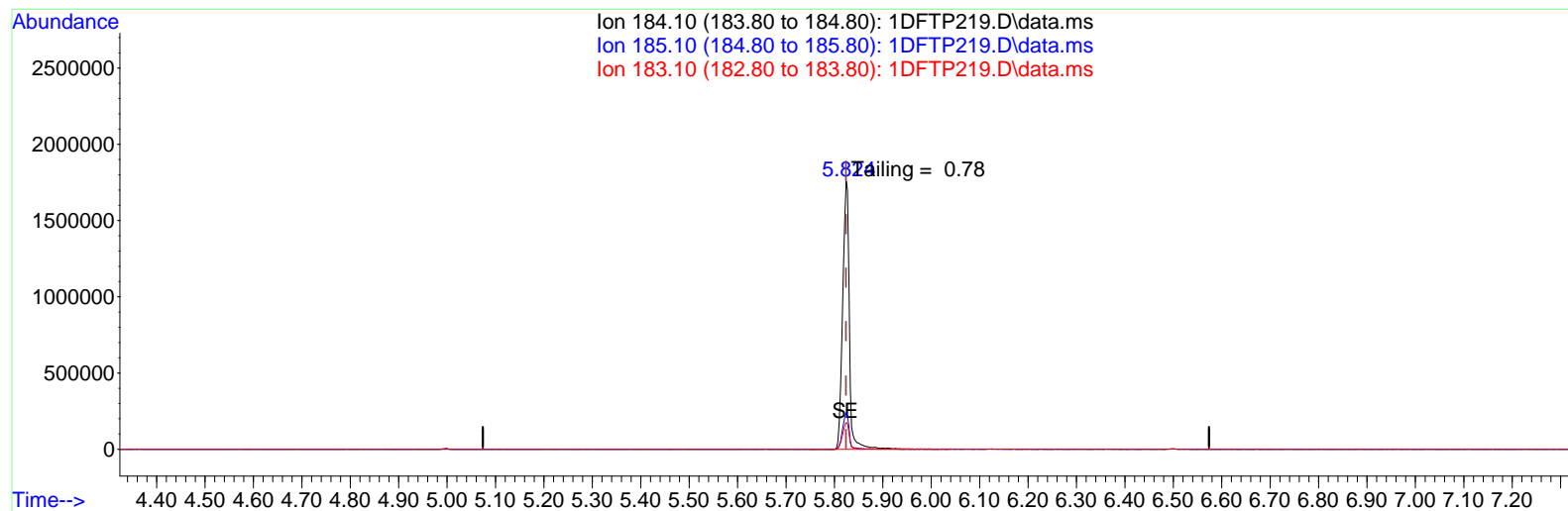
response 301685

Ion	Exp%	Act%
265.90	100	100
263.90	66.20	64.62
267.90	60.90	64.60
0.00	0.00	0.00

Data File : C:\INSTARCH\Data\1S111716\1DFTP219.D
Acq On : 17 Nov 2016 12:18
Sample : DFTPP TUNE SVMS7269
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Nov 18 13:12:49 2016

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Fri Nov 18 13:12:46 2016
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP219.D\data.ms

(3) Benzidine

5.824min (0.000) 18.92 ng

response 1658961

Ion	Exp%	Act%
184.10	100	100
185.10	13.80	13.78
183.10	12.20	10.38
0.00	0.00	0.00

Data File : 1DFTP219.D
Data File Path : C:\INSTARCH\Data\1S111716\
Date Acquired : 11/17/2016 12:18
Sample Name : DFTPP TUNE SVMS7269
Misc Info : SVMS1,25 ug DFTPP

Vial Number : 1
Operator : RPN
Instrument Name: SVMS1
Sample Multiplier: 1

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Calibration Title : DFTPP TUNE Method
Last Update : Fri Nov 18 13:12:46 2016

Compound	R.T.	Qlon	Response
1) Pentachlorophenol	4.57	266	301685
2) DFTPP	5.00	198	265000
3) Benzidine	5.82	184	1658961
4) DDE	5.99	246	1149
5) DDD	6.26	235	13553
6) DDT	6.50	235	709003

DDT %Degradation

DDD + DDE	x	100%	2.03 %
DDD + DDE + DDT			

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D

Vial: 2

Acq On : 17 Nov 2016 12:34

Operator: RPN

Sample : CCV 20ug/ml SVMS7217

Inst : SVMS1

Misc : 500uL+5ul IS S3553B

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 17 12:54:30 2016

Quant Method : C:\INSTARCH\Methods\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Thu Nov 17 12:52:22 2016

Response via : Initial Calibration

DataAcq Meth:1S110216.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	131	0.00
2 CT	Ntrsdimeth	20.000	23.452	-17.3	152	-0.02
3 CT	Pyridine	20.000	22.161	-10.8	146	-0.03
4 S	SURR2Flphenol	50.000	58.187	-16.4	149	0.00
5 CT	Aniline	20.000	22.737	-13.7	147	0.00
6 CPT	bis2Clethletr	20.000	23.285	-16.4	154	0.00
7 S	SURRPhenol-d5	50.000	57.544	-15.1	148	0.00
8 CPT	Phenol	20.000	22.529	-12.6	146	0.00
9 CPT	2-Cl-phenol	20.000	21.932	-9.7	143	0.00
10 CT	13Diclbenz	20.000	20.584	-2.9	133	0.00
11 CT	14Diclbenz	20.000	20.680	-3.4	138	0.00
12 CT	12Diclbenz	20.000	20.205	-1.0	132	0.00
13 CT	Benzyl alcoho	20.000	23.134	-15.7	147	0.00
14 CPT	bis2clispreth	20.000	22.874	-14.4	151	0.00
15 CPT	2Methylphenol	20.000	22.026	-10.1	142	0.00
16 CT	Ntrspyrrol	20.000	23.260	-16.3	154	0.00
17 CPT	Acetophenone	20.000	21.608	-8.0	140	0.00
18 CPT	Hexacethane	20.000	19.899	0.5	130	0.00
19 CPT	N-Ntrsdinprop	20.000	22.182	-10.9	142	0.00
20 CPT	3&4Methylphenol	20.000	21.819	-9.1	140	0.00
21 I	Naphthalened8	20.000	20.000	0.0	157	0.00
22 S	SURRNitrbenzened5	100.000	91.987	8.0	141	0.00
23 CPT	Nitrobenzene	20.000	19.055	4.7	151	0.00
24 CPT	Isophorone	20.000	18.273	8.6	142	0.00
25 CPT	2-Nitrophenol	20.000	18.488	7.6	138	0.00
26 CPT	24Dimthpheno	20.000	17.117	14.4	131	0.00
27 CPT	bis2clethoxym	20.000	18.130	9.4	144	0.00
28 CPT	24Diclphenol	20.000	19.144	4.3	148	0.00
29 CT	124Triclbenz	20.000	18.496	7.5	148	0.00
30 CT	Benzoic acid	20.000	19.892	0.5	154	0.07
31 CPT	Naphthalene	20.000	20.112	-0.6	161	0.00
32 CPT	4-Cl-aniline	20.000	21.710	-8.6	162	0.00
33 CT	26Diclphenol	20.000	18.869	5.7	143	0.00
34 CT	Hexaclprop	20.000	17.257	13.7	130	0.00
35 CPT	Hexaclbutdien	20.000	16.255	18.7	125	0.00
36 CPT	4Cl3methylphe	20.000	21.019	-5.1	157	0.00
37 CPT	2Methylnaphth	20.000	19.020	4.9	148	0.00
38 CT	1Methylnaphth	20.000	18.862	5.7	149	0.00
39 I	Acenaphthened10	20.000	20.000	0.0	147	0.00
40 CPT	Hxclcycpentdi	20.000	16.119	19.4	113	0.00
41 CPT	1245Tetrclbenz	20.000	18.272	8.6	133	0.00
42 CPT	246Triclpheno	20.000	20.156	-0.8	143	0.00
43 CPT	245Triclpheno	20.000	19.958	0.2	140	0.00
44 S	SURR2Flbiphenyl	100.000	97.670	2.3	140	0.00
45 CPT	2Clnaphthalen	20.000	20.388	-1.9	148	0.00
46 CPT	2Nitroaniline	20.000	23.757	-18.8	175	0.00
47 CPT	Acnaphthylene	20.000	20.091	-0.5	146	0.00
48 CPT	Dimethylphtha	20.000	19.438	2.8	141	0.00
49 CPT	26Dinitrotolu	20.000	21.079	-5.4	155	0.00
50 CPT	Acenaphthene	20.000	19.461	2.7	143	0.00
51 CPT	3Nitroaniline	20.000	23.791	-19.0	167	0.00

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D

Vial: 2

Acq On : 17 Nov 2016 12:34

Operator: RPN

Sample : CCV 20ug/ml SVMS7217

Inst : SVMS1

Misc : 500uL+5ul IS S3553B

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 17 12:54:30 2016

Quant Method : C:\INSTARCH\Methods\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Thu Nov 17 12:52:22 2016

Response via : Initial Calibration

DataAcq Meth:1S110216.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	20.000	22.099	-10.5	156	0.00
53 CPT	Dibenzofuran	20.000	19.439	2.8	144	0.00
54 CPT	24Dinitrotolu	20.000	20.644	-3.2	146	0.00
55 CPT	4-Nitrophenol	20.000	23.012	-15.1	162	0.00
56 CT	2,3,5,6-Tetrachlorop	20.000	19.751	1.2	136	0.00
57 CPT	2,3,4,6-Tetrachlorop	20.000	19.168	4.2	137	0.00
58 CPT	Fluorene	20.000	19.052	4.7	138	0.00
59 CPT	4Clphlphlethr	20.000	18.120	9.4	131	0.00
60 CPT	Diethylphthal	20.000	19.243	3.8	138	0.00
61 CPT	4Nitroaniline	20.000	23.770	-18.8	168	0.00
62 S	SURR246Tribphenl	50.000	43.203	13.6	121	0.00
63 I	Phenanthrd10	20.000	20.000	0.0	133	0.01
64 CPT	46Dinit2mylph	20.000	22.617	-13.1	150	0.00
65 CPT	Ntrsdiphlam&Diphlam	40.000	39.839	0.4	133	0.00
66 CT	Azobenz&12Diphlyd	40.000	39.894	0.3	134	0.00
67 CPT	4Brphlphlethr	20.000	18.820	5.9	126	0.01
68 CPT	Hexaclbenzene	20.000	17.558	12.2	119	0.01
69 CPT	Pentaclphenol	20.000	20.323	-1.6	137	0.00
70 CPT	Phenanthrene	20.000	19.860	0.7	135	0.01
71 CPT	Anthracene	20.000	20.181	-0.9	134	0.01
72 CPT	Carbazole	20.000	22.446	-12.2	151	0.00
73 CPT	Dinbtylphthal	20.000	18.619	6.9	125	0.00
74 CPT	Fluoranthene	20.000	17.412	12.9	118	0.00
75 I	Chrysene-d12	20.000	20.000	0.0	113	0.00
76 CT	Benzidine	20.000	13.301	33.5#	71	0.00
77 CPT	Pyrene	20.000	20.656	-3.3	117	0.00
78 S	SURRTerphenyl-d14	100.000	102.730	-2.7	115	0.00
79 CPT	Btylbzylphth	20.000	22.429	-12.1	124	0.00
80 TM	bis2Ethlhxlad	20.000	22.486	-12.4	124	0.00
81 CPT	33Diclbnzidin	20.000	34.506	-72.5#	220	0.00
82 CPT	B[a]anthracen	20.000	20.962	-4.8	118	0.00
83 CPT	Chrysene	20.000	19.822	0.9	111	0.00
84 CPT	bis2Ethlhxlph	20.000	19.568	2.2	107	0.00
85 CPT	Dinoctylphthl	20.000	22.077	-10.4	119	0.00
86 I	Perylene-d12	20.000	20.000	0.0	112	0.00
87 CPT	B[b]fluoranth	20.000	20.403	-2.0	115	0.00
88 CPT	B[k]fluoranth	20.000	21.198	-6.0	114	0.00
89 CPT	Benz[a]pyrene	20.000	20.386	-1.9	112	0.00
90 CPT	Indeno-pyrene	20.000	19.127	4.4	105	0.00
91 CPT	Dib[ah]anthr	20.000	19.325	3.4	106	0.00
92 CPT	B[ghi]perylen	20.000	19.375	3.1	105	0.00

(#)= Out of Range

SPCC's out = 0 CCC's out = 2

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D

Vial: 2

Acq On : 17 Nov 2016 12:34

Operator: RPN

Sample : CCV 20ug/ml SVMS7217

Inst : SVMS1

Misc : 500uL+5ul IS S3553B

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 17 12:54:30 2016

Quant Method : C:\INSTARCH\Methods\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Thu Nov 17 12:52:22 2016

Response via : Initial Calibration

DataAcq Meth:1S110216.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	131	0.00
2 CT	Ntrsdimeth	0.675	0.792	-17.3	152	-0.02
3 CT	Pyridine	1.141	1.346	-18.0	146	-0.03
4 S	SURR2Flphenol	0.452	0.526	-16.4	149	0.00
5 CT	Aniline	1.644	1.917	-16.6	147	0.00
6 CPT	bis2Clethletr	1.081	1.258	-16.4	154	0.00
7 S	SURRPhenol-d5	0.519	0.597	-15.0	148	0.00
8 CPT	Phenol	1.489	1.677	-12.6	146	0.00
9 CPT	2-Cl-phenol	1.228	1.346	-9.6	143	0.00
10 CT	13Diclbenz	1.419	1.461	-3.0	133	0.00
11 CT	14Diclbenz	1.457	1.506	-3.4	138	0.00
12 CT	12Diclbenz	1.386	1.400	-1.0	132	0.00
13 CT	Benzyl alcoho	0.786	0.910	-15.8	147	0.00
14 CPT	bis2clispreth	2.634	3.012	-14.4	151	0.00
15 CPT	2Methylphenol	0.954	1.051	-10.2	142	0.00
16 CT	Ntrspyrrol	0.600	0.698	-16.3	154	0.00
17 CPT	Acetophenone	1.830	1.977	-8.0	140	0.00
18 CPT	Hexaclethane	0.621	0.618	0.5	130	0.00
19 CPT	N-Ntrsdinprop	0.901	1.000	-11.0	142	0.00
20 CPT	3&4Methylphenol	1.230	1.341	-9.0	140	0.00
21 I	Naphthalened8	1.000	1.000	0.0	157	0.00
22 S	SURRNitrbenzened5	0.056	0.052	7.1	141	0.00
23 CPT	Nitrobenzene	0.286	0.273	4.5	151	0.00
24 CPT	Isophorone	0.517	0.473	8.5	142	0.00
25 CPT	2-Nitrophenol	0.142	0.132	7.0	138	0.00
26 CPT	24Dimthpheno	0.213	0.182#	14.6	131	0.00
27 CPT	bis2clethoxym	0.334	0.303	9.3	144	0.00
28 CPT	24Diclphenol	0.283	0.271	4.2	148	0.00
29 CT	124Triclbenz	0.342	0.316	7.6	148	0.00
30 CT	Benzoic acid	0.146	0.153	-4.8	154	0.07
31 CPT	Naphthalene	0.922	0.928	-0.7	161	0.00
32 CPT	4-Cl-aniline	0.340	0.370	-8.8	162	0.00
33 CT	26Diclphenol	0.260	0.246	5.4	143	0.00
34 CT	Hexaclprop	0.257	0.222	13.6	130	0.00
35 CPT	Hexaclbutdien	0.250	0.203	18.8	125	0.00
36 CPT	4Cl3methylphe	0.276	0.290	-5.1	157	0.00
37 CPT	2Methylnaphth	0.647	0.615	4.9	148	0.00
38 CT	1Methylnaphth	0.538	0.508	5.6	149	0.00
39 I	Acenaphthened10	1.000	1.000	0.0	147	0.00
40 CPT	Hxclcycpentdi	0.405	0.353	12.8	113	0.00
41 CPT	1245Tetrclbenz	0.791	0.718	9.2	133	0.00
42 CPT	246Triclpheno	0.498	0.502	-0.8	143	0.00
43 CPT	245Triclpheno	0.535	0.534	0.2	140	0.00
44 S	SURR2Flbiphenyl	0.329	0.321	2.4	140	0.00
45 CPT	2Cl-naphthalen	1.362	1.389	-2.0	148	0.00
46 CPT	2Nitroaniline	0.404	0.496	-22.8#	175	0.00
47 CPT	Acnaphthylene	2.250	2.260	-0.4	146	0.00
48 CPT	Dimethylphtha	1.545	1.501	2.8	141	0.00
49 CPT	26Dinitrotolu	0.339	0.358	-5.6	155	0.00
50 CPT	Acenaphthene	1.325	1.290	2.6	143	0.00
51 CPT	3Nitroaniline	0.334	0.398	-19.2	167	0.00

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D

Vial: 2

Acq On : 17 Nov 2016 12:34

Operator: RPN

Sample : CCV 20ug/ml SVMS7217

Inst : SVMS1

Misc : 500uL+5ul IS S3553B

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 17 12:54:30 2016

Quant Method : C:\INSTARCH\Methods\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Thu Nov 17 12:52:22 2016

Response via : Initial Calibration

DataAcq Meth:1S110216.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	0.178	0.219	-23.0#	156	0.00
53 CPT	Dibenzofuran	1.992	1.936	2.8	144	0.00
54 CPT	24Dinitrotolu	0.433	0.447	-3.2	146	0.00
55 CPT	4-Nitrophenol	0.330	0.380	-15.2	162	0.00
56 CT	2,3,5,6-Tetrachlorop	0.442	0.436	1.4	136	0.00
57 CPT	2,3,4,6-Tetrachlorop	0.490	0.470	4.1	137	0.00
58 CPT	Fluorene	1.583	1.508	4.7	138	0.00
59 CPT	4Clphlphlethr	0.798	0.720	9.8	131	0.00
60 CPT	Diethylphthal	1.738	1.673	3.7	138	0.00
61 CPT	4Nitroaniline	0.333	0.396	-18.9	168	0.00
62 S	SURR246Tribrphenl	0.126	0.109	13.5	121	0.00
63 I	Phenanthrd10	1.000	1.000	0.0	133	0.01
64 CPT	46Dinit2mylph	0.115	0.137	-19.1	150	0.00
65 CPT	Ntrsdiphlam&Diphlam	0.508	0.499	1.8	133	0.00
66 CT	Azobenz&12Diphlyd	0.160	0.156	2.5	134	0.00
67 CPT	4Brphlphlethr	0.236	0.222	5.9	126	0.01
68 CPT	Hexaclbenzene	0.272	0.238	12.5	119	0.01
69 CPT	Pentaclphenol	0.148	0.156	-5.4	137	0.00
70 CPT	Phenanthrene	1.028	1.021	0.7	135	0.01
71 CPT	Anthracene	1.054	1.064	-0.9	134	0.01
72 CPT	Carbazole	0.850	0.954	-12.2	151	0.00
73 CPT	Dinbtylphthal	0.892	0.830	7.0	125	0.00
74 CPT	Fluoranthene	0.851	0.741	12.9	118	0.00
75 I	Chrysene-d12	1.000	1.000	0.0	113	0.00
76 CT	Benzidine	0.360	0.243	32.5#	71	0.00
77 CPT	Pyrene	1.342	1.386	-3.3	117	0.00
78 S	SURRTerphenyl-d14	0.166	0.171	-3.0	115	0.00
79 CPT	Btylbzylphth	0.590	0.662	-12.2	124	0.00
80 TM	bis2Ethlhxlad	0.441	0.496	-12.5	124	0.00
81 CPT	33Diclbnzidin	0.274	0.427	-55.8#	220#	0.00
82 CPT	B[a]anthracen	1.204	1.262	-4.8	118	0.00
83 CPT	Chrysene	1.107	1.097	0.9	111	0.00
84 CPT	bis2Ethlhxlph	0.797	0.780	2.1	107	0.00
85 CPT	Dinoctylphthl	1.469	1.621	-10.3	119	0.00
86 I	Perylene-d12	1.000	1.000	0.0	112	0.00
87 CPT	B[b]fluoranth	1.186	1.209	-1.9	115	0.00
88 CPT	B[k]fluoranth	1.101	1.167	-6.0	114	0.00
89 CPT	Benz[a]pyrene	1.144	1.166	-1.9	112	0.00
90 CPT	Indeno-pyrene	1.267	1.212	4.3	105	0.00
91 CPT	Dib[ah]anthr	1.032	0.997	3.4	106	0.00
92 CPT	B[ghi]perylene	1.086	1.052	3.1	105	0.00

(#)= Out of Range

SPCC's out = 1 CCC's out = 4

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D

Vial: 2

Acq On : 17 Nov 2016 12:34

Operator: RPN

Sample : CCV 20ug/ml SVMS7217

Inst : SVMS1

Misc : 500uL+5ul IS S3553B

Multiplr: 1.00

Integrator: RTE

Quant Time: Nov 17 12:54:30 2016

Quant Method : C:\INSTARCH\Methods\1S110916.M

Quant Title : Method for 8270 analysis

QLast Update : Thu Nov 17 12:52:22 2016

Response via : Initial Calibration

DataAcq Meth:1S110216.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.771	152	250386	20.00	ug/mL	0.00
21) Naphthalened8	5.396	136	1365605	20.00	ug/mL	0.00
39) Acenaphthened10	7.092	164	566610	20.00	ug/mL	0.00
63) Phenanthrd10	8.044	188	1162900	20.00	ug/mL	0.00
75) Chrysene-d12	9.442	240	629811	20.00	ug/mL	0.00
86) Perylene-d12	10.312	264	633386	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.654	112	329115	58.19	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	58.19%	
7) SURRPhenol-d5	3.413	99	373735	57.54	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	57.54%	
22) SURRNitrbenzened5	4.416	82	354468	91.99	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	91.99%	
44) SURR2Flbiphenyl	6.592	172	909354	97.67	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	97.67%	
62) SURR246Tribphenl	7.618	330	154014	43.20	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	43.20%	
78) SURRTerphenyl-d14	8.848	244	536946	102.73	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	102.73%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.930	74	198272	23.4524	ug/mL	92
3) Pyridine	1.944	79	337086	22.1609	ug/mL	88
5) Aniline	3.441	93	480100	22.7370	ug/mL	96
6) bis2Clethletr	3.509	93	315069	23.2854	ug/mL	95
8) Phenol	3.424	94	419955	22.5289	ug/mL	92
9) 2-Cl-phenol	3.552	128	337092	21.9319	ug/mL	96
10) 13Diclbenz	3.708	146	365794	20.5837	ug/mL	94
11) 14Diclbenz	3.788	146	377164	20.6798	ug/mL	97
12) 12Diclbenz	3.953	146	350494	20.2048	ug/mL	97
13) Benzyl alcoho	3.936	108	227733	23.1341	ug/mL	94
14) bis2clispreth	4.103	45	754267	22.8739	ug/mL	98
15) 2Methylphenol	4.078	107	263113	22.0259	ug/mL	95
16) Ntrspyrrol	4.217	100	174846	23.2600	ug/mL	93
17) Acetophenone	4.242	105	494950	21.6077	ug/mL	98
18) Hexaclethane	4.342	117	154809	19.8989	ug/mL	99
19) N-Ntrsdinprop	4.260	70	250326	22.1824	ug/mL	94
20) 3&4Methylphenol	4.271	107	335860	21.8191	ug/mL	97
23) Nitrobenzene	4.441	77	372403	19.0549	ug/mL	96
24) Isophorone	4.768	82	645259	18.2726	ug/mL	99
25) 2-Nitrophenol	4.859	139	179699	18.4880	ug/mL	91
26) 24Dimthpheno	4.970	122	248741	17.1171	ug/mL	92
27) bis2clethoxym	5.106	93	413917	18.1300	ug/mL	99
28) 24Diclphenol	5.211	162	370193	19.1443	ug/mL	99
29) 124Triclbenz	5.328	180	431983	18.4965	ug/mL	99
30) Benzoic acid	5.177	122	208920	19.8921	ug/mL	80
31) Naphthalene	5.427	128	1266694	20.1118	ug/mL	97
32) 4-Cl-aniline	5.538	127	504606	21.7097	ug/mL	95
33) 26Diclphenol	5.541	162	335269	18.8690	ug/mL	91
34) Hexaclprop	5.558	213	302984	17.2572	ug/mL	95
35) Hexaclbutdien	5.629	225	277092	16.2546	ug/mL	96
36) 4Cl3methylphe	6.146	107	395491	21.0190	ug/mL	96
37) 2Methylnaphth	6.243	142	839978	19.0202	ug/mL	98
38) 1Methylnaphth	6.331	141	693105	18.8624	ug/mL	93
40) Hxclcycpentdi	6.399	237	200258	16.1191	ug/mL	98

Data File : C:\INSTARCH\Data\1S111716\1CCV259.D
 Acq On : 17 Nov 2016 12:34
 Sample : CCV 20ug/ml SVMS7217
 Misc : 500uL+5ul IS S3553B
 Integrator: RTE
 Quant Time: Nov 17 12:54:30 2016

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

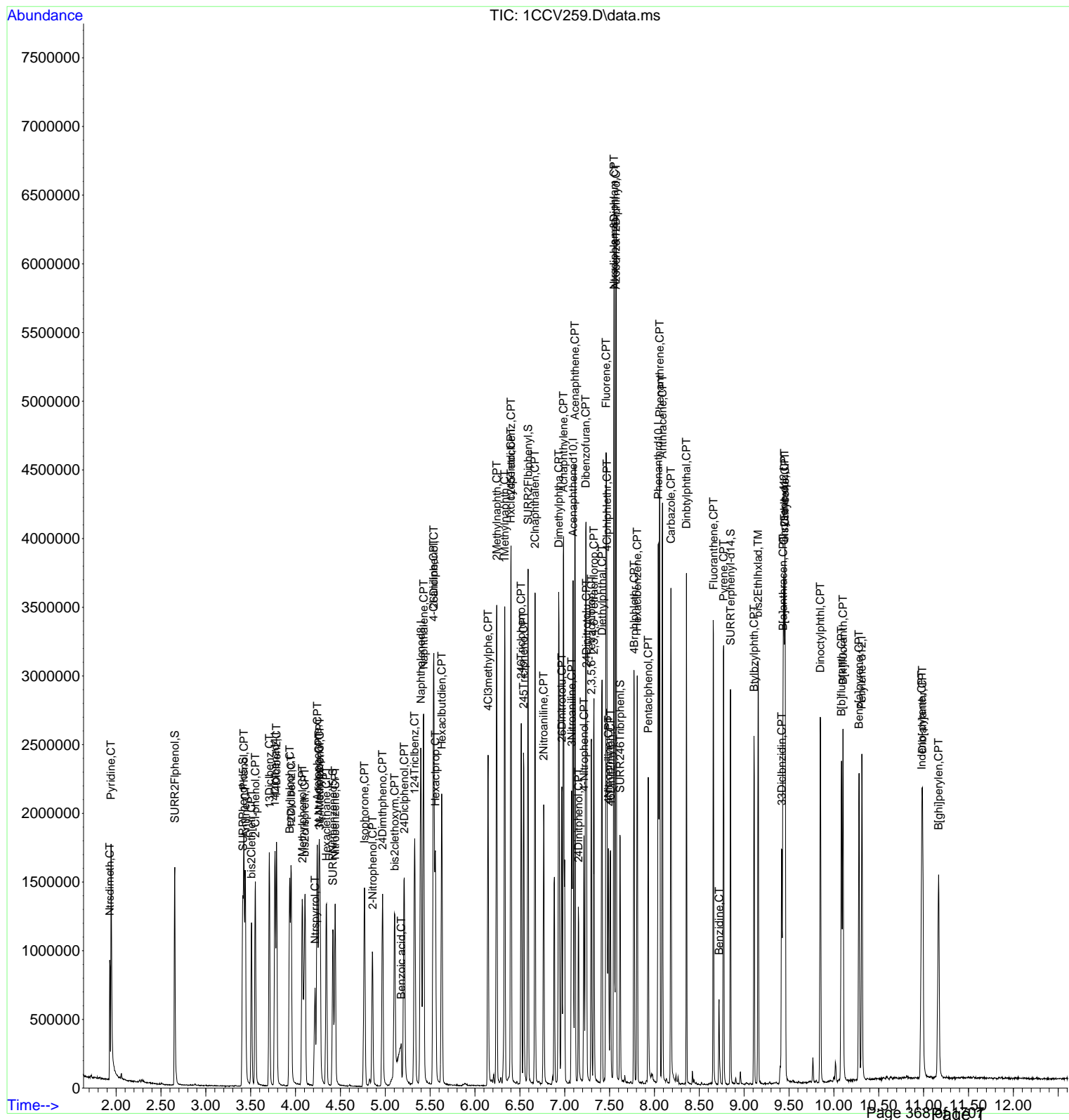
Quant Method : C:\INSTARCH\Methods\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Thu Nov 17 12:52:22 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110216.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.402	216	406876	18.2717	ug/mL	99
42) 246Triclpheno	6.516	196	284369	20.1559	ug/mL	98
43) 245Triclpheno	6.541	196	302771	19.9576	ug/mL	95
45) 2Clnaphthalen	6.669	162	786869	20.3876	ug/mL	99
46) 2Nitroaniline	6.766	65	281219	23.7569	ug/mL	95
47) Acnaphthylene	6.987	152	1280616	20.0910	ug/mL	99
48) Dimethylphtha	6.933	163	850633	19.4378	ug/mL	98
49) 26Dinitrotolu	6.967	165	202724	21.0786	ug/mL	95
50) Acenaphthene	7.115	154	730677	19.4606	ug/mL	93
51) 3Nitroaniline	7.078	138	225276	23.7914	ug/mL	90
52) 24Dinitphenol	7.152	184	124160	22.0991	ug/mL	83
53) Dibenzofuran	7.234	168	1096895	19.4391	ug/mL	97
54) 24Dinitrotolu	7.243	165	253530	20.6441	ug/mL	84
55) 4-Nitrophenol	7.215	65	215187	23.0117	ug/mL#	89
56) 2,3,5,6-Tetrachlorop	7.297	232	247139	19.7511	ug/mL	92
57) 2,3,4,6-Tetrachlorop	7.325	232	266267	19.1682	ug/mL	95
58) Fluorene	7.462	166	854418	19.0523	ug/mL	96
59) 4Clphlphlethr	7.470	204	407841	18.1199	ug/mL	98
60) Diethylphthal	7.416	149	947709	19.2429	ug/mL	96
61) 4Nitroaniline	7.487	138	224236	23.7702	ug/mL	93
64) 46Dinit2mylph	7.510	198	159479	22.6174	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.550	169	1159702	39.8386	ug/mL	98
66) Azobenz&12Diphylhyd	7.573	182	362036	39.8944	ug/mL#	78
67) 4Brphlphlethr	7.774	248	258052	18.8203	ug/mL	92
68) Hexaclbenzene	7.808	284	277307	17.5575	ug/mL	90
69) Pentaclphenol	7.931	266	180891	20.3232	ug/mL	98
70) Phenanthrene	8.059	178	1186866	19.8603	ug/mL	98
71) Anthracene	8.090	178	1237223	20.1805	ug/mL	100
72) Carbazole	8.184	167	1109431	22.4465	ug/mL	99
73) Dinbtylphthal	8.357	149	965297	18.6190	ug/mL	99
74) Fluoranthene	8.658	202	861142	17.4119	ug/mL	100
76) Benzidine	8.721	184	152883	13.3015	ug/mL	95
77) Pyrene	8.772	202	873028	20.6557	ug/mL	99
79) Btylbzylphth	9.110	149	416698	22.4286	ug/mL	99
80) bis2Ethlhxlad	9.155	129	312515	22.4864	ug/mL	95
81) 33Diclbnzidin	9.420	252	269115	34.5055	ug/mL	98
82) B[a]anthracen	9.434	228	794644	20.9618	ug/mL	98
83) Chrysene	9.457	228	691096	19.8217	ug/mL	98
84) bis2Ethlhxlph	9.451	149	491229	19.5685	ug/mL	96
85) Dinocetylphthl	9.849	149	1020948	22.0775	ug/mL	100
87) B[b]fluoranth	10.084	252	766035	20.4031	ug/mL	99
88) B[k]fluoranth	10.102	252	739351	21.1981	ug/mL	97
89) Benz[a]pyrene	10.281	252	738450	20.3862	ug/mL	99
90) Indeno-pyrene	10.980	276	767769	19.1269	ug/mL	95
91) Dib[ah]anthr	10.988	278	631277	19.3245	ug/mL	99
92) B[ghi]perylen	11.167	276	666454	19.3746	ug/mL	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 2
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

DataAcq Meth:1S110216.M



Data File : C:\INSTARCH\Data\1S111716\1CCV260.D
Acq On : 17 Nov 2016 12:54
Sample : CCV 20ug/ml SVMS7283
Misc : 500uL+5ul IS S3553B
Integrator: RTE
Quant Time: Nov 18 13:29:16 2016

Vial: 3
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:29:11 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	133	0.00
2 CPT	Benzaldehyde	20.000	22.713	-13.6	152	0.00
3 I	Naphthalened8	20.000	20.000	0.0	152	0.00
4 CPT	Caprolactam	20.000	23.119	-15.6	170	0.00
5 I	Acenaphthened10	20.000	20.000	0.0	138	0.00
6 CPT	Biphenyl	20.000	20.236	-1.2	142	0.00
7 I	Phenanthrd10	20.000	20.000	0.0	133	0.00
8 CPT	Atrazine	20.000	20.064	-0.3	130	0.00
9 I	Chrysene-d12	20.000	20.000	0.0	117	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S111716\1CCV260.D
 Acq On : 17 Nov 2016 12:54
 Sample : CCV 20ug/ml SVMS7283
 Misc : 500uL+5ul IS S3553B
 Integrator: RTE
 Quant Time: Nov 18 13:29:16 2016

Vial: 3
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:29:11 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	133	0.00
2 CPT	Benzaldehyde	1.006	1.143	-13.6	152#	0.00
3 I	Naphthalened8	1.000	1.000	0.0	152#	0.00
4 CPT	Caprolactam	0.184	0.226	-22.8#	170#	0.00
5 I	Acenaphthened10	1.000	1.000	0.0	138	0.00
6 CPT	Biphenyl	1.746	1.767	-1.2	142	0.00
7 I	Phenanthrd10	1.000	1.000	0.0	133	0.00
8 CPT	Atrazine	0.207	0.208	-0.5	130	0.00
9 I	Chrysene-d12	1.000	1.000	0.0	117	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 1

Data File : C:\INSTARCH\Data\1S111716\1CCV260.D
 Acq On : 17 Nov 2016 12:54
 Sample : CCV 20ug/ml SVMS7283
 Misc : 500uL+5ul IS S3553B
 Integrator: RTE
 Quant Time: Nov 18 13:29:16 2016

Vial: 3
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:29:11 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

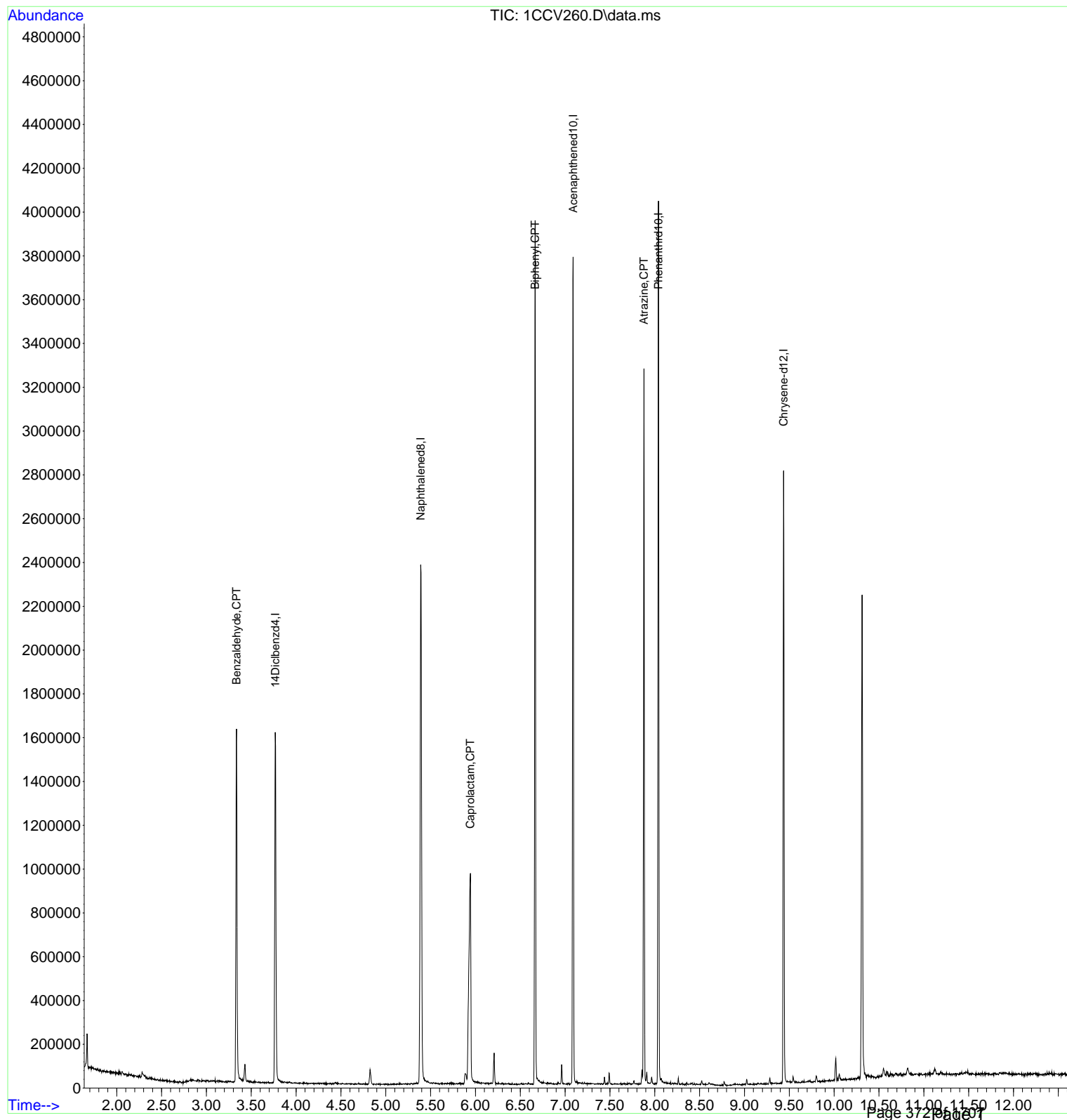
Internal Standards						
1) 14Diclbenzd4	3.768	152	248553	20.00	ug/mL	0.00
3) Naphthalened8	5.390	136	1312452	20.00	ug/mL	0.00
5) Acenaphthened10	7.089	164	548840	20.00	ug/mL	0.00
7) Phenanthrd10	8.041	188	1147200	20.00	ug/mL	0.00
9) Chrysene-d12	9.436	240	727766	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.336	77	283976	22.7135	ug/mL	91
4) Caprolactam	5.944	55	296192	23.1186	ug/mL	97
6) Biphenyl	6.666	154	969569	20.2357	ug/mL	100
8) Atrazine	7.879	200	238531	20.0639	ug/mL	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\1CCV260.D
Acq On : 17 Nov 2016 12:54
Sample : CCV 20ug/ml SVMS7283
Misc : 500uL+5ul IS S3553B
Integrator: RTE
Quant Time: Nov 18 13:29:16 2016

Vial: 3
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:29:11 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



**SEMI - VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S111716\1MBW03.D
 Acq On : 17 Nov 2016 18:52
 Sample : 132795,MBW,
 Misc : 805494,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 11:48:09 2016

Vial: 21
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 08:35:43 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

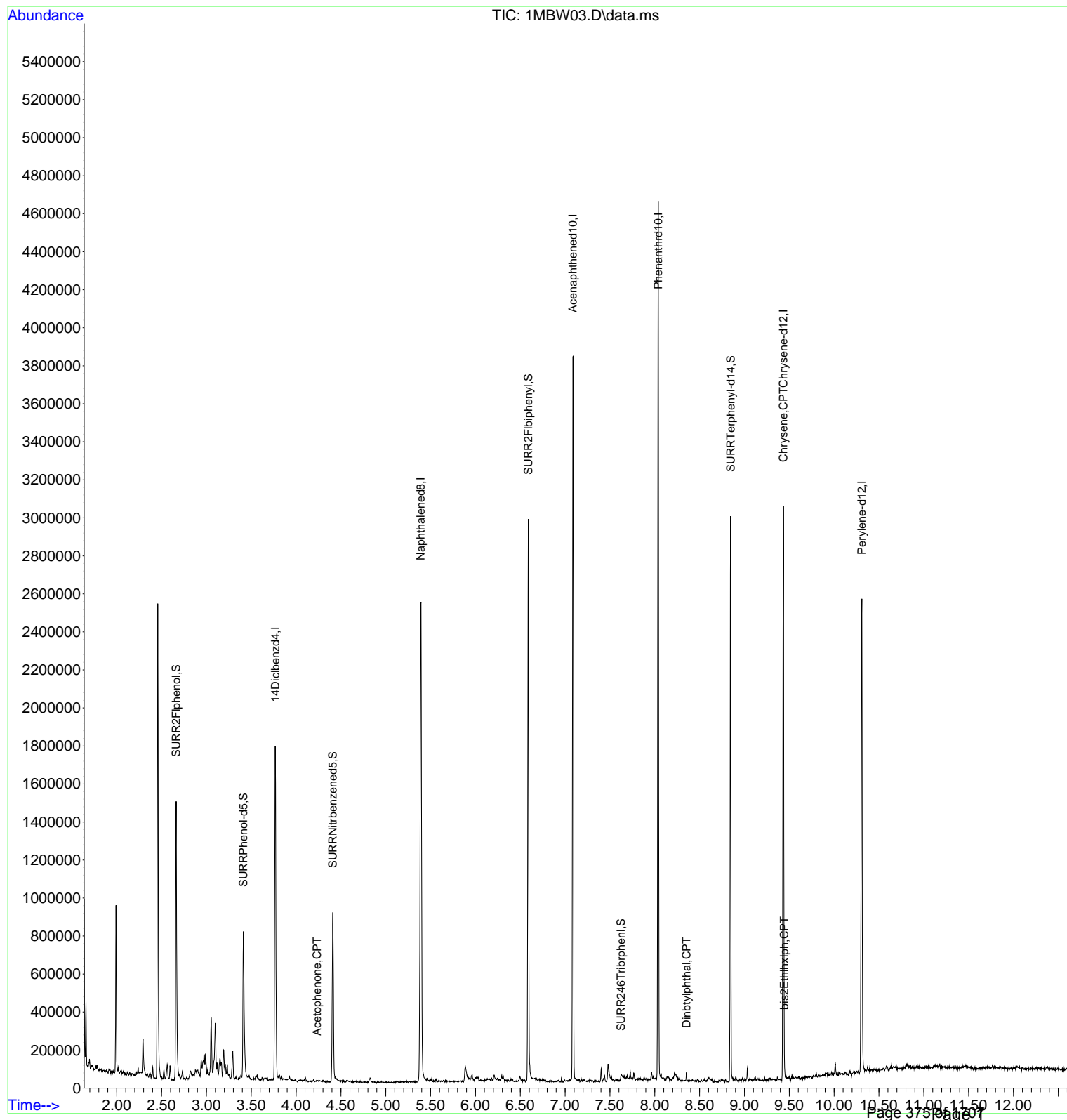
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.768	152	259101	20.00	ug/mL	0.00
21) Naphthalened8	5.390	136	1399181	20.00	ug/mL	0.00
39) Acenaphthened10	7.087	164	586409	20.00	ug/mL	0.00
63) Phenanthrd10	8.038	188	1260660	20.00	ug/mL	0.00
75) Chrysene-d12	9.434	240	789618	20.00	ug/mL	0.00
86) Perylene-d12	10.309	264	758764	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.662	112	295869	50.55	%REC	0.00
Spiked Amount 100.000	Range 20 - 110		Recovery	=	50.55%	
7) SURRPhenol-d5	3.413	99	239180	35.59	%REC	0.00
Spiked Amount 100.000	Range 10 - 115		Recovery	=	35.59%	
22) SURRNitrbenzened5	4.410	82	264983	67.12	%REC	0.00
Spiked Amount 100.000	Range 40 - 110		Recovery	=	67.12%	
44) SURR2Flbiphenyl	6.589	172	720234	74.75	%REC	0.00
Spiked Amount 100.000	Range 50 - 110		Recovery	=	74.75%	
62) SURR246Tribphenl	7.624	330	13636	3.70	%REC	0.00
Spiked Amount 100.000	Range 40 - 125		Recovery	=	3.70%#	
78) SURRTerphenyl-d14	8.845	244	597453	91.17	%REC	0.00
Spiked Amount 100.000	Range 50 - 135		Recovery	=	91.17%	
Target Compounds						
17) Acetophenone	4.234	105	1770	0.0747	ug/mL	83
73) Dinbtylphthal	8.354	149	11486	0.2044	ug/mL	99
83) Chrysene	9.434	228	2457	0.0562	ug/mL	69
84) bis2Ethlhxlph	9.445	149	4545	0.1444	ug/mL	87

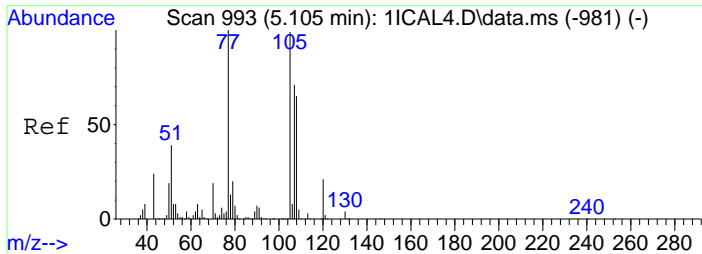
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\1MBW03.D
Acq On : 17 Nov 2016 18:52
Sample : 132795,MBW,
Misc : 805494,500uL+5uL IS S3553C
Integrator: RTE
Quant Time: Nov 18 11:48:09 2016

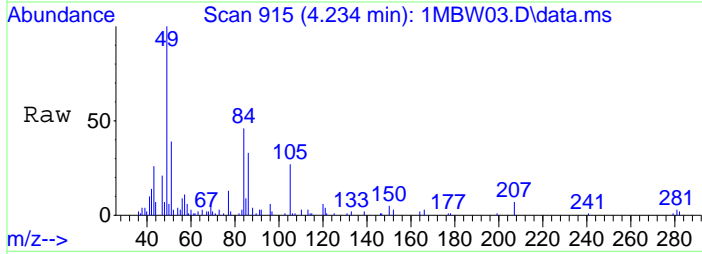
Vial: 21
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 08:35:43 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M

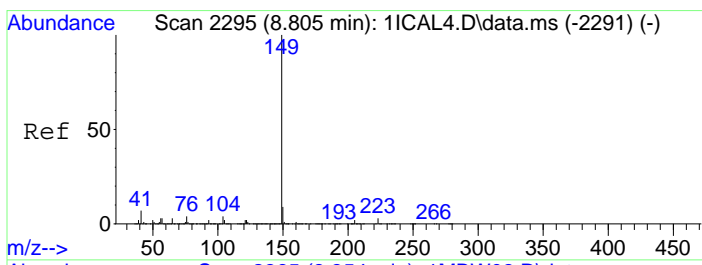
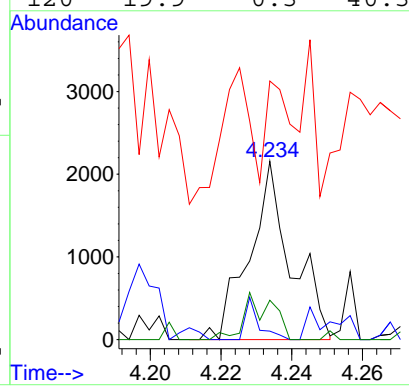
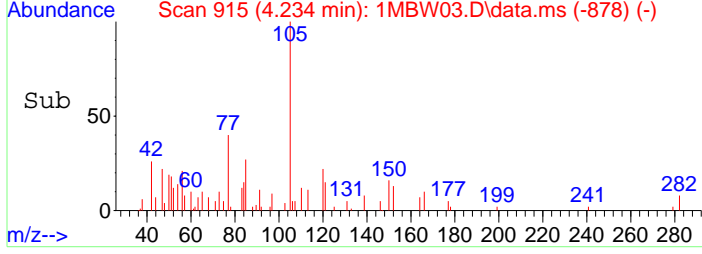




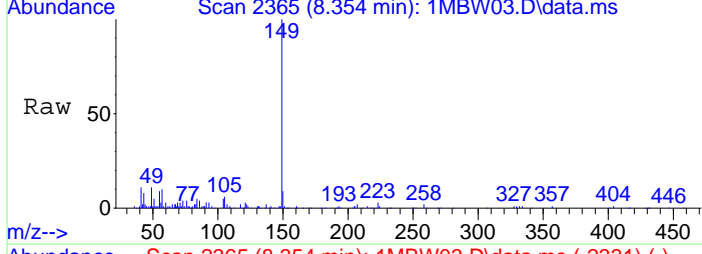
#17
 Acetophenone
 Concen: 0.07 ug/mL
 RT: 4.234 min Scan# 915
 Delta R.T. -0.009 min
 Lab File: 1MBW03.D
 Acq: 17 Nov 16 6:52 pm



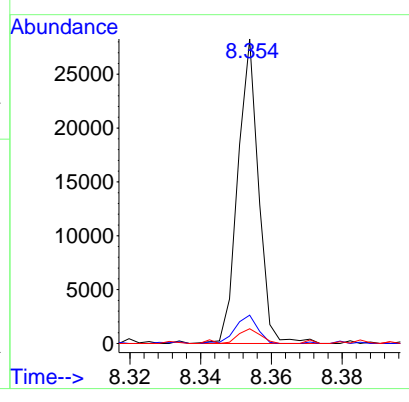
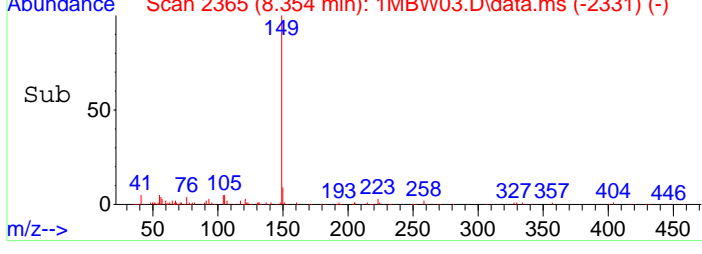
Tgt Ion:	105	Resp:	1770
Ion Ratio		Lower	Upper
105	100		
71	0.0	0.0	30.5
51	55.3	10.0	70.0
120	19.9	0.3	40.3

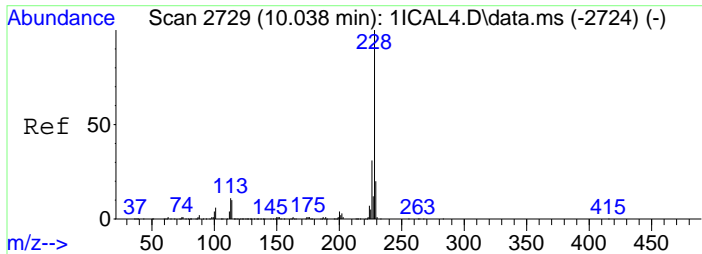


#73
 Dinbtylphthal
 Concen: 0.20 ug/mL
 RT: 8.354 min Scan# 2365
 Delta R.T. -0.003 min
 Lab File: 1MBW03.D
 Acq: 17 Nov 16 6:52 pm



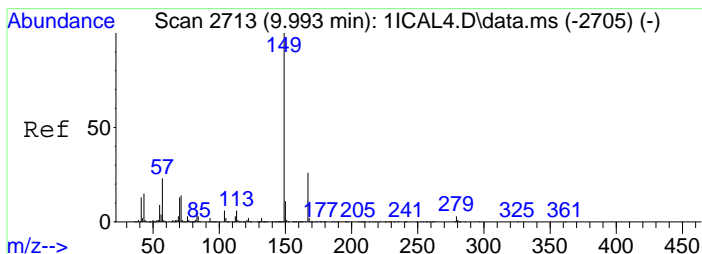
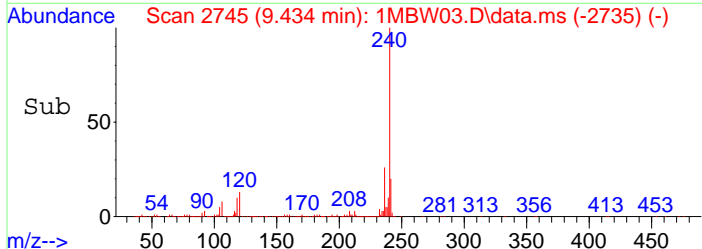
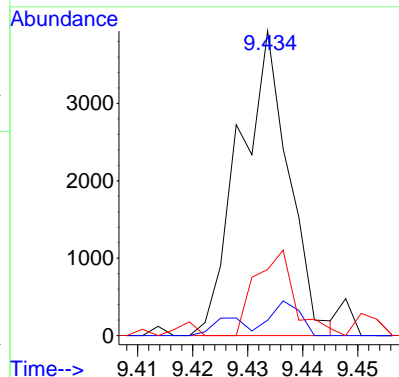
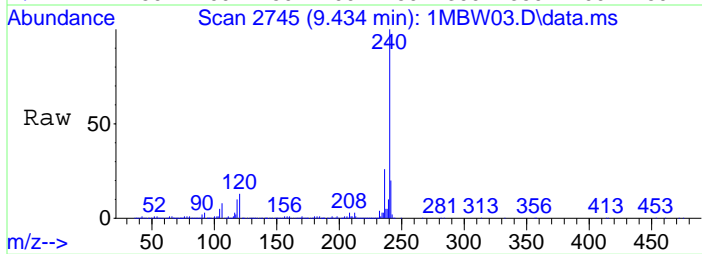
Tgt Ion:	149	Resp:	11486
Ion Ratio		Lower	Upper
149	100		
150	9.3	0.0	39.0
104	4.9	0.0	34.0





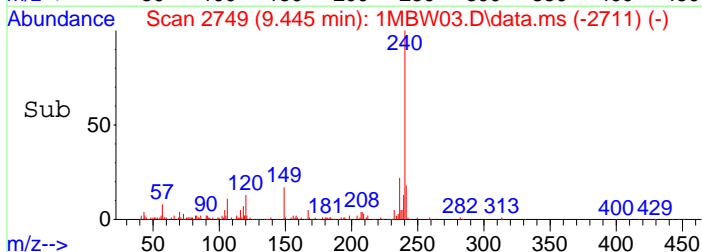
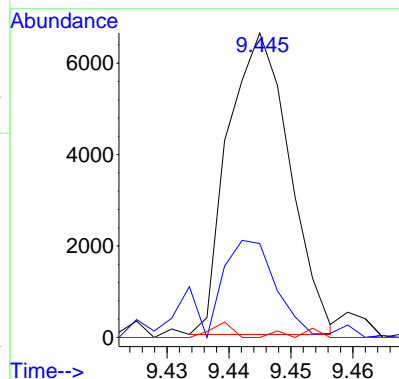
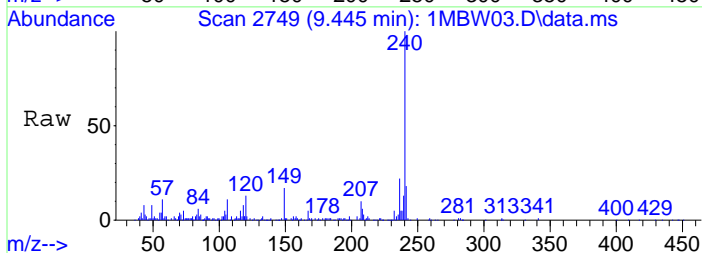
#83
Chrysene
Concen: 0.06 ug/mL
RT: 9.434 min Scan# 2745
Delta R.T. -0.023 min
Lab File: 1MBW03.D
Acq: 17 Nov 16 6:52 pm

Tgt Ion	228	226	229
Ratio	100	5.0	19.3
Lower		1.3	0.0
Upper		61.3	48.5



#84
bis(2Ethylhexyl)ph
Concen: 0.14 ug/mL
RT: 9.445 min Scan# 2749
Delta R.T. -0.006 min
Lab File: 1MBW03.D
Acq: 17 Nov 16 6:52 pm

Tgt Ion	149	167	279
Ratio	100	29.8	0.0
Lower		0.0	0.0
Upper		53.4	32.4



Data File : C:\INSTARCH\Data\1S111716\1MBW03R.D
 Acq On : 17 Nov 2016 19:32
 Sample : 132795,MBW,
 Misc : 805494,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 11:48:14 2016

Vial: 21
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 08:35:43 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

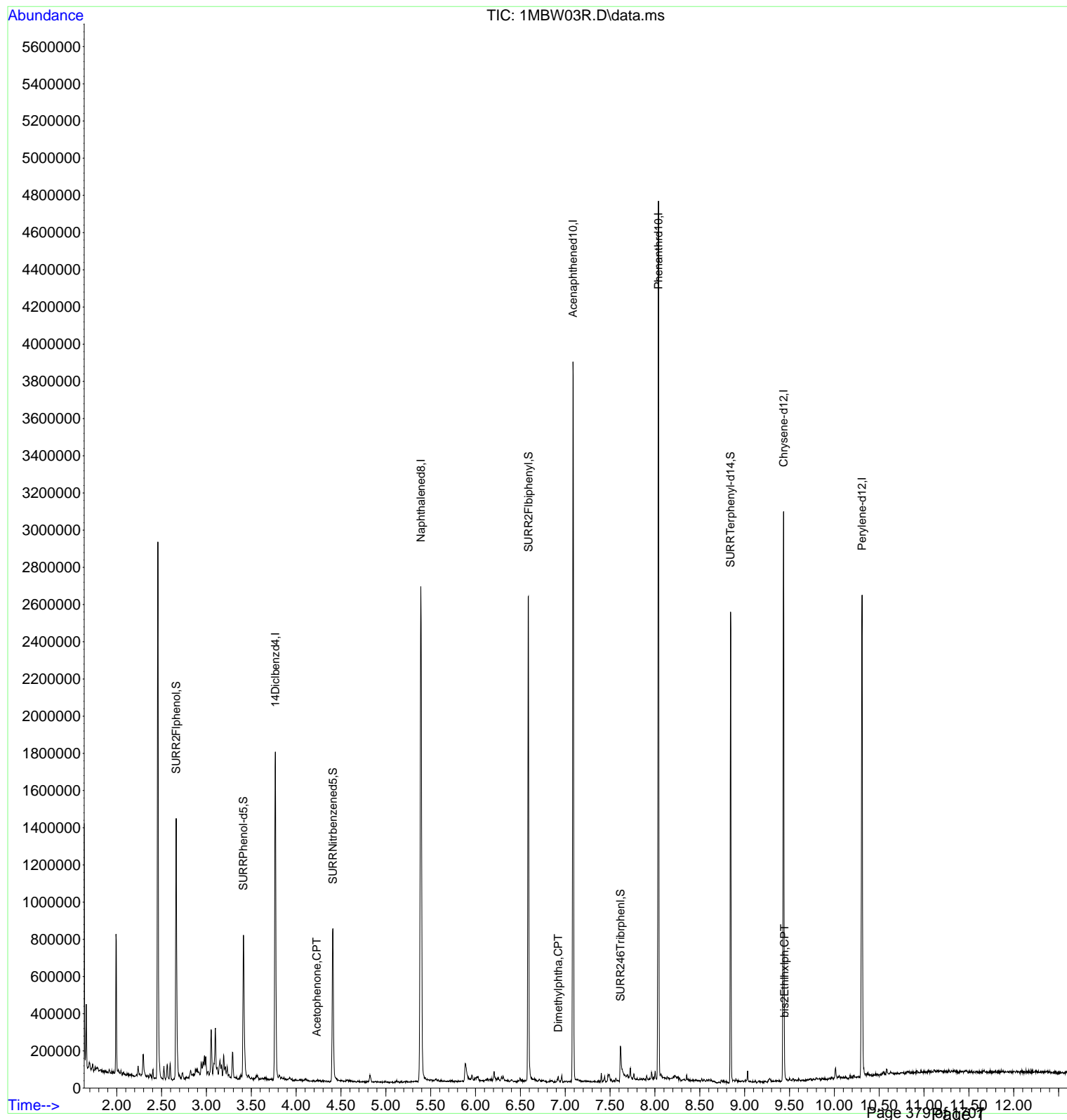
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.768	152	257436	20.00	ug/mL	0.00
21) Naphthalened8	5.390	136	1443744	20.00	ug/mL	0.00
39) Acenaphthened10	7.087	164	596890	20.00	ug/mL	0.00
63) Phenanthrd10	8.039	188	1247508	20.00	ug/mL	0.00
75) Chrysene-d12	9.434	240	787566	20.00	ug/mL	0.00
86) Perylene-d12	10.309	264	769672	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.663	112	297742	51.20	%REC	0.00
Spiked Amount 100.000	Range 20 - 110		Recovery =	51.20%		
7) SURRPhenol-d5	3.413	99	234662	35.14	%REC	0.00
Spiked Amount 100.000	Range 10 - 115		Recovery =	35.14%		
22) SURRNitrbenzened5	4.410	82	250076	61.38	%REC	0.00
Spiked Amount 100.000	Range 40 - 110		Recovery =	61.38%		
44) SURR2Flbiphenyl	6.589	172	693404	70.70	%REC	0.00
Spiked Amount 100.000	Range 50 - 110		Recovery =	70.70%		
62) SURR246Tribphenl	7.615	330	42440	11.30	%REC	0.00
Spiked Amount 100.000	Range 40 - 125		Recovery =	11.30%#		
78) SURRTerphenyl-d14	8.843	244	510904	78.17	%REC	0.00
Spiked Amount 100.000	Range 50 - 135		Recovery =	78.17%		
Target Compounds						
17) Acetophenone	4.231	105	1914	0.0813	ug/mL	76
48) Dimethylphtha	6.922	163	7754	0.1682	ug/mL	95
84) bis2Ethlhxlph	9.445	149	4361	0.1389	ug/mL	86

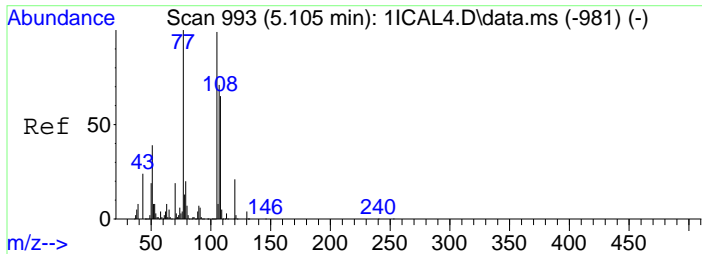
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\1MBW03R.D
Acq On : 17 Nov 2016 19:32
Sample : 132795,MBW,
Misc : 805494,500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 18 11:48:14 2016

Vial: 21
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

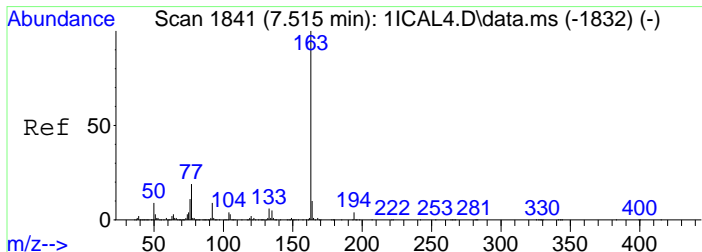
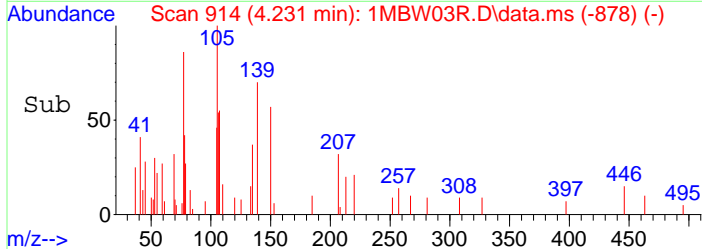
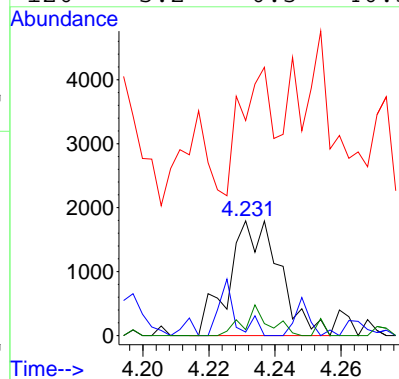
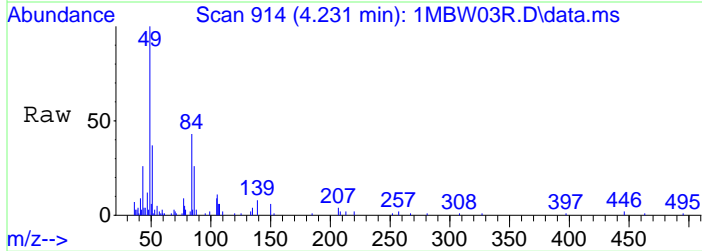
Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 08:35:43 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M





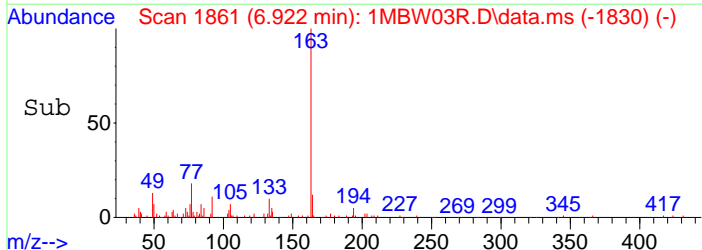
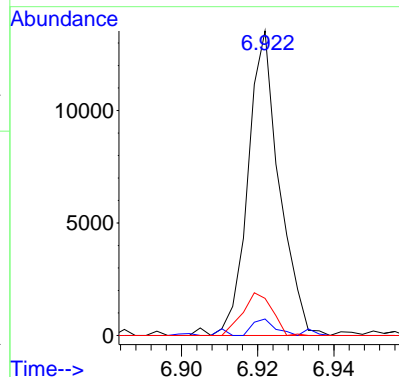
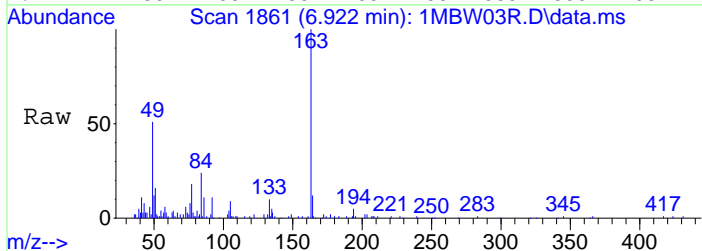
#17
Acetophenone
Concen: 0.08 ug/mL
RT: 4.231 min Scan# 914
Delta R.T. -0.011 min
Lab File: 1MBW03R.D
Acq: 17 Nov 16 7:32 pm

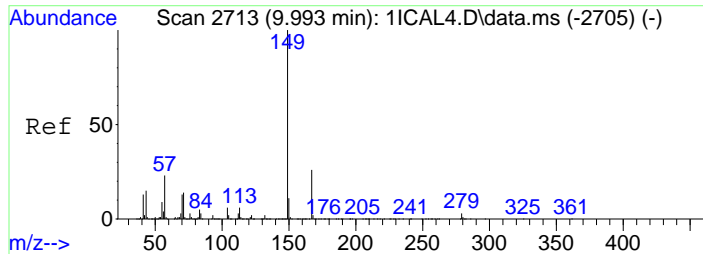
Tgt Ion	105	Resp	1914
Ion Ratio	Lower	Upper	
105	100		
71	0.0	0.0	30.5
51	27.3	10.0	70.0
120	5.2	0.3	40.3



#48
Dimethylphtha
Concen: 0.17 ug/mL
RT: 6.922 min Scan# 1861
Delta R.T. -0.011 min
Lab File: 1MBW03R.D
Acq: 17 Nov 16 7:32 pm

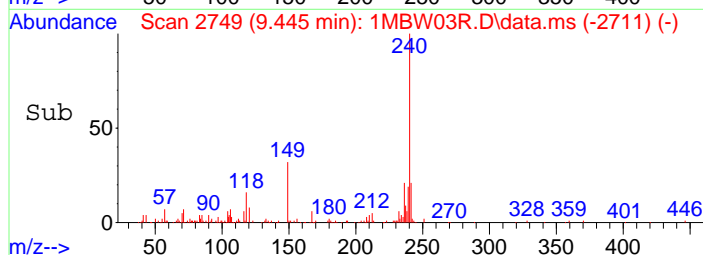
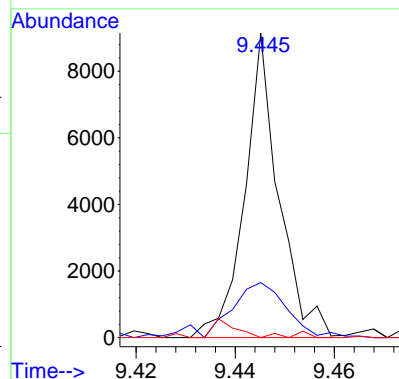
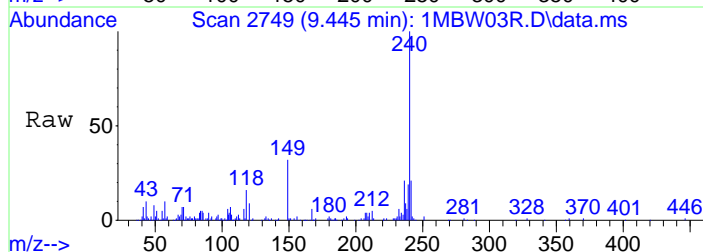
Tgt Ion	163	Resp	7754
Ion Ratio	Lower	Upper	
163	100		
194	5.4	0.0	33.8
164	12.2	0.0	40.5





#84
 bis2Ethlhxlph
 Concen: 0.14 ug/mL
 RT: 9.445 min Scan# 2749
 Delta R.T. -0.006 min
 Lab File: 1MBW03R.D
 Acq: 17 Nov 16 7:32 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
167	16.4	0.0	53.4
279	0.0	0.0	32.4



Data File : C:\INSTARCH\Data\1S111716\1MBW03R.D
 Acq On : 17 Nov 2016 19:32
 Sample : 132795,MBW,
 Misc : 805494,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 20:22:13 2016

Vial: 21
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:29:11 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

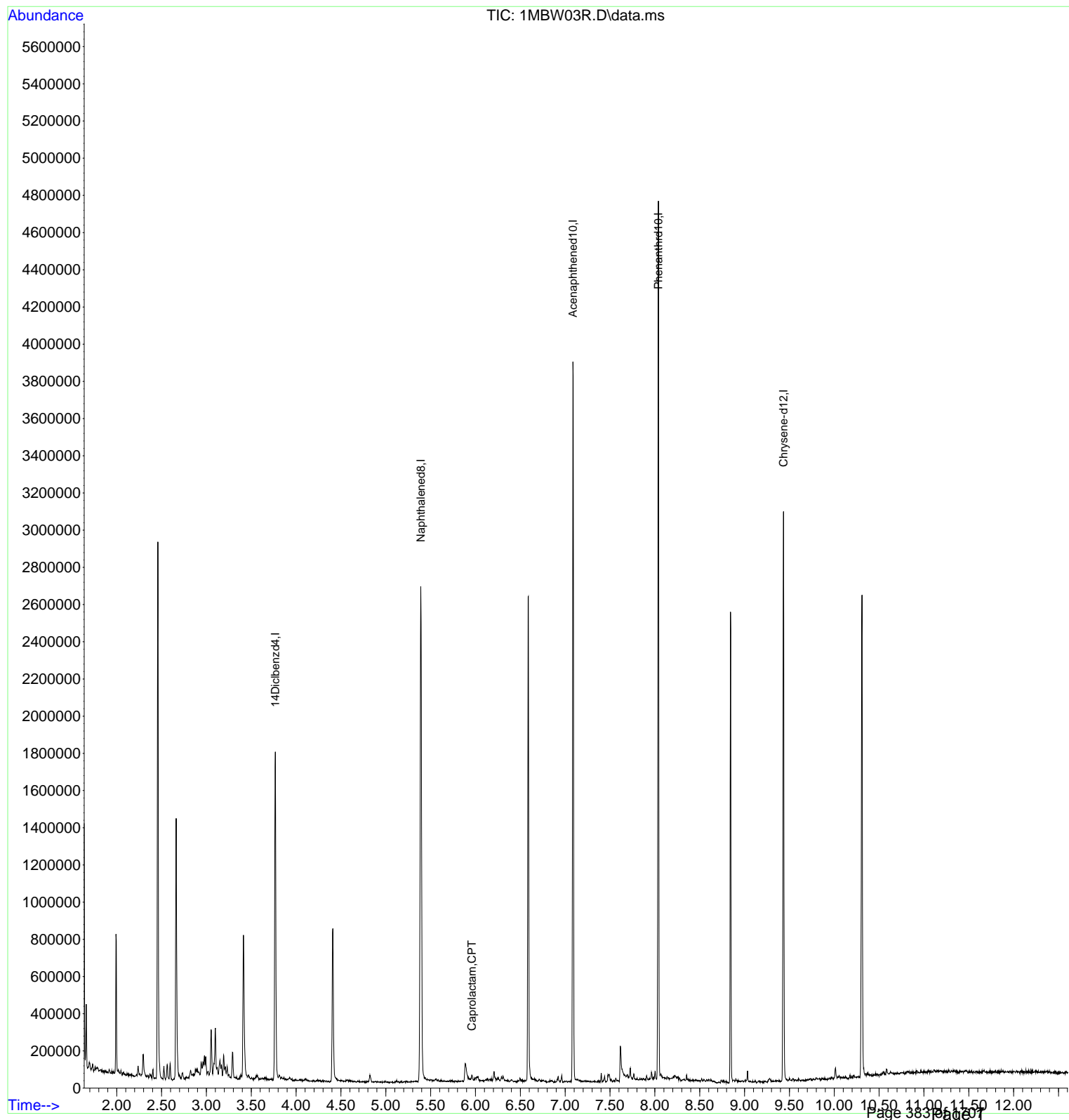
Internal Standards						
1) 14Diclbenzd4	3.768	152	262693	20.00	ug/mL	0.00
3) Naphthalened8	5.390	136	1446046	20.00	ug/mL	0.00
5) Acenaphthened10	7.087	164	597846	20.00	ug/mL	0.00
7) Phenanthrd10	8.039	188	1237215	20.00	ug/mL	0.00
9) Chrysene-d12	9.434	240	786253	20.00	ug/mL	0.00
Target Compounds						Qvalue
4) Caprolactam	5.959	55	2046	0.4931	ug/mL#	36

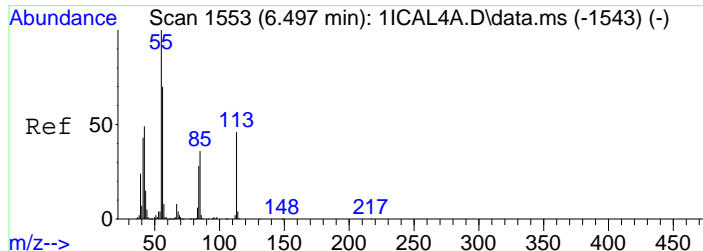
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\1MBW03R.D
Acq On : 17 Nov 2016 19:32
Sample : 132795,MBW,
Misc : 805494,500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 18 20:22:13 2016

Vial: 21
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

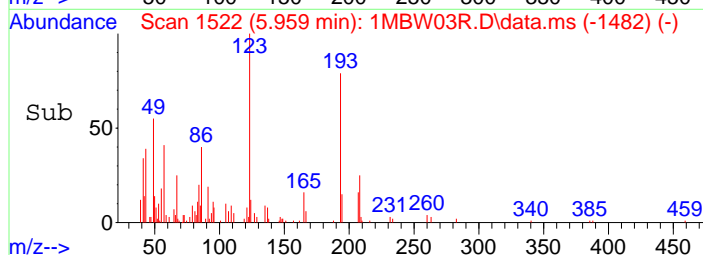
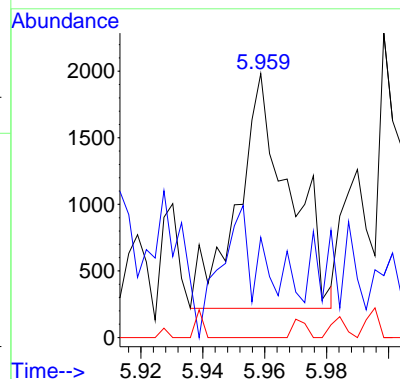
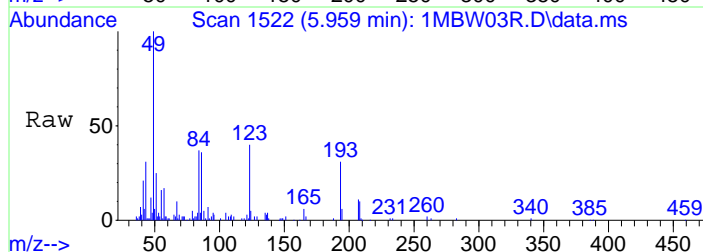
Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:29:11 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M





#4
 Caprolactam
 Concen: 0.49 ug/mL
 RT: 5.959 min Scan# 1522
 Delta R.T. 0.014 min
 Lab File: 1MBW03R.D
 Acq: 17 Nov 16 7:32 pm

Tgt Ion	55	Resp	2046
Ion Ratio	100	Lower	Upper
55	100		
42	8.1	32.0	72.0#
113	0.0	22.6	62.6#



Data File : C:\INSTARCH\Data\1S111716\1LCSW03.D
 Acq On : 17 Nov 2016 19:51
 Sample : 132795,LCSW,
 Misc : 805495,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 17 20:32:18 2016

Vial: 22
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Nov 15 13:43:36 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.768	152	251231	20.00	ug/mL	-0.03
21) Naphthalened8	5.393	136	1392541	20.00	ug/mL	-0.04
39) Acenaphthened10	7.084	164	570547	20.00	ug/mL	-0.03
63) Phenanthrd10	8.033	188	1211702	20.00	ug/mL	-0.03
75) Chrysene-d12	9.442	240	721400	20.00	ug/mL	-0.02
86) Perylene-d12	10.315	264	744387	20.00	ug/mL	-0.02
System Monitoring Compounds						
4) SURR2Flphenol	2.665	112	293834	51.77	%REC	-0.01
Spiked Amount 100.000	Range 20	- 110	Recovery	=	51.77%	
7) SURRPhenol-d5	3.416	99	237064	36.38	%REC	-0.02
Spiked Amount 100.000	Range 10	- 115	Recovery	=	36.38%	
22) SURRNitrbenzened5	4.413	82	267997	68.20	%REC	-0.04
Spiked Amount 100.000	Range 40	- 110	Recovery	=	68.20%	
44) SURR2Flbiphenyl	6.587	172	727160	77.56	%REC	-0.03
Spiked Amount 100.000	Range 50	- 110	Recovery	=	77.56%	
62) SURR246Tribphenl	7.609	330	168487	46.94	%REC	-0.03
Spiked Amount 100.000	Range 40	- 125	Recovery	=	46.94%	
78) SURRTerphenyl-d14	8.845	244	558701	93.32	%REC	-0.02
Spiked Amount 100.000	Range 50	- 135	Recovery	=	93.32%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.949	74	101495	11.9649	ug/mL	87
3) Pyridine	1.972	79	151896	10.3869	ug/mL	91
5) Aniline	3.435	93	234176	11.4039	ug/mL	88
6) bis2Clethletr	3.506	93	234374	17.2633	ug/mL	96
8) Phenol	3.430	94	162665	8.6970	ug/mL	81
9) 2-Cl-phenol	3.555	128	238365	15.4563	ug/mL	97
10) 13Diclbenz	3.708	146	263002	14.7497	ug/mL	96
11) 14Diclbenz	3.788	146	259581	14.1849	ug/mL	95
12) 12Diclbenz	3.947	146	253233	14.5489	ug/mL	99
13) Benzyl alcoho	3.935	108	152238	15.4130	ug/mL	92
14) bis2clispreth	4.100	45	571946	17.2865	ug/mL	98
15) 2Methylphenol	4.083	107	175935	14.6784	ug/mL	96
16) Ntrspyrrol	4.208	100	136215	18.0599	ug/mL	83
17) Acetophenone	4.237	105	388013	16.8823	ug/mL	99
18) Hexaclethane	4.342	117	104981	13.4487	ug/mL	93
19) N-Ntrsdinprop	4.254	70	198780	17.5555	ug/mL	96
20) 3&4Methylphenol	4.274	107	224389	14.5284	ug/mL	95
23) Nitrobenzene	4.436	77	287967	14.4495	ug/mL	94
24) Isophorone	4.762	82	542489	15.0652	ug/mL	99
25) 2-Nitrophenol	4.856	139	125173	12.6291	ug/mL	95
26) 24Dimthpheno	4.970	122	215302	14.5294	ug/mL	98
27) bis2clethoxym	5.100	93	338596	14.5440	ug/mL	99
28) 24Diclphenol	5.211	162	288327	14.6222	ug/mL	98
29) 124Triclbenz	5.325	180	318148	13.3588	ug/mL	95
30) Benzoic acid	5.325	122	5763	2.3572	ug/mL#	37
31) Naphthalene	5.422	128	976039	15.1972	ug/mL	99
32) 4-Cl-aniline	5.535	127	320421	13.5188	ug/mL	98
33) 26Diclphenol	5.538	162	270647	14.9374	ug/mL	87
34) Hexaclprop	5.555	213	199897	11.1654	ug/mL	91
35) Hexaclbutdien	5.626	225	191722	11.0291	ug/mL	93
36) 4Cl3methylphe	6.149	107	345887	18.0271	ug/mL	98
37) 2Methylnaphth	6.237	142	658876	14.6308	ug/mL	96
38) 1Methylnaphth	6.325	141	552944	14.7569	ug/mL	96
40) Hxclcycpentdi	6.393	237	113137	9.1346	ug/mL	99

Data File : C:\INSTARCH\Data\1S111716\1LCSW03.D
 Acq On : 17 Nov 2016 19:51
 Sample : 132795,LCSW,
 Misc : 805495,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 17 20:32:18 2016

Vial: 22
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

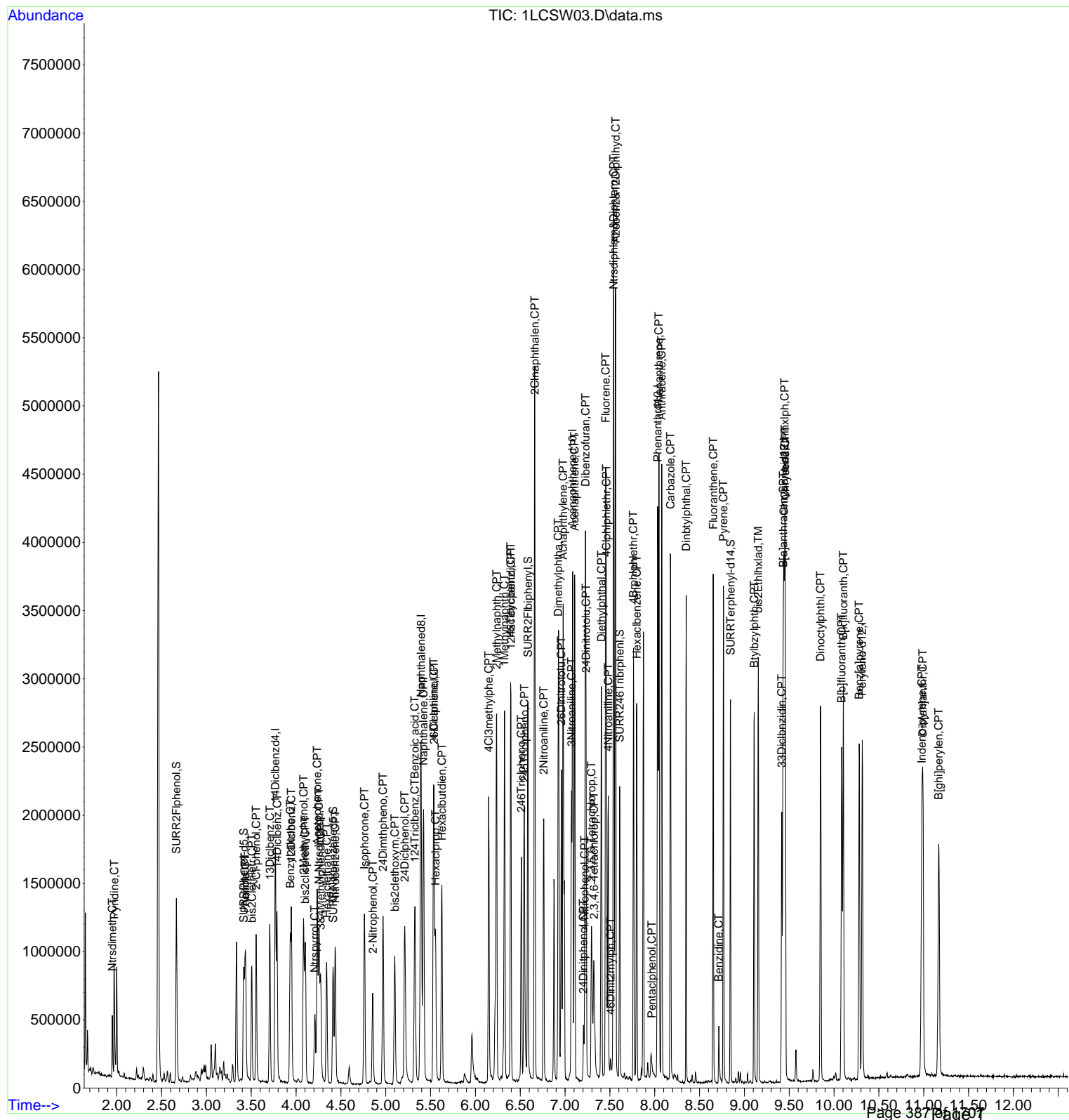
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Nov 15 13:43:36 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.396	216	331926	14.6083	ug/mL	95
42) 246Triclpheno	6.513	196	185093	13.0287	ug/mL	92
43) 245Triclpheno	6.547	196	244669	16.0164	ug/mL	95
45) 2Clnaphthalen	6.663	162	561720	14.4536	ug/mL	96
46) 2Nitroaniline	6.763	65	277174	23.2644	ug/mL	93
47) Acnaphthylene	6.979	152	1146925	17.8694	ug/mL	99
48) Dimethylphtha	6.925	163	834706	18.9422	ug/mL	100
49) 26Dinitrotolu	6.959	165	195458	20.1829	ug/mL	92
50) Acenaphthene	7.107	154	621215	16.4311	ug/mL	94
51) 3Nitroaniline	7.072	138	202327	21.2203	ug/mL	89
52) 24Dinitphenol	7.203	184	1723	3.3514	ug/mL#	1
53) Dibenzofuran	7.229	168	972893	17.1225	ug/mL	96
54) 24Dinitrotolu	7.234	165	242277	19.5917	ug/mL	90
55) 4-Nitrophenol	7.217	65	71943	7.6403	ug/mL#	56
56) 2,3,5,6-Tetrachlorop	7.294	232	84158	6.6794	ug/mL	94
57) 2,3,4,6-Tetrachlorop	7.322	232	103901	7.4281	ug/mL	95
58) Fluorene	7.453	166	796194	17.6315	ug/mL	98
59) 4Clphlphlethr	7.462	204	397869	17.5042	ug/mL	97
60) Diethylphthal	7.405	149	958915	19.3361	ug/mL	98
61) 4Nitroaniline	7.482	138	230150	24.2288	ug/mL	92
64) 46Dinit2mylph	7.507	198	11461	3.0134	ug/mL	79
65) Ntrsdiphlam&Diphlam	7.541	169	1209096	39.8647	ug/mL	98
66) Azobenz&12Diphylhyd	7.564	182	357231	37.6495	ug/mL#	87
67) 4Brphlphlethr	7.763	248	257227	18.0045	ug/mL	95
68) Hexaclbenzene	7.800	284	272780	16.5753	ug/mL	90
69) Pentaclphenol	7.967	266	21200	3.2964	ug/mL	82
70) Phenanthrene	8.047	178	1199730	19.2670	ug/mL	99
71) Anthracene	8.078	178	1268262	19.8536	ug/mL	99
72) Carbazole	8.175	167	1162752	22.5778	ug/mL	100
73) Dinbtylphthal	8.351	149	1013526	18.7619	ug/mL	98
74) Fluoranthene	8.652	202	914570	17.7474	ug/mL	98
76) Benzidine	8.715	184	101610	9.3154	ug/mL	97
77) Pyrene	8.766	202	970302	20.0425	ug/mL	98
79) Btylbzylphth	9.110	149	444403	20.8830	ug/mL	98
80) bis2Ethlhxlad	9.155	129	333425	20.9450	ug/mL	95
81) 33Diclbnzidin	9.417	252	292922	33.0375	ug/mL	98
82) B[a]anthracen	9.434	228	863343	19.8826	ug/mL	98
83) Chrysene	9.456	228	764162	19.1347	ug/mL	99
84) bis2Ethlhxlph	9.451	149	550416	19.1425	ug/mL	97
85) Dinocetylphthl	9.849	149	1138433	21.4925	ug/mL	98
87) B[b]fluoranth	10.084	252	806138	18.2695	ug/mL	99
88) B[k]fluoranth	10.104	252	849727	20.7299	ug/mL	96
89) Benz[a]pyrene	10.280	252	808555	18.9930	ug/mL	99
90) Indeno-pyrene	10.979	276	853002	18.0815	ug/mL	94
91) Dib[ah]anthr	10.991	278	706667	18.4066	ug/mL	98
92) B[ghi]perylen	11.167	276	752369	18.6107	ug/mL	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 22
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Nov 15 13:43:36 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S111716\1LCSW03.D
 Acq On : 17 Nov 2016 19:51
 Sample : 132795,LCSW,
 Misc : 805495,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 20:17:09 2016

Vial: 22
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 13:29:11 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

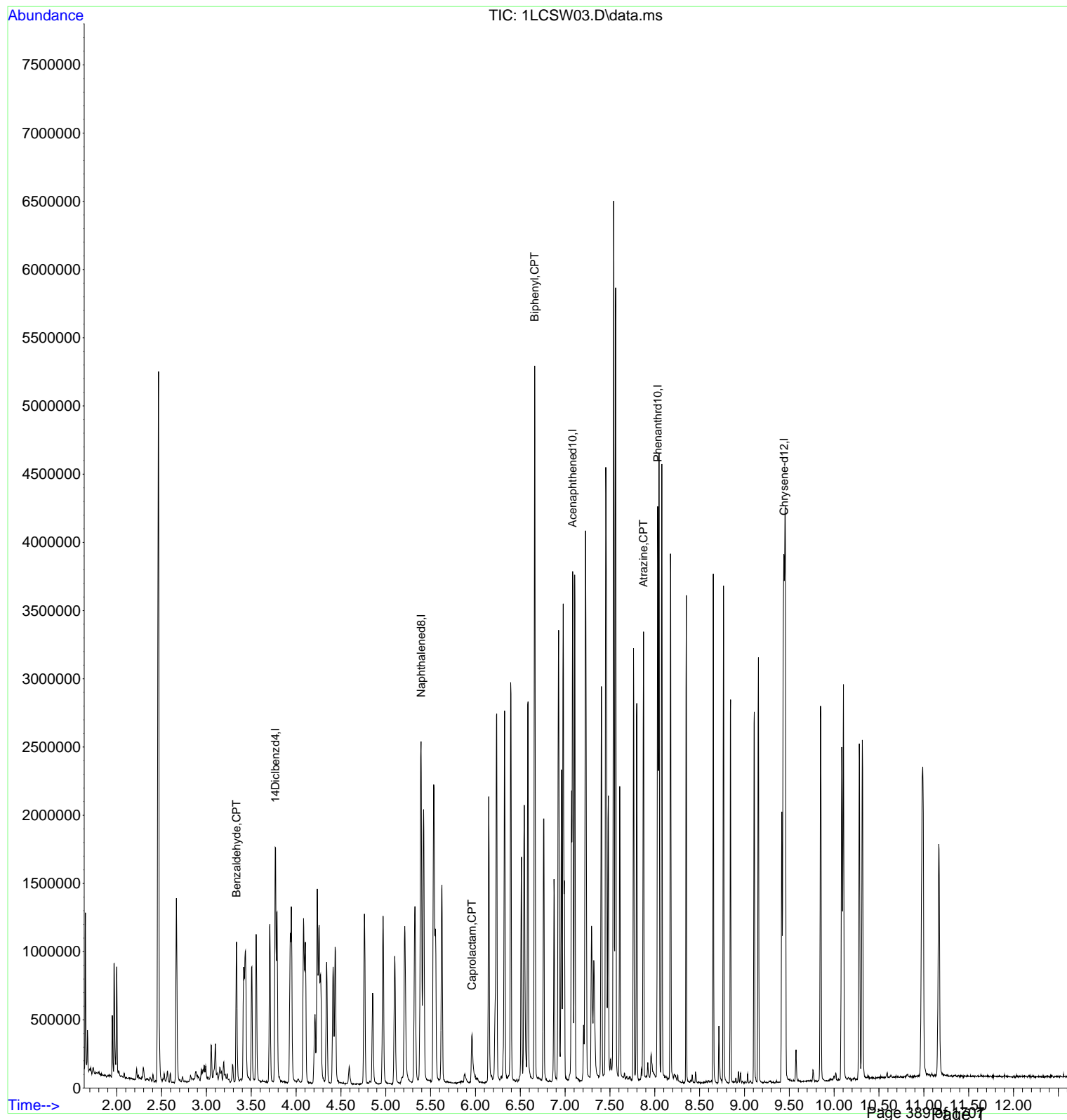
Internal Standards						
1) 14Diclbenzd4	3.768	152	264206	20.00	ug/mL	0.00
3) Naphthalened8	5.393	136	1397722	20.00	ug/mL	0.00
5) Acenaphthened10	7.084	164	572212	20.00	ug/mL	0.00
7) Phenanthrd10	8.033	188	1208317	20.00	ug/mL	0.00
9) Chrysene-d12	9.442	240	721119	20.00	ug/mL	0.00
Target Compounds						Qvalue
2) Benzaldehyde	3.336	77	185906	13.9885	ug/mL	90
4) Caprolactam	5.961	55	106543	7.9983	ug/mL	98
6) Biphenyl	6.660	154	763118	15.2764	ug/mL	100
8) Atrazine	7.874	200	242410	19.3588	ug/mL	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S111716\1LCSW03.D
Acq On : 17 Nov 2016 19:51
Sample : 132795,LCSW,
Misc : 805495,500uL+5ul IS S3553C
Integrator: RTE
Quant Time: Nov 18 20:17:09 2016

Vial: 22
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1A110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 13:29:11 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



Data File : C:\INSTARCH\Data\1S111716\1LCSW03R.D
 Acq On : 17 Nov 2016 21:49
 Sample : 132795,LCSW,
 Misc : 805495,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 14:54:19 2016

Vial: 22
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 14:51:52 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.768	152	263846	20.00	ug/mL	0.00
21) Naphthalened8	5.393	136	1440160	20.00	ug/mL	0.00
39) Acenaphthened10	7.087	164	579592	20.00	ug/mL	0.00
63) Phenanthrd10	8.036	188	1244653	20.00	ug/mL	0.00
75) Chrysene-d12	9.440	240	721914	20.00	ug/mL	0.00
86) Perylene-d12	10.315	264	762131	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.666	112	308275	51.72	%REC	0.01
Spiked Amount 100.000	Range 20	- 110	Recovery	=	51.72%	
7) SURRPhenol-d5	3.416	99	240462	35.14	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	35.14%	
22) SURRNitrbenzened5	4.413	82	264132	65.00	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	65.00%	
44) SURR2Flbiphenyl	6.587	172	750228	78.77	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	78.77%	
62) SURR246Tribphenl	7.612	330	262862	72.08	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	72.08%	
78) SURRTerphenyl-d14	8.846	244	557710	93.09	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	93.09%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.950	74	98432	11.0490	ug/mL	87
3) Pyridine	1.969	79	163976	10.6576	ug/mL	94
5) Aniline	3.436	93	242933	11.2699	ug/mL	87
6) bis2Clethletr	3.504	93	248627	17.4376	ug/mL	97
8) Phenol	3.427	94	158943	8.0917	ug/mL	82
9) 2-Cl-phenol	3.555	128	249280	15.3913	ug/mL	99
10) 13Diclbenz	3.705	146	267265	14.2722	ug/mL	99
11) 14Diclbenz	3.785	146	267992	13.9443	ug/mL	98
12) 12Diclbenz	3.947	146	255411	13.9724	ug/mL	97
13) Benzyl alcoho	3.933	108	160943	15.5152	ug/mL	92
14) bis2clispreth	4.100	45	588727	16.9429	ug/mL	99
15) 2Methylphenol	4.081	107	185310	14.7214	ug/mL	94
16) Ntrspyrrol	4.211	100	141381	17.8486	ug/mL	90
17) Acetophenone	4.237	105	408673	16.9310	ug/mL	96
18) Hexaclethane	4.342	117	109543	13.3622	ug/mL	99
19) N-Ntrsdinprop	4.254	70	208360	17.5217	ug/mL	95
20) 3&4Methylphenol	4.271	107	227002	13.9949	ug/mL	99
23) Nitrobenzene	4.436	77	290581	14.0986	ug/mL	93
24) Isophorone	4.763	82	538821	14.4686	ug/mL	99
25) 2-Nitrophenol	4.853	139	137299	13.3945	ug/mL	91
26) 24Dimthpheno	4.970	122	212083	13.8389	ug/mL	98
27) bis2clethoxym	5.101	93	346596	14.3954	ug/mL	98
28) 24Diclphenol	5.214	162	305797	14.9954	ug/mL	98
29) 124Triclbenz	5.325	180	326689	13.2639	ug/mL	94
30) Benzoic acid	5.112	122	30197	4.3204	ug/mL	86
31) Naphthalene	5.422	128	1022759	15.3981	ug/mL	100
32) 4-Cl-aniline	5.535	127	323444	13.1952	ug/mL	96
33) 26Diclphenol	5.538	162	290084	15.4808	ug/mL	97
34) Hexaclprop	5.555	213	208262	11.2480	ug/mL	95
35) Hexaclbutdien	5.626	225	199315	11.0868	ug/mL	95
36) 4Cl3methylphe	6.149	107	373136	18.8042	ug/mL	96
37) 2Methylnaphth	6.237	142	680538	14.6122	ug/mL	97
38) 1Methylnaphth	6.325	141	576845	14.8858	ug/mL	96
40) Hxclcycpentdi	6.396	237	125621	9.9564	ug/mL	99

Data File : C:\INSTARCH\Data\1S111716\1LCSW03R.D
 Acq On : 17 Nov 2016 21:49
 Sample : 132795,LCSW,
 Misc : 805495,500uL+5ul IS S3553C
 Integrator: RTE
 Quant Time: Nov 18 14:54:19 2016

Vial: 22
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

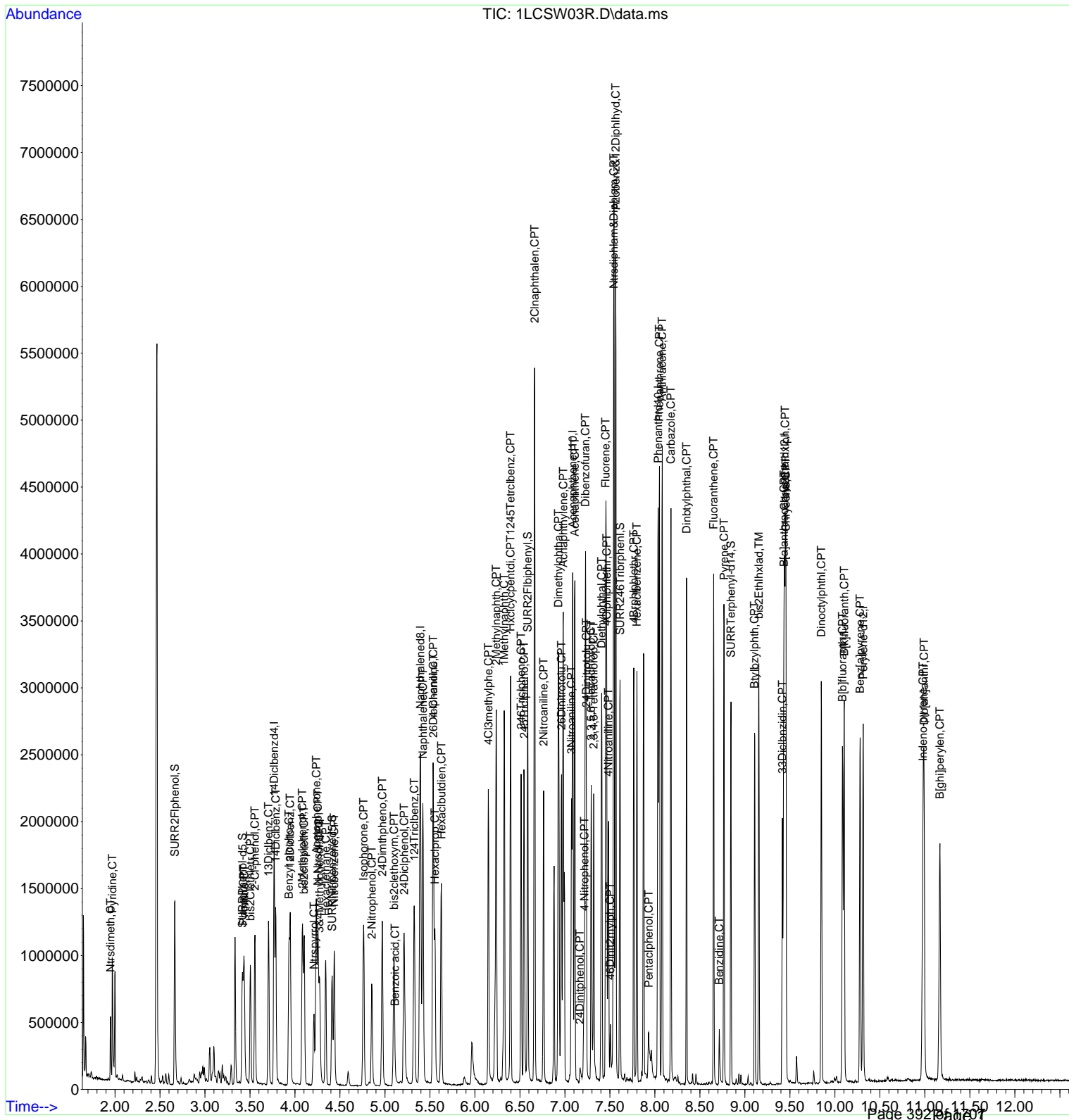
Quant Method : C:\INSTARCH\METHODS\1S110916.M
 Quant Title : Method for 8270 analysis
 QLast Update : Fri Nov 18 14:51:52 2016
 Response via : Initial Calibration
 DataAcq Meth:1S110916.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) 1245Tetrclbenz	6.396	216	340337	14.7526	ug/mL	97
42) 246Triclpheno	6.513	196	241046	16.7025	ug/mL	99
43) 245Triclpheno	6.547	196	275108	17.7280	ug/mL	97
45) 2Clnaphthalen	6.663	162	586071	14.8449	ug/mL	99
46) 2Nitroaniline	6.763	65	285986	23.6215	ug/mL	92
47) Acnaphthylene	6.982	152	1168885	17.9274	ug/mL	99
48) Dimethylphtha	6.928	163	877057	19.5927	ug/mL	98
49) 26Dinitrotolu	6.962	165	207144	21.0558	ug/mL	97
50) Acenaphthene	7.110	154	649655	16.9152	ug/mL	99
51) 3Nitroaniline	7.073	138	211982	21.8860	ug/mL	94
52) 24Dinitphenol	7.166	184	20966	6.1757	ug/mL	94
53) Dibenzofuran	7.229	168	1005366	17.4179	ug/mL	98
54) 24Dinitrotolu	7.237	165	258678	20.5915	ug/mL	87
55) 4-Nitrophenol	7.218	65	115260	12.0496	ug/mL#	74
56) 2,3,5,6-Tetrachlorop	7.291	232	177513	13.8689	ug/mL	92
57) 2,3,4,6-Tetrachlorop	7.320	232	199799	14.0611	ug/mL	99
58) Fluorene	7.453	166	812956	17.7218	ug/mL	94
59) 4Clphlphlethr	7.465	204	400869	17.3482	ug/mL	96
60) Diethylphthal	7.408	149	1019375	20.2344	ug/mL	98
61) 4Nitroaniline	7.485	138	245890	25.4819	ug/mL	90
64) 46Dinit2mylph	7.505	198	49713	7.6019	ug/mL	78
65) Ntrsdiphlam&Diphlam	7.544	169	1235066	39.6234	ug/mL	95
66) Azobenz&12Diphylhyd	7.564	182	370113	37.9948	ug/mL#	82
67) 4Brphlphlethr	7.766	248	267183	18.2063	ug/mL	95
68) Hexaclbenzene	7.800	284	289505	17.1259	ug/mL	92
69) Pentaclphenol	7.931	266	73385	8.3803	ug/mL	95
70) Phenanthrene	8.050	178	1239129	19.3729	ug/mL	98
71) Anthracene	8.081	178	1283834	19.5653	ug/mL	99
72) Carbazole	8.178	167	1176499	22.2399	ug/mL	99
73) Dinbtylphthal	8.351	149	1045850	18.8477	ug/mL	99
74) Fluoranthene	8.652	202	934198	17.6483	ug/mL	100
76) Benzidine	8.715	184	102076	9.3366	ug/mL	94
77) Pyrene	8.769	202	995794	20.5544	ug/mL	99
79) Btylbzylphth	9.107	149	453023	21.2729	ug/mL	99
80) bis2Ethlhxlad	9.155	129	335379	21.0528	ug/mL	97
81) 33Diclbnzidin	9.417	252	298345	33.5390	ug/mL	96
82) B[a]anthracen	9.434	228	874256	20.1196	ug/mL	99
83) Chrysene	9.457	228	764787	19.1367	ug/mL	96
84) bis2Ethlhxlph	9.448	149	549342	19.0915	ug/mL	98
85) Dinocetylphthl	9.849	149	1116863	21.0703	ug/mL	100
87) B[b]fluoranth	10.085	252	864834	19.1434	ug/mL	98
88) B[k]fluoranth	10.104	252	864931	20.6095	ug/mL	98
89) Benz[a]pyrene	10.281	252	844666	19.3793	ug/mL	99
90) Indeno-pyrene	10.980	276	884313	18.3088	ug/mL	93
91) Dib[ah]anthr	10.991	278	717111	18.2437	ug/mL	99
92) B[ghi]perylen	11.167	276	774830	18.7201	ug/mL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Vial: 22
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S110916.M
Quant Title : Method for 8270 analysis
QLast Update : Fri Nov 18 14:51:52 2016
Response via : Initial Calibration
DataAcq Meth:1S110916.M



**SEMI - VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS**

S SVOC 8270 WATER Analytical Run
132796 on 11/16/2016

Date Analyzed: _____

Date Entered: _____

JJY
12/06/16

Date Reviewed: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804577		11/9/2016 1230		TETRA TECH	VE CARTER SCHOOL	SVOC 8270 QSM ADDTL		SW	4	
		VEC-SUMP1-110916						60157			
	805501			MBW			SVOC 8270 QSM ADDTL	60157			
	805502			LCSW			SVOC 8270 QSM ADDTL	60157			
3	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

PREP WORKSHEET
on 12/02/2016

Prep Batch **60,157** Date Prepped: **11/15/2016** Prepped By **JLH**

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	805501	MBW		SVOC 8270 QSM ADDTL	LIQUID	1.0		1.000		
	805502	LCSW		SVOC 8270 QSM ADDTL	LIQUID	1.0		1.000		
123585	804577			SVOC 8270 QSM ADDTL	SURFACE WATER	1.0		1.020	4	

Notes: _____

Method 8270-SV GC/MS Extraction Bench Sheet

3510=WATER

3545=PFE or 3546=Microwave >>

(PFE=Pressurized Fluid Extraction)

Matrix:	WATER
Balance Used:	NA
Ave MW temp(°C):	NA

Reagent Lots>>>

Initial Concentration By:	NA
Date:	NA
GPC Cleanup? (yes/no):	NA
Date:	NA
Final Concentration By:	BMM/JLH
Date:	11/15/2016

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

Reviewed By: RED
Date: 11/21/2016

FSV6-01

8270 SVOC Analysis Data Review Checklist

Analytical Run #: 132796	Independent Reviewer: RED
Sequence Date: 11/17/2016	Date of Review: 11/21/2016
Analyst/Data Interpreter: RPN	Approval: YES

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each “No” response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the initial calibration performed using a minimum of five standard concentration levels?	Lowest standard at or near MRL	Yes		x		
b. SPCC responses.	Avg. RRF ≥ 0.05	Yes		x		
c. Is the variation between calibration response factors for all concentration levels <15% RSD, is r >.995, or r ² > 0.990 for the regression line. RSD≤ 15%, ≤ 30% for CCCs.	RSD≤ 15%, ≤ 30% for CCCs	Yes		x		
d. Were the standards used for the ICAL uniquely identified?		Yes		x		
e. Was there a DFTPP standard analyzed prior to the ICAL?		Yes		x		
f. Was an instrument blank (IB) analyzed prior to the ICAL?		Yes		x		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?	Second source	Yes		x		
b. Were the SPCC within QC limits	RRF ≥ 0.05	Yes		x		
c. Were the CCCs within QC limits	%D ≤ 20%	Yes		x		
d. Were the ICVs uniquely identified (i.e. Standard Number)?		Yes		x		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours.		Yes		x		
b. Were SPCC compounds acceptable?	RRF ≥ 0.050	Yes		x		
c. Were the CCCs compounds acceptable?	%D ≤ 20%	Yes		x		
d. Were the recoveries for the CCVs acceptable?	%D≤20%	Yes		x		
e. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		x		

Additional Comments:

CCV259 analyzed on 11/17/2016 had high recovery of 3',3'-dichlorobenzidine. Not detected in sample. "Z".

FSV6-01

8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. DFTPP						
a. Was a DFTPP tune check ran at the beginning of every twelve hour shift?		Yes		x		
b. Were the relative abundance criteria met?		Yes		x		
c. Was the peak tailing <2 on Pentachlorophenol and <2 on Benzidine?	Tailing <2%	Yes		x		
d. Was the breakdown of DDT to DDE and DDD less than 20%	Breakdown ≤20%	Yes		x		
5. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		Yes		x		
b. Were the MB results less than the reporting limit (RL)?	< MRL	Yes		x		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		x		
6. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		Yes		x		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits	Yes		x		
7. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		No	x	x	
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		
8. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		No		x	
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		

Additional Comments:

LCSW805502 had high recoveries of 2-nitroaniline, 3',3'-dichlorobenzidine and 4-nitroaniline. Not detected in sample. Confirmed. "Q". It had low recovery of 4,6-dinitro-2-methylphenol. Confirmed. "Q".

FSV6-01
8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
9. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		x		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			No		No	See Beloe
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		x		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		x		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, acid-base fractioning, and GPC)	GPC, Acid/Base, Treatments		No		x	
10. RECORDS AND REPORTING						
a. Are Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, initial and rerun raw and process data present in the data file?		Yes		x		
b. Are all chromatograms dated and initialed?		Yes		x		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, a NCR completed?		Yes		x		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		x		
e. Is the ICAL method referenced on the Raw Data?		Yes		x		

Additional Comments:

Method blank 805501 had low recovery of surrogate 2,4,6-tribromophenol. Confirmed. "S".

Sequence Name: C:\INSTARCH\Sequence\1S110916.S

Comment: 8270

Operator: JJY

Data Path: C:\INSTARCH\DATA\1S110916\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

JJY

11/30/16

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line		Sample Name/Misc Info
1)	Sample	99 1IB 1S110916 InstrumentBlank
2)	DFTPP	1 1DFTPP207 1DFTPP DFTPP TUNE SVMS7269
3)	Sample	2 1IB01 1S110916 InstrumentBlank
4)	Sample	3 1ICAL7A 1S110916 ICAL 50ug/ml SVMS7280
5)	Sample	4 1ICAL6A 1S110916 ICAL 40ug/ml SVMS7279
6)	Sample	5 1ICAL5A 1S110916 ICAL 30ug/ml SVMS7278
7)	Sample	6 1ICAL4A 1S110916 ICAL 20ug/ml SVMS7277
8)	Sample	7 1ICAL3A 1S110916 ICAL 10ug/ml SVMS7276
9)	Sample	8 1ICAL2A 1S110916 ICAL 5ug/ml SVMS7275
10)	Sample	9 1ICAL1A 1S110916 ICAL 1ug/ml SVMS7274
11)	Sample	10 1ICV1A 1S110916 ICV 20ug/ml SVMS7281
12)	Sample	11 1ICV2A 1S110916 ICV 40ug/ml SVMS7282
13)	Sample	12 1IB02 1S110916 InstrumentBlank
14)	Sample	13 1ICAL7 1S110916 ICAL 50ug/ml SVMS7214
15)	Sample	14 1ICAL6 1S110916 ICAL 40ug/ml SVMS7213
16)	Sample	15 1ICAL5 1S110916 ICAL 30ug/ml SVMS7212
17)	Sample	16 1ICAL4 1S110916 ICAL 20ug/ml SVMS7211
18)	Sample	17 1ICAL3 1S110916 ICAL 10ug/ml SVMS7210
19)	Sample	18 1ICAL2 1S110916 ICAL 5ug/ml SVMS7209
20)	Sample	19 1ICAL1 1S110916 ICAL 1ug/ml SVMS7208
21)	Sample	20 1ICV1 1S110916 ICV 20ug/ml SVMS7215
22)	Sample	21 1ICV2 1S110916 ICV 40ug/ml SVMS7216
23)	DFTPP	22 1DFTPP208 1DFTPP DFTPP TUNE SVMS7269
24)	Sample	23 1CCV244 1S110916 CCV 20ug/ml SVMS7217
25)	Sample	24 1CCV245 1S110916 CCV 20ug/ml SVMS7283
26)	Sample	25 1IB03 1S110916 Instrument blank
27)	Sample	26 1MBS01 1S110916 132456,MBS,
28)	Sample	27 1LCSS01 1S110916 132456,LCSS,
29)	Sample	28 799703 1S110916 132456,799703,
30)	Sample	29 799703MS 1S110916 132456,MSS799703,
31)	Sample	30 799703SD 1S110916 132456,MSDS799703,
32)	Sample	31 1MBS02 1S110916 132416,MBS,
33)	Sample	32 1LCSS02 1S110916 132416,LCSS,
34)	Sample	33 792783 1S110916 132416,792783,
35)	Sample	34 792784 1S110916 132416,792784,
36)	Sample	35 792785 1S110916 132416,792785,
37)	Sample	36 792786 1S110916 132416,792786,
38)	Sample	37 792789 1S110916 132416,792789,
39)	Sample	38 792790 1S110916 132416,792790,
40)	Sample	39 792791 1S110916 132416,792791,
41)	Sample	40 792792 1S110916 132416,792792,
42)	Sample	41 792788 1S110916 132416,792788,
43)	Sample	42 792788MS 1S110916 132416,MSS792788,

Line	Type	Vial	DataFile	Method	Sample Name
------	------	------	----------	--------	-------------

44)	Sample	43	792788SD	1S110916	132416,MSDS792788,
45)	Sample	44	1CCV246	1S110916	CCV 20ug/ml SVMS7217
46)	Sample	45	1CCV247	1S110916	CCV 20ug/ml SVMS7283
47)	DFTPP	46	1DFTP209	1DFTPP	DFTPP TUNE SVMS7269
48)	DFTPP	47	1DFTP210	1DFTPP	DFTPP TUNE SVMS7269
49)	Sample	48	1CCV248	1S110916	CCV 20ug/ml SVMS7217
50)	Sample	49	1IB04	1S110916	Instrument blank
51)	Sample	50	792785D	1S110916	132416,792785,10
52)	Sample	51	792786D	1S110916	132416,792786,10
53)	Sample	52	792788SR	1S110916	132416,MSS792788,2
54)	Sample	53	792788DR	1S110916	132416,MSDS792788,2
55)	Sample	54	1CCV249	1S110916	CCV 20ug/ml SVMS7217

JULY
11/30/16

Sequence Name: C:\INSTARCH\Sequence\1S111716.S

Comment: 8270

Operator: RPN

Data Path: C:\INSTARCH\DATA\1S111716\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

JJY

12/05/16

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line Sample Name/Misc Info

1) Sample	99	1IB01	1S110916	INSTRUMENT BLANK
2) DFTPP	1	1DFTP219	1DFTPP	DFTPP TUNE SVMS7269
3) Sample	2	1CCV259	1S110916	CCV 20ug/ml SVMS7217
4) Sample	3	1CCV260	1S110916	CCV 20ug/ml SVMS7283
5) Sample	4	1MRL01	1S110916	MRL 1/5ug/ml SVMS7241
6) Sample	5	1MRL01A	1S110916	MRL 1ug/ml SVMS7280
7) Sample	6	1MDL01	1S110916	MDL 0.5/2.5ug/ml SVMS7242
8) Sample	7	1MDL01A	1S110916	MDL 0.5ug/ml SVMS7309
9) Sample	8	1MBW01	1S110916	132723,MBW,
10) Sample	9	1LCSW01	1S110916	132723,LCSW,
11) Sample	10	799886	1S110916	132723,799886,
12) Sample	11	800850	1S110916	132723,800850,
13) Sample	12	801467	1S110916	132723,801467,
14) Sample	13	801471	1S110916	132723,801471,
15) Sample	14	1MBW02	1S110916	132750,MBW,
16) Sample	15	1LCSW02	1S110916	132750,LCSW,
17) Sample	16	1MBTV02	1S110916	132750,MBTV,
18) Sample	17	1MBTS02	1S110916	132750,MBTS,
19) Sample	18	797691D	1S110916	132750,797691,10
20) Sample	19	797693D	1S110916	132750,797693,10
21) Sample	20	797695D	1S110916	132750,797695,10
22) Sample	21	1MBW03	1S110916	132795,MBW,
23) Sample	99	1IB02	1S110916	INSTRUMENT BLANK
24) Sample	21	1MBW03R	1S110916	132795,MBW,
25) Sample	22	1LCSW03	1S110916	132795,LCSW,
26) Sample	23	803342	1S110916	132795,803342,
27) Sample	24	803344	1S110916	132795,803344,
28) Sample	25	803925	1S110916	132795,803925,
29) Sample	26	803943	1S110916	132795,803943,
30) Sample	27	803944	1S110916	132795,803944,
31) Sample	22	1LCSW03R	1S110916	132795,LCSW,
32) Sample	2	1CCV261	1S110916	CCV 20ug/ml SVMS7217
33) Sample	4	1MRL02	1S110916	MRL 1/5ug/ml SVMS7241
34) Sample	6	1MDL02	1S110916	MDL 0.5/2.5ug/ml SVMS7242
35) Sample	28	800842	1S110916	132724,800842,
36) Sample	29	800843	1S110916	132724,800843,
37) Sample	30	804577	1S110916	132796,804577,
38) Sample	31	800879	1S110916	132725,800879,

SVOC Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_SVOC_Logbook01_Default, NOTEBOOK: SVOC_Logbook01, PAGE: 92

Page is Unlocked

Page is not Witnessed

Project: Unassigned

Page Title: 100416

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7206	8270I CAL STOCK STD	Methylene Chloride EMD 56190	RPN	10/04/16	04/04/17
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3561	1000	ug/ml	1000	10	100
S3499B	2000	ug/ml	500	10	100
S3551A	2000	ug/ml	500	10	100
S3502B	10000	ug/ml	100	10	100
S3501B	5000	ug/ml	200	10	100

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7207	8270I ICV STOCK STD	Methylene Chloride EMD 56190	RPN	10/04/16	04/04/17
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3488	1000	ug/ml	500	5	100
S3500	2000	ug/ml	250	5	100
S3552	2000	ug/ml	250	5	100
S3502B	10000	ug/ml	50	5	100
S3501B	5000	ug/ml	100	5	100

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	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date		
	8270 ICAL Working Stds	Methylene Chloride EMD 56190	RPN	10/04/16	04/04/17		
Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS7208	ICAL 1	SVMS7206	100	ug/ml	0.005	0.5	1
SVMS7209	ICAL 2	SVMS7206	100	ug/ml	0.025	0.5	5
SVMS7210	ICAL 3	SVMS7206	100	ug/ml	0.050	0.5	10
SVMS7211	ICAL 4	SVMS7206	100	ug/ml	0.100	0.5	20
SVMS7212	ICAL 5	SVMS7206	100	ug/ml	0.150	0.5	30
SVMS7213	ICAL 6	SVMS7206	100	ug/ml	0.200	0.5	40
SVMS7214	ICAL 7	SVMS7206	100	ug/ml	0.250	0.5	50
SVMS7215	ICV1	SVMS7207	100	ug/ml	0.100	0.5	20
SVMS7216	ICV2	SVMS7207	100	ug/ml	0.200	0.5	40
SVMS7217	CCV	SVMS7206	100	ug/ml	0.100	0.5	20
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					

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8270 Spike 20ug/ml

Standard Number: SVMST7234 Standard Description: 8270 Spike

Analyst: JJY Solvent/Lot: Acetone EMD Millipore lot 55338

Prep Date: 10/14/2016 Expiration Date: 4/14/2017

Parent Standard	CTL ID	Concentration (ug/ml)	Volume Added	Final Volume	Final Concentraion (ug/ml)
8270 Mega Mix	S3562	1000	1.00	50.00	20
Benzadines	S3556	2000	0.500	50.00	20
Custom Mix	S3551B	2000	0.500	50.00	20
Biphenyl	S3575A	1000	1.00	50.00	20
Additions Std	S3559A	1000	1.00	50.00	20

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SVOC Logbook 01

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7235	8270 Surrogates	Acetone EMD Millipore lot 55338	JJY	10/17/2016	04/17/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3354A	5000	ug/mL	0.400	100.00	20.00
S3355A	10000	ug/mL	0.400	100.00	40.00

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7236	8270 Surrogates	Acetone EMD Millipore lot 55338	JJY	10/17/2016	04/17/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3354A	5000	ug/mL	0.400	100.00	20.00
S3355A	10000	ug/mL	0.400	100.00	40.00

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7237	8270 Surrogates	Acetone EMD Millipore lot 55338	JJY	10/17/2016	04/17/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3354A	5000	ug/mL	0.400	100.00	20.00
S3355A	10000	ug/mL	0.400	100.00	40.00

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SVOC Logbook 01

01/19/2015

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7269	DFTPP TUNE MIX 50ug/ml	Methylene chloride EMD 56190	JJY	11/03/16	05/03/17
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3568	1000	ug/ml	500	10	50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7270	DFTPP TUNE MIX 5ug/ml	Methylene chloride EMD 56190	RPN	11/03/16	05/03/17
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS7269	50	ug/ml	100	1	5

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7272	8270 Additional Std ICAL Stock	Methylene chloride EMD lot 56217	JJY	11/09/2016	05/09/2017
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3559B	1000	ug/mL	1.000	10.00	100
S3574	1000	ug/mL	1.000	10.00	100

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS7273	8270 Additional Std ICV Stock	Methylene chloride EMD lot 56217	JJY	11/09/2016	05/09/2017
STD Parent ID	Parent Concentration	Units	Standard Volume (ul)	Final Volume (ml)	Final Concentration (ug/ml)
S3560	1000	ug/mL	0.500	5.00	100
S3575B	1000	ug/mL	0.500	5.00	100

	Initial Calibration	Solvent Manufacturer Lot			Analyst	Prep Date	Expiration Date	
	8270 Additional ICAL	Methylene chloride EMD lot 56217			JJY	11/09/2016	05/09/2017	
Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)	
SVMS7274	ICAL 1	SVMS7272	100	ug/mL	0.010	1.00	1	
SVMS7275	ICAL 2	SVMS7272	100	ug/mL	0.050	1.00	5	
SVMS7276	ICAL 3	SVMS7272	100	ug/mL	0.100	1.00	10	
SVMS7277	ICAL 4	SVMS7272	100	ug/mL	0.200	1.00	20	
SVMS7278	ICAL 5	SVMS7272	100	ug/mL	0.300	1.00	30	
SVMS7279	ICAL 6	SVMS7272	100	ug/mL	0.400	1.00	40	
SVMS7280	ICAL 7	SVMS7272	100	ug/mL	0.500	1.00	50	
SVMS7281	ICV 1	SVMS7273	100	ug/mL	0.200	1.00	20	
SVMS7282	ICV 2	SVMS7273	100	ug/mL	0.400	1.00	40	
SVMS7283	CCV	SVMS7272	100	ug/mL	0.200	1.00	20	

**POLYCHLORINATED BIPHENYL
QUALITY CONTROL SUMMARY
DOCUMENTS**

1D-2
PCB ORGANICS ANALYSIS

Sample Description

VEC-PAINT1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>9.96</u> (g/L)	CTL Sample ID:	<u>804619</u>
% Solids:	<u>100</u>	Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 09:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60167</u>
Analytical Run #:	<u>132745</u>	Dilution Factor:	<u>10.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 12:19</u>		
Cleanup Date/Time/Type:	<u>, 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	200	U	50	200	300	300
11104-28-2	Aroclor-1221	200	U	70	200	300	300
11141-16-5	Aroclor-1232	200	U	90	200	300	300
53469-21-9	Aroclor-1242	200	U	70	200	300	300
12672-29-6	Aroclor-1248	200	U	70	200	300	300
11097-69-1	Aroclor-1254	643		90	200	300	300
11096-82-5	Aroclor-1260	311		60	200	300	300
37324-23-5	Aroclor-1262	200	U	70	200	300	300
11100-14-4	Aroclor-1268	200	U	50	200	300	300

1D-2
PCB ORGANICS ANALYSIS

Sample Description

VEC-PAINT2-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>10.08</u> (g/L)	CTL Sample ID:	<u>804624</u>
% Solids:	<u>100</u>	Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 09:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60167</u>
Analytical Run #:	<u>132745</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 16:39</u>		
Cleanup Date/Time/Type:	<u>, 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	20	U	5.0	20	30	30
11104-28-2	Aroclor-1221	20	U	6.9	20	30	30
11141-16-5	Aroclor-1232	20	U	8.9	20	30	30
53469-21-9	Aroclor-1242	20	U	6.9	20	30	30
12672-29-6	Aroclor-1248	20	U	6.9	20	30	30
11097-69-1	Aroclor-1254	159		8.9	20	30	30
11096-82-5	Aroclor-1260	91.3		6.0	20	30	30
37324-23-5	Aroclor-1262	20	U	6.9	20	30	30
11100-14-4	Aroclor-1268	20	U	5.0	20	30	30

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PCB ORGANICS ANALYSIS

Sample Description

VEC-PAINT3-110916

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOIL SDG No.: 123585

Sample wt/vol: 10.01 (g/L) CTL Sample ID: 804625

% Solids: 100 Date Received: 11/11/2016

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 11/14/2016 / 09:45

Analytical Method: EPA 8082A Analytical Prep Batch # 60167

Analytical Run #: 132745 Dilution Factor: 10.00

Date & Time Analyzed: 11/17/2016 / 13:24

Cleanup Date/Time/Type: , 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): /

ICAL Calibration #: 102416pcbic Concentration Units: ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	200	U	50	200	300	300
11104-28-2	Aroclor-1221	200	U	70	200	300	300
11141-16-5	Aroclor-1232	200	U	90	200	300	300
53469-21-9	Aroclor-1242	200	U	70	200	300	300
12672-29-6	Aroclor-1248	200	U	70	200	300	300
11097-69-1	Aroclor-1254	2230		90	200	300	300
11096-82-5	Aroclor-1260	1960		60	200	300	300
37324-23-5	Aroclor-1262	200	U	70	200	300	300
11100-14-4	Aroclor-1268	200	U	50	200	300	300

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOIL SDG No.: 123585

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 804626

% Solids: 100 Date Received: 11/11/2016

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 11/14/2016 / 09:45

Analytical Method: EPA 8082A Analytical Prep Batch # 60167

Analytical Run #: 132745 Dilution Factor: 10.00

Date & Time Analyzed: 11/17/2016 / 13:45

Cleanup Date/Time/Type: , 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): /

ICAL Calibration #: 102416pcbic Concentration Units: ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	2000	U	500	2000	3000	3000
11104-28-2	Aroclor-1221	2000	U	700	2000	3000	3000
11141-16-5	Aroclor-1232	2000	U	900	2000	3000	3000
53469-21-9	Aroclor-1242	2000	U	700	2000	3000	3000
12672-29-6	Aroclor-1248	2000	U	700	2000	3000	3000
11097-69-1	Aroclor-1254	17300		900	2000	3000	3000
11096-82-5	Aroclor-1260	13500		600	2000	3000	3000
37324-23-5	Aroclor-1262	2000	U	700	2000	3000	3000
11100-14-4	Aroclor-1268	2000	U	500	2000	3000	3000

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PCB ORGANICS ANALYSIS

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>1.00</u> (g/L)	CTL Sample ID:	<u>804577</u>
% Solids:	<u></u>	Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 14:30</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60169</u>
Analytical Run #:	<u>132740</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/15/2016 / 19:19</u>		
Cleanup Date/Time/Type:	<u>, 11/15/2016 12:00 (Sulfur) , 11/15/2016 11:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/L</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	0.30	U	0.11	0.30	1.0	1.0
11104-28-2	Aroclor-1221	0.30	U	0.085	0.30	1.0	1.0
11141-16-5	Aroclor-1232	0.30	U	0.15	0.30	1.0	1.0
53469-21-9	Aroclor-1242	0.30	U	0.096	0.30	1.0	1.0
12672-29-6	Aroclor-1248	0.30	U	0.088	0.30	1.0	1.0
11097-69-1	Aroclor-1254	0.30	U	0.094	0.30	1.0	1.0
11096-82-5	Aroclor-1260	0.30	U	0.099	0.30	1.0	1.0
37324-23-5	Aroclor-1262	0.30	U	0.28	0.30	1.0	1.0
11100-14-4	Aroclor-1268	0.30	U	0.056	0.30	1.0	1.0

**1D-2
PCB ORGANICS ANALYSIS**

Sample Description

VEC-WASTE4-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>WASTE</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>10.05</u> (g/L)	CTL Sample ID:	<u>804611</u>
% Solids:		Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 09:30</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60170</u>
Analytical Run #:	<u>132700</u>	Dilution Factor:	<u>20.00</u>
Date & Time Analyzed:	<u>11/18/2016 / 10:11</u>		
Cleanup Date/Time/Type:	<u>, 11/14/2016 16:30 (Sulfur) , 11/14/2016 16:15 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	400	U V	100	400	600	600
11104-28-2	Aroclor-1221	400	U V	140	400	600	600
11141-16-5	Aroclor-1232	400	U V	180	400	600	600
53469-21-9	Aroclor-1242	400	U V	140	400	600	600
12672-29-6	Aroclor-1248	400	U V	140	400	600	600
11097-69-1	Aroclor-1254	400	U V	180	400	600	600
11096-82-5	Aroclor-1260	400	U V	120	400	600	600
37324-23-5	Aroclor-1262	400	U V	140	400	600	600
11100-14-4	Aroclor-1268	400	U V	100	400	600	600

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PCB ORGANICS ANALYSIS

Sample Description

VEC-WASTE5-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>10.05</u> (g/L)	CTL Sample ID:	<u>804613</u>
% Solids:	<u>77.5</u>	Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 09:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60167</u>
Analytical Run #:	<u>132745</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 17:01</u>		
Cleanup Date/Time/Type:	<u>, 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	26	U	6.4	26	39	39
11104-28-2	Aroclor-1221	26	U	9.0	26	39	39
11141-16-5	Aroclor-1232	26	U	12	26	39	39
53469-21-9	Aroclor-1242	26	U	9.0	26	39	39
12672-29-6	Aroclor-1248	26	U	9.0	26	39	39
11097-69-1	Aroclor-1254	84.7		12	26	39	39
11096-82-5	Aroclor-1260	59.1		7.7	26	39	39
37324-23-5	Aroclor-1262	26	U	9.0	26	39	39
11100-14-4	Aroclor-1268	26	U	6.4	26	39	39

1D-2
PCB ORGANICS ANALYSIS

Sample Description

VEC-WASTE6-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>123585</u>
Sample wt/vol:	<u>9.95</u> (g/L)	CTL Sample ID:	<u>804616</u>
% Solids:	<u>83.3</u>	Date Received:	<u>11/11/2016</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>11/14/2016 / 09:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>60167</u>
Analytical Run #:	<u>132745</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>11/17/2016 / 16:18</u>		
Cleanup Date/Time/Type:	<u>, 11/15/2016 13:00 (Sulfur) , 11/15/2016 12:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>102416pcbic</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	24	U	6.0	24	36	36
11104-28-2	Aroclor-1221	24	U	8.4	24	36	36
11141-16-5	Aroclor-1232	24	U	11	24	36	36
53469-21-9	Aroclor-1242	24	U	8.4	24	36	36
12672-29-6	Aroclor-1248	24	U	8.4	24	36	36
11097-69-1	Aroclor-1254	322		11	24	36	36
11096-82-5	Aroclor-1260	279		7.2	24	36	36
37324-23-5	Aroclor-1262	24	U	8.4	24	36	36
11100-14-4	Aroclor-1268	24	U	6.0	24	36	36

PCB ORGANICS ANALYSIS (MB)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: 10.00 (g/L) CTL Sample ID: 805530

% Solids: _____ Date Received: 11/11/2016

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 11/14/2016 / 09:45

Analytical Method: EPA 8082A Analytical Prep Batch # 60167

Analytical Run #: 132745 Dilution Factor: ug/kg

Cleanup Date/Time/Type: _____, 11/15/2016 13:00 (Sulfur), 11/15/2016 12:30 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 102416pcbic Concentration Units: MBS

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
12674-11-2	Aroclor-1016	11/17/2016	11:15	5	U	5	30	15
11104-28-2	Aroclor-1221	11/17/2016	11:15	7	U	7	30	15
11141-16-5	Aroclor-1232	11/17/2016	11:15	9	U	9	30	15
53469-21-9	Aroclor-1242	11/17/2016	11:15	7	U	7	30	15
12672-29-6	Aroclor-1248	11/17/2016	11:15	7	U	7	30	15
11097-69-1	Aroclor-1254	11/17/2016	11:15	9	U	9	30	15
11096-82-5	Aroclor-1260	11/17/2016	11:15	6	U	6	30	15
37324-23-5	Aroclor-1262	11/17/2016	11:15	7	U	7	30	15
11100-14-4	Aroclor-1268	11/17/2016	11:15	5	U	5	30	15

PCB ORGANICS ANALYSIS (MB)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 805535

% Solids: _____ Date Received: 11/11/2016

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 11/14/2016 / 14:30

Analytical Method: EPA 8082A Analytical Prep Batch # 60169

Analytical Run #: 132740 Dilution Factor: ug/L

Cleanup Date/Time/Type: _____, 11/15/2016 12:00 (Sulfur), 11/15/2016 11:30 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 102416pcbic Concentration Units: MBW

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
12674-11-2	Aroclor-1016	11/15/2016	18:36	0.113	U	0.113	1.00	0.50
11104-28-2	Aroclor-1221	11/15/2016	18:36	0.085	U	0.085	1.00	0.50
11141-16-5	Aroclor-1232	11/15/2016	18:36	0.145	U	0.145	1.00	0.50
53469-21-9	Aroclor-1242	11/15/2016	18:36	0.096	U	0.096	1.00	0.50
12672-29-6	Aroclor-1248	11/15/2016	18:36	0.088	U	0.088	1.00	0.50
11097-69-1	Aroclor-1254	11/15/2016	18:36	0.094	U	0.094	1.00	0.50
11096-82-5	Aroclor-1260	11/15/2016	18:36	0.099	U	0.099	1.00	0.50
37324-23-5	Aroclor-1262	11/15/2016	18:36	0.28	U	0.28	1.00	0.50
11100-14-4	Aroclor-1268	11/15/2016	18:36	0.056	U	0.056	1.00	0.50

PCB ORGANICS ANALYSIS (MB)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: _____ SDG No.: 123585

Sample wt/vol: 10.00 (g/L) CTL Sample ID: 805538

% Solids: _____ Date Received: 11/11/2016

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 11/14/2016 / 09:30

Analytical Method: EPA 8082A Analytical Prep Batch # 60170

Analytical Run #: 132700 Dilution Factor: ug/kg

Cleanup Date/Time/Type: _____, 11/14/2016 16:30 (Sulfur), 11/14/2016 16:15 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 102416pcbic Concentration Units: MBS

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
12674-11-2	Aroclor-1016	11/17/2016	19:10	5	U	5	30	15
11104-28-2	Aroclor-1221	11/17/2016	19:10	7	U	7	30	15
11141-16-5	Aroclor-1232	11/17/2016	19:10	9	U	9	30	15
53469-21-9	Aroclor-1242	11/17/2016	19:10	7	U	7	30	15
12672-29-6	Aroclor-1248	11/17/2016	19:10	7	U	7	30	15
11097-69-1	Aroclor-1254	11/17/2016	19:10	9	U	9	30	15
11096-82-5	Aroclor-1260	11/17/2016	19:10	6	U	6	30	15
37324-23-5	Aroclor-1262	11/17/2016	19:10	7	U	7	30	15
11100-14-4	Aroclor-1268	11/17/2016	19:10	5	U	5	30	15

2E-1

WATER PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Analytical Method: EPA 8082A SDG: 123585

Analytical Run #: 132740 ICAL Calibration #: 102416pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab # 804577					
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	91.2	38	137	
Surr: DCBP	100	81	23	147	

CTLab # 805535		Sample Type: Method Blank			
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX		84.5	36	146	
Surr: DCBP		74.5	62	145	

CTLab # 805536		Sample Type: Lab Control Spike			
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	82.7	36	146	
Surr: DCBP	100	86.3	62	145	

2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Analytical Method: EPA 8082A SDG: 123585

Analytical Run #: 132700 ICAL Calibration #: 102416pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab # 804611					
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	47.8	54	135	FAIL
Surr: DCBP	100	84	54	141	

CTLab # 805538		Sample Type: Method Blank			
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	95.0	53	147	
Surr: DCBP	100	93.4	65	141	

CTLab # 805539		Sample Type: Lab Control Spike			
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	92.7	53	147	
Surr: DCBP	100	93.0	65	141	

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Analytical Method: EPA 8082A SDG: 123585

Analytical Run #: 132745 ICAL Calibration #: 102416pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	804613				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	81	54	135	
Surr: DCBP	100	77	54	141	
CTLab #	804616				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	77	54	135	
Surr: DCBP	100	68	54	141	
CTLab #	804619				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	49	54	135	FAIL
Surr: DCBP	100	66	54	141	
CTLab #	804624				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	4	54	135	FAIL
Surr: DCBP	100	6	54	141	FAIL
CTLab #	804625				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	54	54	135	
Surr: DCBP	100	71	54	141	
CTLab #	804626				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	90	54	135	
Surr: DCBP	100	103	54	141	
CTLab #	805530	Sample Type:	Method Blank		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	96.7	53	147	
Surr: DCBP	100	91.8	65	141	
CTLab #	805531	Sample Type:	Lab Control Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	94.5	53	147	
Surr: DCBP	100	91.7	65	141	
CTLab #	805533	Sample Type:	Matrix Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	88.1	54	135	
Surr: DCBP	100	85.4	54	141	
CTLab #	805534	Sample Type:	Matrix Spike Duplicate		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,5,6-TCMX	100	77.3	54	135	
Surr: DCBP	100	73.1	54	141	

3E

Sample Description

WATER PCB LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 805536 SDG No.: 123585
 Analytical Method: EPA 8082A Concentration Units: ug/L

Sample No.: 805536 Parent Sample No.: 0
 Analytical Prep Batch #: 60169 Analytical Preparation Date/Time: 11/14/2016 14:30
 Analytical Run #: 132740 ICAL Calibration #: 102416pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	11/15/2016	18:57	46-129	4.82		5.00	96
Aroclor-1260	11/15/2016	18:57	45-134	4.89		5.00	98

Spike Recovery: 0 out of 2 outside limits

3F

Sample Description

SOIL PCB MATRIX SPIKE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 Matrix: SOIL SDG No.: 123585
 Analytical Method: EPA 8082A Concentration Units: ug/kg
 Analytical Run #: 132745 Sample No.: 805533 Parent Sample No.: 804613
 Analytical Prep Batch #: 60167 Analytical Preparation Date/Time: 11/14/2016 09:45
 ICAL Calibration #: 102416pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	11/17/2016	17:22	47-134	603	BDL	645	93
Aroclor-1260	11/17/2016	17:22	53-140	594	59.1	645	83

Spike Recovery: 0 out of 2 outside QC limits

3F

Sample Description

SOIL PCB MATRIX SPIKE DUPLICATE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 Matrix: SOIL SDG No.: 123585
 Analytical Method: EPA 8082A Concentration Units: ug/kg
 Analytical Run #: 132745 Sample No.: 805534 Parent Sample No.: 805533
 Analytical Prep Batch #: 60167 Analytical Preparation Date/Time: 11/14/2016 09:45
 ICAL Calibration #: 102416pcbic

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits	
							(%R)	(%RPD)
Aroclor-1016	11/17/2016	17:44	533	644	83	12	47-134	30
Aroclor-1260	11/17/2016	17:44	515	644	71	14	53-140	30

RPD or
 Spike Recovery: 0 out of 2 outside QC limits

3F

SOIL PCB LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 805531 SDG No.: 123585
 Analytical Method: EPA 8082A Concentration Units: ug/kg

Sample No.: 805531 Parent Sample No.: 0
 Analytical Prep Batch #: 60167 Analytical Preparation Date/Time: 11/14/2016 09:45
 Analytical Run #: 132745 ICAL Calibration #: 102416pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	11/17/2016	11:36	47-134	501		500	100
Aroclor-1260	11/17/2016	11:36	53-140	495		500	99

Spike Recovery: 0 out of 2 outside limits

3F

SOIL PCB LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL
 Sample No.: 805539 SDG No.: 123585
 Analytical Method: EPA 8082A Concentration Units: ug/kg

Sample No.: 805539 Parent Sample No.: 0
 Analytical Prep Batch #: 60170 Analytical Preparation Date/Time: 11/14/2016 09:30
 Analytical Run #: 132700 ICAL Calibration #: 102416pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	11/17/2016	19:31	47-134	528		500	106
Aroclor-1260	11/17/2016	19:31	53-140	543		500	109

Spike Recovery: 0 out of 2 outside limits

CT Laboratories**4C-2****PCB METHOD BLANK SUMMARY**

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Sample ID:	<u>805530</u>	SDG No.:	<u>123585</u>
Matrix:	<u>SOLID</u>	Date Extracted:	<u>11/14/2016</u>
Date Analyzed:	<u>11/17/2016</u>	Time Analyzed:	<u>11:15</u>
Analytical Method:	<u>EPA 8082A</u>	Extraction Method:	<u>SW3546</u>
Analytical Run #:	<u>132745</u>	Extraction Batch #:	<u>60167</u>
		ICAL Calibration #:	<u>102416pcbic</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	VEC-WASTE5-110916	804613	11/17/2016 17:01	102416pcbic
2	VEC-WASTE6-110916	804616	11/17/2016 16:18	102416pcbic
3	VEC-PAINT1-110916	804619	11/17/2016 12:19	102416pcbic
4	VEC-PAINT2-110916	804624	11/17/2016 16:39	102416pcbic
5	VEC-PAINT3-110916	804625	11/17/2016 13:24	102416pcbic
6	VEC-PAINT4-110916	804626	11/17/2016 13:45	102416pcbic
7	MBS	805530	11/17/2016 11:15	102416pcbic
8	LCSS	805531	11/17/2016 11:36	102416pcbic
9	VEC-WASTE5-110916MSS	805533	11/17/2016 17:22	102416pcbic
10	VEC-WASTE5-110916MSDS	805534	11/17/2016 17:44	102416pcbic

CT Laboratories**4C-2****PCB METHOD BLANK SUMMARY**

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Sample ID:	<u>805535</u>	SDG No.:	<u>123585</u>
Matrix:	<u>LIQUID</u>	Date Extracted:	<u>11/14/2016</u>
Date Analyzed:	<u>11/15/2016</u>	Time Analyzed:	<u>18:36</u>
Analytical Method:	<u>EPA 8082A</u>	Extraction Method:	<u>SW3510</u>
Analytical Run #:	<u>132740</u>	Extraction Batch #:	<u>60169</u>
		ICAL Calibration #:	<u>102416pcbic</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	VEC-SUMP1-110916	804577	11/15/2016 19:19	102416pcbic
2	MBW	805535	11/15/2016 18:36	102416pcbic
3	LCSW	805536	11/15/2016 18:57	102416pcbic

CT Laboratories**4C-2****PCB METHOD BLANK SUMMARY**

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Sample ID:	<u>805538</u>	SDG No.:	<u>123585</u>
Matrix:	<u>SOLID</u>	Date Extracted:	<u>11/14/2016</u>
Date Analyzed:	<u>11/17/2016</u>	Time Analyzed:	<u>19:10</u>
Analytical Method:	<u>EPA 8082A</u>	Extraction Method:	<u>SW3546</u>
Analytical Run #:	<u>132700</u>	Extraction Batch #:	<u>60170</u>
		ICAL Calibration #:	<u>102416pcbic</u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

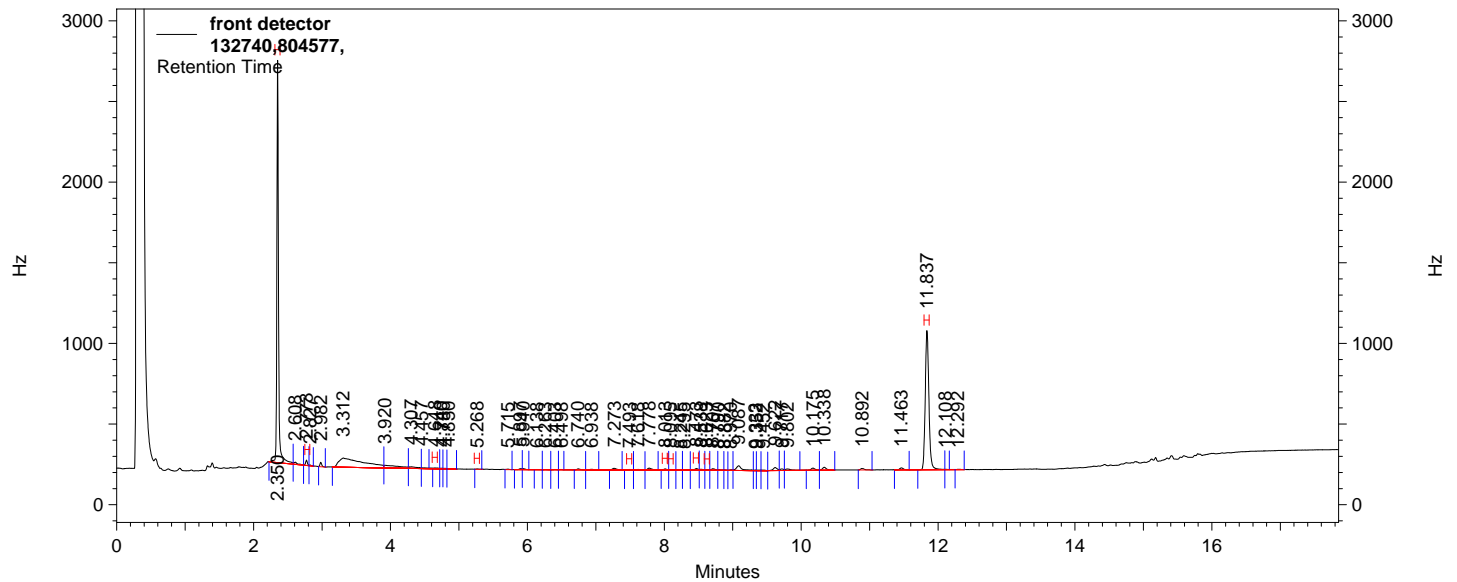
SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	VEC-WASTE4-110916	804611	11/18/2016 10:11	102416pcbic
2	MBS	805538	11/17/2016 19:10	102416pcbic
3	LCSS	805539	11/17/2016 19:31	102416pcbic

**POLYCHLORINATED BIPHENYL
SAMPLE DATA
DOCUMENTS**

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111516pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,804577,
Acquired: Nov 15,2016 19:19:11
Printed: Nov 16,2016 13:25:25

Data Summary: {Data Description}



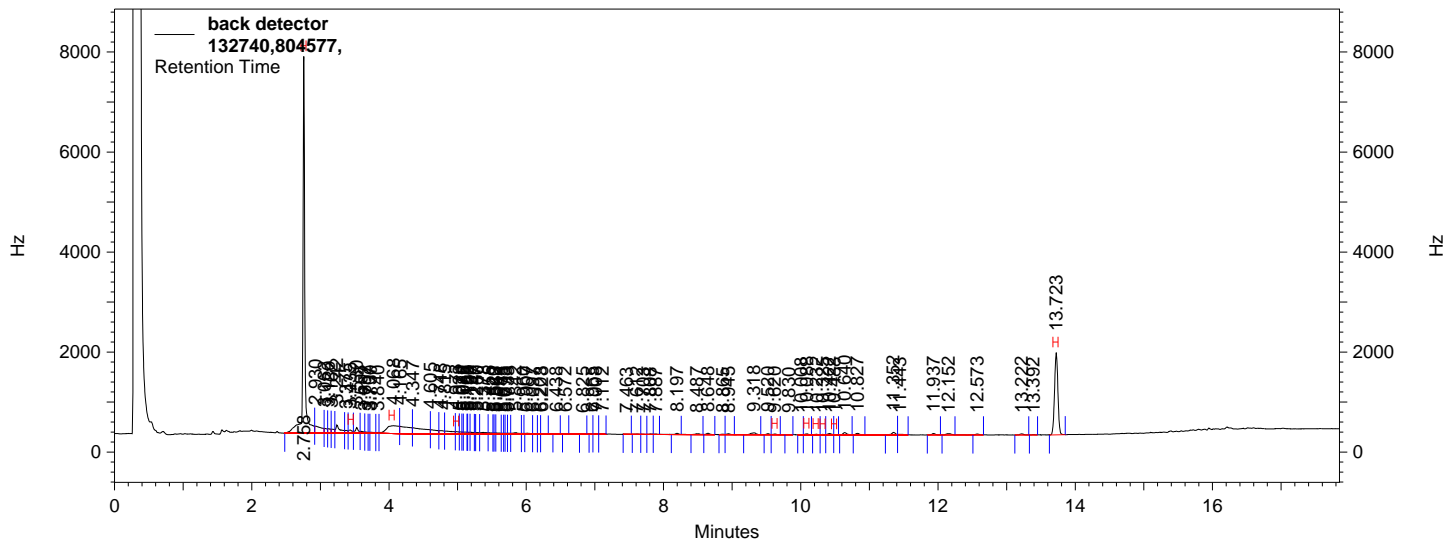
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.350	32213180	91.197
Aroclor 1016 #1	2.773	467418	0.002
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.648	221726	0.000
Aroclor 1016 #5	5.268	66901	0.000
Aroclor 1260 #1	7.493	158661	0.000
Aroclor 1260 #2	8.013	253830	0.000
Aroclor 1260 #3	8.095	175098	0.000
Aroclor 1260 #4	8.473	352849	0.000
Aroclor 1260 #5	8.623	153906	0.000
SURRDCBPCB	11.837	24792284	80.989
Aroclor 1016		756045	0.002
Aroclor 1260		1094344	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111516pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,804577,
Acquired: Nov 15,2016 19:19:11
Printed: Nov 16,2016 13:25:25

Data Summary: {Data Description}



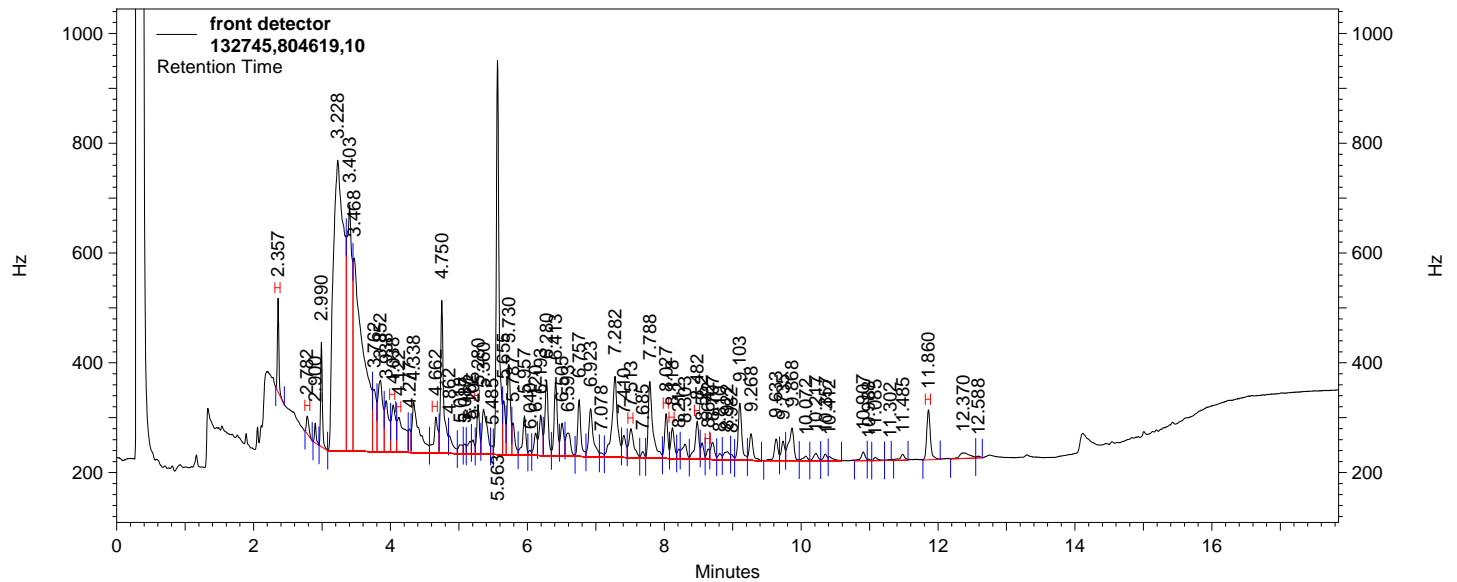
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.758	116636958	111.201
Aroclor 1016 #1	3.435	1914955	0.004
Aroclor 1016 #2	4.068	14805611	0.018
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.973	1050835	0.000
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	9.620	410025	0.000
Aroclor 1260 #2	10.088	486052	0.000
Aroclor 1260 #3	10.232	291395	0.000
Aroclor 1260 #4	10.325	187928	0.000
Aroclor 1260 #5	10.488	144104	0.000
SURRDCBPCB	13.723	42587993	82.197
Aroclor 1016		17771401	0.022
Aroclor 1260		1519504	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804619,10
Acquired: Nov 17,2016 12:19:29
Printed: Nov 18,2016 08:24:04

Data Summary: {Data Description}



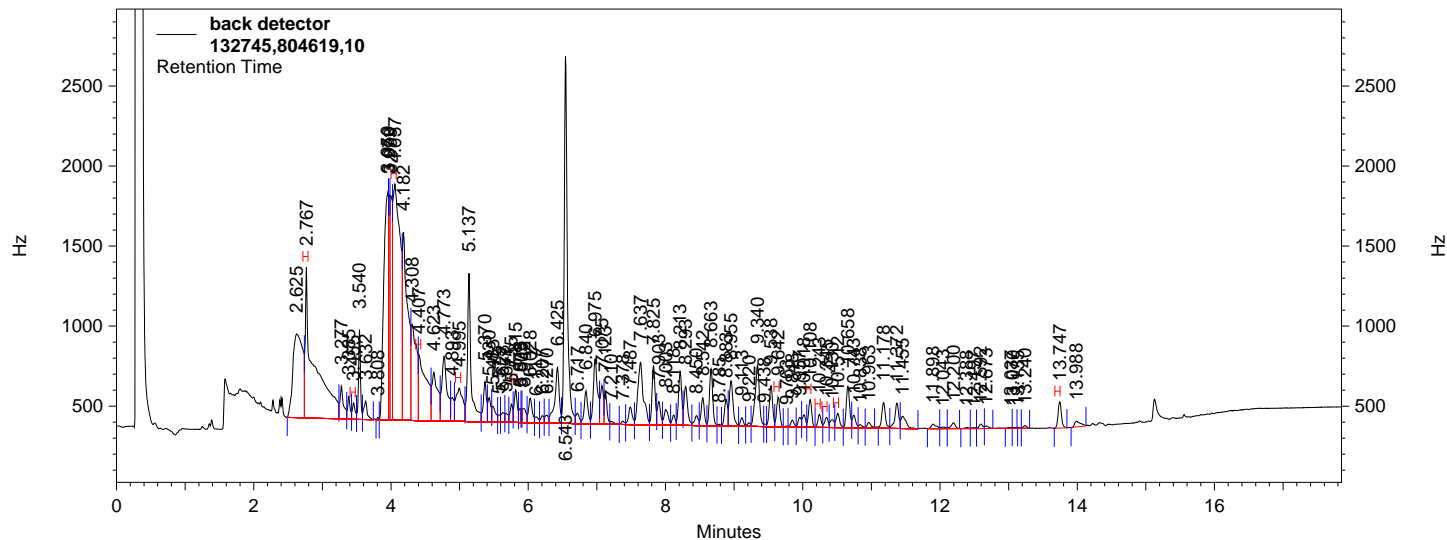
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	1964005	4.876
Aroclor 1016 #1	2.782	623396	0.004
Aroclor 1016 #2	4.038	2823490	0.013
Aroclor 1016 #3	4.122	3745829	0.024
Aroclor 1016 #4	4.662	2107882	0.009
Aroclor 1016 #5	5.280	1866704	0.012
Aroclor 1260 #1	7.513	2031183	0.008
Aroclor 1260 #2	8.027	1970498	0.006
Aroclor 1260 #3	8.118	1522730	0.008
Aroclor 1260 #4	8.482	2072043	0.007
Aroclor 1260 #5	8.642	425649	0.002
SURRDCBPCB	11.860	2604327	6.646
Aroclor 1016		11167301	0.062
Aroclor 1260		8022103	0.031

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\008.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132745,804619,10
 Acquired: Nov 17,2016 12:19:29
 Printed: Nov 18,2016 08:24:04

Data Summary: {Data Description}



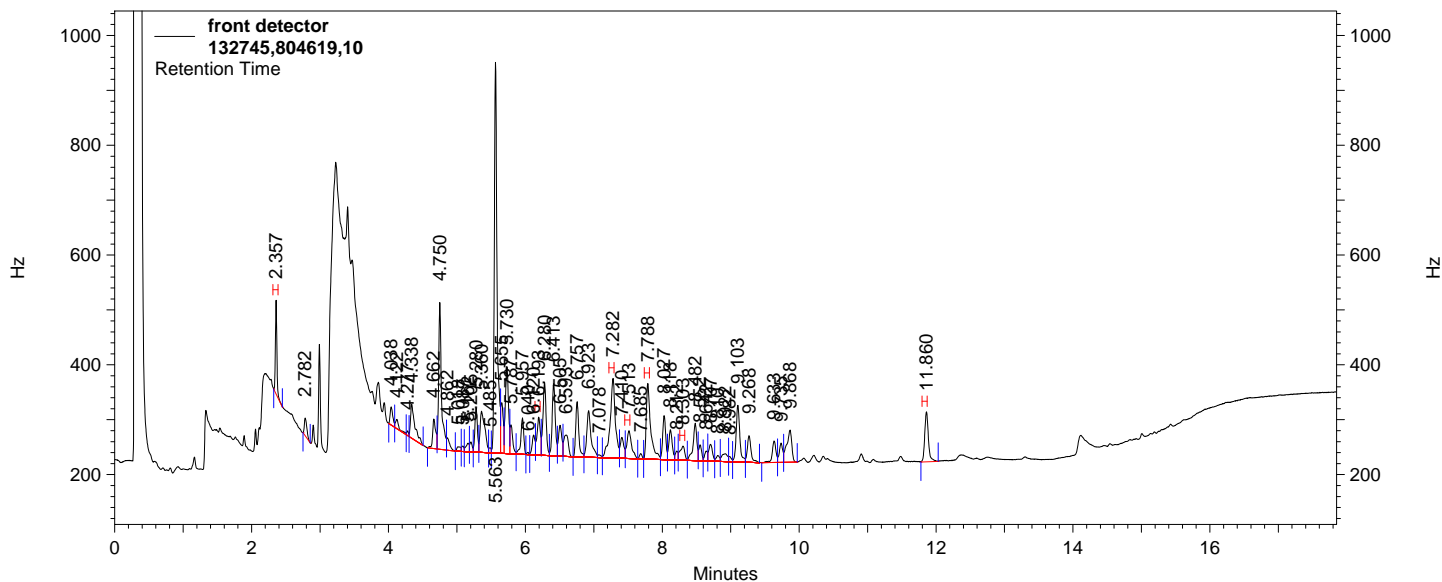
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.767	64051092	60.585
Aroclor 1016 #1	3.455	2170905	0.005
Aroclor 1016 #2	4.057	83788132	0.116
Aroclor 1016 #3	4.407	24881969	0.070
Aroclor 1016 #4	4.995	11181544	0.014
Aroclor 1016 #5	5.815	4802161	0.008
Aroclor 1260 #1	9.642	4660120	0.009
Aroclor 1260 #2	10.108	4253814	0.004
Aroclor 1260 #3	10.243	2015526	0.004
Aroclor 1260 #4	10.345	1761341	0.006
Aroclor 1260 #5	10.512	2490815	0.013
SURRDCBPCB	13.747	4272955	4.504
Aroclor 1016		126824711	0.213
Aroclor 1260		15181616	0.036

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804619,10
Acquired: Nov 17,2016 12:19:29
Printed: Nov 18,2016 08:53:28

Data Summary: {Data Description}



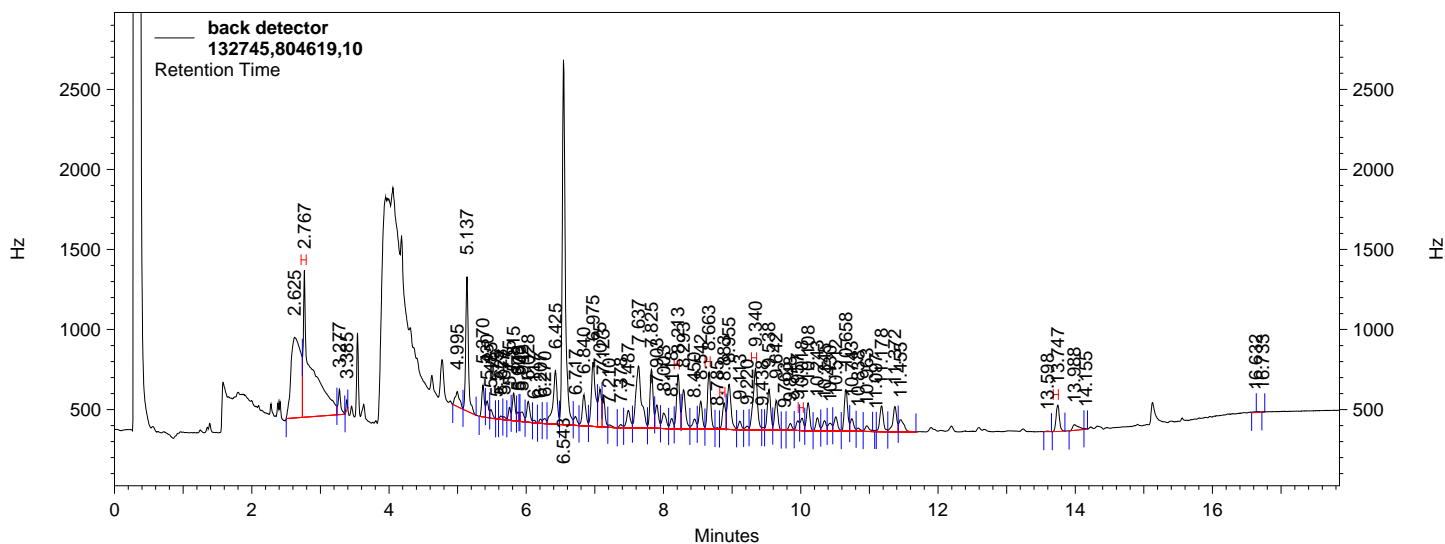
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.357	1964005	5.594
Aroclor 1254 #1	6.193	1768329	0.008
Aroclor 1254 #2	7.282	5947284	0.019
Aroclor 1254 #3	7.513	1868494	0.017
Aroclor 1254 #4	7.788	4743294	0.011
Aroclor 1254 #5	8.303	965445	0.009
SURRDCB	11.860	2604327	9.469
Aroclor 1254		15292846	0.064

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804619,10
Acquired: Nov 17,2016 12:19:29
Printed: Nov 18,2016 08:53:28

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.767	55871349	52.785
Aroclor 1254 #1	8.213	8402238	0.018
Aroclor 1254 #2	8.663	8967045	0.017
Aroclor 1254 #3	8.883	3976739	0.013
Aroclor 1254 #4	9.340	12641121	0.012
Aroclor 1254 #5	10.018	1958607	0.008
SURRDCB	13.747	4272955	9.092
Aroclor 1254		35945750	0.067

PCB Analysis Report (1016/1260) (Channel A)

RED

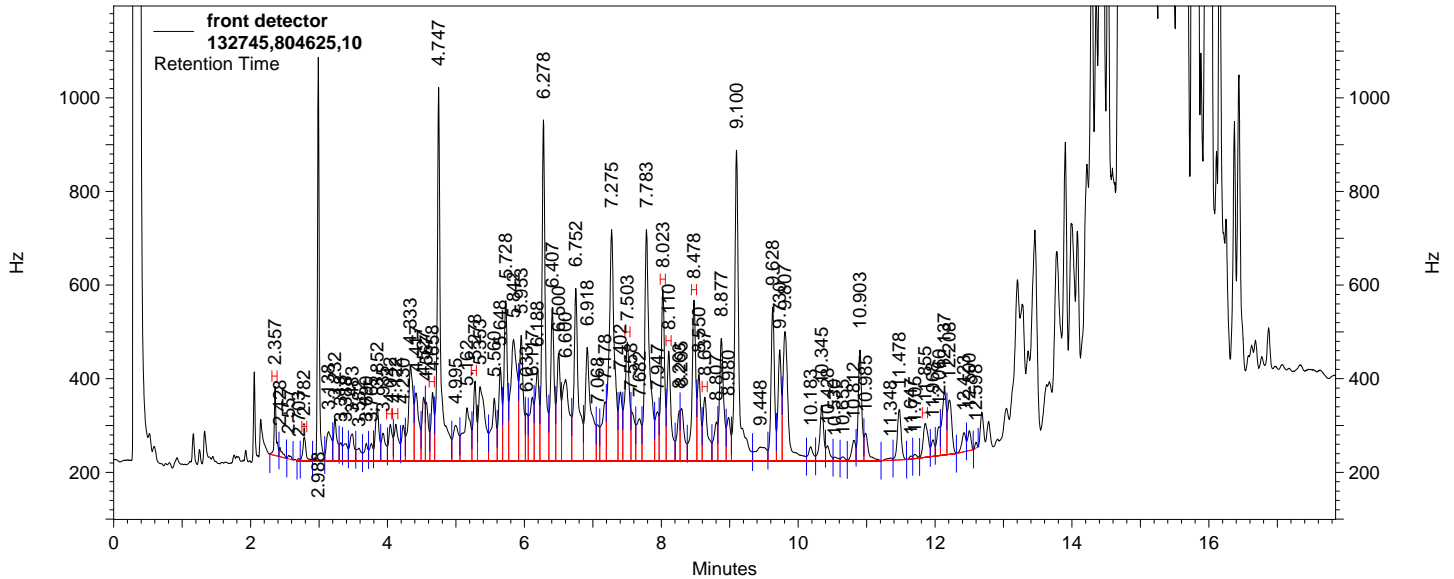
11/18/2016

Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\111716pcb.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:04:17

AJZ
11/17/2016

After Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



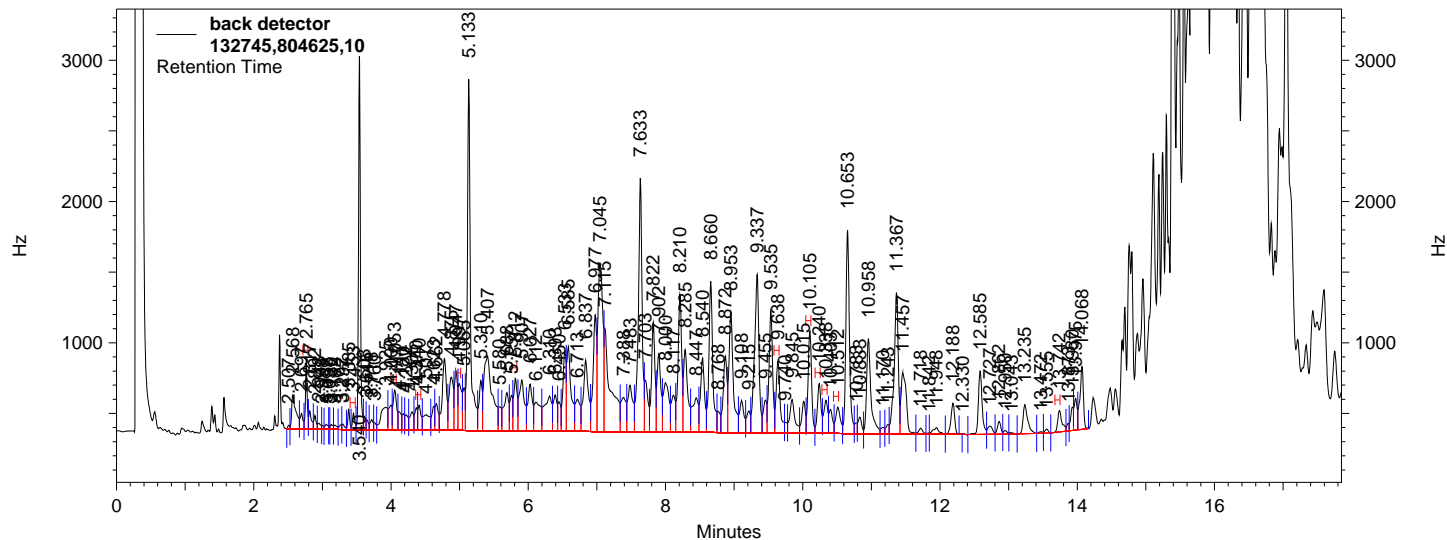
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	2144358	5.391
Aroclor 1016 #1	2.782	1213512	0.008
Aroclor 1016 #2	4.042	2239065	0.010
Aroclor 1016 #3	4.122	2659631	0.017
Aroclor 1016 #4	4.658	3493254	0.015
Aroclor 1016 #5	5.278	4291520	0.029
Aroclor 1260 #1	7.503	9266966	0.037
Aroclor 1260 #2	8.023	10158940	0.039
Aroclor 1260 #3	8.110	7315572	0.042
Aroclor 1260 #4	8.478	9959409	0.036
Aroclor 1260 #5	8.637	5082131	0.041
SURRDCBPCB	11.855	2742058	7.108
Aroclor 1016		13896982	0.080
Aroclor 1260		41783018	0.196

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:04:17

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	6598783	5.284
Aroclor 1016 #1	3.453	2082971	0.004
Aroclor 1016 #2	4.053	7945438	0.009
Aroclor 1016 #3	4.410	4188215	0.010
Aroclor 1016 #4	4.997	8838168	0.011
Aroclor 1016 #5	5.812	10002329	0.019
Aroclor 1260 #1	9.638	16034143	0.037
Aroclor 1260 #2	10.105	19858883	0.029
Aroclor 1260 #3	10.240	9980926	0.027
Aroclor 1260 #4	10.338	7147521	0.030
Aroclor 1260 #5	10.512	6914086	0.040
SURRDCBPCB	13.742	5029107	6.037
Aroclor 1016		33057121	0.052
Aroclor 1260		59935559	0.162

PCB Analysis Report (1016/1260) (Channel A)

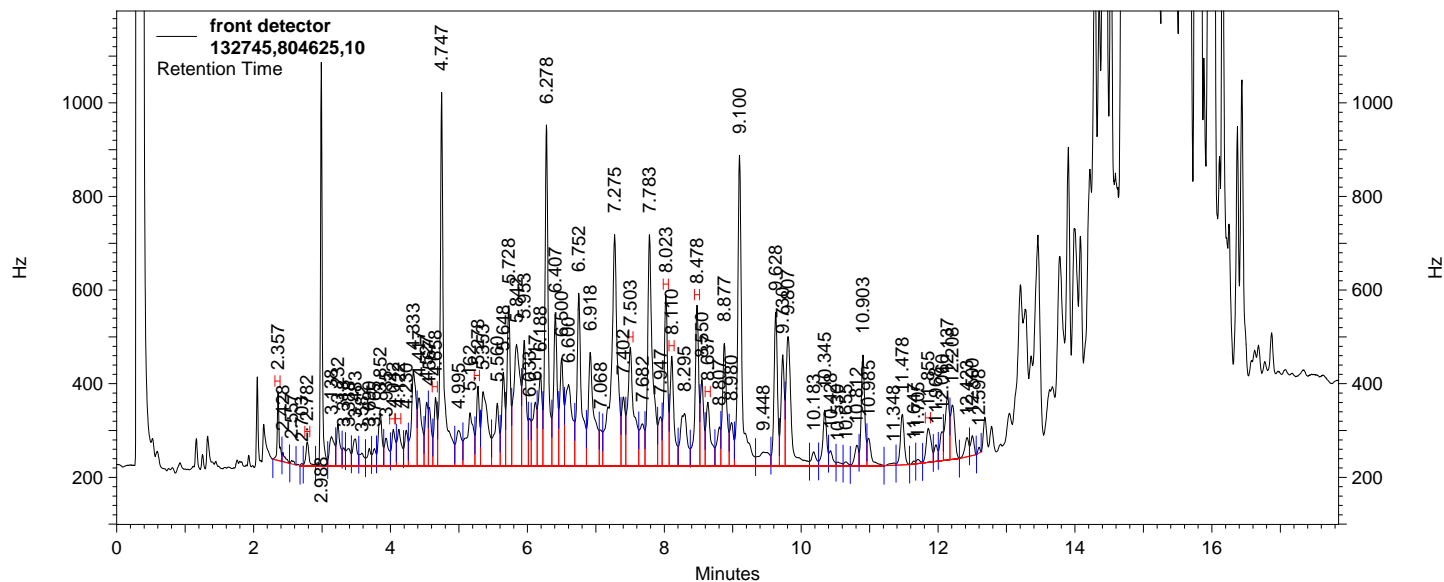
Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:05:37

JJY
11/22/16

AJZ
11/17/2016

Before Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



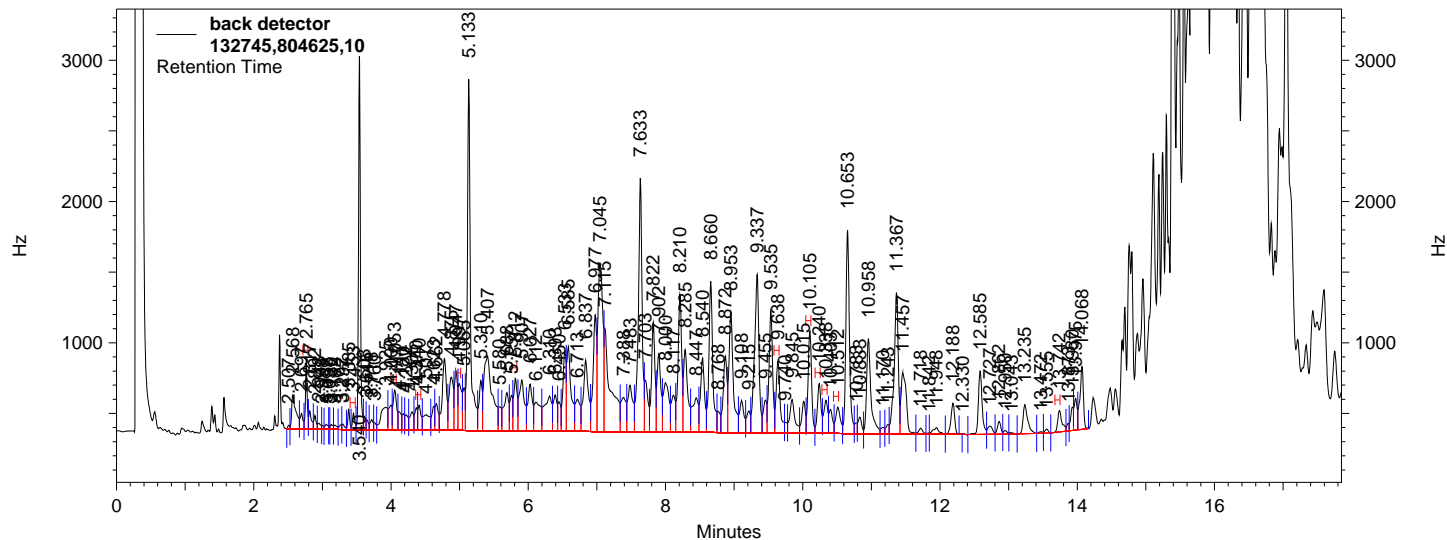
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	2144358	5.391
Aroclor 1016 #1	2.782	1213512	0.008
Aroclor 1016 #2	4.042	2239065	0.010
Aroclor 1016 #3	4.122	2659631	0.017
Aroclor 1016 #4	4.658	3493254	0.015
Aroclor 1016 #5	5.278	4291520	0.029
Aroclor 1260 #1	7.503	12199558	0.049
Aroclor 1260 #2	8.023	10158940	0.039
Aroclor 1260 #3	8.110	7315572	0.042
Aroclor 1260 #4	8.478	9959409	0.036
Aroclor 1260 #5	8.637	5082131	0.041
SURRDCBPCB	11.855	2742058	7.108
Aroclor 1016		13896982	0.080
Aroclor 1260		44715610	0.208

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132745,804625,10
 Acquired: Nov 17,2016 13:24:04
 Printed: Nov 18,2016 10:05:37

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	6598783	5.284
Aroclor 1016 #1	3.453	2082971	0.004
Aroclor 1016 #2	4.053	7945438	0.009
Aroclor 1016 #3	4.410	4188215	0.010
Aroclor 1016 #4	4.997	8838168	0.011
Aroclor 1016 #5	5.812	10002329	0.019
Aroclor 1260 #1	9.638	16034143	0.037
Aroclor 1260 #2	10.105	19858883	0.029
Aroclor 1260 #3	10.240	9980926	0.027
Aroclor 1260 #4	10.338	7147521	0.030
Aroclor 1260 #5	10.512	6914086	0.040
SURRDCBPCB	13.742	5029107	6.037
Aroclor 1016		33057121	0.052
Aroclor 1260		59935559	0.162

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:07:08

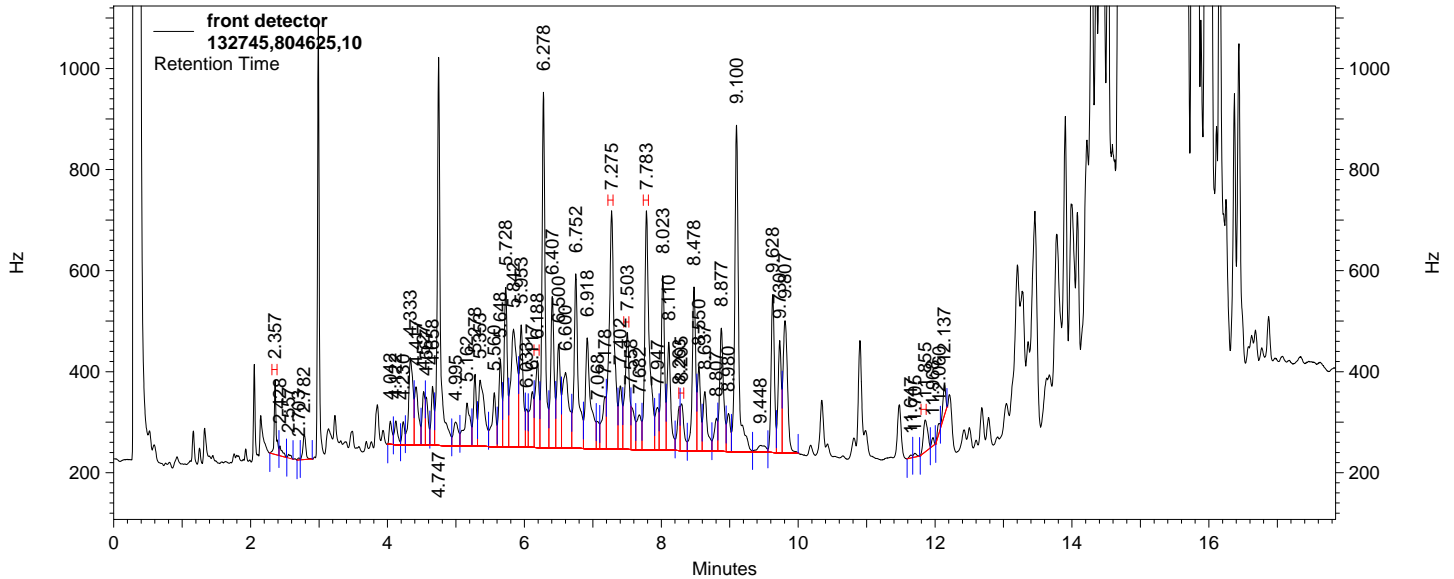
RED

11/18/2016

AJZ
11/17/2016

After Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



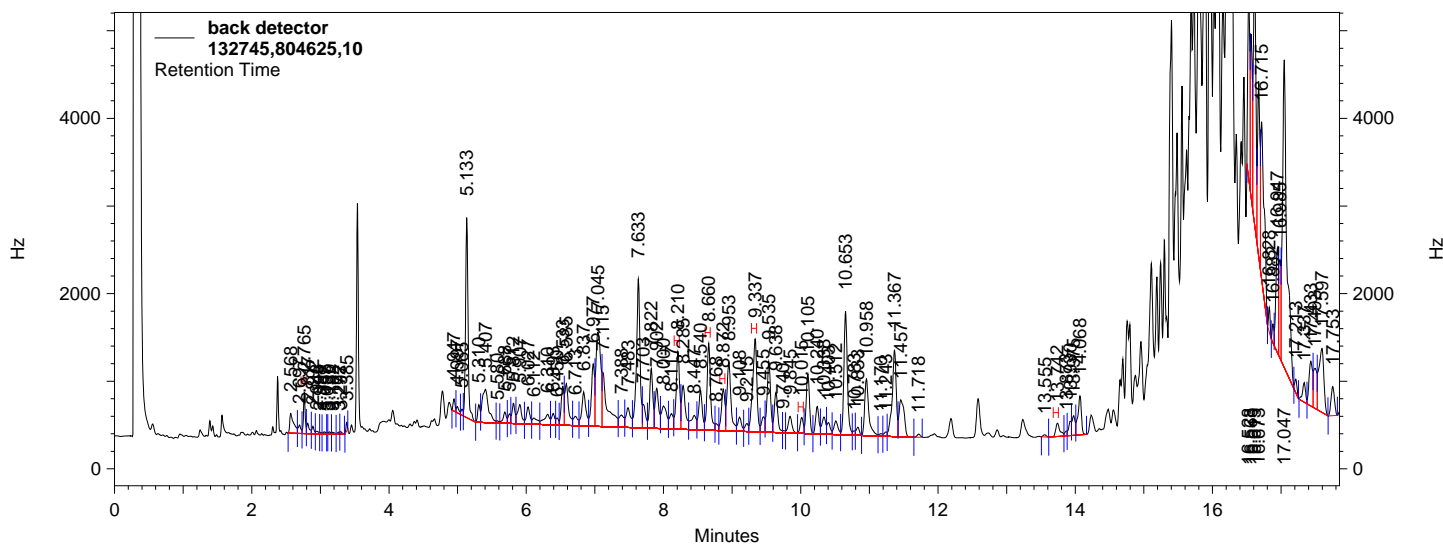
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.357	2144358	6.108
Aroclor 1254 #1	6.188	5103652	0.023
Aroclor 1254 #2	7.275	18701951	0.061
Aroclor 1254 #3	7.503	8094258	0.073
Aroclor 1254 #4	7.783	17308482	0.042
Aroclor 1254 #5	8.295	2624977	0.024
SURRDCB	11.855	2104301	7.651
Aroclor 1254		51833320	0.223

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:07:08

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.765	6158344	5.818
Aroclor 1254 #1	8.210	23446339	0.051
Aroclor 1254 #2	8.660	26832629	0.050
Aroclor 1254 #3	8.872	12872993	0.041
Aroclor 1254 #4	9.337	34893218	0.033
Aroclor 1254 #5	10.015	4319047	0.017
SURRDCB	13.742	5029107	10.701
Aroclor 1254		102364226	0.192

PCB Analysis Report (1254) (Channel A)

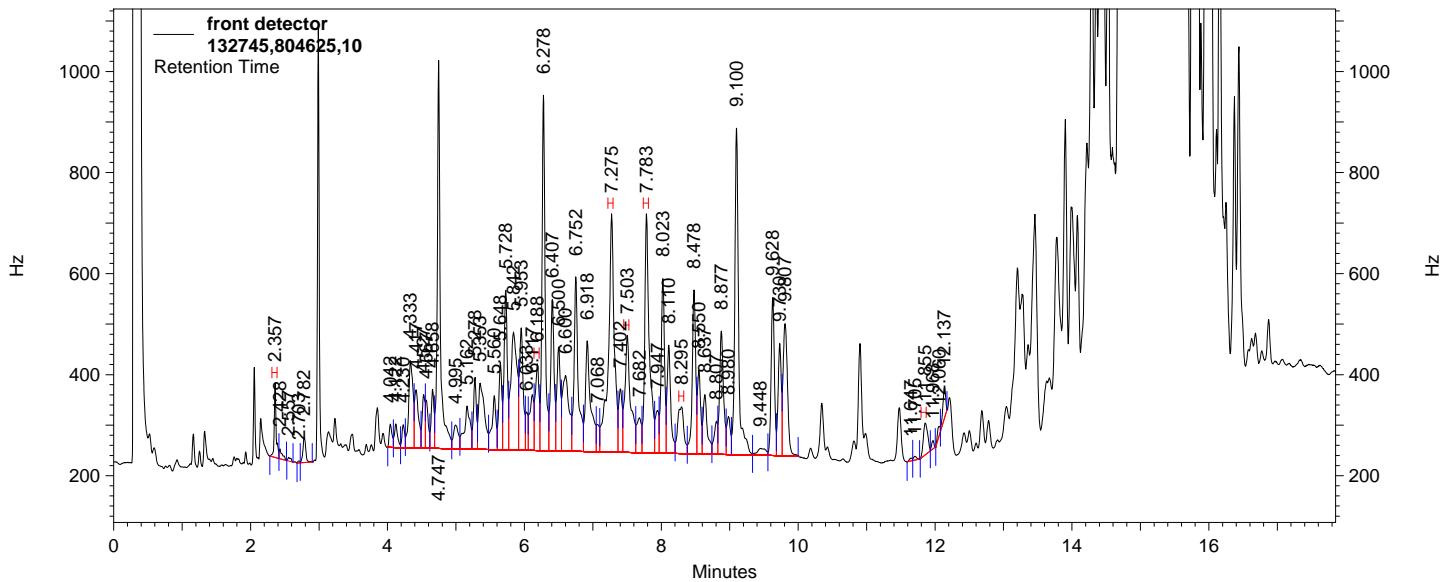
Data File: C:\Instarch\Semi7\Data\111716pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
User: JJY
Sample ID: 132745,804625,10
Acquired: Nov 17,2016 13:24:04
Printed: Nov 18,2016 10:06:42

JJY
11/22/16

AJZ
11/17/2016

Before Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/18/2016



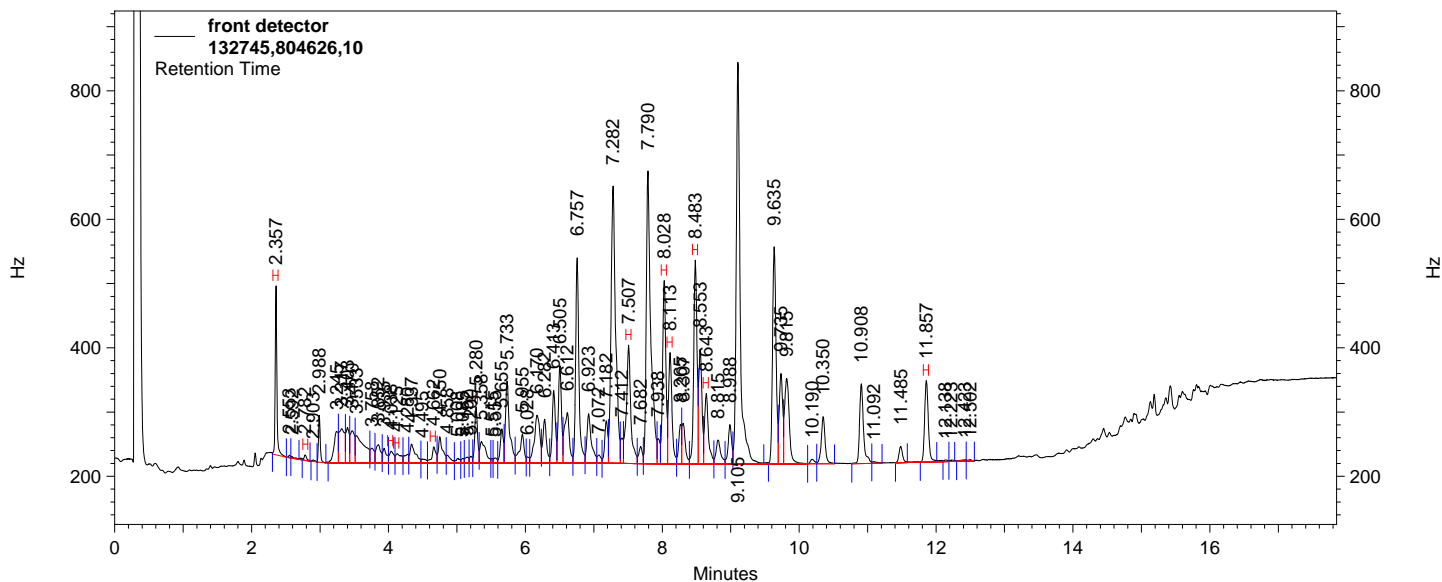
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.357	2144358	6.108
Aroclor 1254 #1	6.188	5103652	0.023
Aroclor 1254 #2	7.275	22011445	0.072
Aroclor 1254 #3	7.503	10367393	0.094
Aroclor 1254 #4	7.783	17308482	0.042
Aroclor 1254 #5	8.295	4496208	0.041
SURRDCB	11.855	2104301	7.651
Aroclor 1254		59287180	0.271

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804626,10
Acquired: Nov 17,2016 13:45:35
Printed: Nov 18,2016 08:24:18

Data Summary: {Data Description}



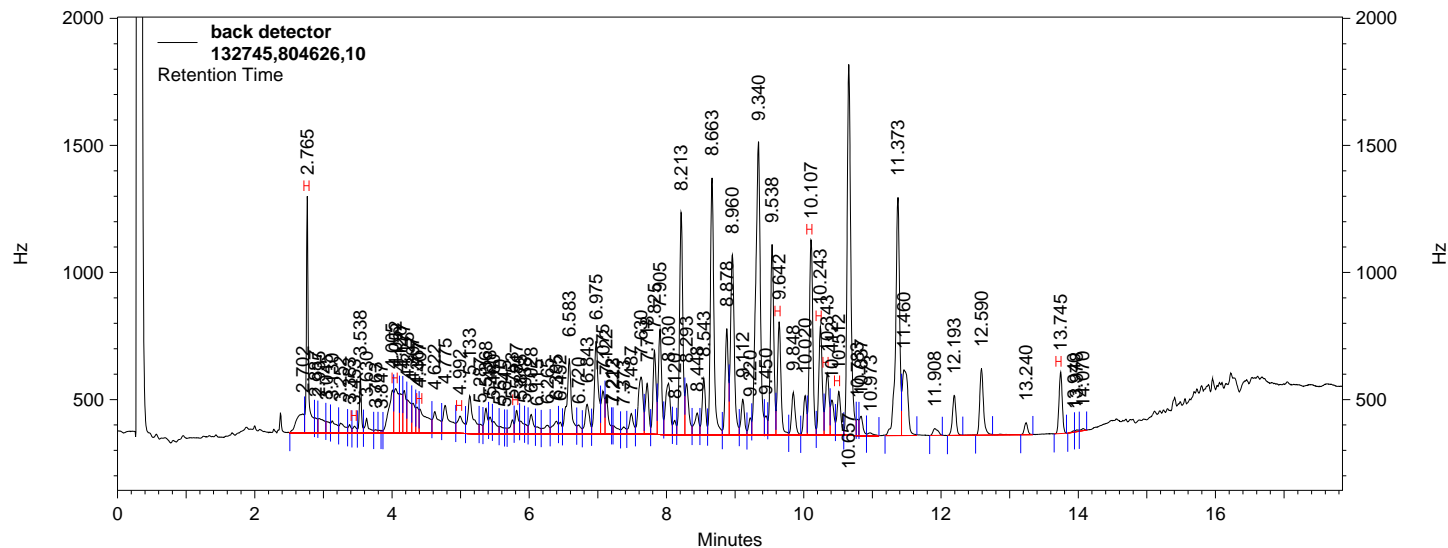
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	3420099	9.031
Aroclor 1016 #1	2.782	182794	0.000
Aroclor 1016 #2	4.038	639138	0.002
Aroclor 1016 #3	4.125	663760	0.003
Aroclor 1016 #4	4.662	804287	0.003
Aroclor 1016 #5	5.280	1924165	0.012
Aroclor 1260 #1	7.507	6400060	0.026
Aroclor 1260 #2	8.028	7298000	0.028
Aroclor 1260 #3	8.113	4653743	0.026
Aroclor 1260 #4	8.483	8096082	0.029
Aroclor 1260 #5	8.643	3249735	0.026
SURRDCBPCB	11.857	3686345	10.272
Aroclor 1016		4214144	0.021
Aroclor 1260		29697620	0.135

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804626,10
Acquired: Nov 17,2016 13:45:35
Printed: Nov 18,2016 08:24:18

Data Summary: {Data Description}



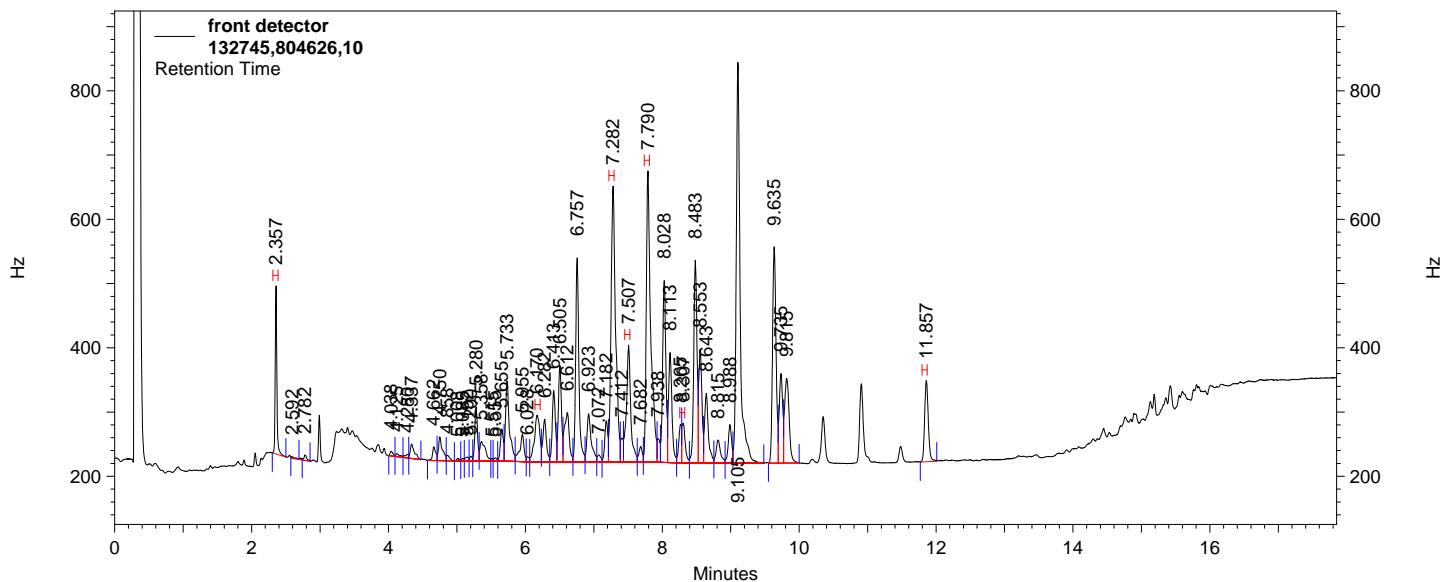
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	14906617	13.281
Aroclor 1016 #1	3.453	729578	0.001
Aroclor 1016 #2	4.052	6264095	0.006
Aroclor 1016 #3	4.407	5850698	0.015
Aroclor 1016 #4	4.992	3285164	0.003
Aroclor 1016 #5	5.817	2350900	0.003
Aroclor 1260 #1	9.642	12062675	0.027
Aroclor 1260 #2	10.107	20476394	0.030
Aroclor 1260 #3	10.243	11404099	0.031
Aroclor 1260 #4	10.343	6987008	0.030
Aroclor 1260 #5	10.512	4969725	0.028
SURRDCBPCB	13.745	6080525	8.169
Aroclor 1016		18480435	0.028
Aroclor 1260		55899901	0.145

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804626,10
Acquired: Nov 17,2016 13:45:35
Printed: Nov 18,2016 09:04:59

Data Summary: {Data Description}



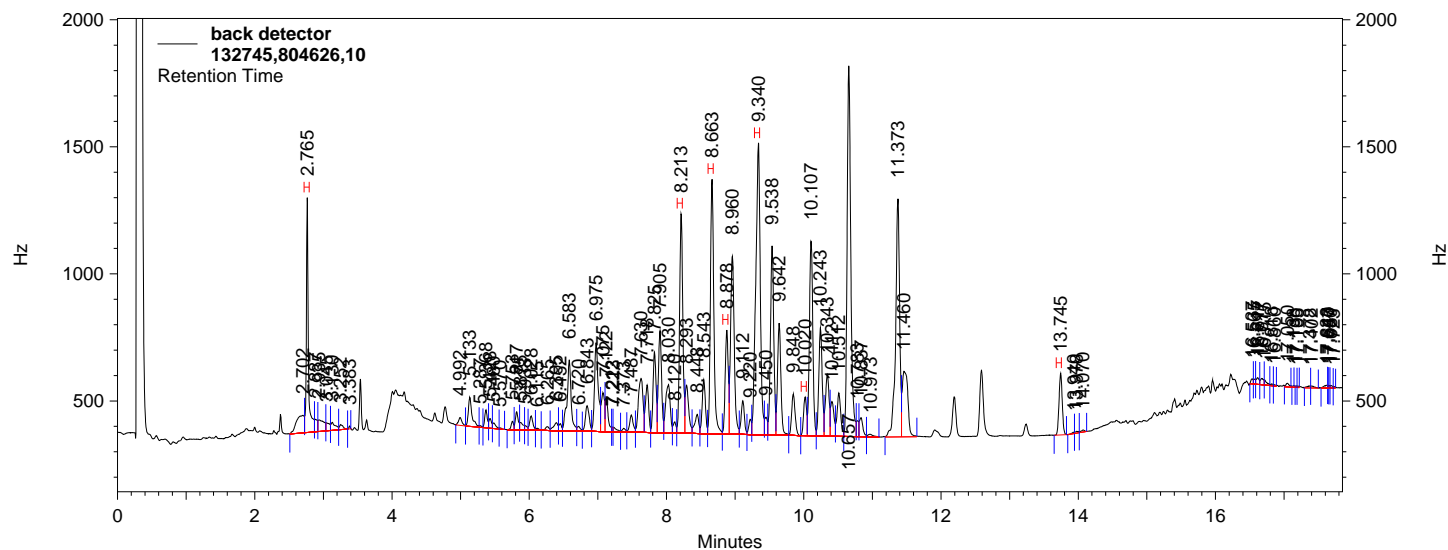
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.357	3336800	9.504
Aroclor 1254 #1	6.170	3009683	0.014
Aroclor 1254 #2	7.282	15344248	0.050
Aroclor 1254 #3	7.507	6230605	0.056
Aroclor 1254 #4	7.790	16004019	0.039
Aroclor 1254 #5	8.307	1555855	0.014
SURRDCB	11.857	3620539	13.163
Aroclor 1254		42144410	0.173

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804626,10
Acquired: Nov 17,2016 13:45:35
Printed: Nov 18,2016 09:04:59

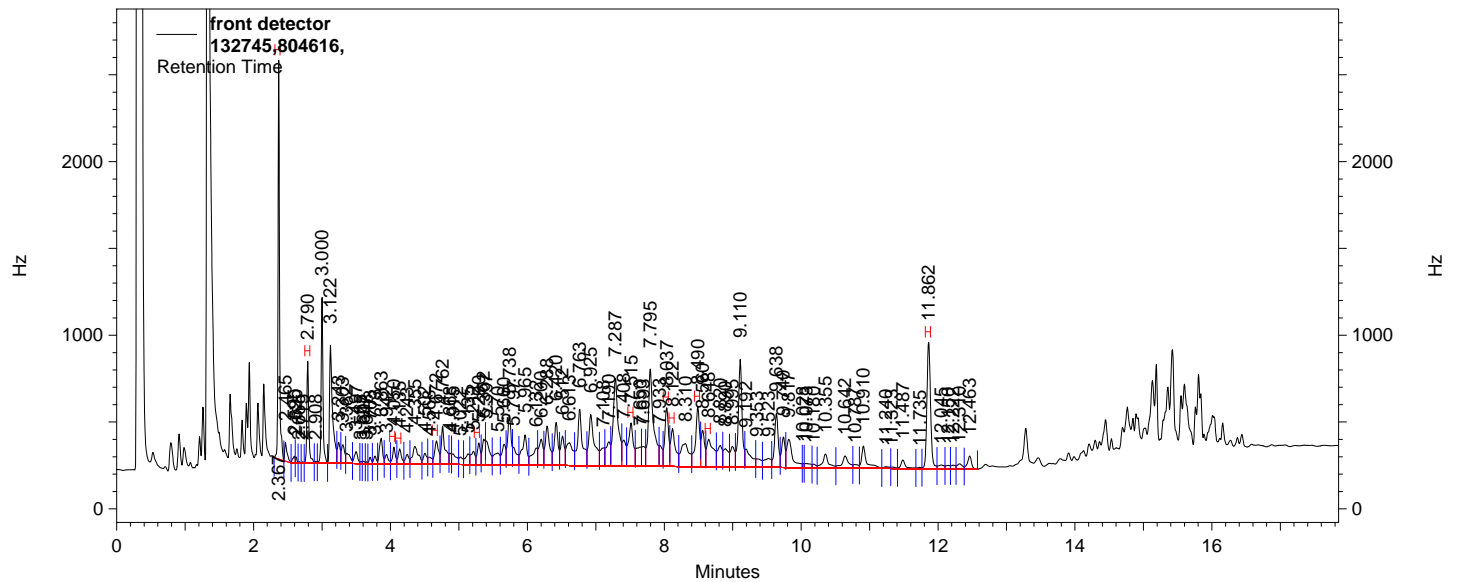
Data Summary: {Data Description}



PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\111716pcb.met
User: JJY
Sample ID: 132745,804616,
Acquired: Nov 17,2016 16:18:29
Printed: Nov 18,2016 08:24:38

Data Summary: {Data Description}



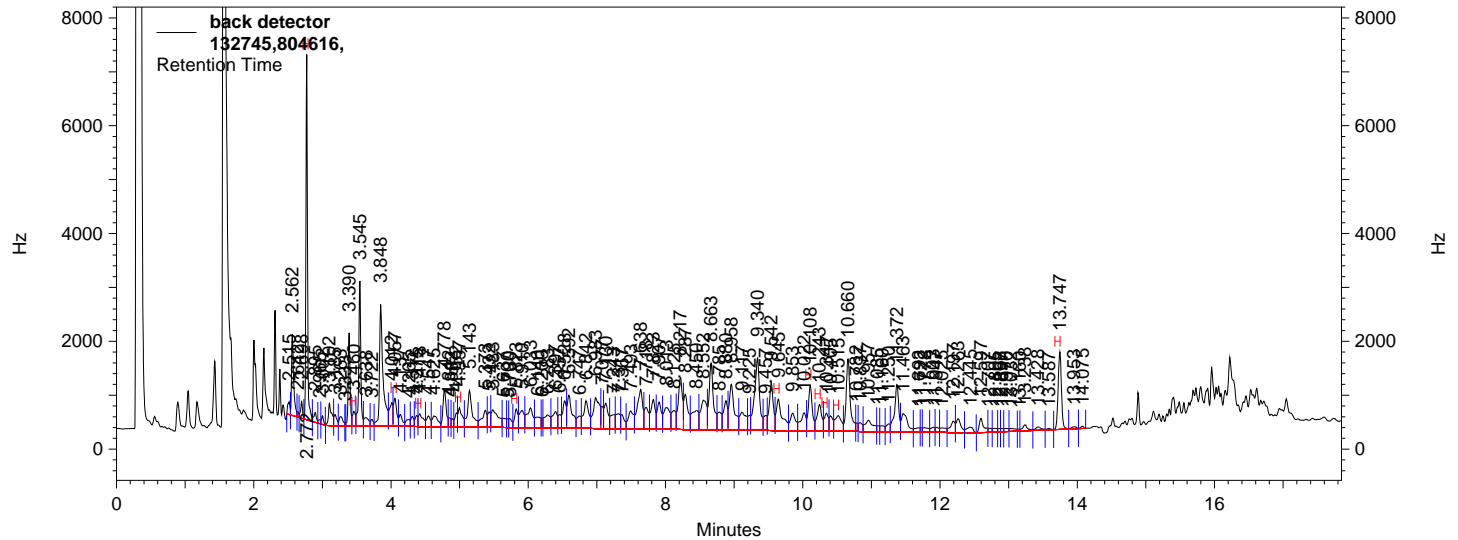
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.367	27264714	77.076
Aroclor 1016 #1	2.790	8719497	0.071
Aroclor 1016 #2	4.050	2115033	0.010
Aroclor 1016 #3	4.135	2248030	0.014
Aroclor 1016 #4	4.672	4094691	0.018
Aroclor 1016 #5	5.290	3053699	0.020
Aroclor 1260 #1	7.515	9370927	0.038
Aroclor 1260 #2	8.037	9869789	0.038
Aroclor 1260 #3	8.122	8013615	0.046
Aroclor 1260 #4	8.490	10999477	0.040
Aroclor 1260 #5	8.648	8382917	0.068
SURRDCBPCB	11.862	20865932	67.834
Aroclor 1016		20230950	0.133
Aroclor 1260		46636725	0.231

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\019.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132745,804616,
 Acquired: Nov 17,2016 16:18:29
 Printed: Nov 18,2016 08:24:38

Data Summary: {Data Description}



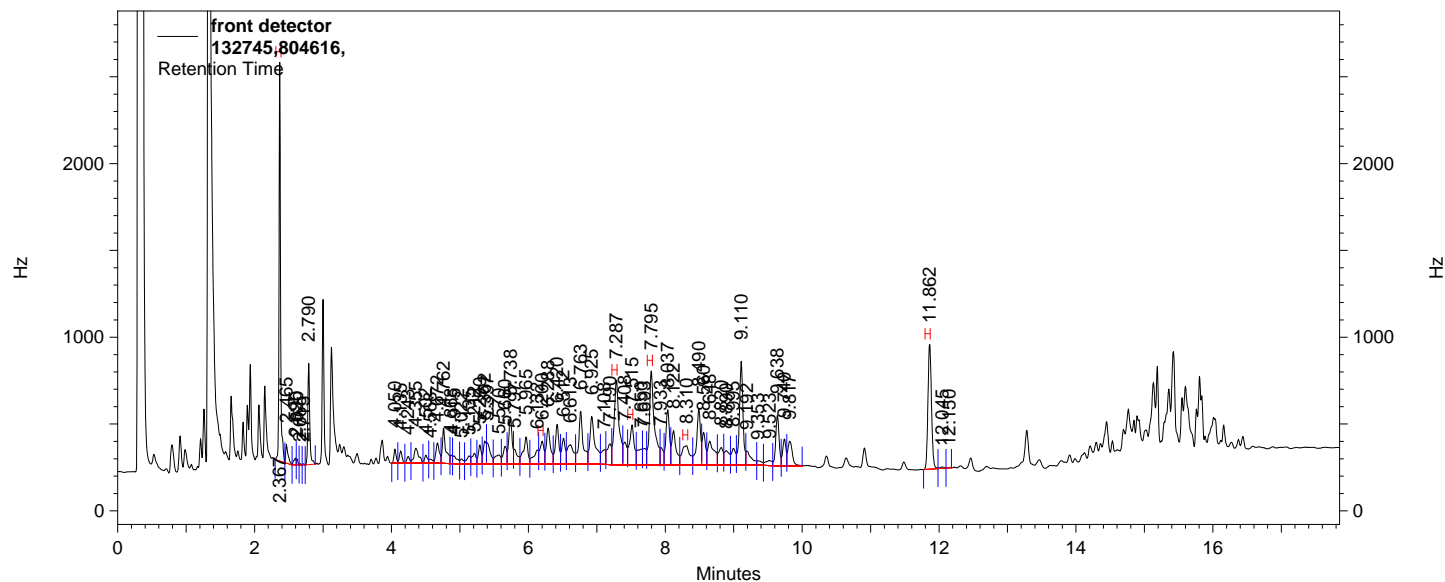
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.772	83592360	79.394
Aroclor 1016 #1	3.460	5959810	0.015
Aroclor 1016 #2	4.057	13095241	0.016
Aroclor 1016 #3	4.418	8494600	0.023
Aroclor 1016 #4	4.997	11245404	0.014
Aroclor 1016 #5	5.823	8733317	0.016
Aroclor 1260 #1	9.645	27441022	0.065
Aroclor 1260 #2	10.108	25579853	0.038
Aroclor 1260 #3	10.243	18269025	0.051
Aroclor 1260 #4	10.347	10382962	0.045
Aroclor 1260 #5	10.515	14881877	0.087
SURRDCBPCB	13.747	37271918	71.418
Aroclor 1016		47528372	0.083
Aroclor 1260		96554739	0.286

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804616,
Acquired: Nov 17,2016 16:18:29
Printed: Nov 18,2016 09:05:51

Data Summary: {Data Description}



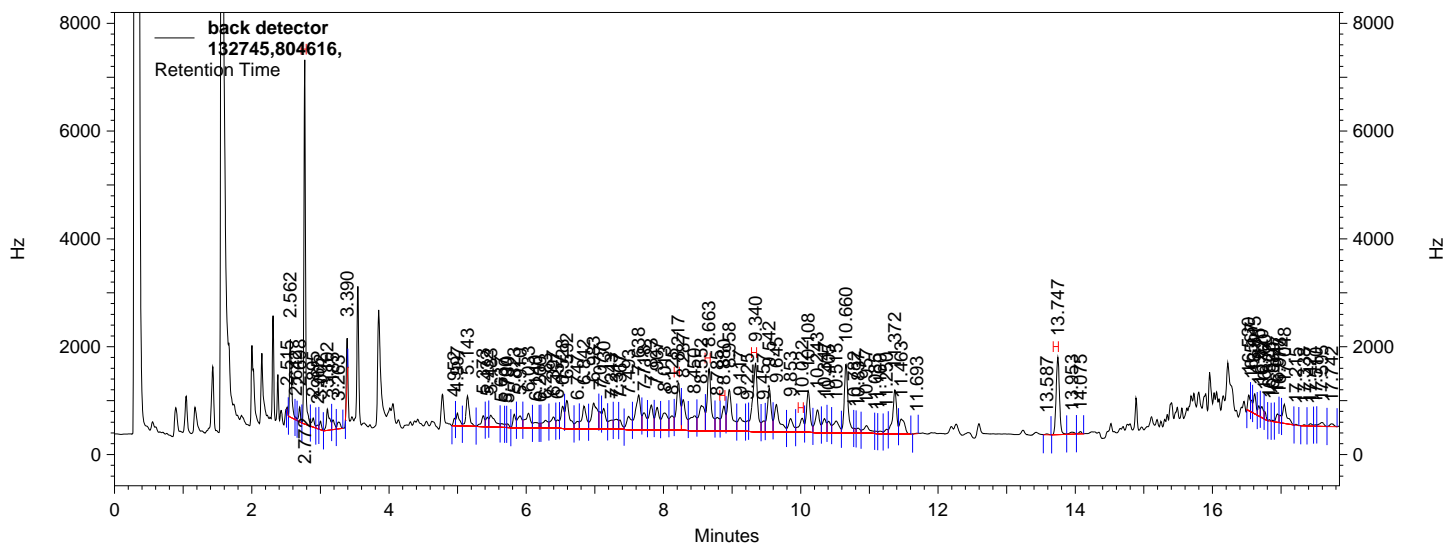
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.367	27264714	77.660
Aroclor 1254 #1	6.200	4152198	0.019
Aroclor 1254 #2	7.287	18772972	0.061
Aroclor 1254 #3	7.515	8219253	0.074
Aroclor 1254 #4	7.795	21196058	0.051
Aroclor 1254 #5	8.310	6847807	0.062
SURRDCB	11.862	19877315	72.269
Aroclor 1254		59188288	0.267

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804616,
Acquired: Nov 17,2016 16:18:29
Printed: Nov 18,2016 09:05:51

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.772	82608784	78.045
Aroclor 1254 #1	8.217	27446233	0.060
Aroclor 1254 #2	8.663	36652267	0.068
Aroclor 1254 #3	8.880	13738229	0.044
Aroclor 1254 #4	9.340	47547897	0.045
Aroclor 1254 #5	10.022	9608652	0.038
SURRDCB	13.747	36872977	78.460
Aroclor 1254		134993278	0.255

PCB Analysis Report (1016/1260) (Channel A)

RED

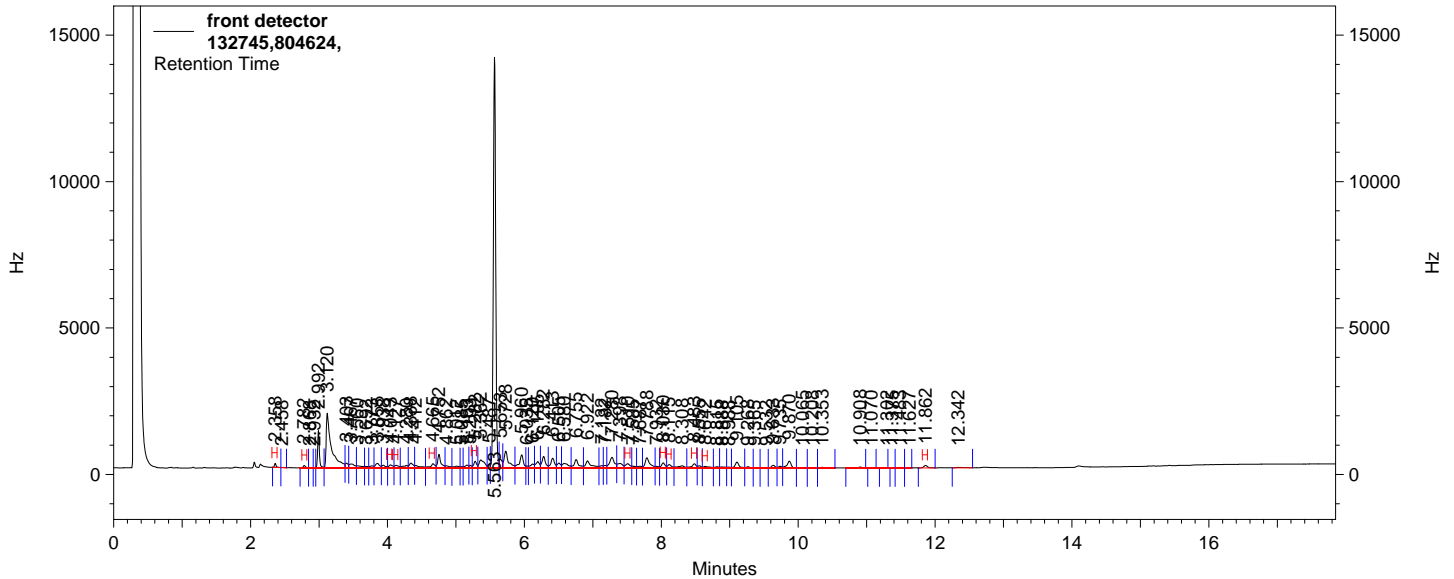
11/18/2016

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:47

AJZ
11/17/2016

After Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



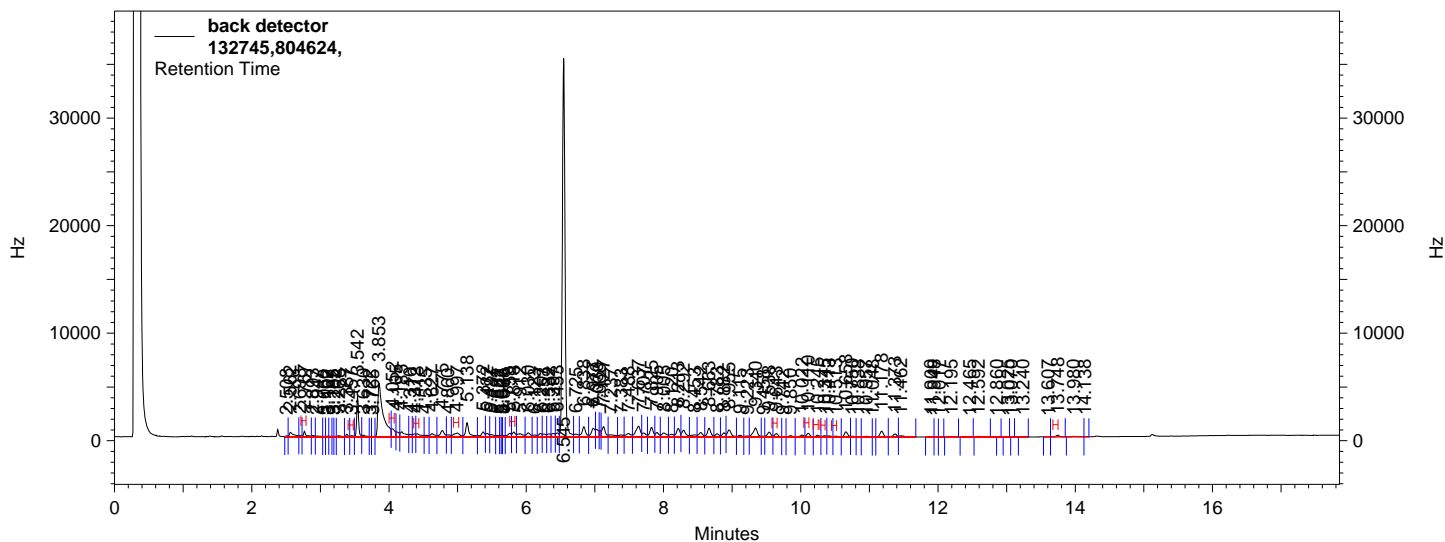
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.358	1827983	4.488
Aroclor 1016 #1	2.782	1438434	0.010
Aroclor 1016 #2	4.043	3066063	0.015
Aroclor 1016 #3	4.127	2745074	0.017
Aroclor 1016 #4	4.665	4807943	0.021
Aroclor 1016 #5	5.282	5133964	0.035
Aroclor 1260 #1	7.510	5272360	0.021
Aroclor 1260 #2	8.030	4666359	0.017
Aroclor 1260 #3	8.115	3440066	0.019
Aroclor 1260 #4	8.483	4574709	0.016
Aroclor 1260 #5	8.642	2427389	0.019
SURRDCBPCB	11.862	2309093	5.657
Aroclor 1016		17191478	0.099
Aroclor 1260		20380883	0.092

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:47

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.767	8828487	7.431
Aroclor 1016 #1	3.457	1544493	0.003
Aroclor 1016 #2	4.052	19590503	0.025
Aroclor 1016 #3	4.413	9232495	0.025
Aroclor 1016 #4	4.997	15559157	0.020
Aroclor 1016 #5	5.818	10442851	0.019
Aroclor 1260 #1	9.643	8439528	0.018
Aroclor 1260 #2	10.110	8519977	0.011
Aroclor 1260 #3	10.245	4156919	0.010
Aroclor 1260 #4	10.345	3148332	0.012
Aroclor 1260 #5	10.513	2530063	0.013
SURRDCBPCB	13.748	3880571	3.708
Aroclor 1016		56369499	0.092
Aroclor 1260		26794819	0.065

PCB Analysis Report (1016/1260) (Channel A)

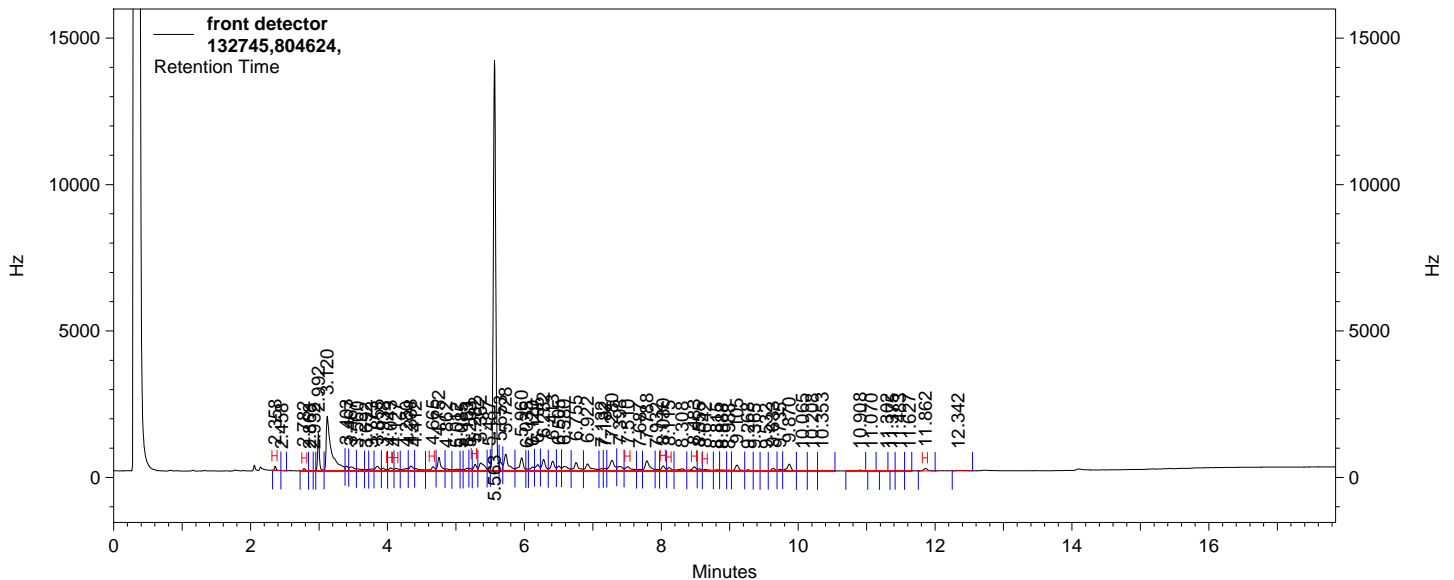
Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:01:04

JJY
11/22/16

AJZ
11/17/2016

Before Manual Integration

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



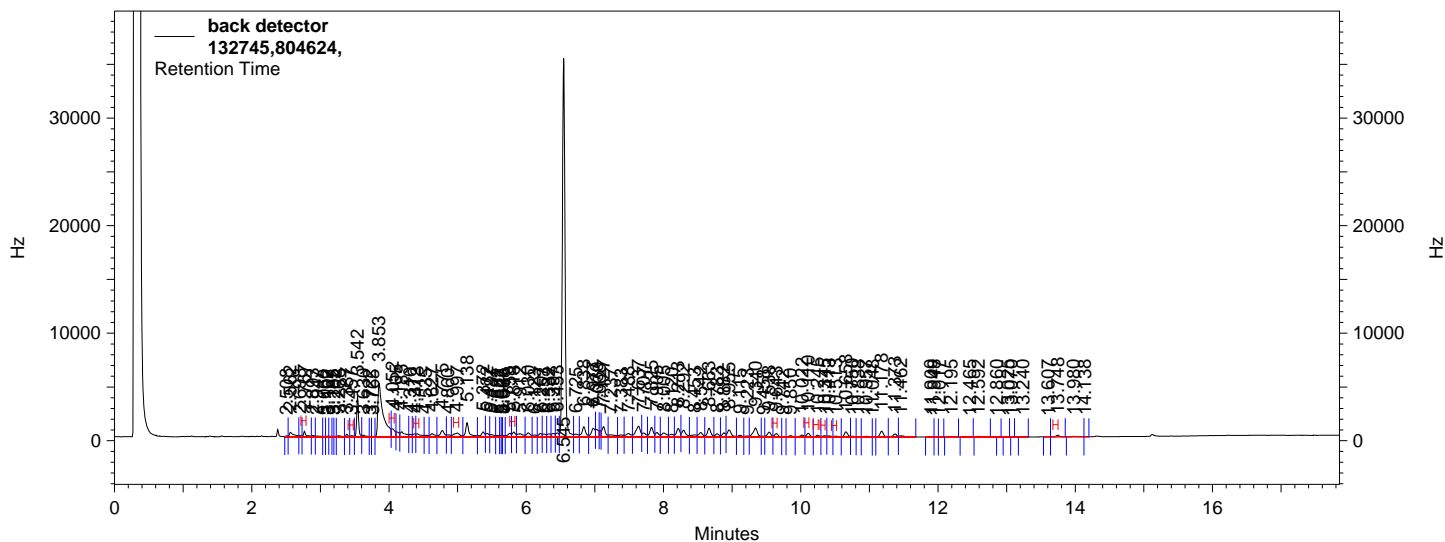
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.358	1827983	4.488
Aroclor 1016 #1	2.782	1438434	0.010
Aroclor 1016 #2	4.043	3066063	0.015
Aroclor 1016 #3	4.127	2745074	0.017
Aroclor 1016 #4	4.665	4807943	0.021
Aroclor 1016 #5	5.282	5133964	0.035
Aroclor 1260 #1	7.510	6980485	0.028
Aroclor 1260 #2	8.030	4666359	0.017
Aroclor 1260 #3	8.115	3440066	0.019
Aroclor 1260 #4	8.483	4574709	0.016
Aroclor 1260 #5	8.642	2427389	0.019
SURRDCBPCB	11.862	2309093	5.657
Aroclor 1016		17191478	0.099
Aroclor 1260		22089008	0.099

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:01:04

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.767	8828487	7.431
Aroclor 1016 #1	3.457	1544493	0.003
Aroclor 1016 #2	4.052	19590503	0.025
Aroclor 1016 #3	4.413	9232495	0.025
Aroclor 1016 #4	4.997	15559157	0.020
Aroclor 1016 #5	5.818	10442851	0.019
Aroclor 1260 #1	9.643	8439528	0.018
Aroclor 1260 #2	10.110	8519977	0.011
Aroclor 1260 #3	10.245	4156919	0.010
Aroclor 1260 #4	10.345	3148332	0.012
Aroclor 1260 #5	10.513	2530063	0.013
SURRDCBPCB	13.748	3880571	3.708
Aroclor 1016		56369499	0.092
Aroclor 1260		26794819	0.065

PCB Analysis Report (1254) (Channel A)

RED

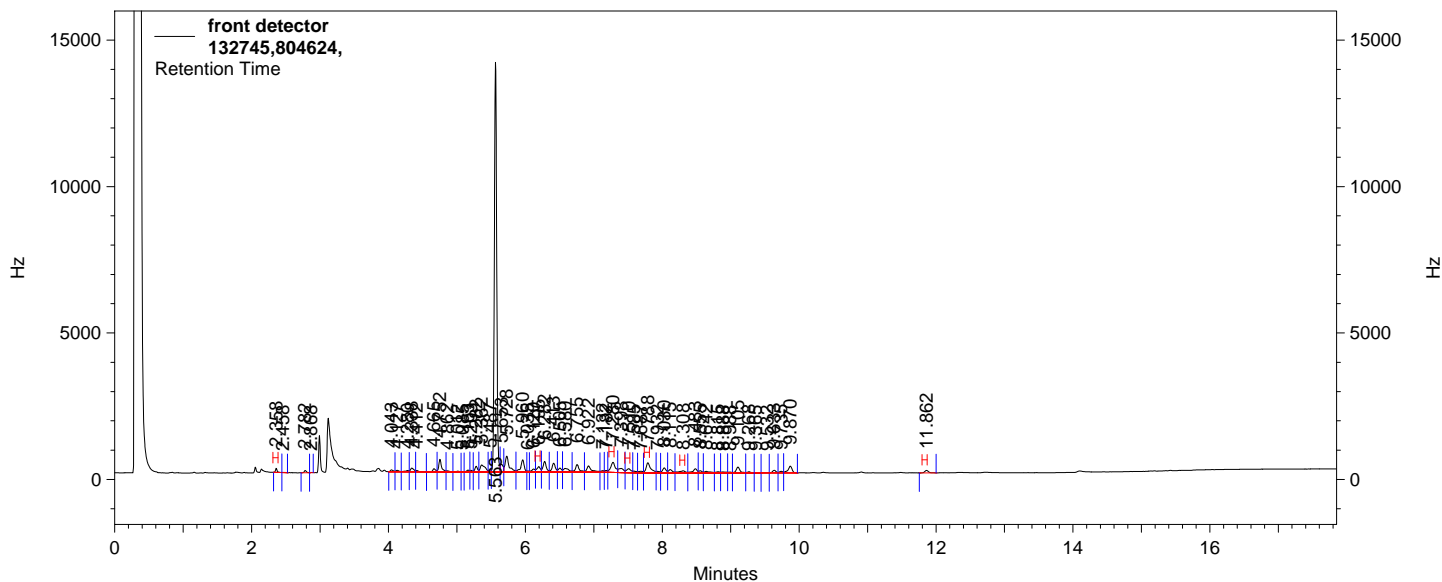
11/18/2016

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:26

AJZ
11/17/2016

After Manual Integration

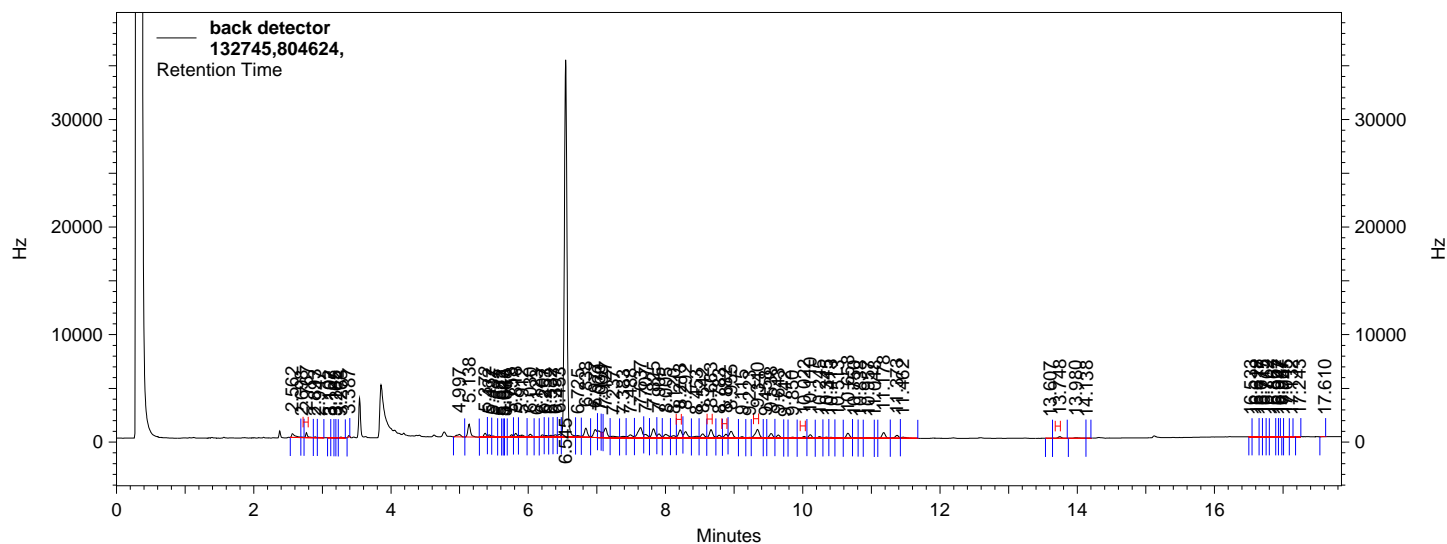
Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:26

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.767	6742762	6.370
Aroclor 1254 #1	8.213	18899199	0.041
Aroclor 1254 #2	8.663	20058034	0.037
Aroclor 1254 #3	8.882	8144675	0.026
Aroclor 1254 #4	9.340	25869156	0.024
Aroclor 1254 #5	10.022	4264562	0.017
SURRDCB	13.748	3873321	8.242
Aroclor 1254		77235626	0.146

PCB Analysis Report (1254) (Channel A)

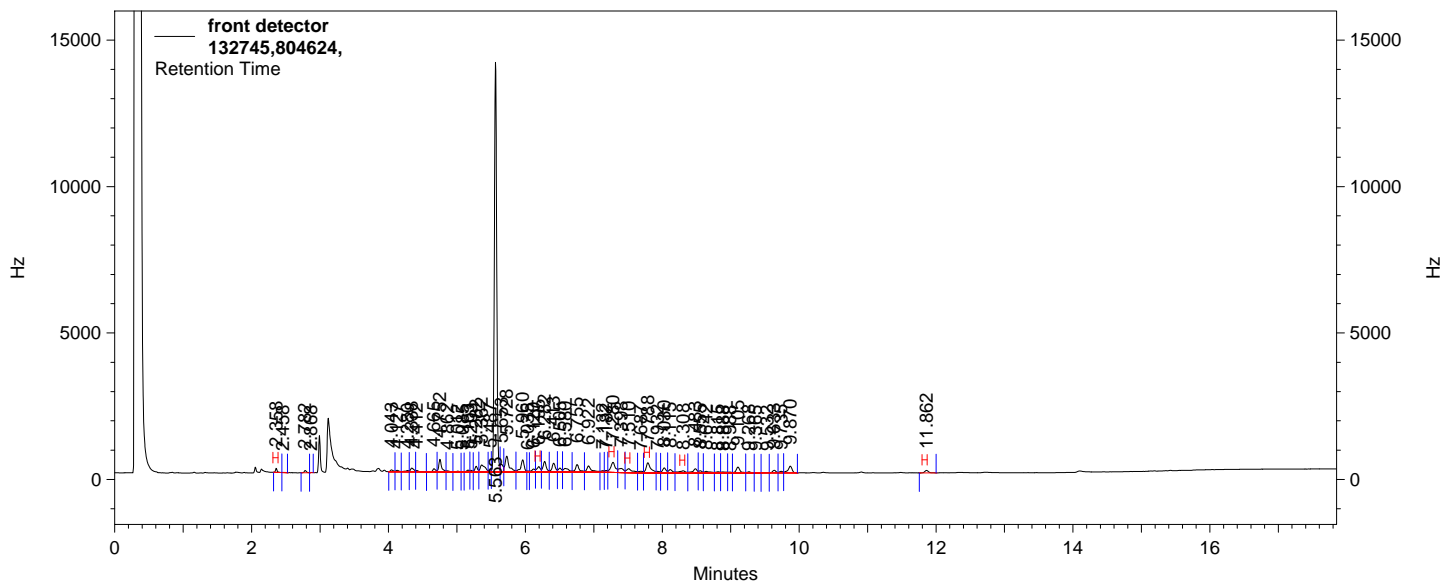
Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:10

JJY
11/22/16

AJZ
11/17/2016

Before Manual Integration

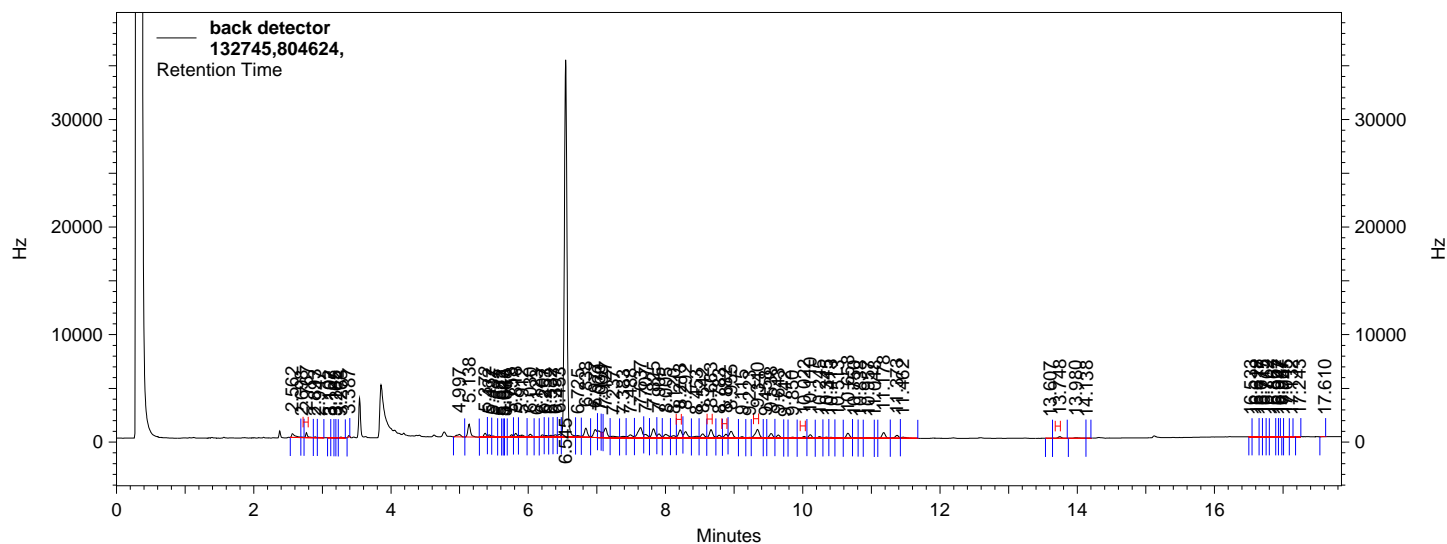
Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804624,
Acquired: Nov 17,2016 16:39:54
Printed: Nov 18,2016 11:00:10

Data Summary: M.I. Index Reason #2 AJZ 11/17/2016



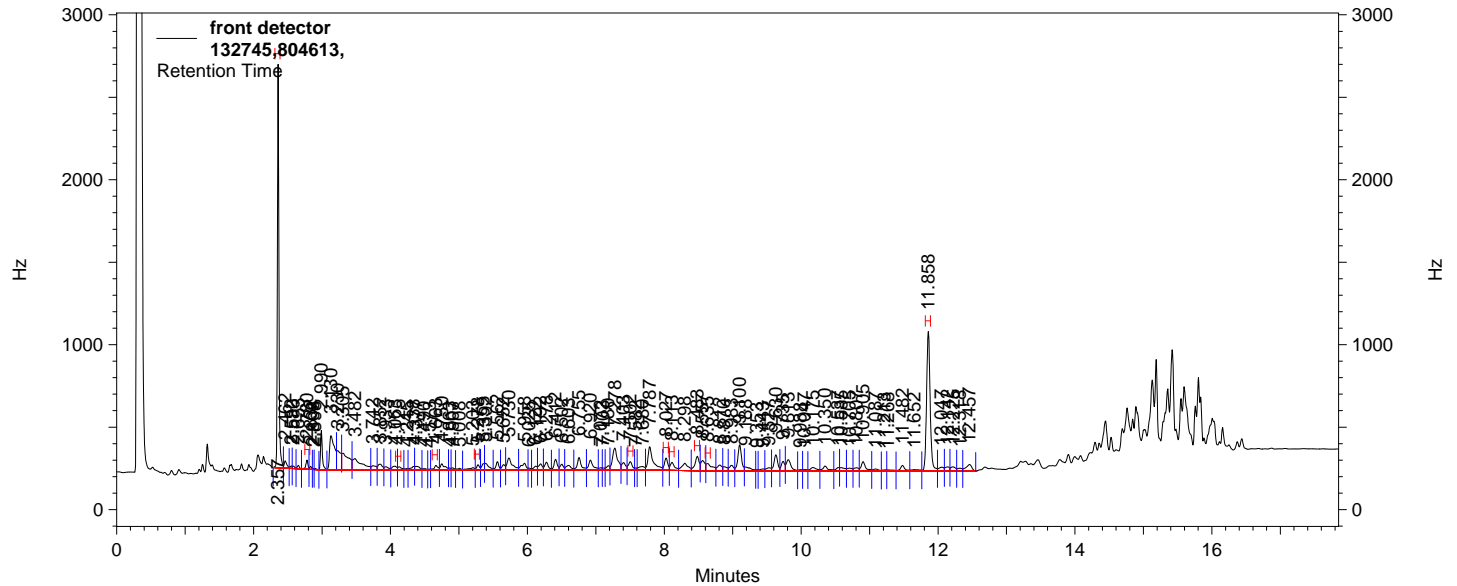
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.767	6742762	6.370
Aroclor 1254 #1	8.213	18899199	0.041
Aroclor 1254 #2	8.663	20058034	0.037
Aroclor 1254 #3	8.882	8144675	0.026
Aroclor 1254 #4	9.340	25869156	0.024
Aroclor 1254 #5	10.022	4264562	0.017
SURRDCB	13.748	3873321	8.242
Aroclor 1254		77235626	0.146

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804613,
Acquired: Nov 17,2016 17:01:25
Printed: Nov 18,2016 08:24:43

Data Summary: {Data Description}



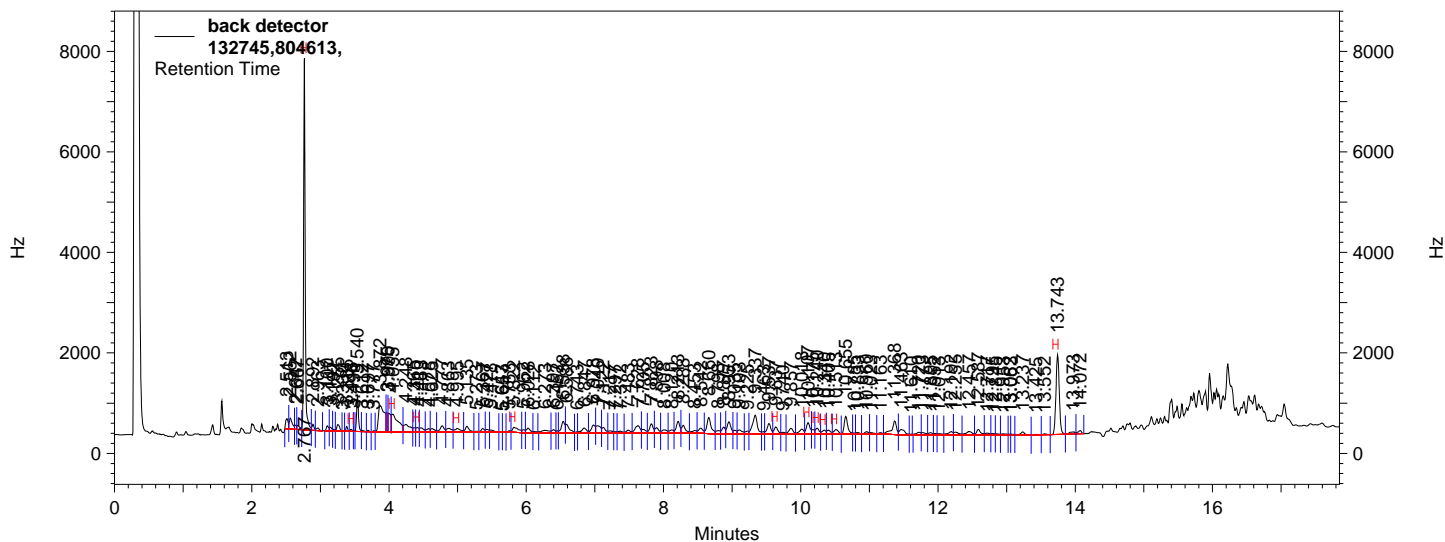
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.357	28687766	81.137
Aroclor 1016 #1	2.780	895779	0.006
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	4.125	568462	0.003
Aroclor 1016 #4	4.663	849896	0.003
Aroclor 1016 #5	5.278	722307	0.004
Aroclor 1260 #1	7.502	1704380	0.006
Aroclor 1260 #2	8.027	2006261	0.007
Aroclor 1260 #3	8.113	1701844	0.009
Aroclor 1260 #4	8.483	2773044	0.010
Aroclor 1260 #5	8.635	1949011	0.015
SURRDCBPCB	11.858	23749634	77.496
Aroclor 1016		3036444	0.015
Aroclor 1260		10134540	0.046

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,804613,
Acquired: Nov 17,2016 17:01:25
Printed: Nov 18,2016 08:24:43

Data Summary: {Data Description}



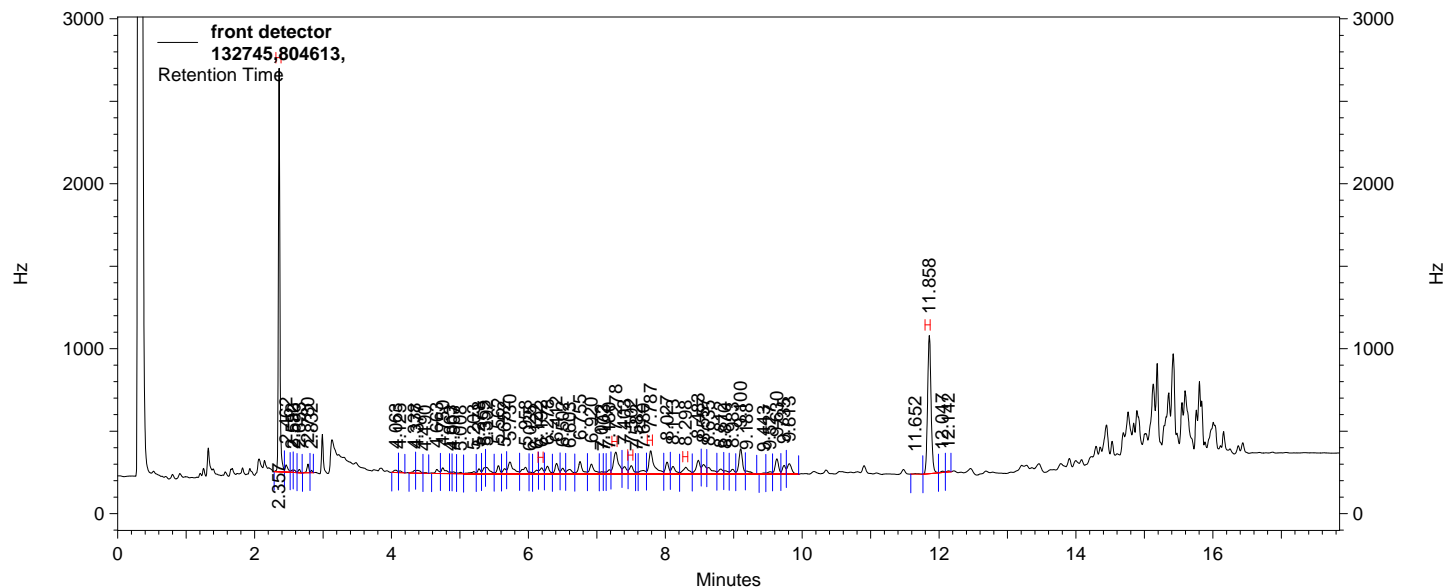
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.767	91379951	86.890
Aroclor 1016 #1	3.448	705098	0.001
Aroclor 1016 #2	4.055	19019302	0.024
Aroclor 1016 #3	4.410	2006313	0.004
Aroclor 1016 #4	4.995	3520563	0.003
Aroclor 1016 #5	5.822	4934202	0.008
Aroclor 1260 #1	9.637	4217748	0.008
Aroclor 1260 #2	10.107	6470658	0.008
Aroclor 1260 #3	10.240	3372240	0.007
Aroclor 1260 #4	10.340	2400085	0.009
Aroclor 1260 #5	10.513	3331743	0.018
SURRDCBPCB	13.743	41256578	79.498
Aroclor 1016		30185478	0.041
Aroclor 1260		19792474	0.050

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804613,
Acquired: Nov 17,2016 17:01:25
Printed: Nov 18,2016 09:12:25

Data Summary: {Data Description}



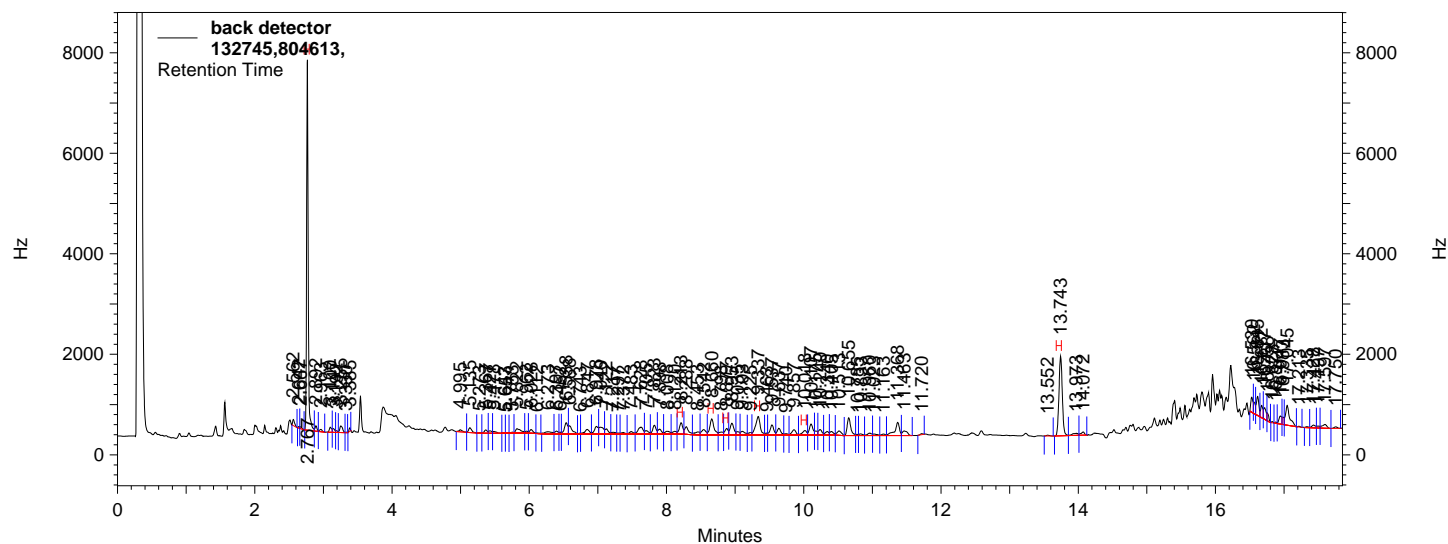
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.357	28677412	81.684
Aroclor 1254 #1	6.192	989567	0.004
Aroclor 1254 #2	7.278	5174071	0.017
Aroclor 1254 #3	7.502	1532202	0.014
Aroclor 1254 #4	7.787	5677915	0.014
Aroclor 1254 #5	8.298	1891588	0.017
SURRDCB	11.858	22826068	82.989
Aroclor 1254		15265343	0.066

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\1254.met
User: JJY
Sample ID: 132745,804613,
Acquired: Nov 17,2016 17:01:25
Printed: Nov 18,2016 09:12:25

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.767	90287232	85.299
Aroclor 1254 #1	8.213	6459138	0.014
Aroclor 1254 #2	8.660	10129912	0.019
Aroclor 1254 #3	8.877	3123800	0.010
Aroclor 1254 #4	9.337	13433645	0.013
Aroclor 1254 #5	10.018	3298956	0.013
SURRDCB	13.743	41181631	87.628
Aroclor 1254		36445451	0.069

PCB Analysis Report (1016/1260) (Channel A)

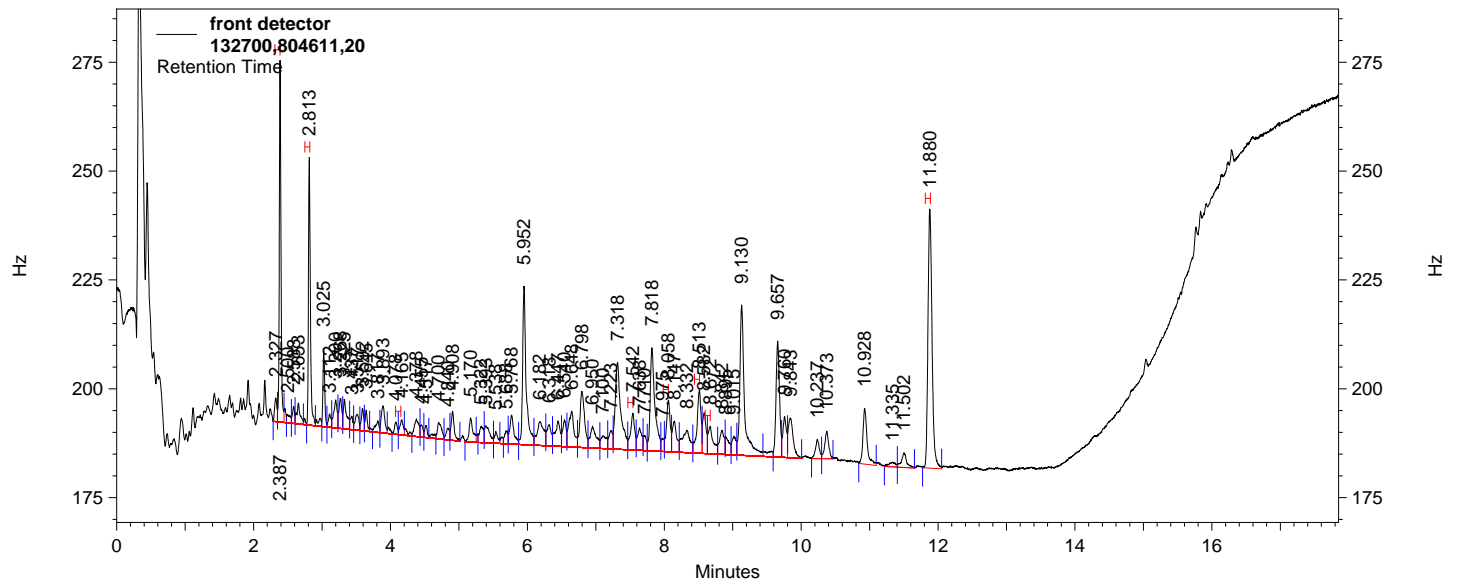
Data File: C:\Instarch\Semi7\Data\111716pcb\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,804611,20
Acquired: Nov 18,2016 10:11:09
Printed: Nov 18,2016 16:27:50

JJY
11/22/16

AJZ
11/18/2016

After Manual Integration

Data Summary: M.I. Index Reason #1 AJZ 11/18/2016



front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.387	1093545	2.392
Aroclor 1016 #1	2.813	930739	0.006
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	4.078	63864	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	7.542	274941	0.000
Aroclor 1260 #2	8.058	345213	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.513	454638	0.001
Aroclor 1260 #5	8.672	252324	0.001
SURRDCBPCB	11.880	1874674	4.202
Aroclor 1016		994603	0.006
Aroclor 1260		1327116	0.002

PCB Analysis Report (1016/1260) (Channel B)

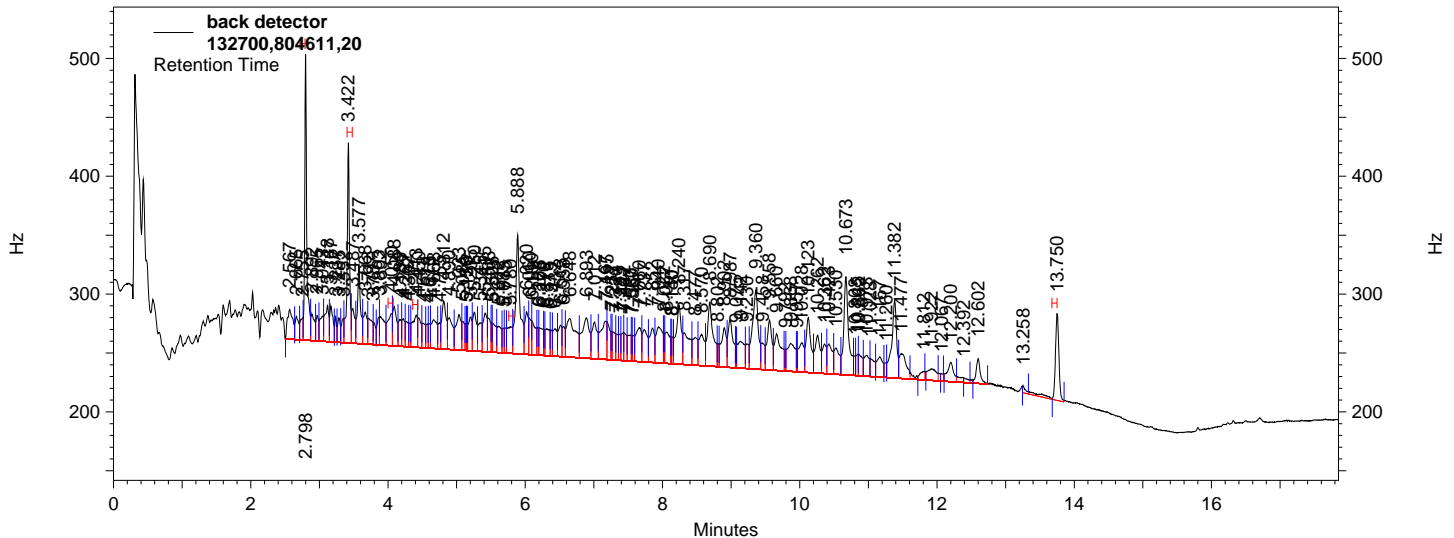
JJY
11/22/16

Data File: C:\Instarch\Semi7\Data\111716pcb\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,804611,20
Acquired: Nov 18,2016 10:11:09
Printed: Nov 18,2016 16:27:50

AJZ
11/18/2016

After Manual Integration

Data Summary: M.I. Index Reason #1 AJZ 11/18/2016



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.798	3929386	2.715
Aroclor 1016 #1	3.422	3180278	0.007
Aroclor 1016 #2	4.050	979961	0.000
Aroclor 1016 #3	4.413	1087345	0.001
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.780	921427	0.000
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.750	1955728	0.000
Aroclor 1016		6169011	0.009
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) (Channel A)

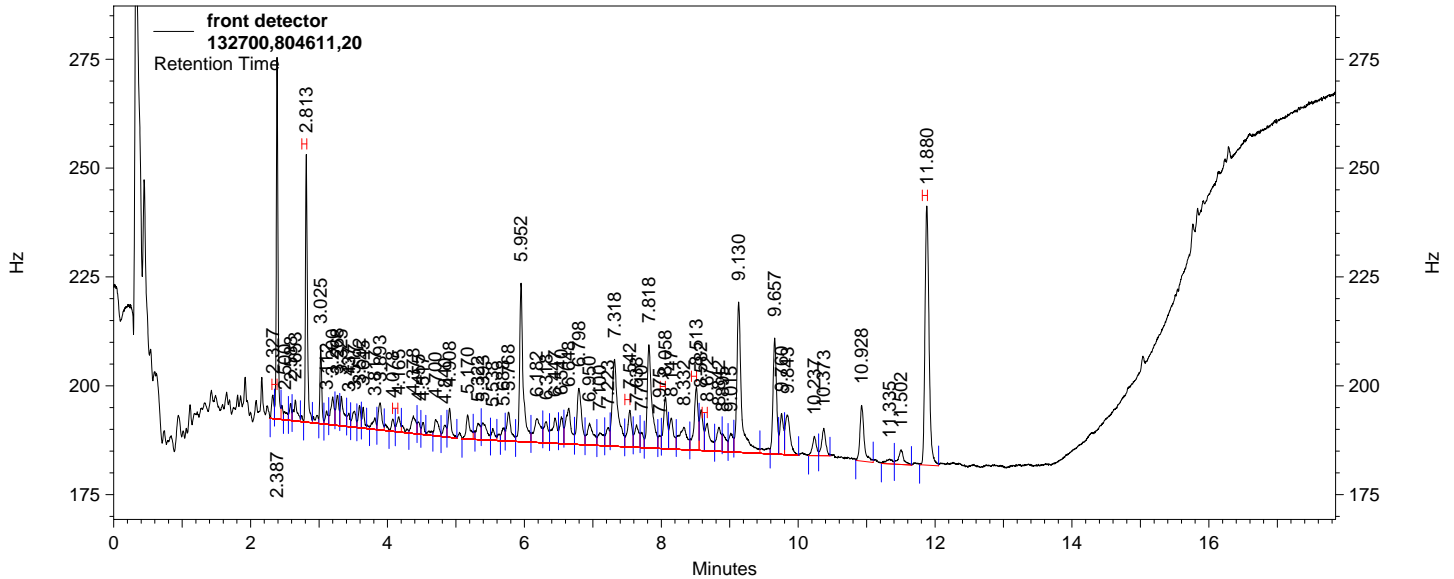
Data File: C:\Instarch\Semi7\Data\111716pcb\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,804611,20
Acquired: Nov 18,2016 10:11:09
Printed: Nov 18,2016 16:27:17

JJY
11/22/16

AJZ
11/18/2016

Before Manual Integration

Data Summary: M.I. Index Reason #1 AJZ 11/18/2016



front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.327	93718	0.000
Aroclor 1016 #1	2.813	930739	0.006
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	4.078	63864	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	7.542	274941	0.000
Aroclor 1260 #2	8.058	345213	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.513	454638	0.001
Aroclor 1260 #5	8.672	252324	0.001
SURRDCBPCB	11.880	1874674	4.202
Aroclor 1016		994603	0.006
Aroclor 1260		1327116	0.002

PCB Analysis Report (1016/1260) (Channel B)

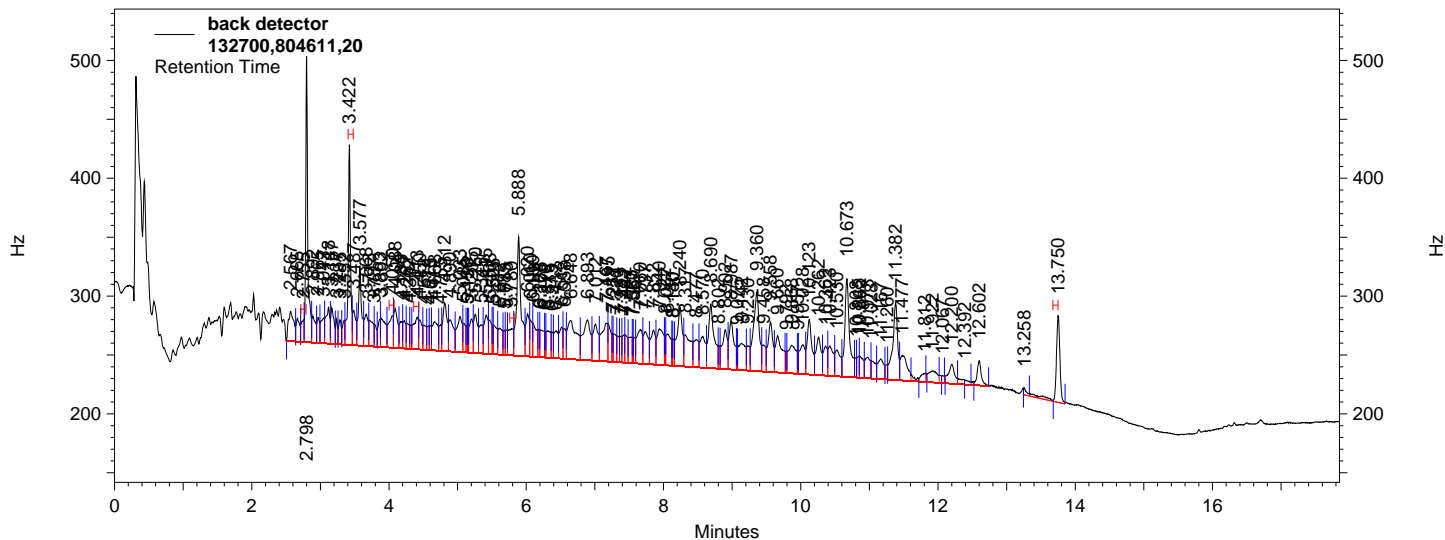
JJY
11/22/16

Data File: C:\Instarch\Semi7\Data\111716pcb\039.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,804611,20
Acquired: Nov 18,2016 10:11:09
Printed: Nov 18,2016 16:27:17

AJZ
11/18/2016

Before Manual Integration

Data Summary: M.I. Index Reason #1 AJZ 11/18/2016



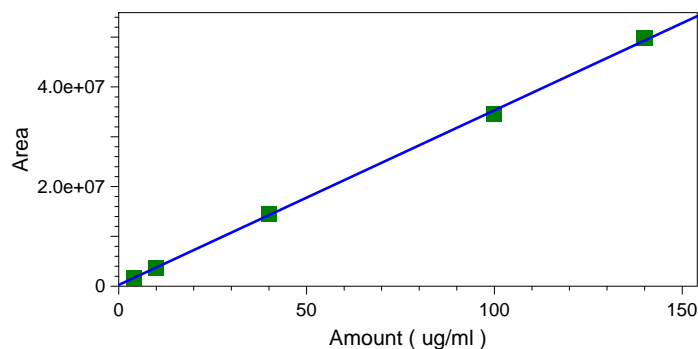
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.755	404859	0.000
Aroclor 1016 #1	3.422	3180278	0.007
Aroclor 1016 #2	4.050	979961	0.000
Aroclor 1016 #3	4.413	1087345	0.001
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.780	921427	0.000
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.750	1955728	0.000
Aroclor 1016		6169011	0.009
Aroclor 1260		0	0.000

**POLYCHLORINATED BIPHENYL
INITIAL CALIBRATION
DOCUMENTS**

SURRTCMXPCB (front detector)

Peak: SURRTCMXPCB -- ESTD -- front detector

Page 475 Page 475

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:56:20

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:18
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #1 (front detector)

Average RF: 1.34869e+008 RF StDev: 1.75759e+007 RF %RSD: 13.0318

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

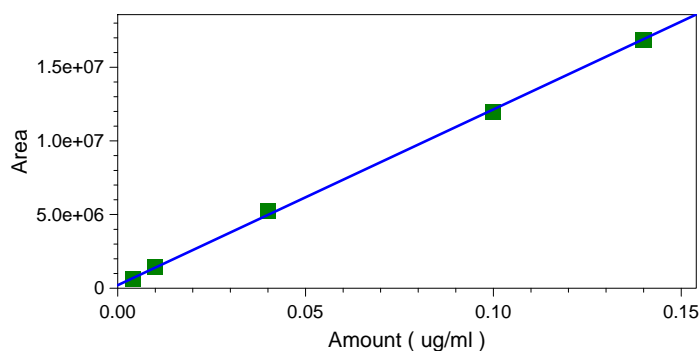
Replicate Mode: Replace

Fit Type: Linear

$y = 1.19365e+008x + 200394$.

Goodness of fit (r^2): 0.999425

Peak: Aroclor 1016 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	647184	1418115	5233638	11927118	16887596
RF	161796000	141811500	130840950	119271180	120625685.714286
Last Area					
Residual	0.000256943	-0.000201658	-0.00216683	0.00175744	0.000200224
Rep StDev					
Rep %RSD					
Rep 1 Area	647184	1418115	5233638	11927118	16887596
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:18

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:21
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #2 (front detector)

Average RF: 2.12804e+008 RF StDev: 1.71103e+007 RF %RSD: 8.04040

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

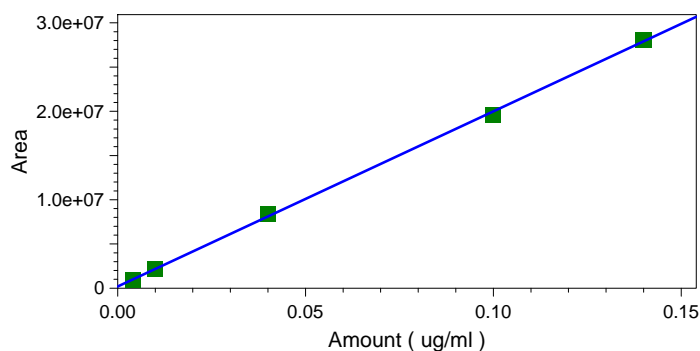
Replicate Mode: Replace

Fit Type: Linear

$y = 1.98042e+008x + 189386$.

Goodness of fit (r^2): 0.999491

Peak: Aroclor 1016 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	953793	2205094	8340269	19567714	28122806
RF	238448250	220509400	208506725	195677140	200877185.714286
Last Area					
Residual	0.000140173	-0.000178197	-0.0011574	0.00215029	-0.00104814
Rep StDev					
Rep %RSD					
Rep 1 Area	953793	2205094	8340269	19567714	28122806
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
Level 6					
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:21

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
Print Time: Oct 26,2016 15:57:22
User: JJY
Instrument: Semi 7

Aroclor 1016 #3 (front detector)

Average RF: 1.60162e+008 RF StDev: 1.32533e+007 RF %RSD: 8.27492

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

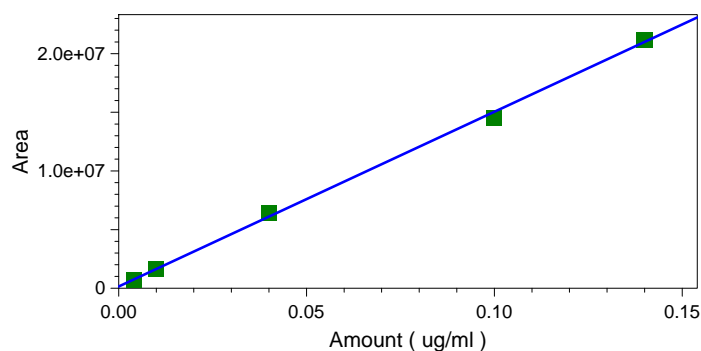
Replicate Mode: Replace

Fit Type: Linear

$$y = 1.48878e+008x + 144016.$$

Goodness of fit (r^2): 0.998631

Peak: Aroclor 1016 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	720428	1627755	6446996	14528232	21205934
RF	180107000	162775500	161174900	145282320	151470957.142857
Last Area					
Residual	0.000128302	3.38866e-005	-0.00233642	0.0033828	-0.00147058
Rep StDev					
Rep %RSD					
Rep 1 Area	720428	1627755	6446996	14528232	21205934
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Sem mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:22

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:24
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #4 (front detector)

Average RF: 2.35157e+008 RF StDev: 2.16766e+007 RF %RSD: 9.21792

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

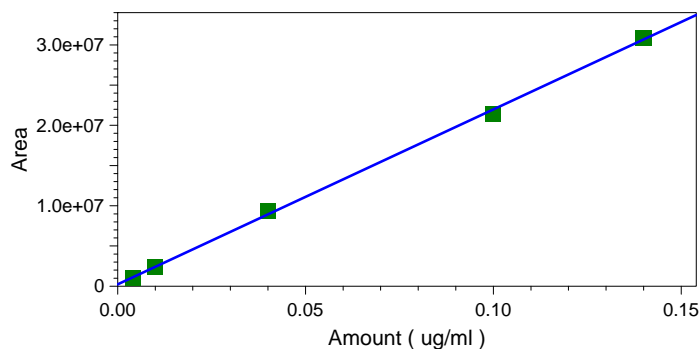
Replicate Mode: Replace

Fit Type: Linear

$y = 2.17512e+008x + 225459$.

Goodness of fit (r^2): 0.999231

Peak: Aroclor 1016 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1080507	2379680	9303824	21423699	30919927
RF	270126750	237968000	232595600	214236990	220856621.428571
Last Area					
Residual	6.89573e-005	9.60677e-005	-0.00173737	0.00254204	-0.00111644
Rep StDev					
Rep %RSD					
Rep 1 Area	1080507	2379680	9303824	21423699	30919927
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:24

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:26
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #5 (front detector)

Average RF: 1.54459e+008 RF StDev: 1.54237e+007 RF %RSD: 9.98565

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

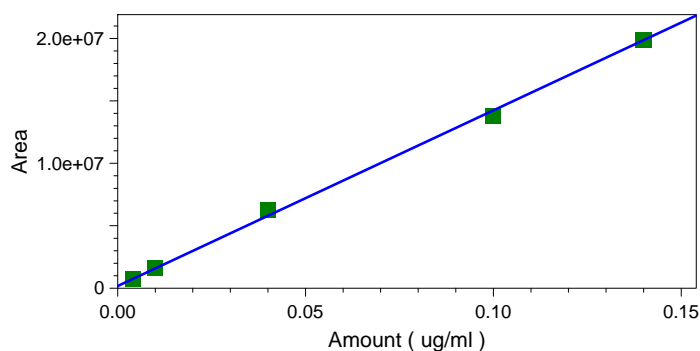
Replicate Mode: Replace

Fit Type: Linear

$y = 1.40582e+008x + 177759$.

Goodness of fit (r^2): 0.998391

Peak: Aroclor 1016 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	707884	1581753	6281139	13786035	19916232
RF	176971000	158175300	157028475	137860350	142258800
Last Area					
Residual	0.000229081	1.30198e-005	-0.00341495	0.00320074	-0.000404967
Rep StDev					
Rep %RSD					
Rep 1 Area	707884	1581753	6281139	13786035	19916232
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					
RF					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:26

User: JJY

Instrument: Semi 7

Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:27
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #1 (front detector)

Average RF: 2.57817e+008 RF StDev: 1.77884e+007 RF %RSD: 6.89965

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

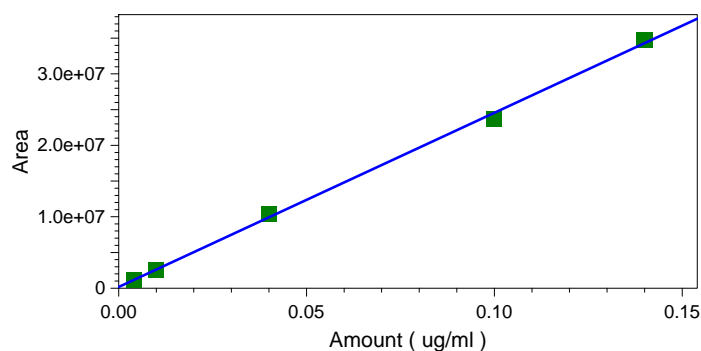
Replicate Mode: Replace

Fit Type: Linear

$y = 2.43697e+008x + 179143$.

Goodness of fit (r^2): 0.998521

Peak: Aroclor 1260 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1139715	2593924	10371124	23676176	34821016
RF	284928750	259392400	259278100	236761760	248721542.857143
Last Area					
Residual	5.83273e-005	9.10341e-005	-0.00182242	0.00358079	-0.00215165
Rep StDev					
Rep %RSD					
Rep 1 Area	1139715	2593924	10371124	23676176	34821016
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:27

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:29
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #2 (front detector)

Average RF: 2.76659e+008 RF StDev: 3.31382e+007 RF %RSD: 11.9780

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

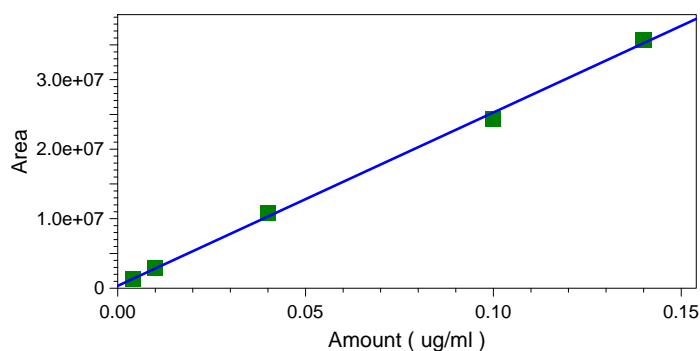
Replicate Mode: Replace

Fit Type: Linear

$y = 2.49238e+008x + 351378$.

Goodness of fit (r^2): 0.998550

Peak: Aroclor 1260 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1314807	2865645	10743899	24383734	35783163
RF	328701750	286564500	268597475	243837340	255594021.428571
Last Area					
Residual	0.000134505	-8.78117e-005	-0.00169717	0.0035767	-0.00216041
Rep StDev					
Rep %RSD					
Rep 1 Area	1314807	2865645	10743899	24383734	35783163
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

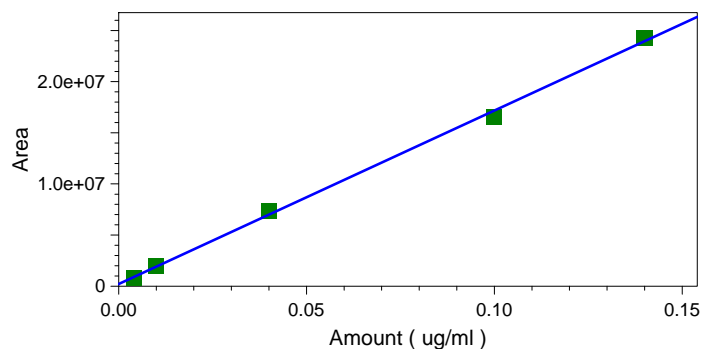
Print Time: Oct 26,2016 15:57:29

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Peak: Aroclor 1260 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	855988	1935184	7306138	16529487	24319898
RF	213997000	193518400	182653450	165294870	173713557.14 2857
Last Area					
Residual	0.000179899	-0.000183492	-0.00185289	0.00376239	-0.00217314
Rep StDev					
Rep %RSD					
Rep 1 Area	855988	1935184	7306138	16529487	24319898
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:31

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:33
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #4 (front detector)

Average RF: 2.85251e+008 RF StDev: 2.43024e+007 RF %RSD: 8.51966

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

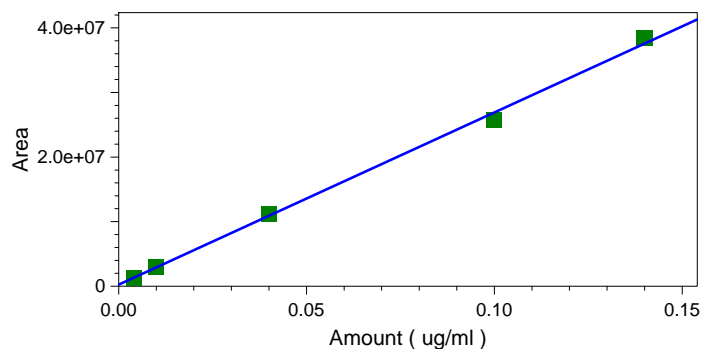
Replicate Mode: Replace

Fit Type: Linear

$y = 2.66619e+008x + 236224$.

Goodness of fit (r^2): 0.997770

Peak: Aroclor 1260 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1291552	2916782	11156842	25764948	38516586
RF	322888000	291678200	278921050	257649480	275118471.428571
Last Area					
Residual	4.18179e-005	-5.38751e-005	-0.000959578	0.00425031	-0.00357681
Rep StDev					
Rep %RSD					
Rep 1 Area	1291552	2916782	11156842	25764948	38516586
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:33

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:38
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #5 (front detector)

Average RF: 1.33220e+008 RF StDev: 1.58209e+007 RF %RSD: 11.8757

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

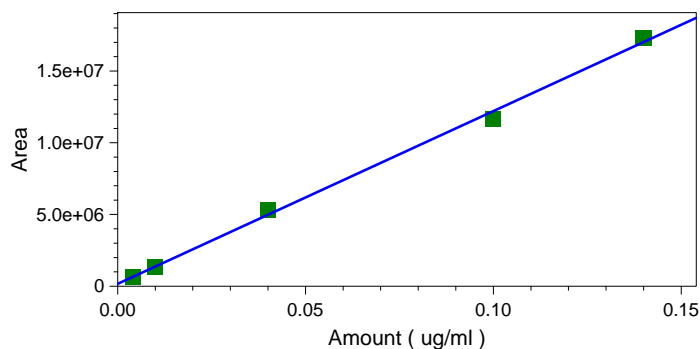
Replicate Mode: Replace

Fit Type: Linear

$y = 1.20382e+008x + 163429$.

Goodness of fit (r^2): 0.997419

Peak: Aroclor 1260 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	632970	1350597	5302858	11638918	17337536
RF	158242500	135059700	132571450	116389180	123839542.857143
Last Area					
Residual	9.95807e-005	0.00013834	-0.00269262	0.0046745	-0.00266324
Rep StDev					
Rep %RSD					
Rep 1 Area	632970	1350597	5302858	11638918	17337536
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:38

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
Print Time: Oct 26,2016 15:57:40
User: JJY
Instrument: Semi 7

SURRDCBPCB (front detector)

Average RF: 346301. RF StDev: 52857.0 RF %RSD: 15.2633
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

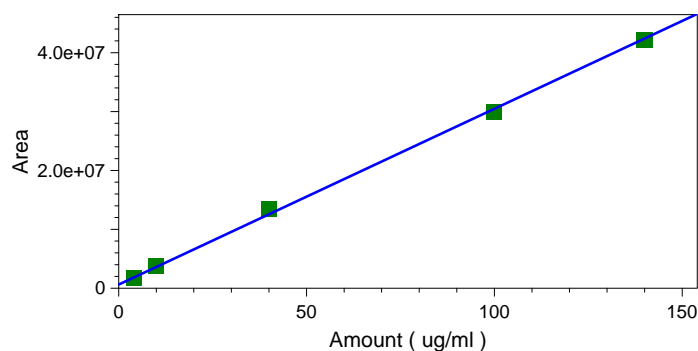
Replicate Mode: Replace

Fit Type: Linear

$$y = 298454.x + 620697.$$

Goodness of fit (r^2): 0.998990

Peak: SURRDCBPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1701336	3697430	13451467	29846818	42234567
RF	425334	369743	336286.675	298468.18	301675.478571429
Last Area					
Residual	0.379214	-0.308894	-2.99075	2.07503	0.568669
Rep StDev					
Rep %RSD					
Rep 1 Area	1701336	3697430	13451467	29846818	42234567
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Sem mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	200				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:40

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
Print Time: Oct 26,2016 15:57:55
User: JJY
Instrument: Semi 7

SURRTCMXPCB (back detector)

Average RF: 1.12524e+006 RF StDev: 101178. RF %RSD: 8.99171
Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

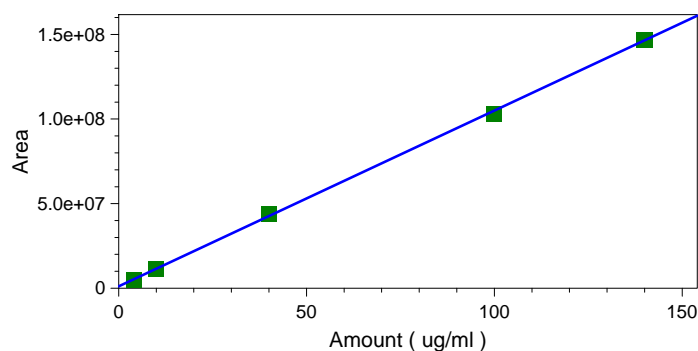
Replicate Mode: Replace

Fit Type: Linear

$$y = 1.03891e+006x + 1.10878e+006$$

Goodness of fit (r^2): 0.999646

Peak: SURRTCMXPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	5134416	11581131	44071603	103242169	147035440
RF	1283604	1158113.1	1101790.075	1032421.69	1050253.14285714
Last Area Residual	0.125148	-0.0800987	-1.35361	1.69213	-0.46082
Rep StDev					
Rep %RSD					
Rep 1 Area	5134416	11581131	44071603	103242169	147035440
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Sem mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	200				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:55

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:57:58
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #1 (back detector)

Average RF: 4.13449e+008 RF StDev: 3.26264e+007 RF %RSD: 7.89126

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

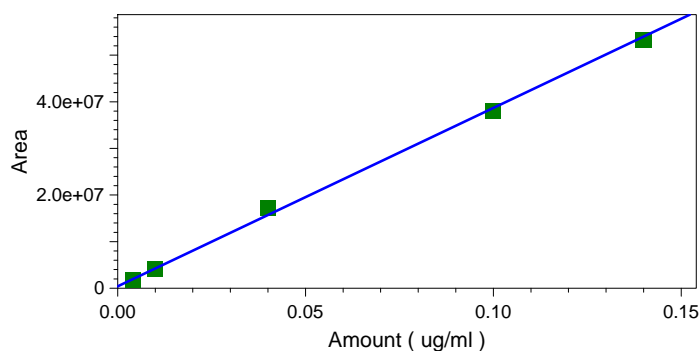
Replicate Mode: Replace

Fit Type: Linear

$y = 3.82895e+008x + 389394$.

Goodness of fit (r^2): 0.998477

Peak: Aroclor 1016 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1825613	4185694	17209970	38082899	53367307
RF	456403250	418569400	430249250	380828990	381195050
Last Area					
Residual	0.000249049	8.52608e-005	-0.00393005	0.00155644	0.00163838
Rep StDev					
Rep %RSD					
Rep 1 Area	1825613	4185694	17209970	38082899	53367307
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					
RF					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:57:58

User: JJY

Instrument: Semi 7

Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:00
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #2 (back detector)

Average RF: 8.52065e+008 RF StDev: 1.65844e+008 RF %RSD: 19.4638

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

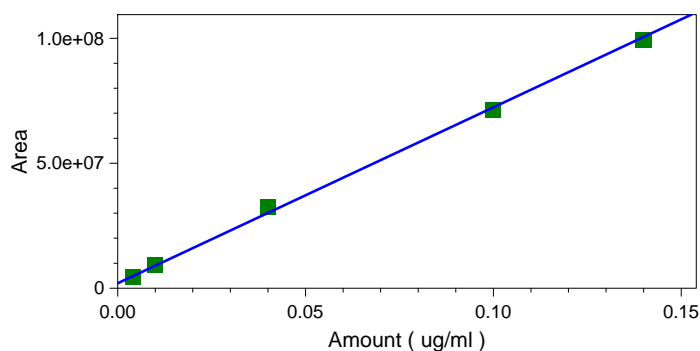
Replicate Mode: Replace

Fit Type: Linear

$y = 7.04348e+008x + 1.92492e+006$

Goodness of fit (r^2): 0.998966

Peak: Aroclor 1016 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	4422702	9215547	32318408	71419862	99530948
RF	1105675500	921554700	807960200	714198620	710935342.857143
Last Area					
Residual	0.000453759	-0.000350897	-0.00315126	0.00133433	0.00142353
Rep StDev					
Rep %RSD					
Rep 1 Area	4422702	9215547	32318408	71419862	99530948
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:00

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:01
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #3 (back detector)

Average RF: 3.91363e+008 RF StDev: 4.49316e+007 RF %RSD: 11.4808

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

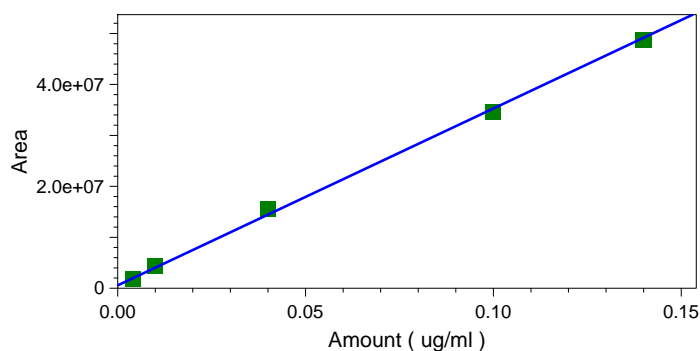
Replicate Mode: Replace

Fit Type: Linear

$y = 3.47223e+008x + 568769$.

Goodness of fit (r^2): 0.998739

Peak: Aroclor 1016 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1783357	4261147	15615442	34567287	48832170
RF	445839250	426114700	390386050	345672870	348801214.28 5714
Last Area					
Residual	0.000501999	-0.000634012	-0.00333427	0.0020846	0.00100187
Rep StDev					
Rep %RSD					
Rep 1 Area	1783357	4261147	15615442	34567287	48832170
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:01

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:03
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #4 (back detector)

Average RF: 8.18354e+008 RF StDev: 9.47641e+007 RF %RSD: 11.5799

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

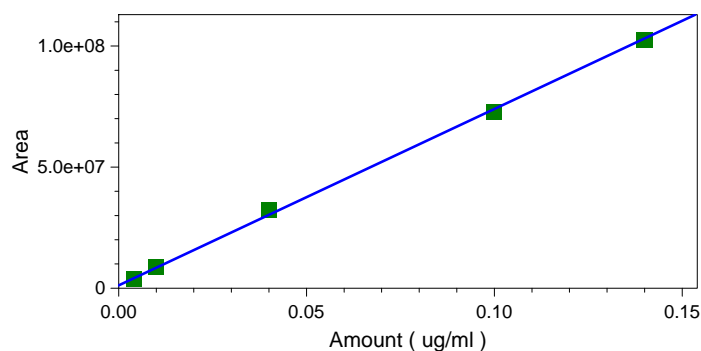
Replicate Mode: Replace

Fit Type: Linear

$y = 7.28526e+008x + 1.16038e+006$

Goodness of fit (r^2): 0.999260

Peak: Aroclor 1016 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	3778148	8836911	32107571	72714656	102718503
RF	944537000	883691100	802689275	727146560	733703592.857143
Last Area					
Residual	0.000406761	-0.00053707	-0.00247918	0.00178215	0.000597838
Rep StDev					
Rep %RSD					
Rep 1 Area	3778148	8836911	32107571	72714656	102718503
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
Level 6					
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:03

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:04
 User: JJY
 Instrument: Semi 7

Aroclor 1016 #5 (back detector)

Average RF: 5.58918e+008 RF StDev: 6.81667e+007 RF %RSD: 12.1962

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

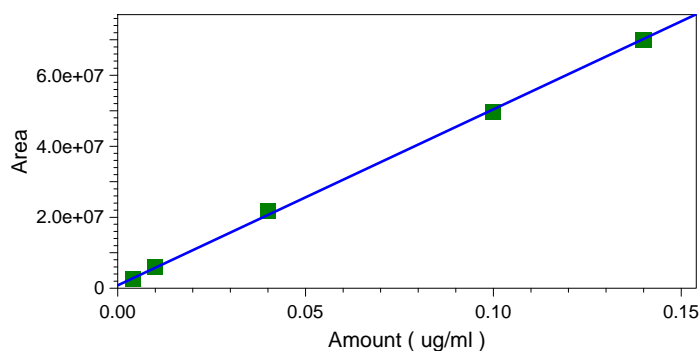
Replicate Mode: Replace

Fit Type: Linear

$y = 4.95994e+008x + 813648.$

Goodness of fit (r^2): 0.999374

Peak: Aroclor 1016 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2619471	6000906	21751562	49516898	70094246
RF	654867750	600090600	543789050	495168980	500673185.714286
Last Area					
Residual	0.000359181	-0.000458318	-0.00221409	0.00180668	0.000319552
Rep StDev					
Rep %RSD					
Rep 1 Area	2619471	6000906	21751562	49516898	70094246
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:04

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:06
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #1 (back detector)

Average RF: 4.84575e+008 RF StDev: 7.84496e+007 RF %RSD: 16.1894

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

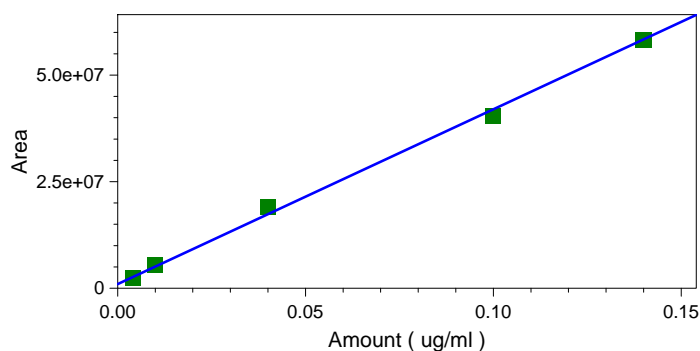
Replicate Mode: Replace

Fit Type: Linear

$y = 4.09965e+008x + 966989$.

Goodness of fit (r^2): 0.997880

Peak: Aroclor 1260 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2354971	5373849	18985855	40525351	58358564
RF	588742750	537384900	474646375	405253510	416846885.714286
Last Area					
Residual	0.000614394	-0.000749345	-0.00395216	0.00350805	8.73853e-006
Rep StDev					
Rep %RSD					
Rep 1 Area	2354971	5373849	18985855	40525351	58358564
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:06

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:07
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #2 (back detector)

Average RF: 7.55292e+008 RF StDev: 1.34727e+008 RF %RSD: 17.8377

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

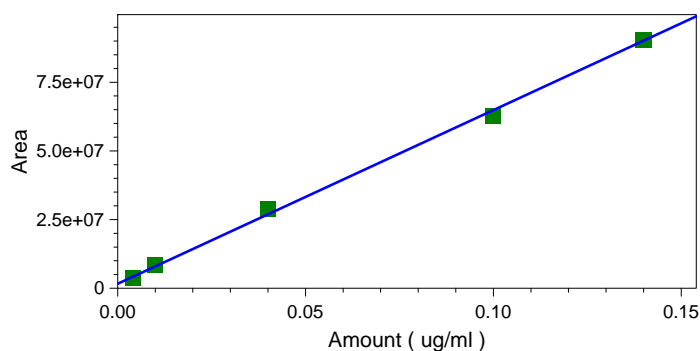
Replicate Mode: Replace

Fit Type: Linear

$y = 6.32470e+008x + 1.59467e+006$

Goodness of fit (r^2): 0.998176

Peak: Aroclor 1260 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	3793336	8314092	28970356	62548594	90575788
RF	948334000	831409200	724258900	625485940	646969914.285714
Last Area					
Residual	0.000523676	-0.000624105	-0.00328379	0.00362555	-0.00068833
Rep StDev					
Rep %RSD					
Rep 1 Area	3793336	8314092	28970356	62548594	90575788
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\003. dat	C:\Instarch\Sem i7\Data\102416 pcbic\004.dat	C:\Instarch\Semi 7\Data\102416p cbic\005.dat	C:\Instarch\Semi 7\Data\102416p cbic\006.dat	C:\Instarch\Se mi7\Data\1024 16pcbic\007.da t
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:07

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:10
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #3 (back detector)

Average RF: 4.05478e+008 RF StDev: 6.63842e+007 RF %RSD: 16.3719

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

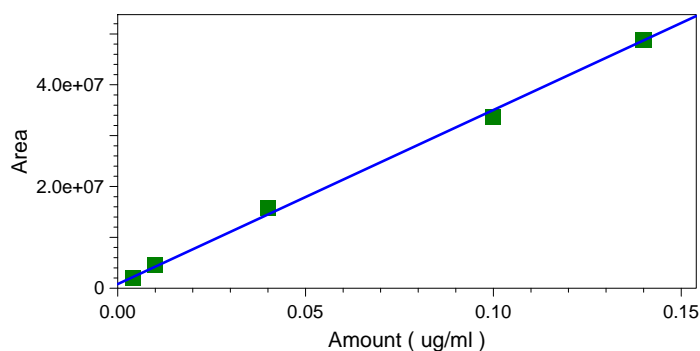
Replicate Mode: Replace

Fit Type: Linear

$y = 3.42295e+008x + 816528.$

Goodness of fit (r^2): 0.997747

Peak: Aroclor 1260 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1954153	4581322	15771789	33701646	48916991
RF	488538250	458132200	394294725	337016460	349407078.571429
Last Area					
Residual	0.000676482	-0.000998672	-0.00369111	0.00392764	-0.000523297
Rep StDev					
Rep %RSD					
Rep 1 Area	1954153	4581322	15771789	33701646	48916991
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:10

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:12
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #4 (back detector)

Average RF: 2.57757e+008 RF StDev: 3.80366e+007 RF %RSD: 14.7568

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

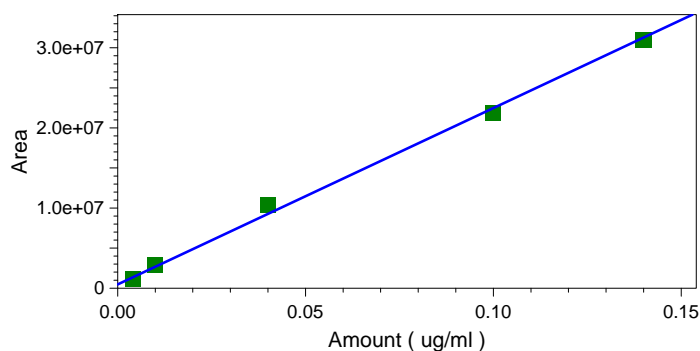
Replicate Mode: Replace

Fit Type: Linear

$y = 2.20013e+008x + 486778$.

Goodness of fit (r^2): 0.997447

Peak: Aroclor 1260 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1209214	2883608	10329377	21817634	31039564
RF	302303500	288360800	258234425	218176340	221711171.428571
Last Area					
Residual	0.000716395	-0.000894038	-0.00473645	0.00304728	0.00113189
Rep StDev					
Rep %RSD					
Rep 1 Area	1209214	2883608	10329377	21817634	31039564
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:12

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:14
 User: JJY
 Instrument: Semi 7

Aroclor 1260 #5 (back detector)

Average RF: 1.88831e+008 RF StDev: 2.19068e+007 RF %RSD: 11.6013

Scaling: None LSQ Weighting: 1/Response Force Through Zero: Off

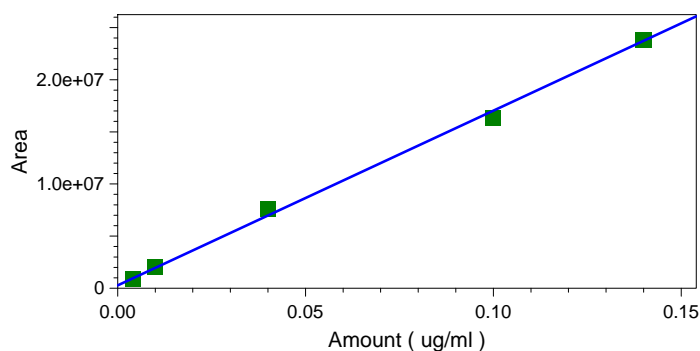
Replicate Mode: Replace

Fit Type: Linear

$y = 1.67532e+008x + 272687.$

Goodness of fit (r^2): 0.997447

Peak: Aroclor 1260 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	855205	2059515	7633586	16313394	23860040
RF	213801250	205951500	190839650	163133940	170428857.142857
Last Area					
Residual	0.000522949	-0.000665584	-0.00393725	0.00425293	-0.000793042
Rep StDev					
Rep %RSD					
Rep 1 Area	855205	2059515	7633586	16313394	23860040
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	0.2				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:14

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 Print Time: Oct 26,2016 15:58:15
 User: JJY
 Instrument: Semi 7

SURRDCBPCB (back detector)

Average RF: 618664. RF StDev: 128194. RF %RSD: 20.7210
 Scaling: None LSQ Weighting: None Force Through Zero: Off

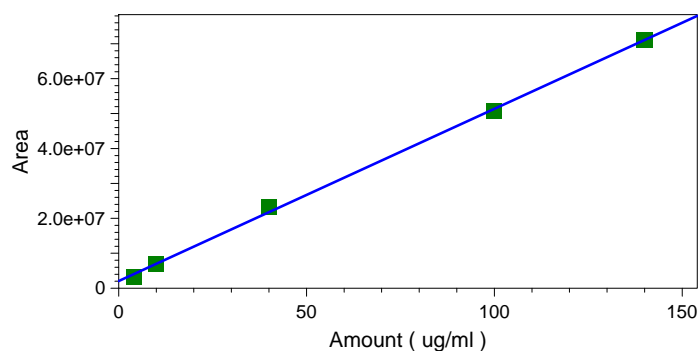
Replicate Mode: Replace

Fit Type: Linear

$y = 493157.x + 2.05176e+006$

Goodness of fit (r^2): 0.999039

Peak: SURRDCBPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	3208379	6957162	23214141	50636744	71230618
RF	802094.75	695716.2	580353.525	506367.44	508790.128571429
Last Area					
Residual	1.65466	0.0530647	-2.91203	1.48177	-0.277466
Rep StDev					
Rep %RSD					
Rep 1 Area	3208379	6957162	23214141	50636744	71230618
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\003.dat	C:\Instarch\Semi7\Data\102416pcbic\004.dat	C:\Instarch\Semi7\Data\102416pcbic\005.dat	C:\Instarch\Semi7\Data\102416pcbic\006.dat	C:\Instarch\Semi7\Data\102416pcbic\007.dat
Rep 1 Sample ID	PCB ICAL PT 1 PP5132	PCB ICAL PT 2 PP5133	PCB ICAL PT 3 PP5134	PCB ICAL PT 4 PP5135	PCB ICAL PT 5 PP5136
Rep 1 Calib. Time	Oct 25,2016 08:32:38	Oct 25,2016 08:32:56	Oct 25,2016 08:33:12	Oct 25,2016 08:33:28	Oct 25,2016 08:33:45
	Level 6				
Amount	200				
Area					

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met

Print Time: Oct 26,2016 15:58:15

User: JJY

Instrument: Semi 7

RF	
Last Area	
Residual	N/A
Rep StDev	
Rep %RSD	
Rep 1 Area	
Rep 1 User	
Rep 1 Data File	
Rep 1 Sample ID	
Rep 1 Calib. Time	

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:00:59
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 284967.

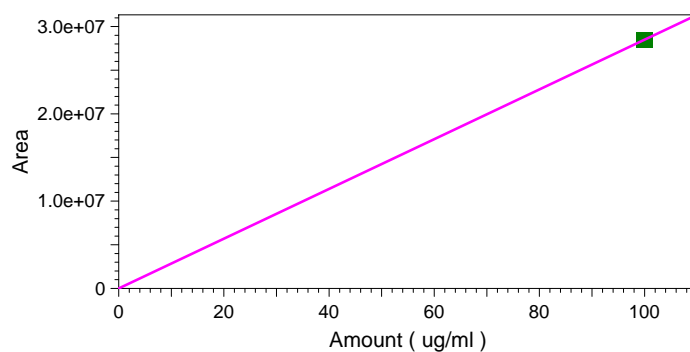
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 284967.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	28496727
RF	284967.27
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28496727
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\011.dat
Rep 1 Sample ID	1221 CF
	PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:11
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #1 (front detector)

Average RF: 4.43184e+007

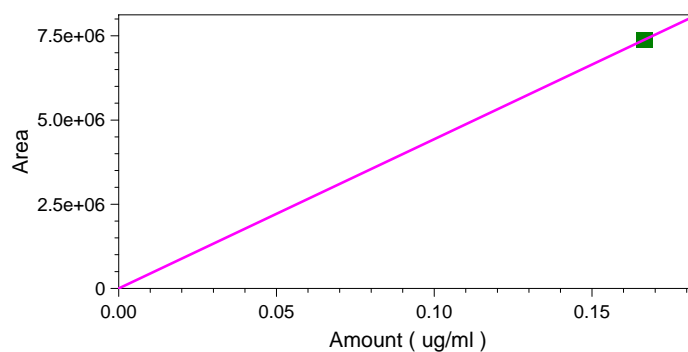
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.43184e+007

Peak: Aroclor 1221 #1 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	7386400
RF	44318400.00
	00018
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7386400
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:13
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #2 (front detector)

Average RF: 2.43361e+007

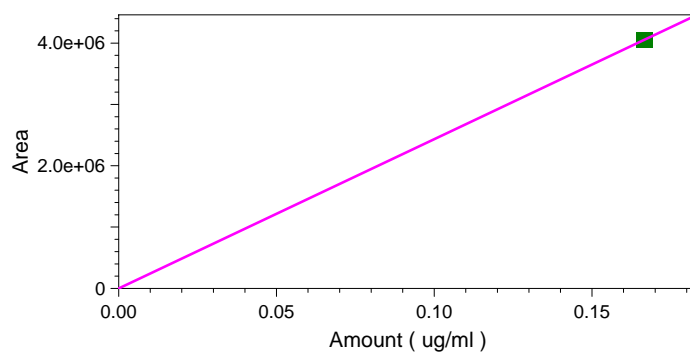
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.43361e+007

Peak: Aroclor 1221 #2 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	4056024
RF	24336144.00
	0001
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4056024
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:15
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #3 (front detector)

Average RF: 9.59770e+006

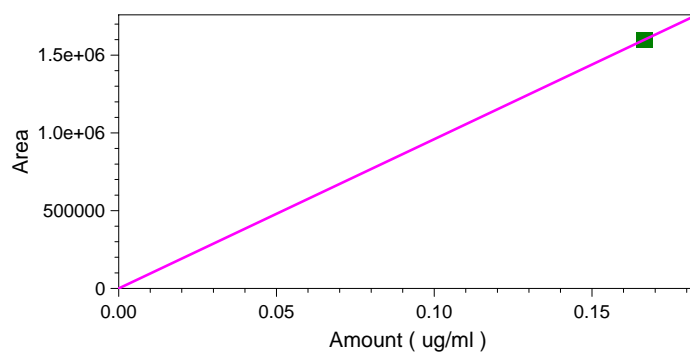
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 9.59770e+006

Peak: Aroclor 1221 #3 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	1599616
RF	9597696.000
	00038
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	1599616
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:17
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 216949.

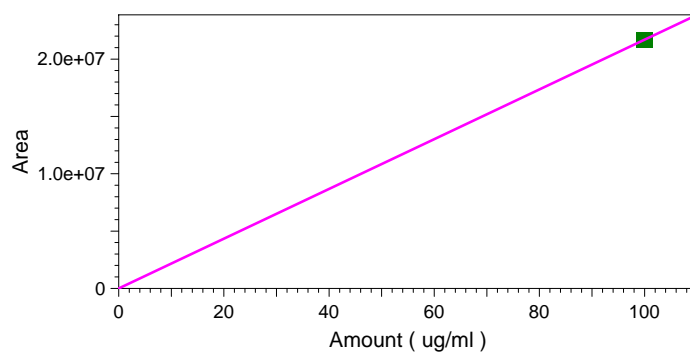
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 216949.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	21694923
RF	216949.23
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21694923
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:23
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 818820.

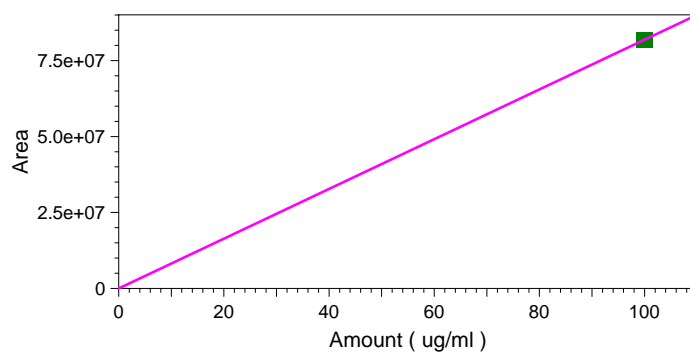
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 818820.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	81882037
RF	818820.37
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	81882037
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\011.dat
Rep 1 Sample ID	1221 CF
	PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:28
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #1 (back detector)

Average RF: 1.29547e+008

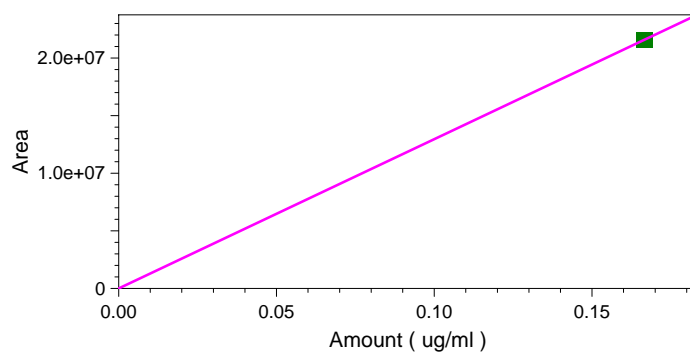
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.29547e+008

Peak: Aroclor 1221 #1 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	21591181
RF	129547086.0
	00005
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21591181
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:29
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #2 (back detector)

Average RF: 8.48670e+007

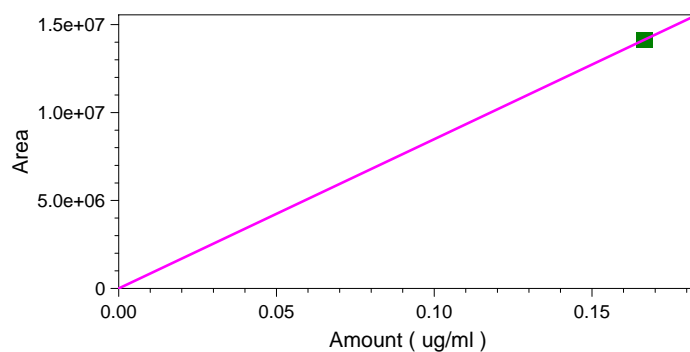
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 8.48670e+007

Peak: Aroclor 1221 #2 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	14144496
RF	84866976.00
	00034
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14144496
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:31
 User: JJY
 Instrument: Semi 7

Aroclor 1221 #3 (back detector)

Average RF: 6.49468e+007

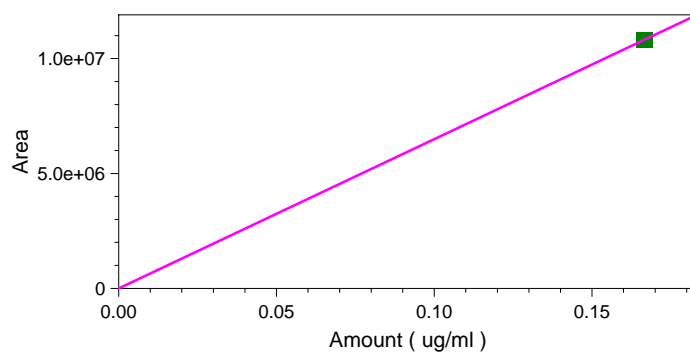
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 6.49468e+007

Peak: Aroclor 1221 #3 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	10824471
RF	64946826.00
	00026
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10824471
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\011. dat
Rep 1 Sample ID	1221 CF PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 Print Time: Oct 26,2016 16:01:32
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 370119.

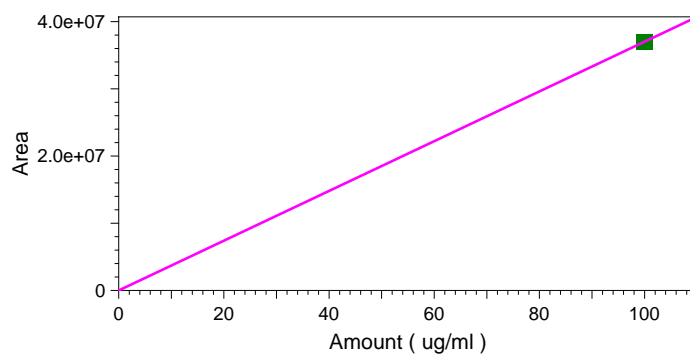
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 370119.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	37011867
RF	370118.67
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37011867
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\011.dat
Rep 1 Sample ID	1221 CF
	PP5176
Rep 1 Calib. Time	Oct 25,2016 10:57:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:08:51
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 302864.

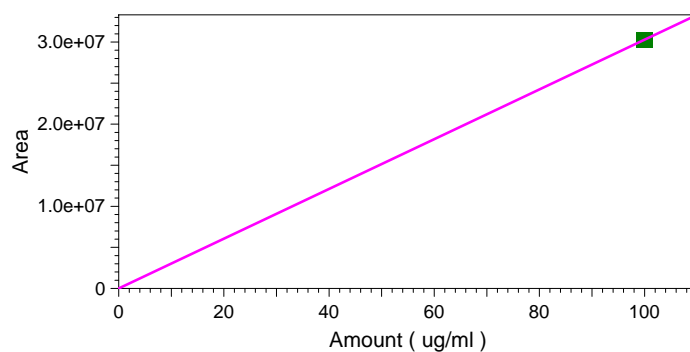
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 302864.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	30286427
RF	302864.27
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30286427
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF
	PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:08:55
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #1 (front detector)

Average RF: 5.48573e+007

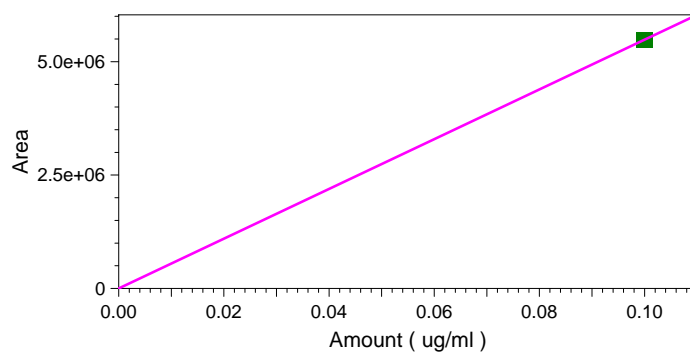
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.48573e+007

Peak: Aroclor 1232 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	5485729
RF	54857290
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5485729
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:08:56
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #2 (front detector)

Average RF: 1.11769e+008

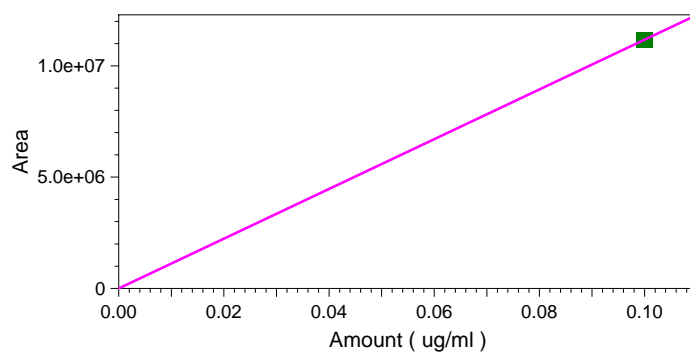
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.11769e+008

Peak: Aroclor 1232 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	11176914
RF	111769140
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11176914
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:08:57
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #3 (front detector)

Average RF: 1.93595e+008

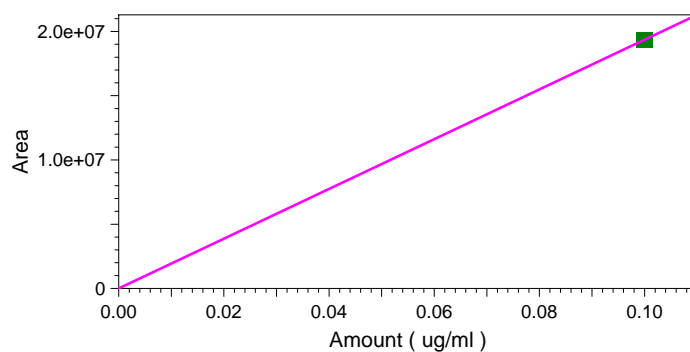
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.93595e+008

Peak: Aroclor 1232 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	19359506
RF	193595060
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19359506
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:08:59
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #4 (front detector)

Average RF: 7.56230e+007

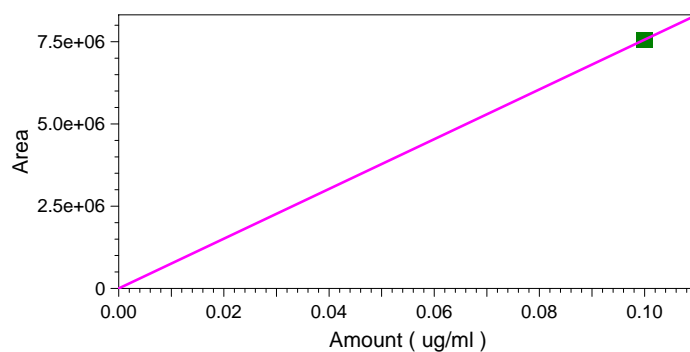
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.56230e+007

Peak: Aroclor 1232 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	7562301
RF	75623010
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7562301
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:01
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #5 (front detector)

Average RF: 5.05392e+007

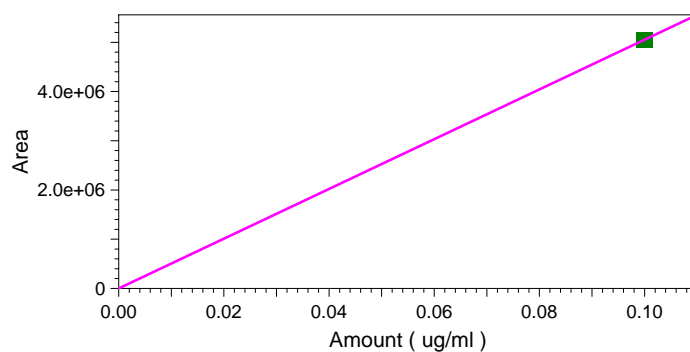
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.05392e+007

Peak: Aroclor 1232 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	5053915
RF	50539150
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5053915
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF
	PP5177
Rep 1 Calib. Time	Oct 25,2016
	10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:02
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 240044.

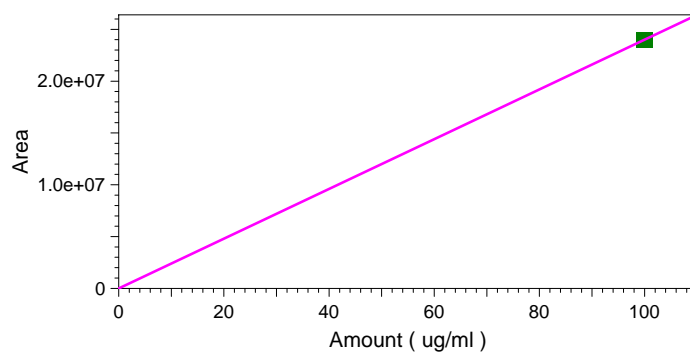
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 240044.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	24004420
RF	240044.2
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	24004420
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF
	PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:12
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 879964.

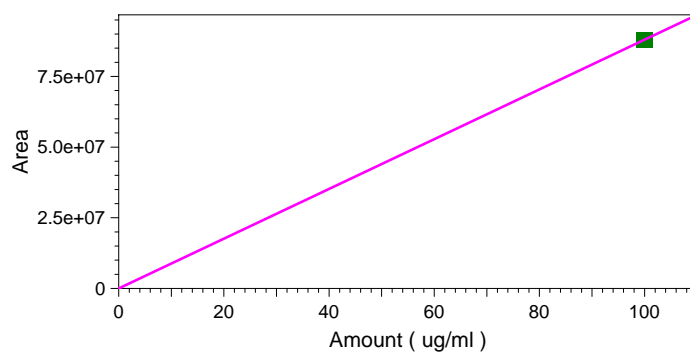
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 879964.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	87996426
RF	879964.26
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	87996426
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:17
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #1 (back detector)

Average RF: 1.59701e+008

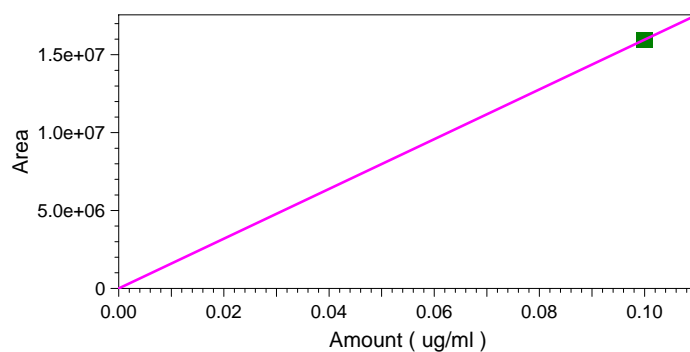
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.59701e+008

Peak: Aroclor 1232 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	15970062
RF	159700620
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	15970062
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:19
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #2 (back detector)

Average RF: 4.95778e+008

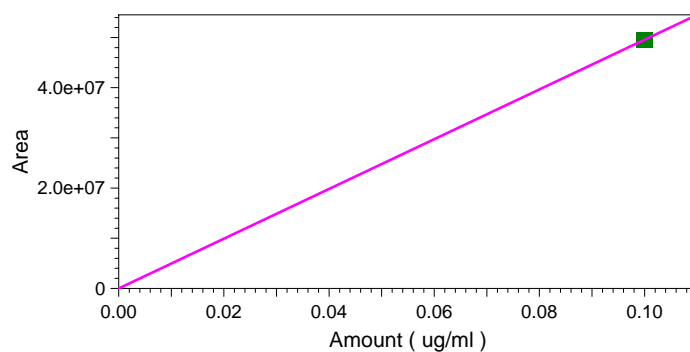
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.95778e+008

Peak: Aroclor 1232 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	49577803
RF	495778030
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	49577803
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:20
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #3 (back detector)

Average RF: 3.83077e+008

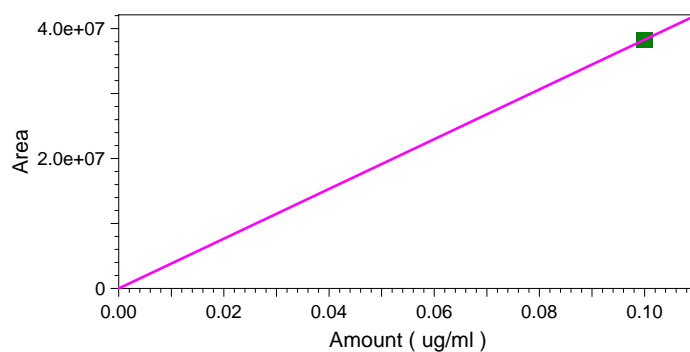
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.83077e+008

Peak: Aroclor 1232 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	38307720
RF	383077200
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38307720
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:22
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #4 (back detector)

Average RF: 3.72392e+008

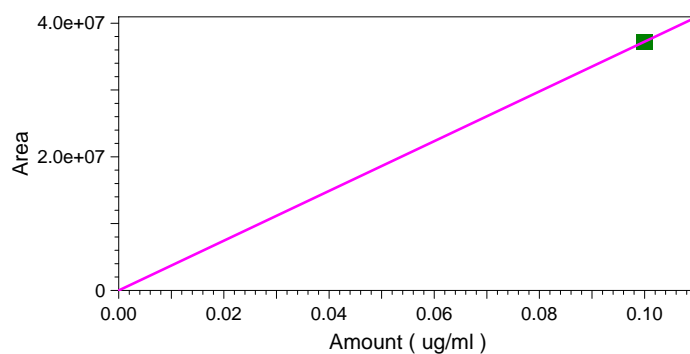
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.72392e+008

Peak: Aroclor 1232 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	37239163
RF	372391630
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37239163
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:24
 User: JJY
 Instrument: Semi 7

Aroclor 1232 #5 (back detector)

Average RF: 1.90882e+008

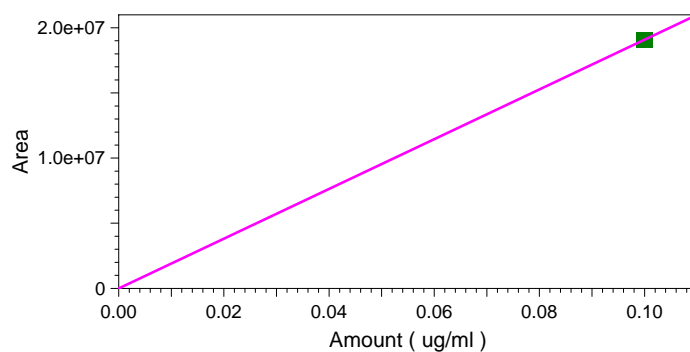
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.90882e+008

Peak: Aroclor 1232 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	19088159
RF	190881590
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19088159
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\012. dat
Rep 1 Sample ID	1232 CF PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 Print Time: Oct 26,2016 16:09:25
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 407176.

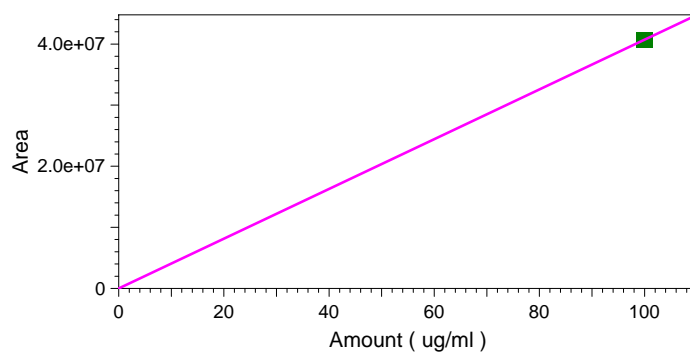
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 407176.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	40717601
RF	407176.01
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	40717601
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\012.dat
Rep 1 Sample ID	1232 CF
	PP5177
Rep 1 Calib. Time	Oct 25,2016 10:57:44

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:29
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 351602.

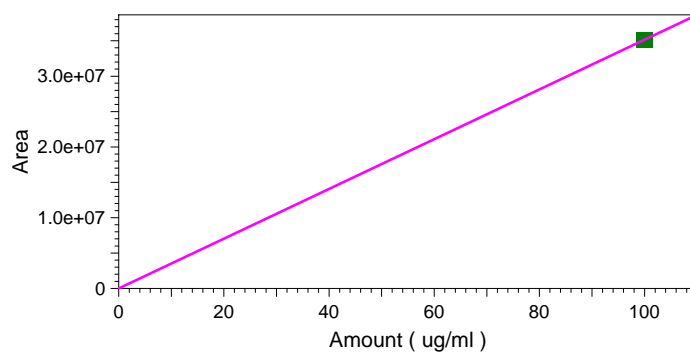
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 351602.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	35160184
RF	351601.84
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	35160184
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\013.dat
Rep 1 Sample ID	1242 CF
	PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:32
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #1 (front detector)

Average RF: 1.02991e+008

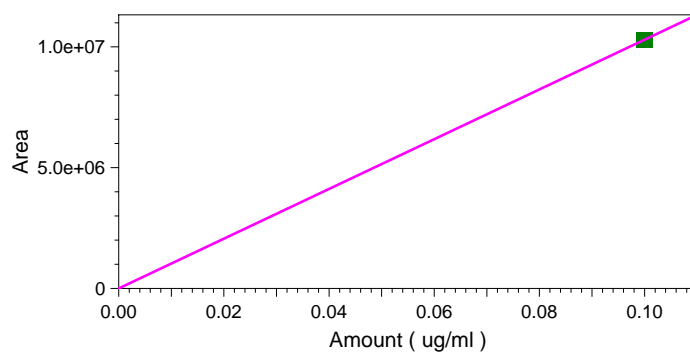
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.02991e+008

Peak: Aroclor 1242 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	10299121
RF	102991210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10299121
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:34
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #2 (front detector)

Average RF: 2.02351e+008

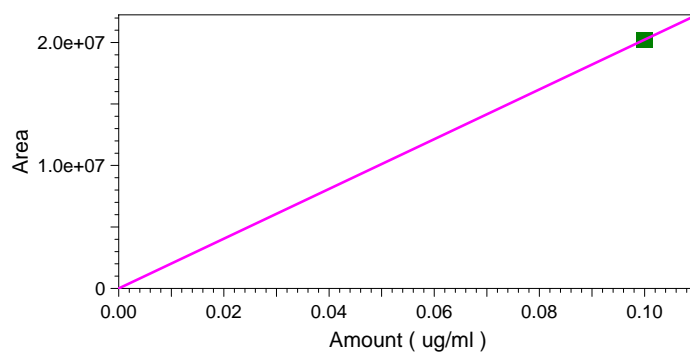
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.02351e+008

Peak: Aroclor 1242 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	20235060
RF	202350600
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	20235060
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:35
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #3 (front detector)

Average RF: 1.37773e+008

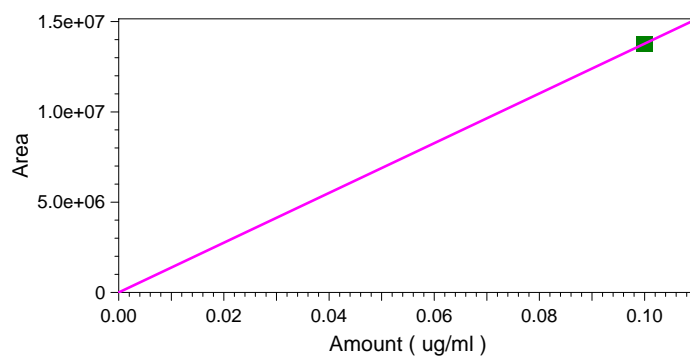
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.37773e+008

Peak: Aroclor 1242 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	13777256
RF	137772560
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13777256
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\013.dat
Rep 1 Sample ID	1242 CF
	PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:37
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #4 (front detector)

Average RF: 1.61867e+008

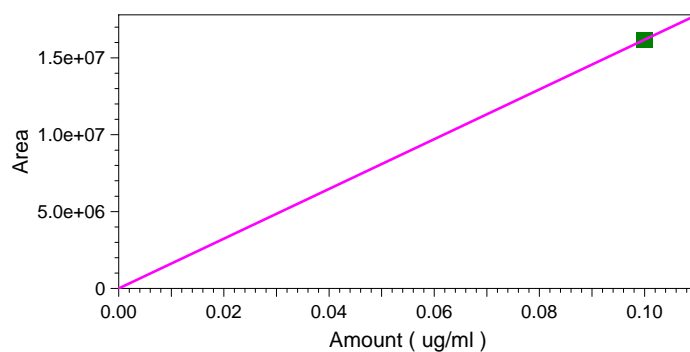
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.61867e+008

Peak: Aroclor 1242 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	16186686
RF	161866860
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16186686
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:38
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #5 (front detector)

Average RF: 1.23682e+008

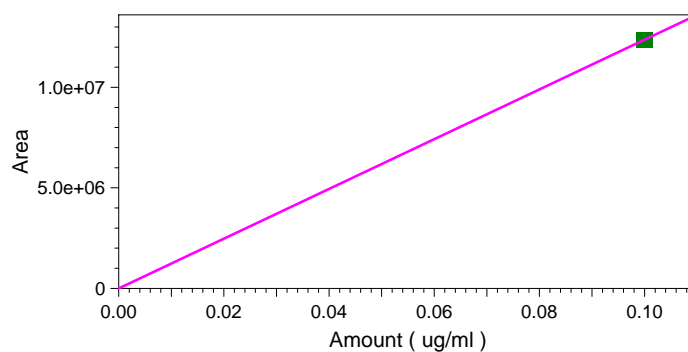
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.23682e+008

Peak: Aroclor 1242 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	12368202
RF	123682020
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12368202
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:40
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 276701.

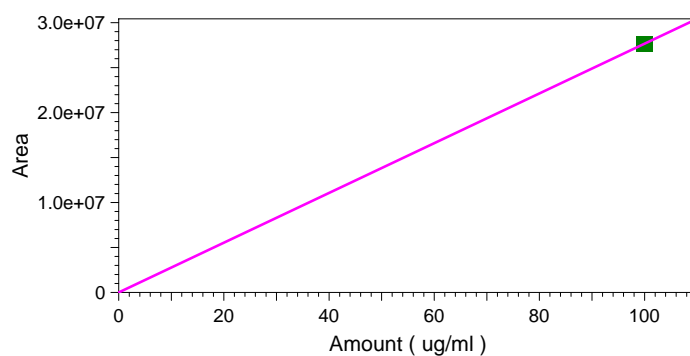
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 276701.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	27670147
RF	276701.47
Last Area	
Residual	-1.42109e-01
	4
Rep StDev	
Rep %RSD	
Rep 1 Area	27670147
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:48
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 1.04686e+006

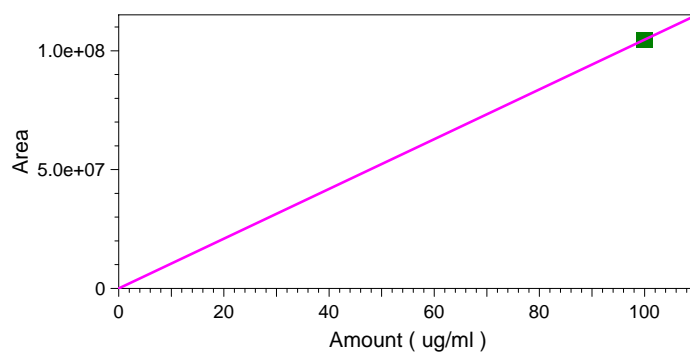
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.04686e+006

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	104686158
RF	1046861.58
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	104686158
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:50
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #1 (back detector)

Average RF: 3.27973e+008

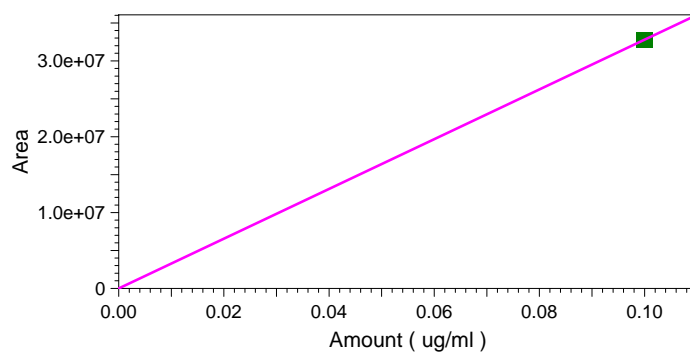
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.27973e+008

Peak: Aroclor 1242 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	32797316
RF	327973160
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	32797316
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:52
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #2 (back detector)

Average RF: 6.01215e+008

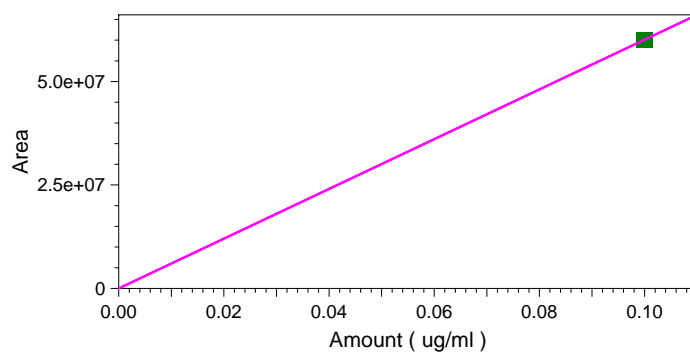
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 6.01215e+008

Peak: Aroclor 1242 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	60121505
RF	601215050
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	60121505
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:53
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #3 (back detector)

Average RF: 1.75608e+008

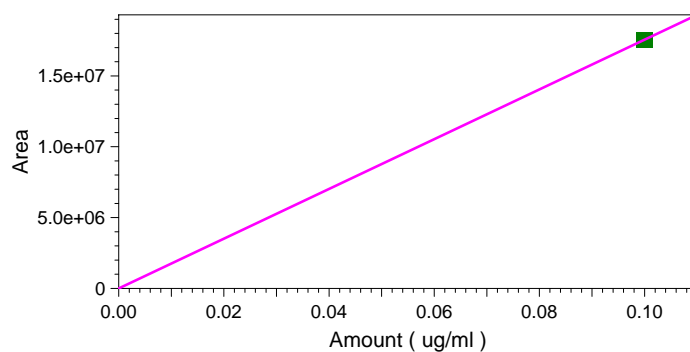
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.75608e+008

Peak: Aroclor 1242 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	17560805
RF	175608050
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17560805
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:55
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #4 (back detector)

Average RF: 6.14204e+008

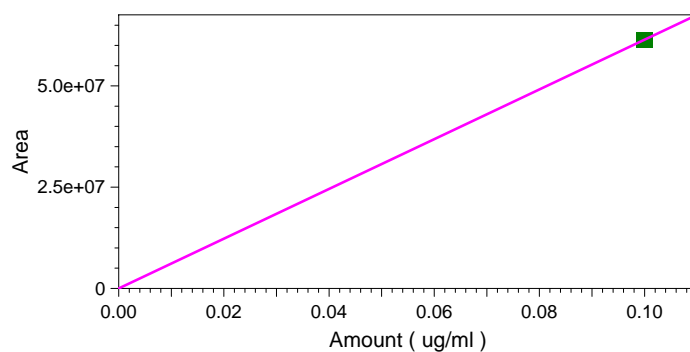
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 6.14204e+008

Peak: Aroclor 1242 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	61420374
RF	614203740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	61420374
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\013. dat
Rep 1 Sample ID	1242 CF PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:56
 User: JJY
 Instrument: Semi 7

Aroclor 1242 #5 (back detector)

Average RF: 3.08908e+008

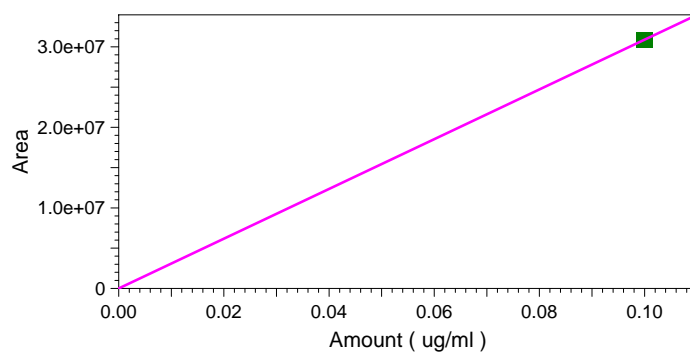
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.08908e+008

Peak: Aroclor 1242 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	30890794
RF	308907940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30890794
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\013.dat
Rep 1 Sample ID	1242 CF
	PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
 Print Time: Oct 26,2016 16:10:58
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 472469.

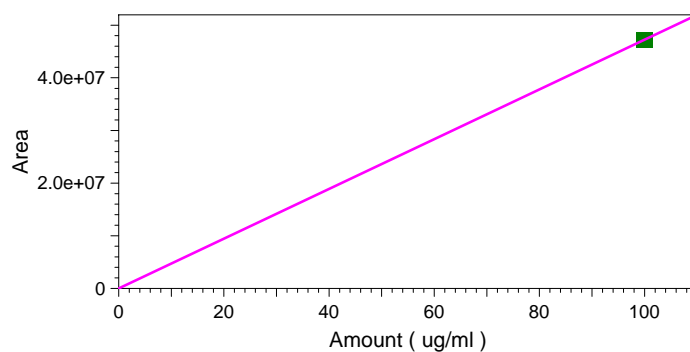
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 472469.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47246906
RF	472469.06
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47246906
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\013.dat
Rep 1 Sample ID	1242 CF
	PP5143
Rep 1 Calib. Time	Oct 25,2016 10:58:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:38
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 261319.

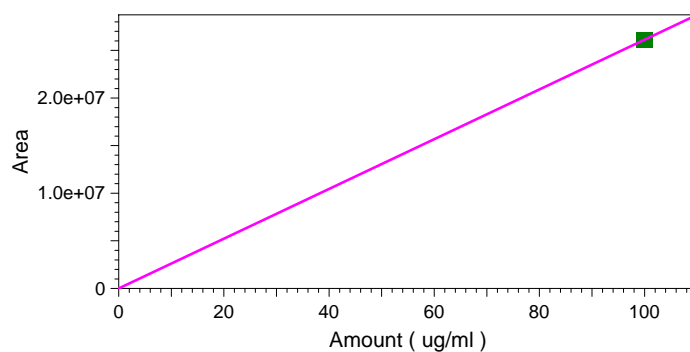
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 261319.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	26131868
RF	261318.68
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	26131868
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:40
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #1 (front detector)

Average RF: 1.06459e+008

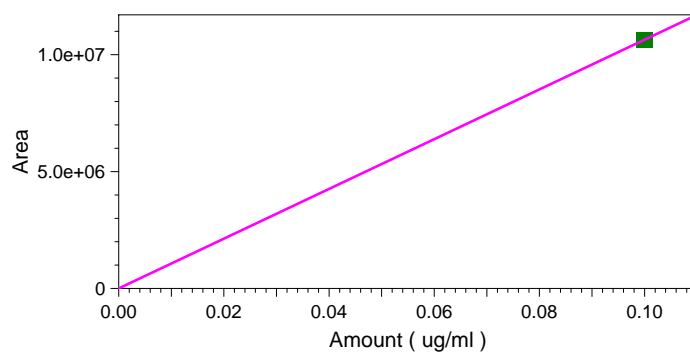
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.06459e+008

Peak: Aroclor 1248 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	10645937
RF	106459370
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10645937
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:42
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #2 (front detector)

Average RF: 2.10163e+008

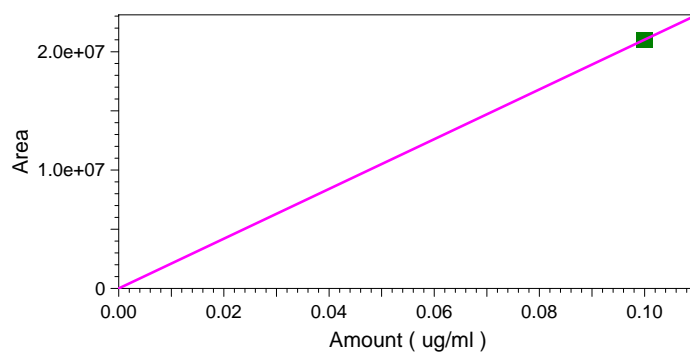
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.10163e+008

Peak: Aroclor 1248 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21016261
RF	210162610
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21016261
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:43
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #3 (front detector)

Average RF: 1.63002e+008

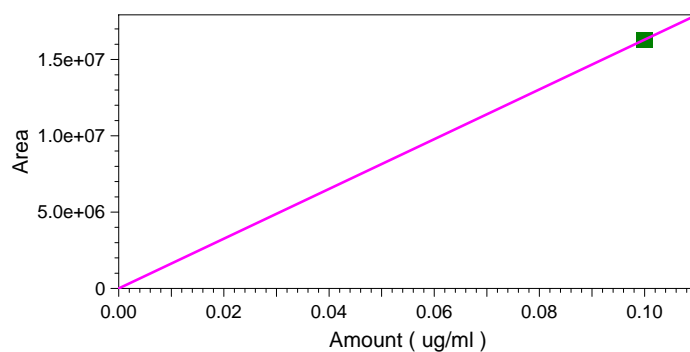
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.63002e+008

Peak: Aroclor 1248 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	16300151
RF	163001510
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16300151
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:45
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #4 (front detector)

Average RF: 7.92251e+007

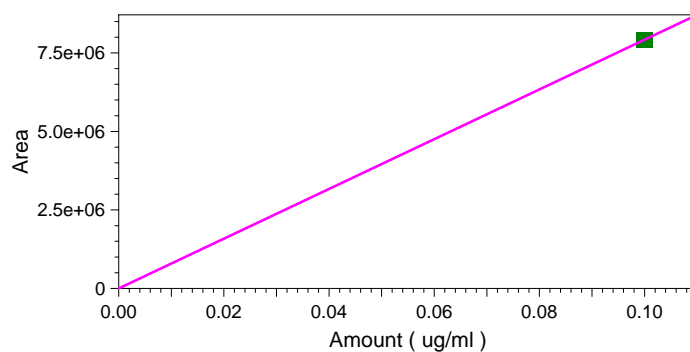
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.92251e+007

Peak: Aroclor 1248 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	7922512
RF	79225120
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7922512
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:46
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #5 (front detector)

Average RF: 1.27756e+008

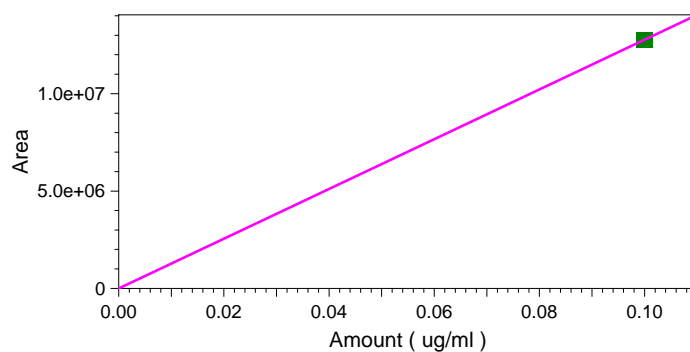
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.27756e+008

Peak: Aroclor 1248 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	12775636
RF	127756360
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12775636
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:47
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 229922.

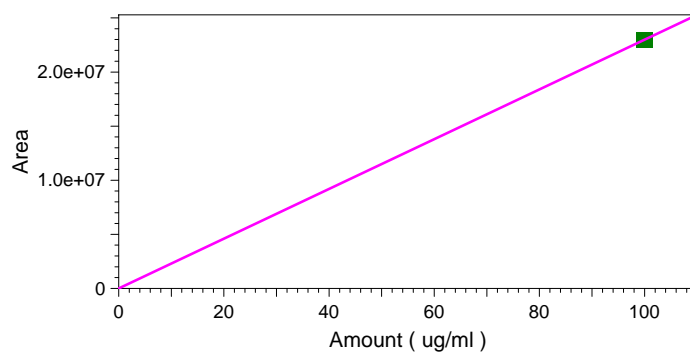
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 229922.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	22992158
RF	229921.58
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	22992158
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:53
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 791320.

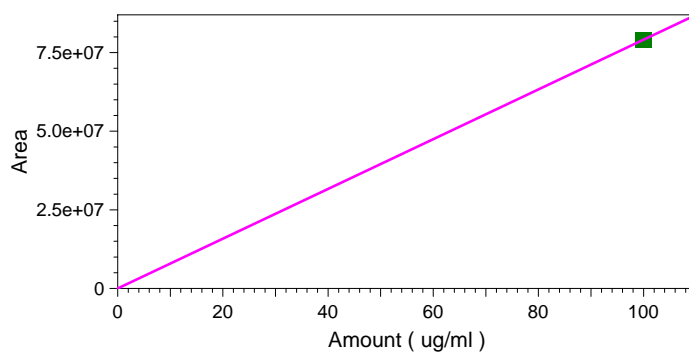
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 791320.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	79131998
RF	791319.98
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	79131998
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:55
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #1 (back detector)

Average RF: 3.40392e+008

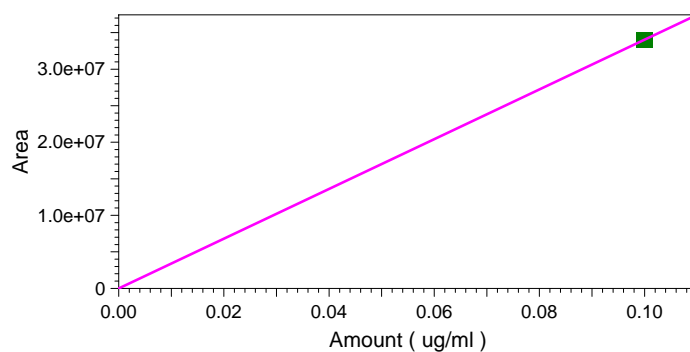
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.40392e+008

Peak: Aroclor 1248 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	34039214
RF	340392140
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	34039214
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:56
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #2 (back detector)

Average RF: 4.44519e+008

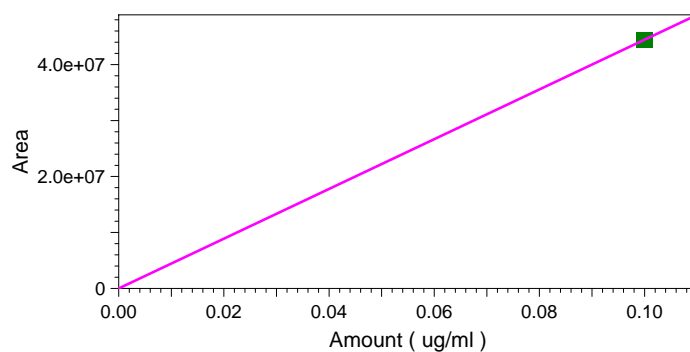
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.44519e+008

Peak: Aroclor 1248 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	44451898
RF	444518980
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	44451898
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:12:58
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #3 (back detector)

Average RF: 2.81686e+008

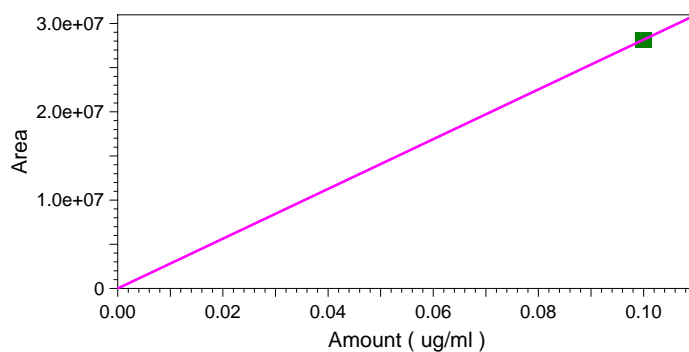
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.81686e+008

Peak: Aroclor 1248 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	28168614
RF	281686140
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28168614
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:13:07
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #4 (back detector)

Average RF: 7.78757e+008

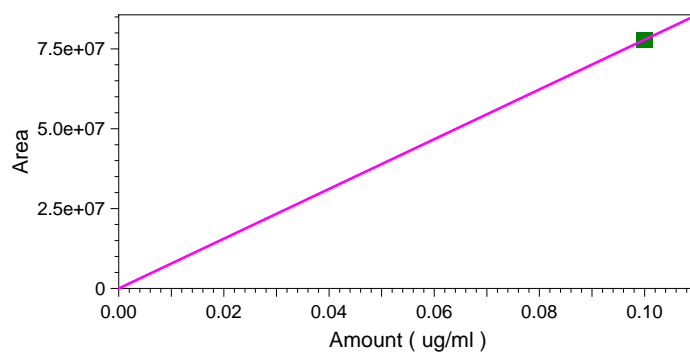
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.78757e+008

Peak: Aroclor 1248 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	77875669
RF	778756690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	77875669
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\014. dat
Rep 1 Sample ID	1248 CF PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:13:09
 User: JJY
 Instrument: Semi 7

Aroclor 1248 #5 (back detector)

Average RF: 4.92507e+008

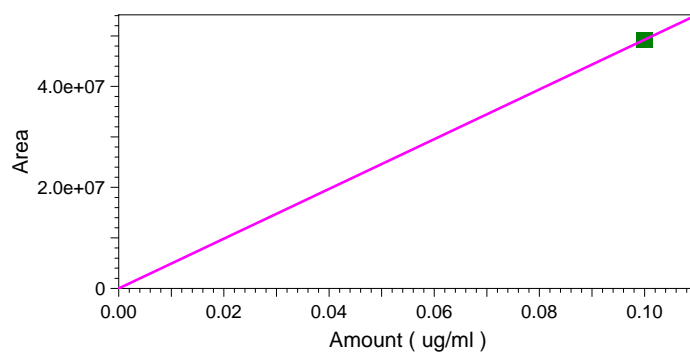
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.92507e+008

Peak: Aroclor 1248 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	49250709
RF	492507090
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	49250709
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 Print Time: Oct 26,2016 16:13:11
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 391422.

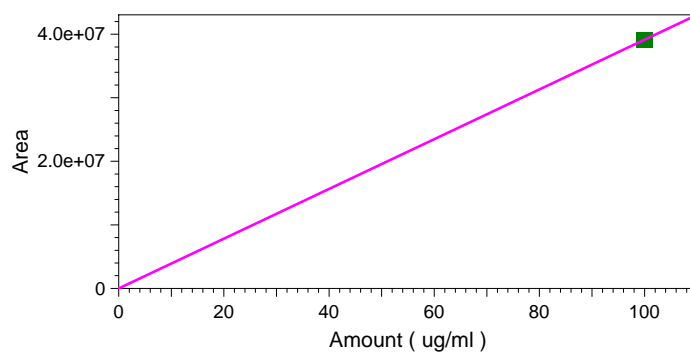
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 391422.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	39142249
RF	391422.49
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39142249
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\014.dat
Rep 1 Sample ID	1248 CF
	PP5178
Rep 1 Calib. Time	Oct 25,2016 10:58:37

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:10
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 351077.

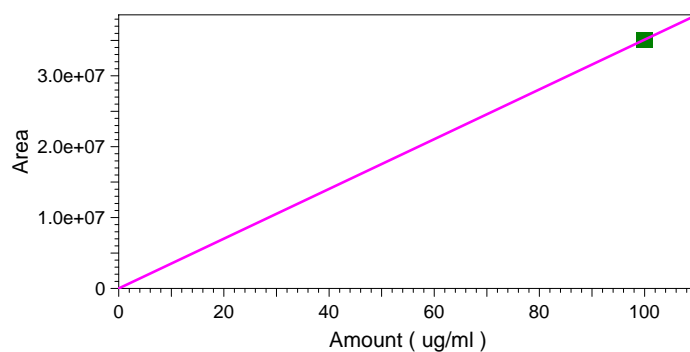
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 351077.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	35107654
RF	351076.54
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	35107654
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\015.dat
Rep 1 Sample ID	1254 CF
	PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:13
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #1 (front detector)

Average RF: 2.21968e+008

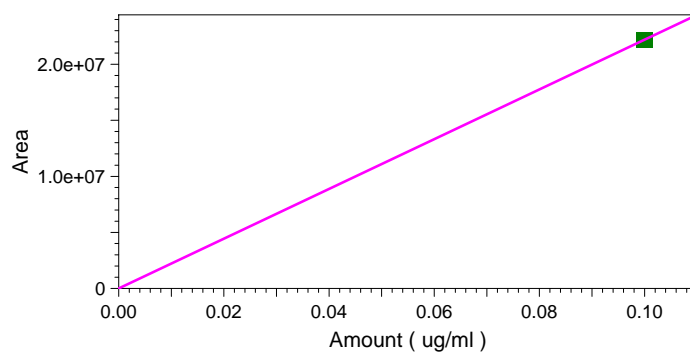
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.21968e+008

Peak: Aroclor 1254 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	22196793
RF	221967930
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	22196793
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:15
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #2 (front detector)

Average RF: 3.06653e+008

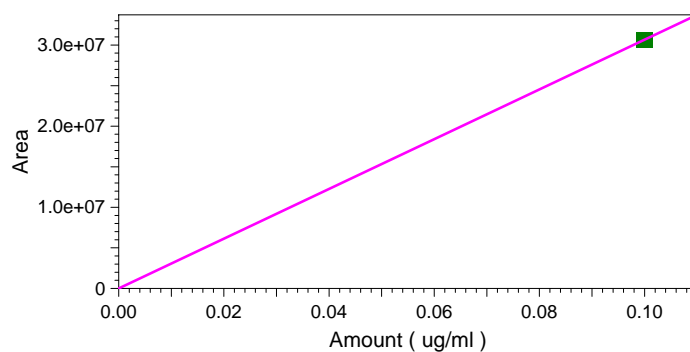
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.06653e+008

Peak: Aroclor 1254 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	30665324
RF	306653240
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30665324
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:16
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #3 (front detector)

Average RF: 1.10752e+008

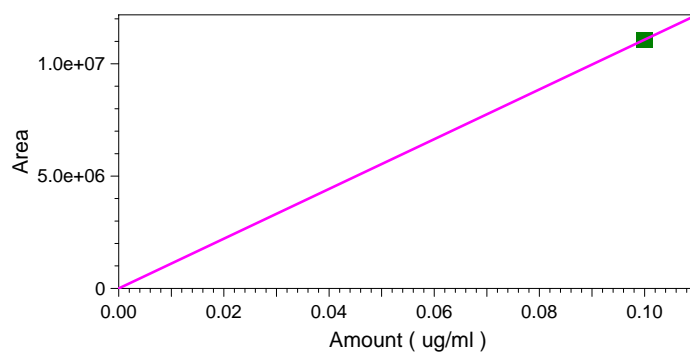
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.10752e+008

Peak: Aroclor 1254 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	11075183
RF	110751830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11075183
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:18
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #4 (front detector)

Average RF: 4.13681e+008

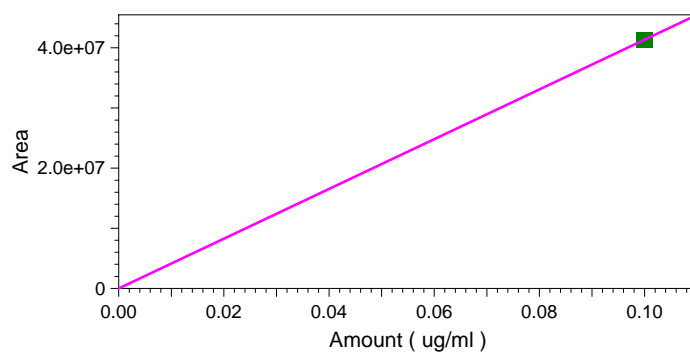
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.13681e+008

Peak: Aroclor 1254 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	41368116
RF	413681160
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41368116
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:20
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #5 (front detector)

Average RF: 1.10493e+008

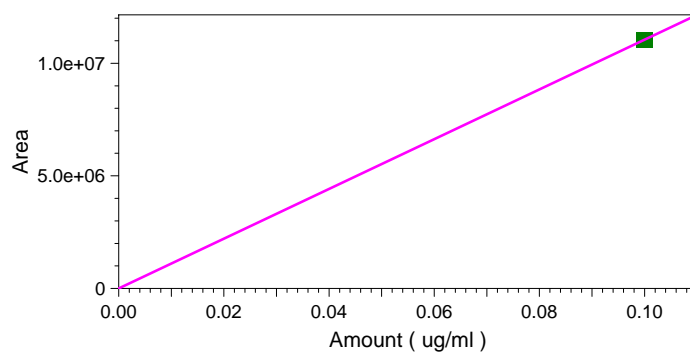
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.10493e+008

Peak: Aroclor 1254 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	11049289
RF	110492890
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11049289
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:21
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 275048.

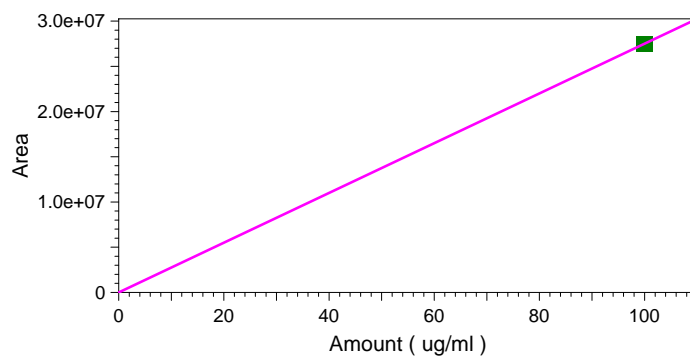
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 275048.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	27504809
RF	275048.09
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	27504809
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\015.dat
Rep 1 Sample ID	1254 CF
	PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:27
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 1.05848e+006

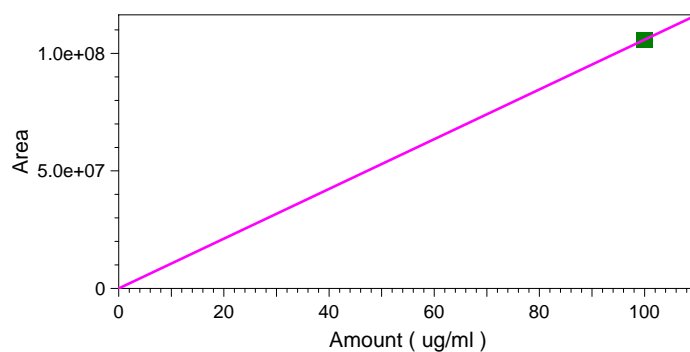
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.05848e+006

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	105847597
RF	1058475.97
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	105847597
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:29
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #1 (back detector)

Average RF: 4.58167e+008

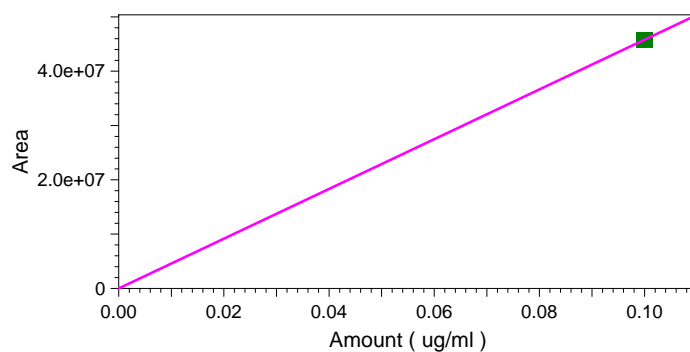
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.58167e+008

Peak: Aroclor 1254 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	45816734
RF	458167340
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	45816734
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:30
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #2 (back detector)

Average RF: 5.36260e+008

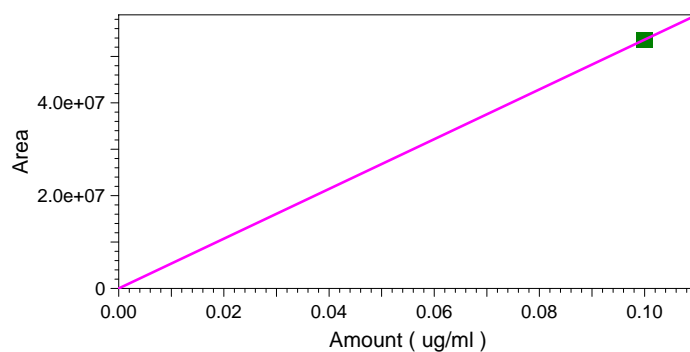
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.36260e+008

Peak: Aroclor 1254 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	53625969
RF	536259690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	53625969
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:32
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #3 (back detector)

Average RF: 3.15476e+008

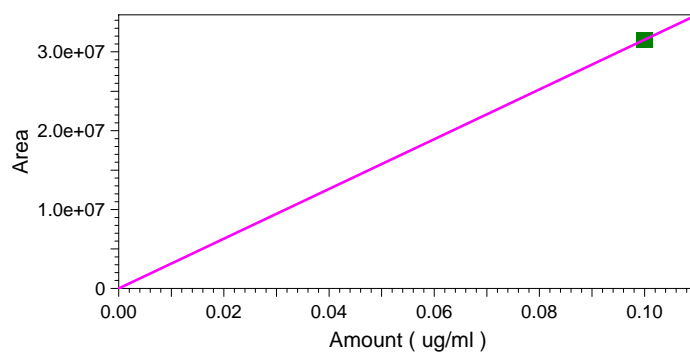
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.15476e+008

Peak: Aroclor 1254 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	31547621
RF	315476210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	31547621
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:33
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #4 (back detector)

Average RF: 1.05723e+009

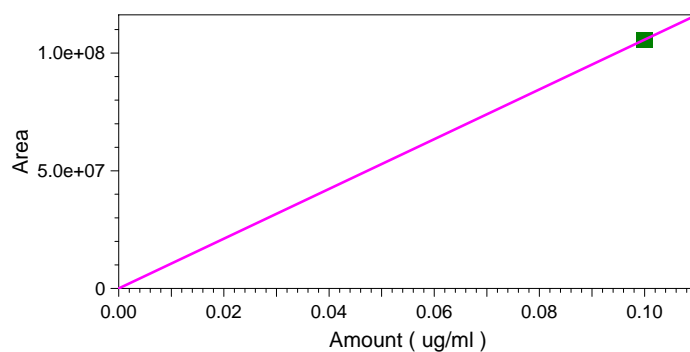
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.05723e+009

Peak: Aroclor 1254 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	105722759
RF	1057227590
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	105722759
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\015. dat
Rep 1 Sample ID	1254 CF PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:35
 User: JJY
 Instrument: Semi 7

Aroclor 1254 #5 (back detector)

Average RF: 2.53847e+008

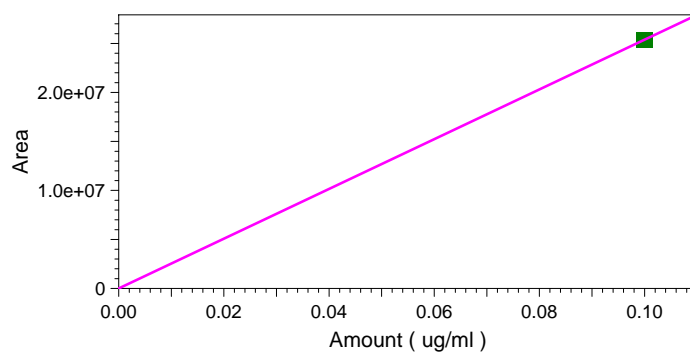
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.53847e+008

Peak: Aroclor 1254 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	25384664
RF	253846640
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25384664
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\015.dat
Rep 1 Sample ID	1254 CF
	PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
 Print Time: Oct 26,2016 16:14:37
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 469960.

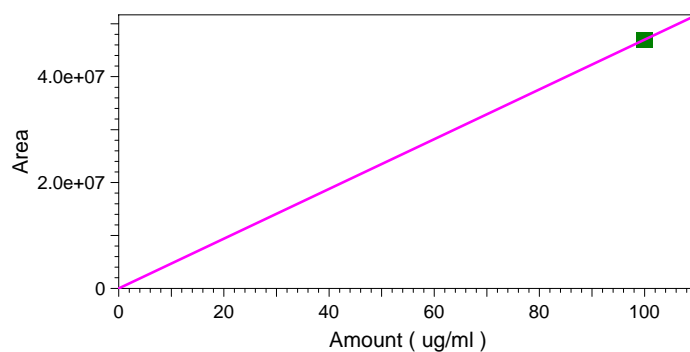
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 469960.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	46995993
RF	469959.93
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46995993
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\015.dat
Rep 1 Sample ID	1254 CF
	PP5151
Rep 1 Calib. Time	Oct 25,2016 10:59:04

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:00
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 276067.

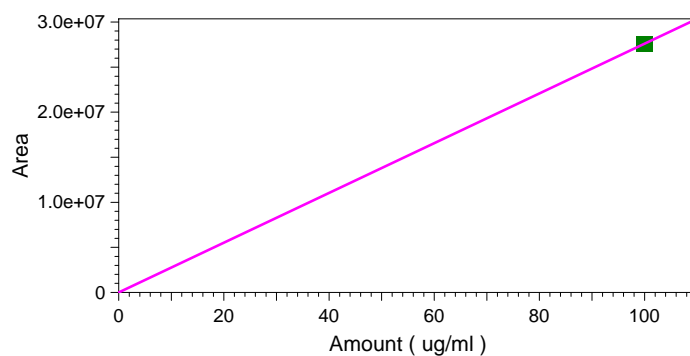
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 276067.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	27606679
RF	276066.79
Last Area	
Residual	-1.42109e-01
	4
Rep StDev	
Rep %RSD	
Rep 1 Area	27606679
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:03
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #1 (front detector)

Average RF: 2.42085e+008

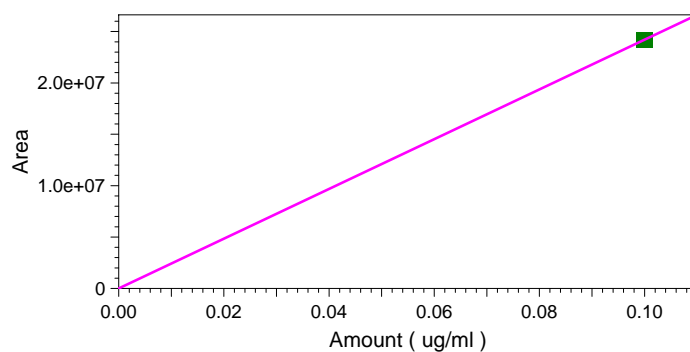
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.42085e+008

Peak: Aroclor 1262 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	24208535
RF	242085350
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	24208535
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:04
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #2 (front detector)

Average RF: 4.13934e+008

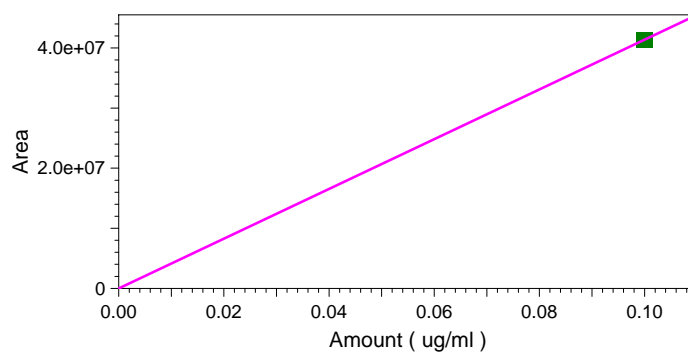
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.13934e+008

Peak: Aroclor 1262 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	41393363
RF	413933630
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41393363
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:06
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #3 (front detector)

Average RF: 3.52093e+008

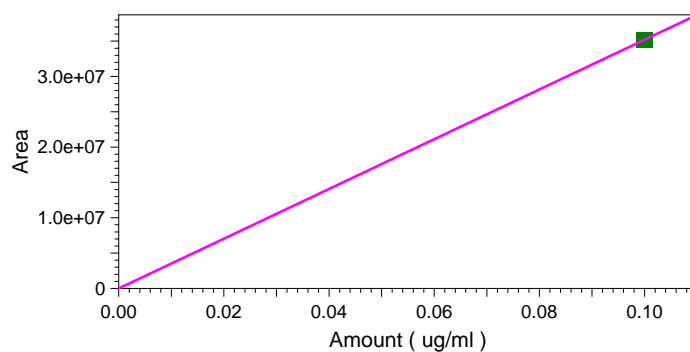
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.52093e+008

Peak: Aroclor 1262 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	35209273
RF	352092730
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	35209273
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:07
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #4 (front detector)

Average RF: 2.27166e+008

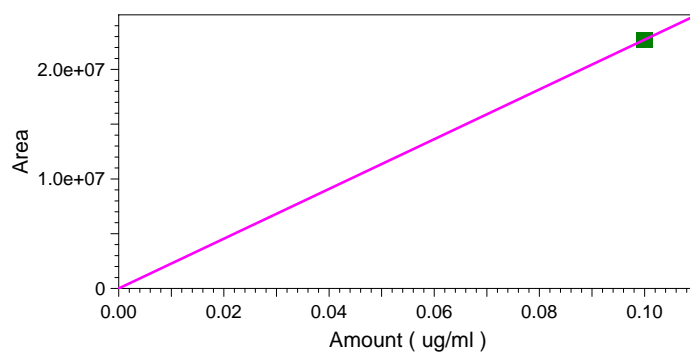
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.27166e+008

Peak: Aroclor 1262 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	22716627
RF	227166270
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	22716627
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:09
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #5 (front detector)

Average RF: 2.90399e+008

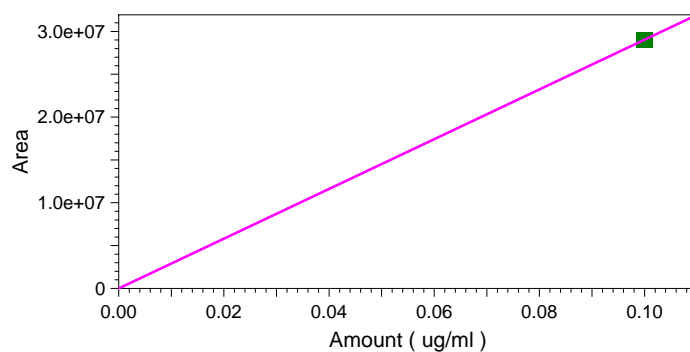
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.90399e+008

Peak: Aroclor 1262 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	29039879
RF	290398790
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29039879
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:10
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 230200.

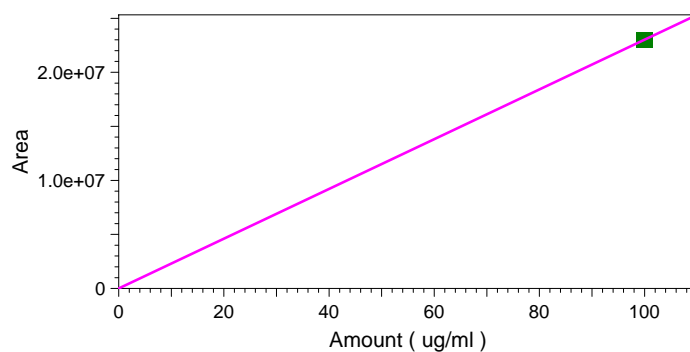
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 230200.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	23020009
RF	230200.09
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	23020009
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:17
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 841611.

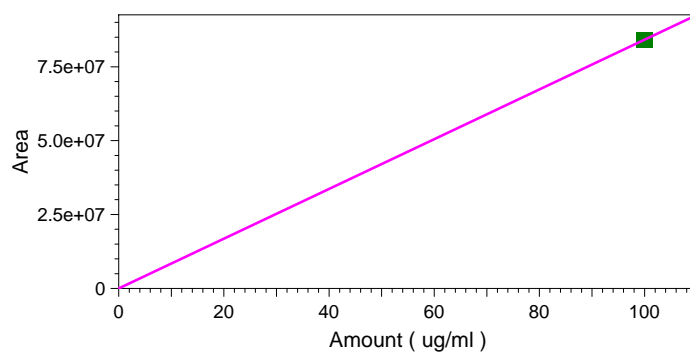
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 841611.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	84161119
RF	841611.19
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	84161119
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:27
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #1 (back detector)

Average RF: 7.49728e+008

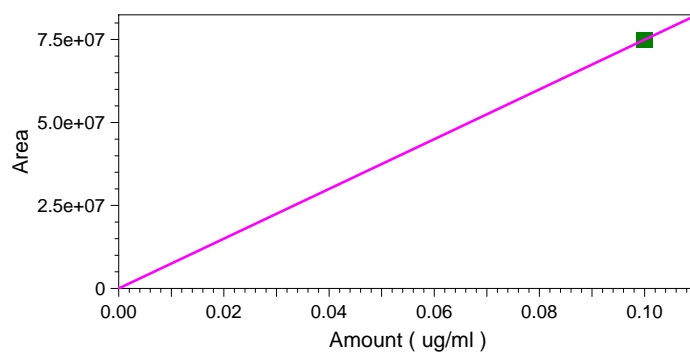
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.49728e+008

Peak: Aroclor 1262 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	74972837
RF	749728370
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	74972837
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:28
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #2 (back detector)

Average RF: 9.67048e+008

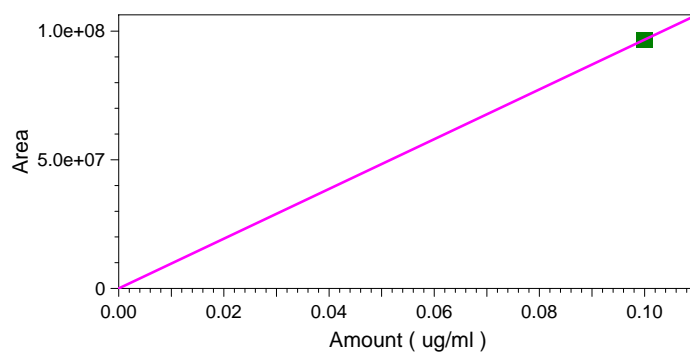
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 9.67048e+008

Peak: Aroclor 1262 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	96704826
RF	967048260
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	96704826
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:30
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #3 (back detector)

Average RF: 4.77364e+008

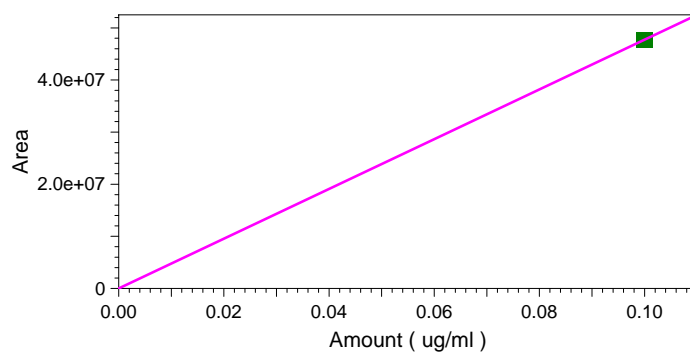
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.77364e+008

Peak: Aroclor 1262 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	47736361
RF	477363610
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47736361
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:31
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #4 (back detector)

Average RF: 1.09327e+009

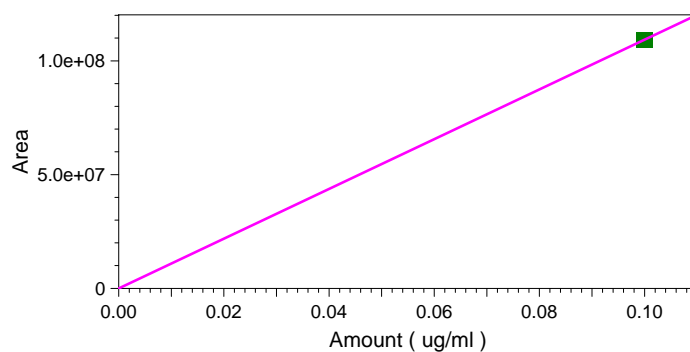
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.09327e+009

Peak: Aroclor 1262 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	109327082
RF	1093270820
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	109327082
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\016. dat
Rep 1 Sample ID	1262 CF PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:34
 User: JJY
 Instrument: Semi 7

Aroclor 1262 #5 (back detector)

Average RF: 5.47015e+008

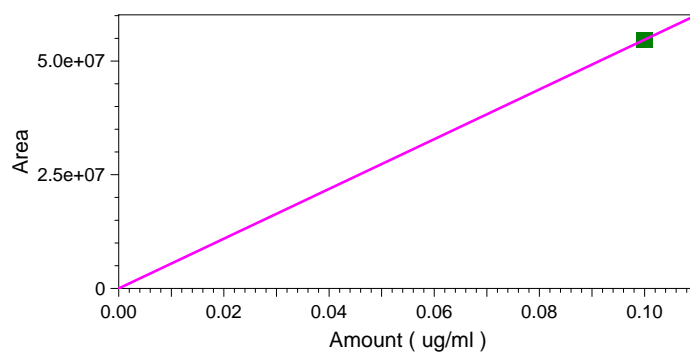
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.47015e+008

Peak: Aroclor 1262 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	54701459
RF	547014590
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	54701459
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 Print Time: Oct 26,2016 16:22:36
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 393448.

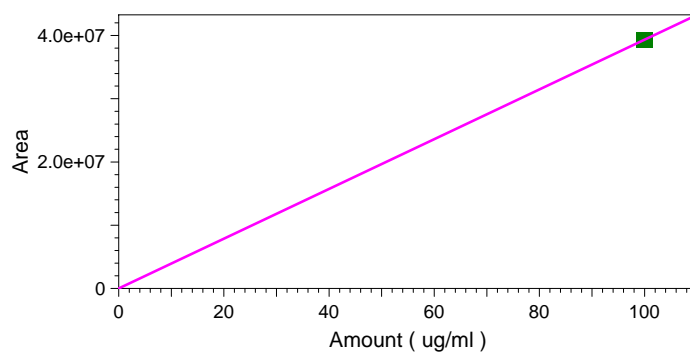
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 393448.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	39344752
RF	393447.52
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39344752
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\016.dat
Rep 1 Sample ID	1262 CF
	PP5179
Rep 1 Calib. Time	Oct 25,2016 10:59:32

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:35
 User: JJY
 Instrument: Semi 7

SURRTCMX (front detector)

Average RF: 256278.

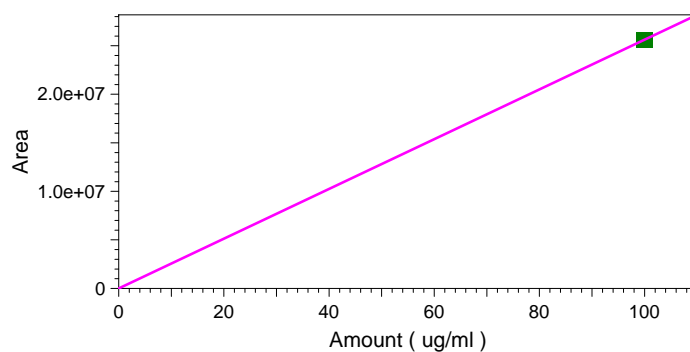
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 256278.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	25627824
RF	256278.24
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25627824
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:39
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #1 (front detector)

Average RF: 1.95009e+008

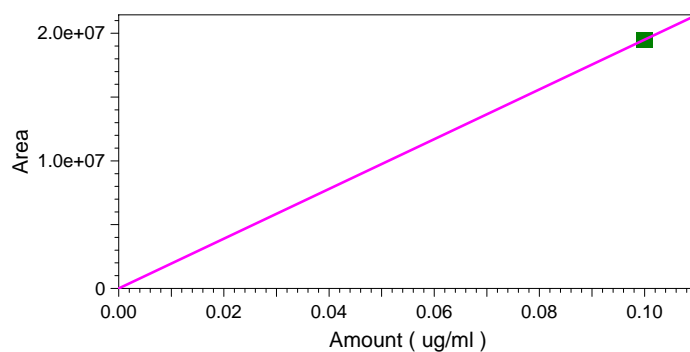
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.95009e+008

Peak: Aroclor 1268 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	19500881
RF	195008810
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19500881
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:40
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #2 (front detector)

Average RF: 2.26478e+008

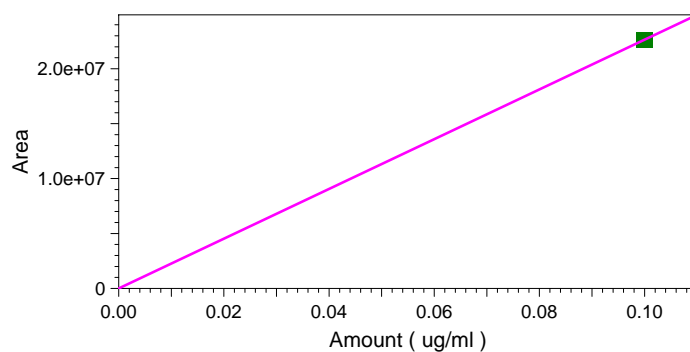
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.26478e+008

Peak: Aroclor 1268 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	22647827
RF	226478270
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	22647827
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:42
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #3 (front detector)

Average RF: 9.25511e+008

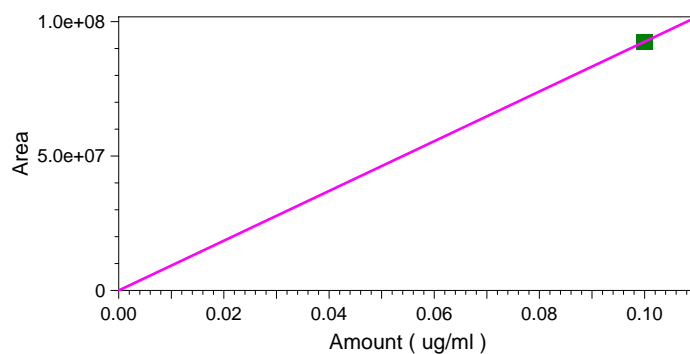
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 9.25511e+008

Peak: Aroclor 1268 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	92551124
RF	925511240
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	92551124
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:43
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #4 (front detector)

Average RF: 7.26166e+008

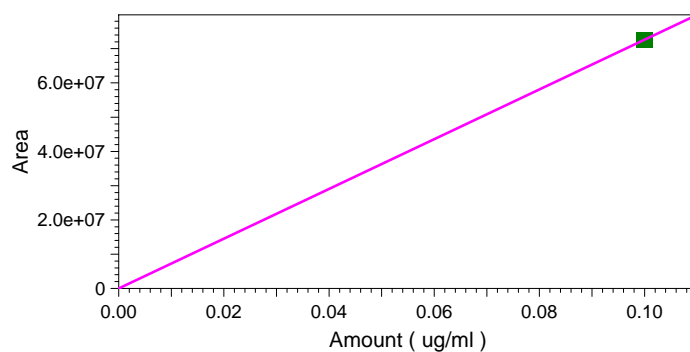
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.26166e+008

Peak: Aroclor 1268 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	72616621
RF	726166210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	72616621
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:45
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #5 (front detector)

Average RF: 3.02705e+008

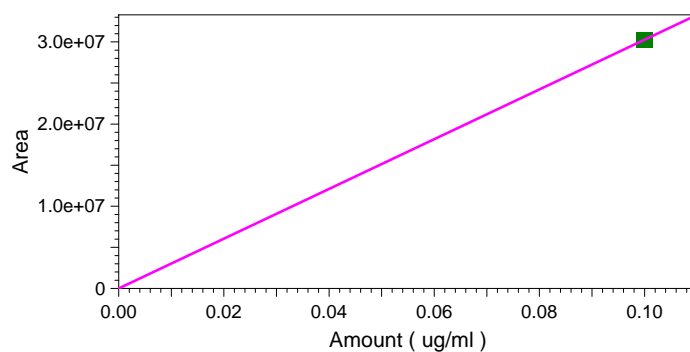
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.02705e+008

Peak: Aroclor 1268 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	30270513
RF	302705130
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30270513
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:47
 User: JJY
 Instrument: Semi 7

SURRDCB (front detector)

Average RF: 603167.

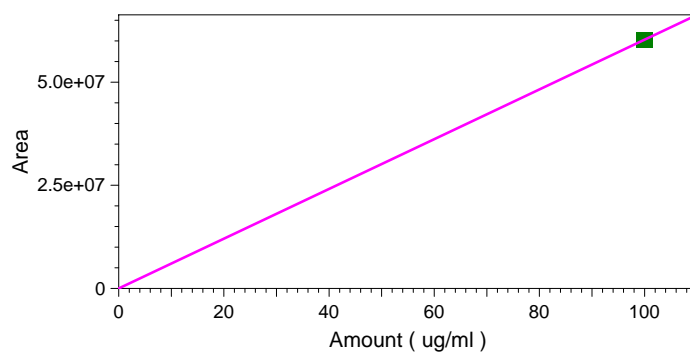
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 603167.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	60316709
RF	603167.09
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	60316709
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016
	11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:53
 User: JJY
 Instrument: Semi 7

SURRTCMX (back detector)

Average RF: 805210.

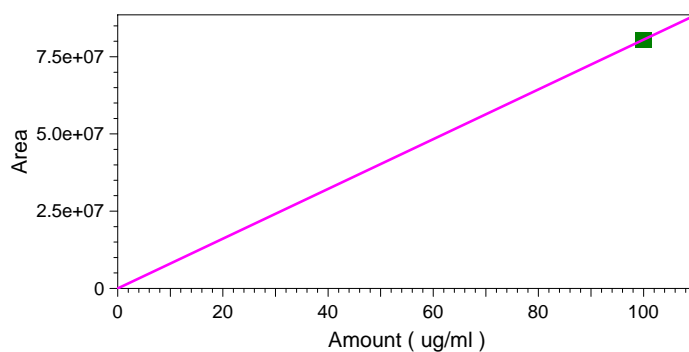
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 805210.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	80520970
RF	805209.7
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	80520970
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:56
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #1 (back detector)

Average RF: 4.29196e+008

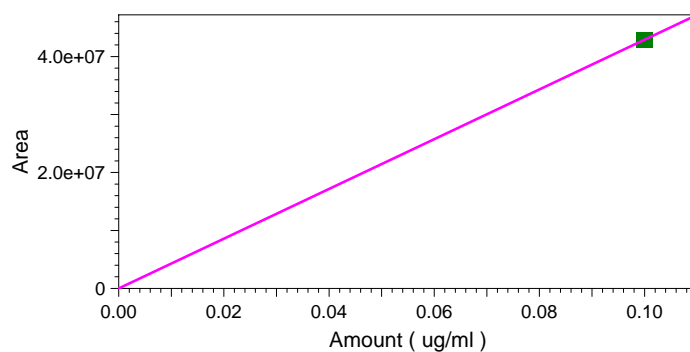
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.29196e+008

Peak: Aroclor 1268 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	42919613
RF	429196130
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	42919613
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:23:57
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #2 (back detector)

Average RF: 5.28431e+008

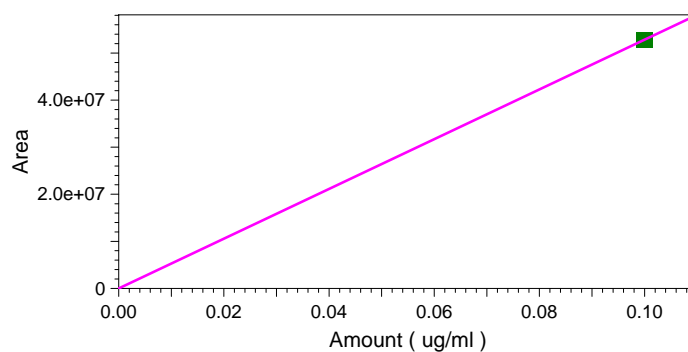
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.28431e+008

Peak: Aroclor 1268 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	52843058
RF	528430580
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	52843058
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:24:01
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #3 (back detector)

Average RF: 1.81472e+009

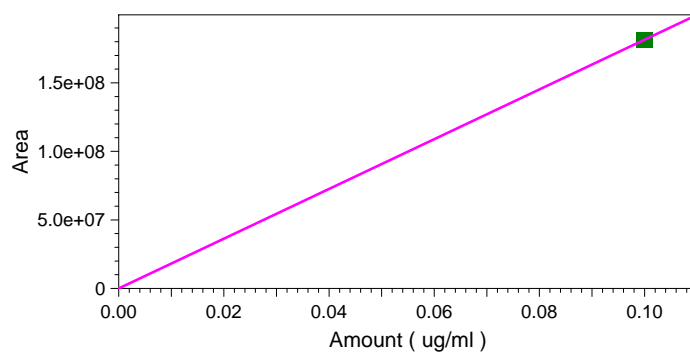
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.81472e+009

Peak: Aroclor 1268 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	181472134
RF	1814721340
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	181472134
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:24:03
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #4 (back detector)

Average RF: 1.39568e+009

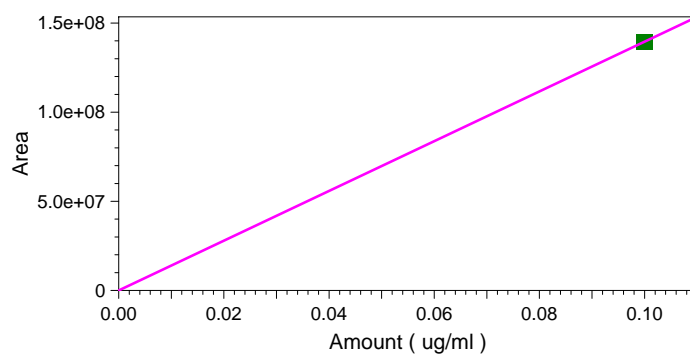
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.39568e+009

Peak: Aroclor 1268 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	139567521
RF	1395675210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	139567521
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:24:04
 User: JJY
 Instrument: Semi 7

Aroclor 1268 #5 (back detector)

Average RF: 5.98394e+008

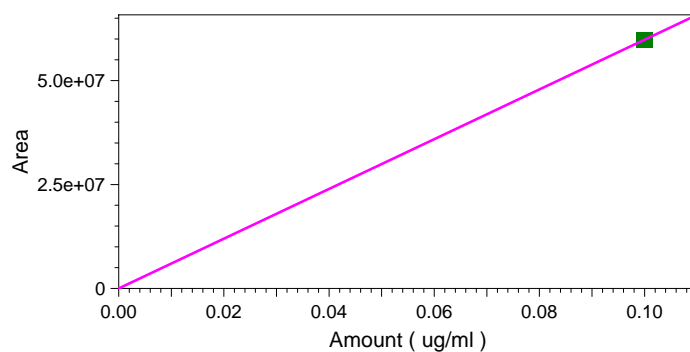
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.98394e+008

Peak: Aroclor 1268 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	59839446
RF	598394460
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	59839446
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\102 416pcbic\017. dat
Rep 1 Sample ID	1268 CF PP5180
Rep 1 Calib. Time	Oct 25,2016 11:00:16

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
 Print Time: Oct 26,2016 16:24:06
 User: JJY
 Instrument: Semi 7

SURRDCB (back detector)

Average RF: 999538.

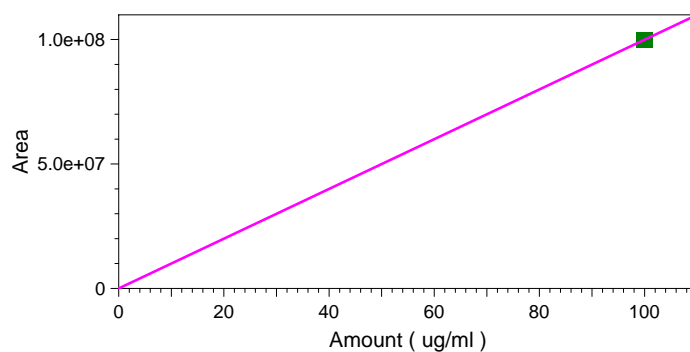
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 999538.

Peak: SURRDCB -- ESTD -- back detector

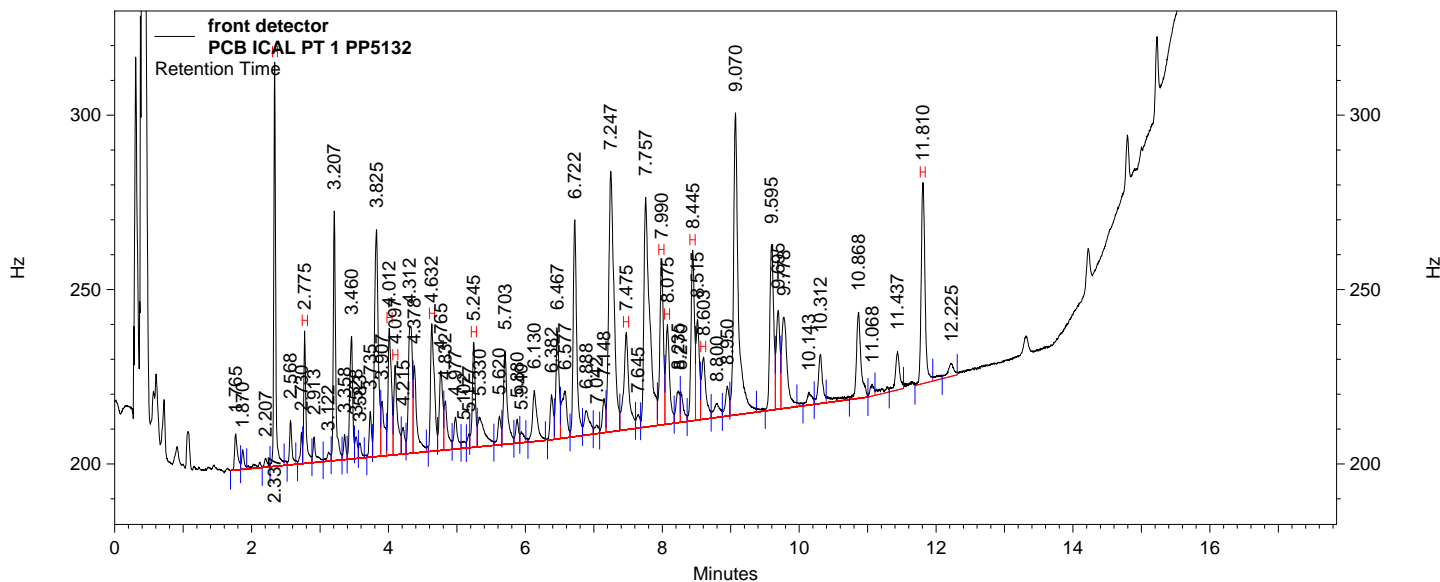


Level 1	
Amount	100
Area	99953750
RF	999537.5
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	99953750
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102416pcbic\017.dat
Rep 1 Sample ID	1268 CF
	PP5180
Rep 1 Calib. Time	Oct 25,2016
	11:00:16

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICAL PT 1 PP5132
Acquired: Oct 24,2016 14:59:54
Printed: Oct 25,2016 13:50:30

Data Summary: {Data Description}



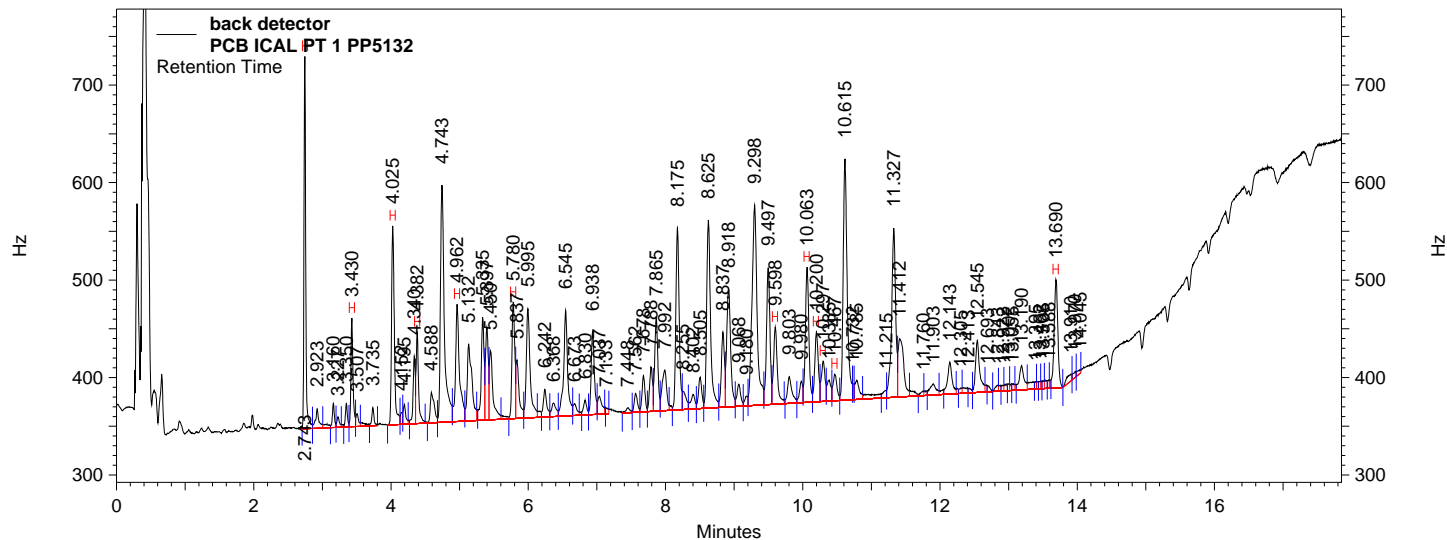
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.337	1669764	4.000 CAL
Aroclor 1016 #1	2.775	647184	0.004 CAL
Aroclor 1016 #2	4.012	953793	0.004 CAL
Aroclor 1016 #3	4.097	720428	0.004 CAL
Aroclor 1016 #4	4.632	1080507	0.004 CAL
Aroclor 1016 #5	5.245	707884	0.004 CAL
Aroclor 1260 #1	7.475	1139715	0.004 CAL
Aroclor 1260 #2	7.990	1314807	0.004 CAL
Aroclor 1260 #3	8.075	855988	0.004 CAL
Aroclor 1260 #4	8.445	1291552	0.004 CAL
Aroclor 1260 #5	8.603	632970	0.004 CAL
SURRDCBPCB	11.810	1701336	4.000 CAL
Aroclor 1016		4109796	0.020 CAL
Aroclor 1260		5235032	0.020 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\003.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICAL PT 1 PP5132
 Acquired: Oct 24,2016 14:59:54
 Printed: Oct 25,2016 13:50:30

Data Summary: {Data Description}



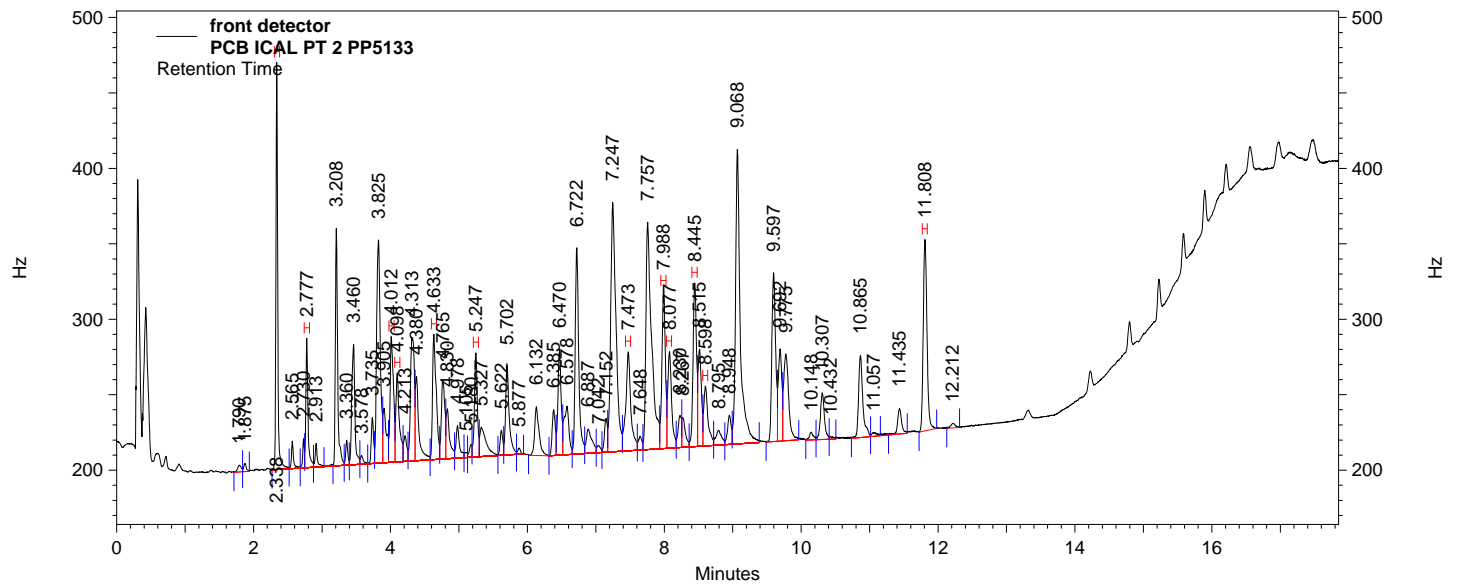
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.743	5134416	4.000 CAL
Aroclor 1016 #1	3.430	1825613	0.004 CAL
Aroclor 1016 #2	4.025	4422702	0.004 CAL
Aroclor 1016 #3	4.382	1783357	0.004 CAL
Aroclor 1016 #4	4.962	3778148	0.004 CAL
Aroclor 1016 #5	5.780	2619471	0.004 CAL
Aroclor 1260 #1	9.598	2354971	0.004 CAL
Aroclor 1260 #2	10.063	3793336	0.004 CAL
Aroclor 1260 #3	10.200	1954153	0.004 CAL
Aroclor 1260 #4	10.297	1209214	0.004 CAL
Aroclor 1260 #5	10.467	855205	0.004 CAL
SURRDCBPCB	13.690	3208379	4.000 CAL
Aroclor 1016		14429291	0.020 CAL
Aroclor 1260		10166879	0.020 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICAL PT 2 PP5133
Acquired: Oct 24,2016 15:21:18
Printed: Oct 25,2016 13:50:33

Data Summary: {Data Description}



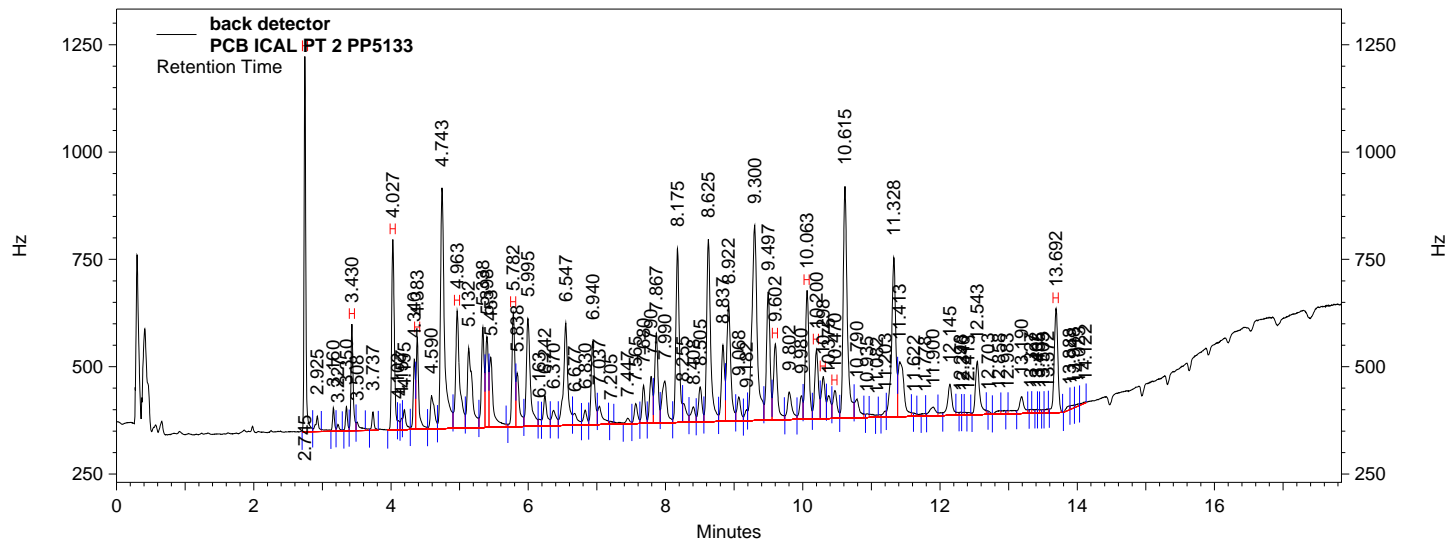
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.338	3721617	10.000 CAL
Aroclor 1016 #1	2.777	1418115	0.010 CAL
Aroclor 1016 #2	4.012	2205094	0.010 CAL
Aroclor 1016 #3	4.098	1627755	0.010 CAL
Aroclor 1016 #4	4.633	2379680	0.010 CAL
Aroclor 1016 #5	5.247	1581753	0.010 CAL
Aroclor 1260 #1	7.473	2593924	0.010 CAL
Aroclor 1260 #2	7.988	2865645	0.010 CAL
Aroclor 1260 #3	8.077	1935184	0.010 CAL
Aroclor 1260 #4	8.445	2916782	0.010 CAL
Aroclor 1260 #5	8.598	1350597	0.010 CAL
SURRDCBPCB	11.808	3697430	10.000 CAL
Aroclor 1016		9212397	0.050 CAL
Aroclor 1260		11662132	0.050 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\004.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICAL PT 2 PP5133
 Acquired: Oct 24,2016 15:21:18
 Printed: Oct 25,2016 13:50:33

Data Summary: {Data Description}



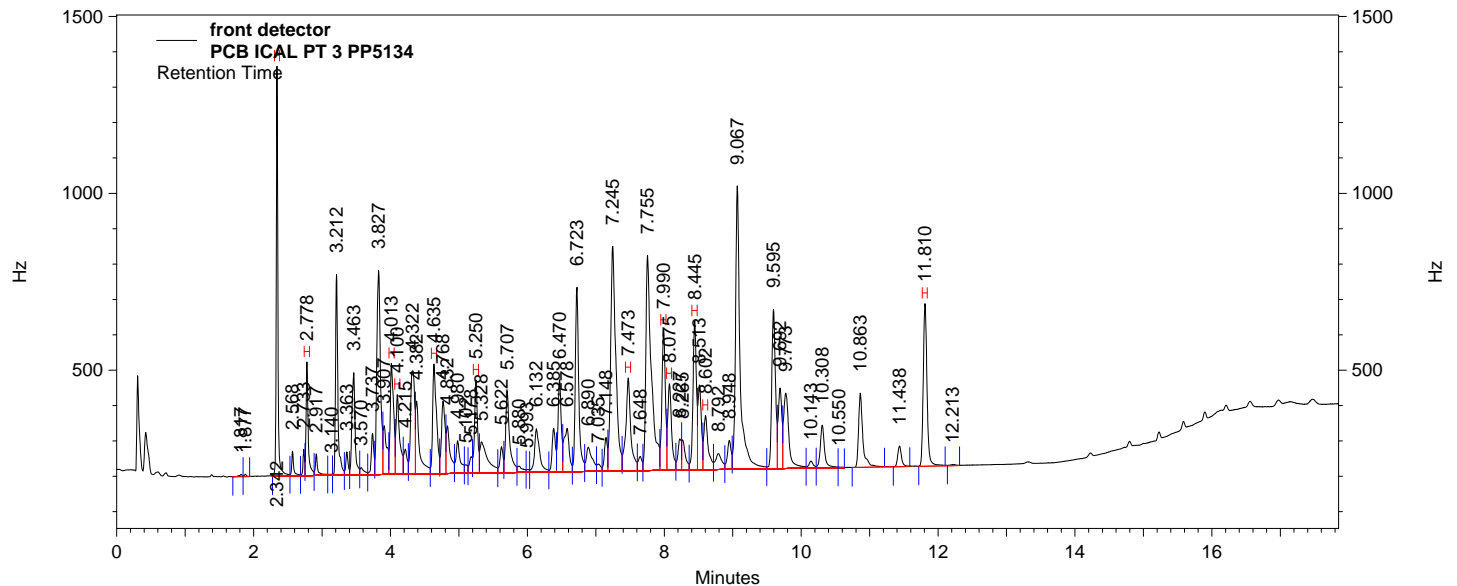
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.745	11581131	10.000 CAL
Aroclor 1016 #1	3.430	4185694	0.010 CAL
Aroclor 1016 #2	4.027	9215547	0.010 CAL
Aroclor 1016 #3	4.383	4261147	0.010 CAL
Aroclor 1016 #4	4.963	8836911	0.010 CAL
Aroclor 1016 #5	5.782	6000906	0.010 CAL
Aroclor 1260 #1	9.602	5373849	0.010 CAL
Aroclor 1260 #2	10.063	8314092	0.010 CAL
Aroclor 1260 #3	10.200	4581322	0.010 CAL
Aroclor 1260 #4	10.298	2883608	0.010 CAL
Aroclor 1260 #5	10.470	2059515	0.010 CAL
SURRDCBPCB	13.692	6957162	10.000 CAL
Aroclor 1016		32500205	0.050 CAL
Aroclor 1260		23212386	0.050 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICAL PT 3 PP5134
Acquired: Oct 24,2016 15:42:44
Printed: Oct 25,2016 13:50:35

Data Summary: {Data Description}



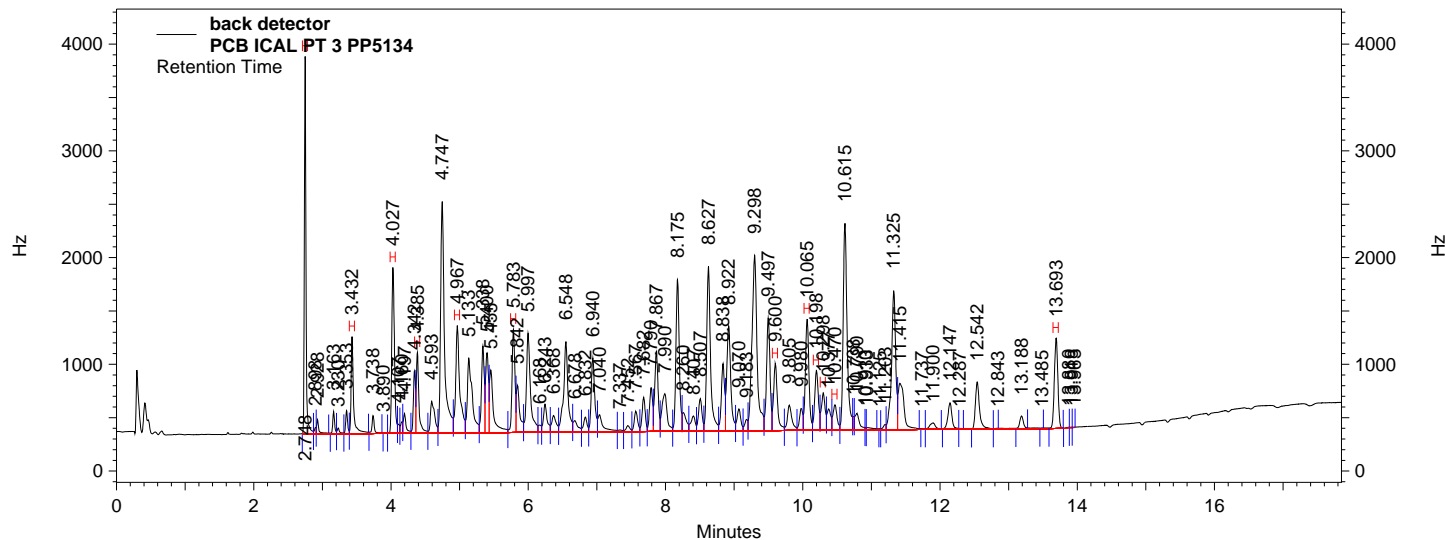
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	14435772	40.000 CAL
Aroclor 1016 #1	2.778	5233638	0.040 CAL
Aroclor 1016 #2	4.013	8340269	0.040 CAL
Aroclor 1016 #3	4.100	6446996	0.040 CAL
Aroclor 1016 #4	4.635	9303824	0.040 CAL
Aroclor 1016 #5	5.250	6281139	0.040 CAL
Aroclor 1260 #1	7.473	10371124	0.040 CAL
Aroclor 1260 #2	7.990	10743899	0.040 CAL
Aroclor 1260 #3	8.075	7306138	0.040 CAL
Aroclor 1260 #4	8.445	11156842	0.040 CAL
Aroclor 1260 #5	8.602	5302858	0.040 CAL
SURRDCBPCB	11.810	13451467	40.000 CAL
Aroclor 1016		35605866	0.200 CAL
Aroclor 1260		44880861	0.200 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\005.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICAL PT 3 PP5134
 Acquired: Oct 24,2016 15:42:44
 Printed: Oct 25,2016 13:50:35

Data Summary: {Data Description}



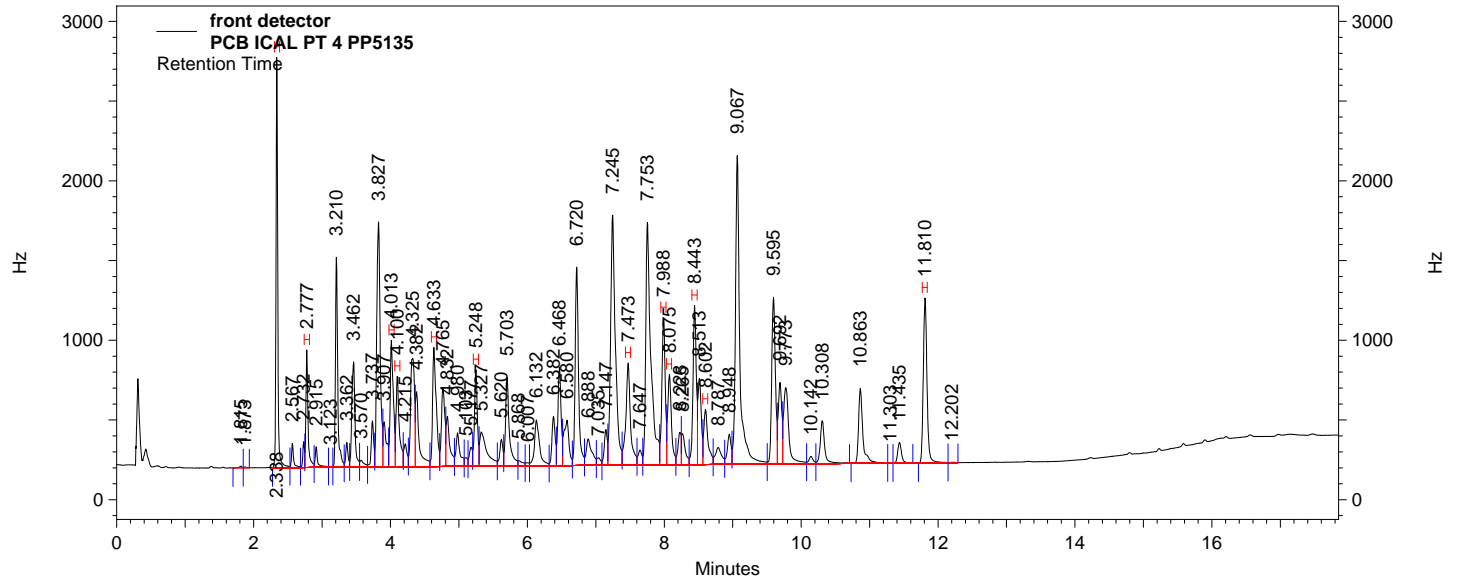
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.748	44071603	40.000 CAL
Aroclor 1016 #1	3.432	17209970	0.040 CAL
Aroclor 1016 #2	4.027	32318408	0.040 CAL
Aroclor 1016 #3	4.385	15615442	0.040 CAL
Aroclor 1016 #4	4.967	32107571	0.040 CAL
Aroclor 1016 #5	5.783	21751562	0.040 CAL
Aroclor 1260 #1	9.600	18985855	0.040 CAL
Aroclor 1260 #2	10.065	28970356	0.040 CAL
Aroclor 1260 #3	10.198	15771789	0.040 CAL
Aroclor 1260 #4	10.298	10329377	0.040 CAL
Aroclor 1260 #5	10.470	7633586	0.040 CAL
SURRDCBPCB	13.693	23214141	40.000 CAL
Aroclor 1016		119002953	0.200 CAL
Aroclor 1260		81690963	0.200 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICAL PT 4 PP5135
Acquired: Oct 24,2016 16:04:10
Printed: Oct 25,2016 13:50:37

Data Summary: {Data Description}



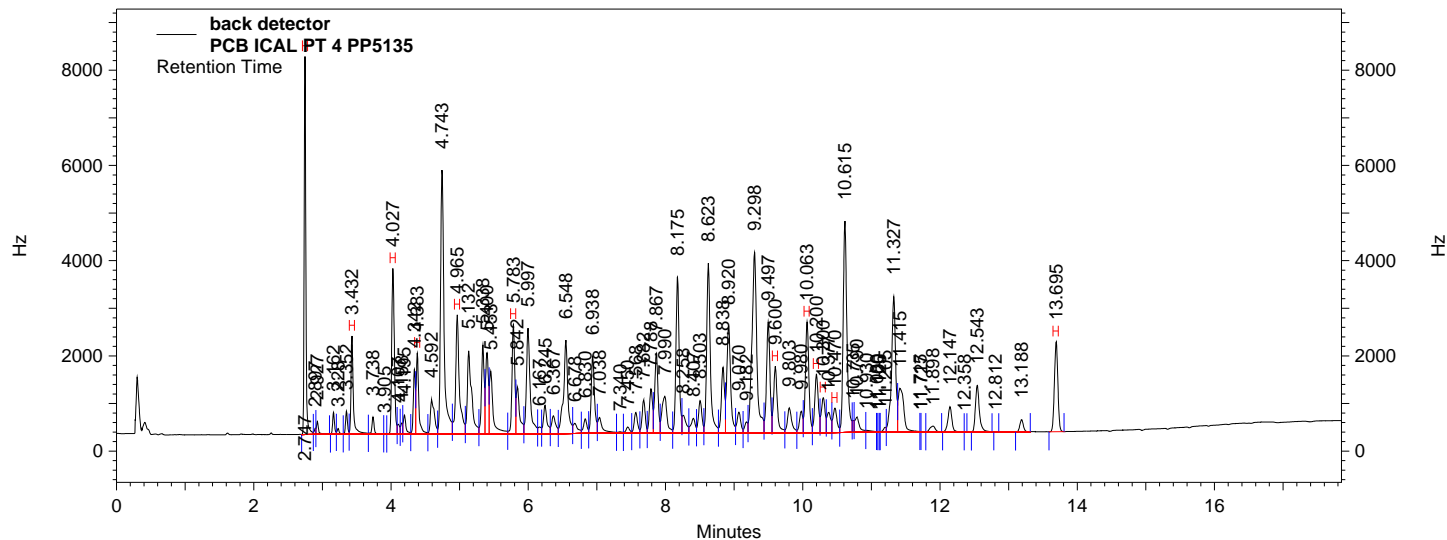
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.338	34566795	100.000 CAL
Aroclor 1016 #1	2.777	11927118	0.100 CAL
Aroclor 1016 #2	4.013	19567714	0.100 CAL
Aroclor 1016 #3	4.100	14528232	0.100 CAL
Aroclor 1016 #4	4.633	21423699	0.100 CAL
Aroclor 1016 #5	5.248	13786035	0.100 CAL
Aroclor 1260 #1	7.473	23676176	0.100 CAL
Aroclor 1260 #2	7.988	24383734	0.100 CAL
Aroclor 1260 #3	8.075	16529487	0.100 CAL
Aroclor 1260 #4	8.443	25764948	0.100 CAL
Aroclor 1260 #5	8.602	11638918	0.100 CAL
SURRDCBPCB	11.810	29846818	100.000 CAL
Aroclor 1016		81232798	0.500 CAL
Aroclor 1260		101993263	0.500 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\006.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICAL PT 4 PP5135
 Acquired: Oct 24,2016 16:04:10
 Printed: Oct 25,2016 13:50:37

Data Summary: {Data Description}



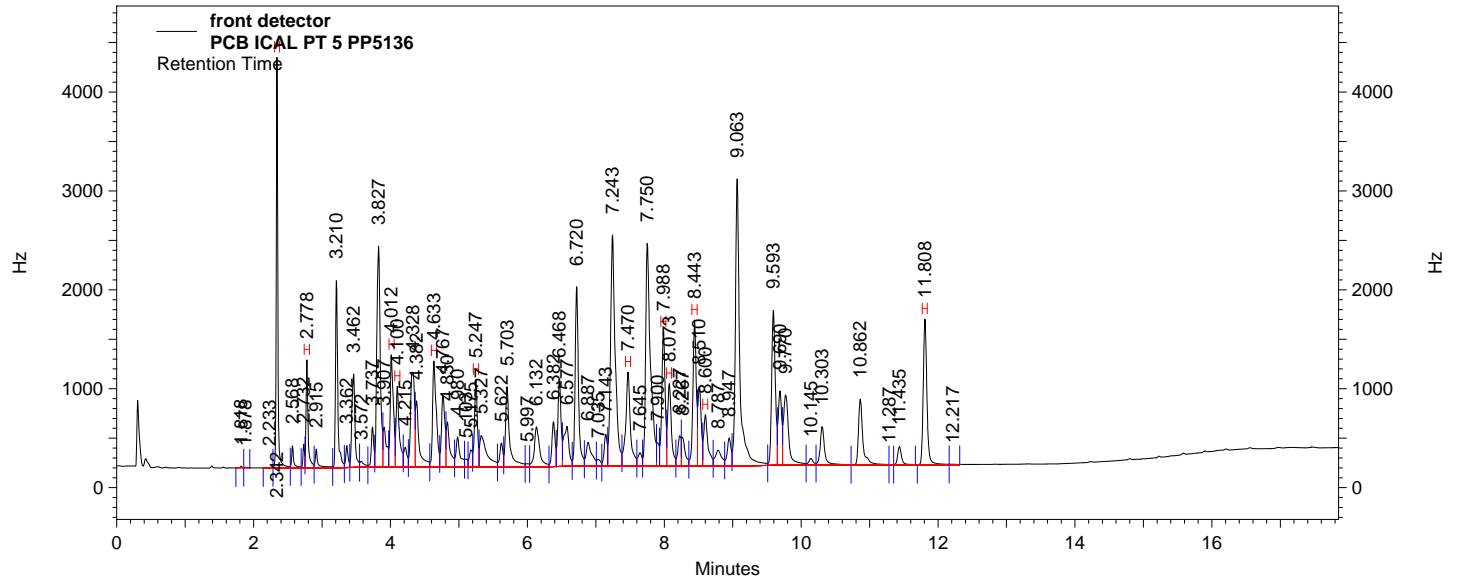
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.747	103242169	100.000 CAL
Aroclor 1016 #1	3.432	38082899	0.100 CAL
Aroclor 1016 #2	4.027	71419862	0.100 CAL
Aroclor 1016 #3	4.383	34567287	0.100 CAL
Aroclor 1016 #4	4.965	72714656	0.100 CAL
Aroclor 1016 #5	5.783	49516898	0.100 CAL
Aroclor 1260 #1	9.600	40525351	0.100 CAL
Aroclor 1260 #2	10.063	62548594	0.100 CAL
Aroclor 1260 #3	10.200	33701646	0.100 CAL
Aroclor 1260 #4	10.300	21817634	0.100 CAL
Aroclor 1260 #5	10.470	16313394	0.100 CAL
SURRDCBPCB	13.695	50636744	100.000 CAL
Aroclor 1016		266301602	0.500 CAL
Aroclor 1260		174906619	0.500 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICAL PT 5 PP5136
Acquired: Oct 24,2016 16:25:34
Printed: Oct 25,2016 13:50:39

Data Summary: {Data Description}



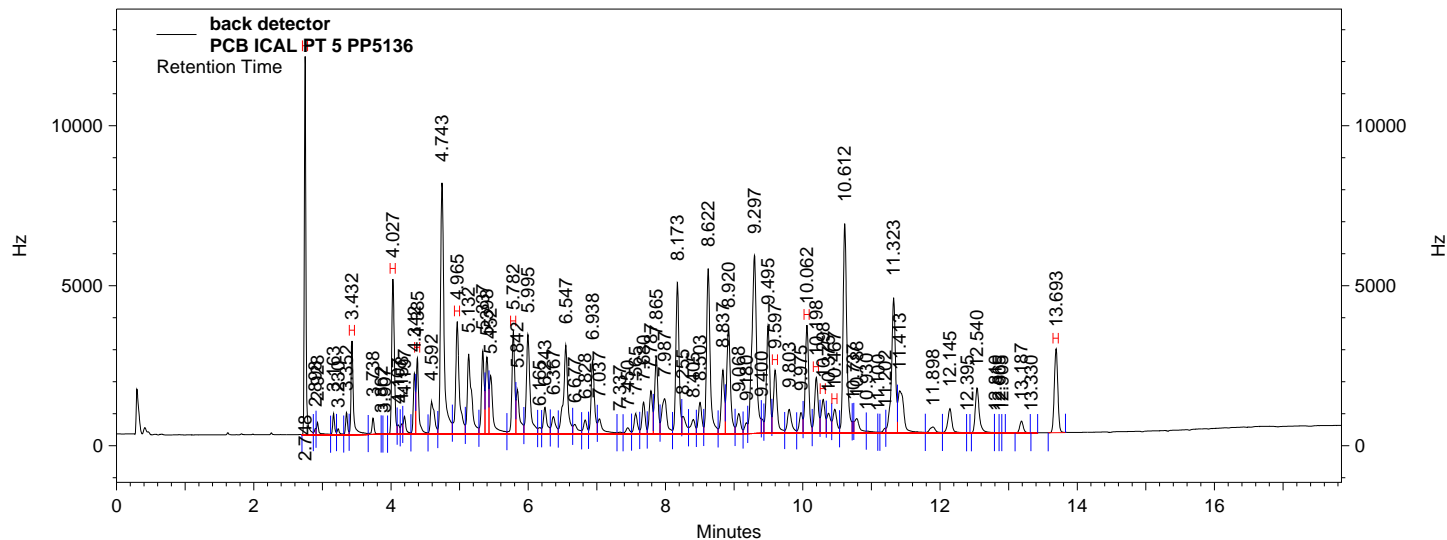
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	49933284	140.000 CAL
Aroclor 1016 #1	2.778	16887596	0.140 CAL
Aroclor 1016 #2	4.012	28122806	0.140 CAL
Aroclor 1016 #3	4.100	21205934	0.140 CAL
Aroclor 1016 #4	4.633	30919927	0.140 CAL
Aroclor 1016 #5	5.247	19916232	0.140 CAL
Aroclor 1260 #1	7.470	34821016	0.140 CAL
Aroclor 1260 #2	7.988	35783163	0.140 CAL
Aroclor 1260 #3	8.073	24319898	0.140 CAL
Aroclor 1260 #4	8.443	38516586	0.140 CAL
Aroclor 1260 #5	8.600	17337536	0.140 CAL
SURRDCBPCB	11.808	42234567	140.000 CAL
Aroclor 1016		117052495	0.700 CAL
Aroclor 1260		150778199	0.700 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\007.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICAL PT 5 PP5136
 Acquired: Oct 24,2016 16:25:34
 Printed: Oct 25,2016 13:50:39

Data Summary: {Data Description}



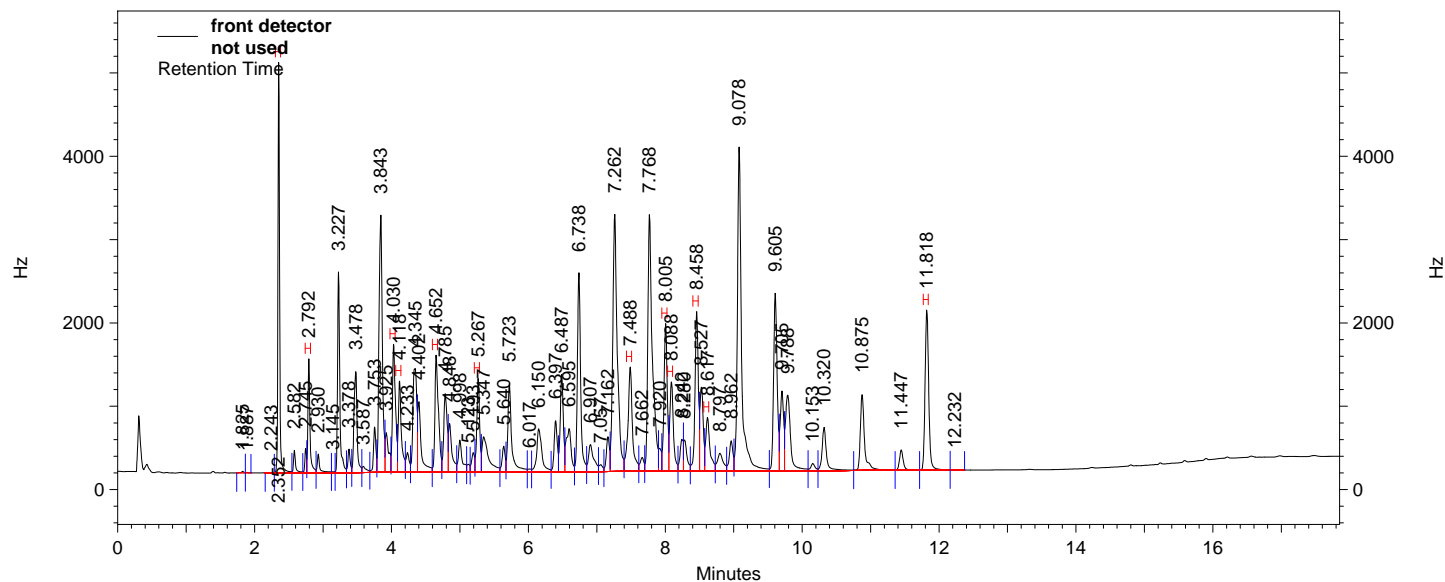
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.748	147035440	140.000 CAL
Aroclor 1016 #1	3.432	53367307	0.140 CAL
Aroclor 1016 #2	4.027	99530948	0.140 CAL
Aroclor 1016 #3	4.385	48832170	0.140 CAL
Aroclor 1016 #4	4.965	102718503	0.140 CAL
Aroclor 1016 #5	5.782	70094246	0.140 CAL
Aroclor 1260 #1	9.597	58358564	0.140 CAL
Aroclor 1260 #2	10.062	90575788	0.140 CAL
Aroclor 1260 #3	10.198	48916991	0.140 CAL
Aroclor 1260 #4	10.298	31039564	0.140 CAL
Aroclor 1260 #5	10.467	23860040	0.140 CAL
SURRDCBPCB	13.693	71230618	140.000 CAL
Aroclor 1016		374543174	0.700 CAL
Aroclor 1260		252750947	0.700 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: not used
Acquired: Oct 24,2016 17:36:49
Printed: Oct 25,2016 13:50:41

Data Summary: {Data Description}



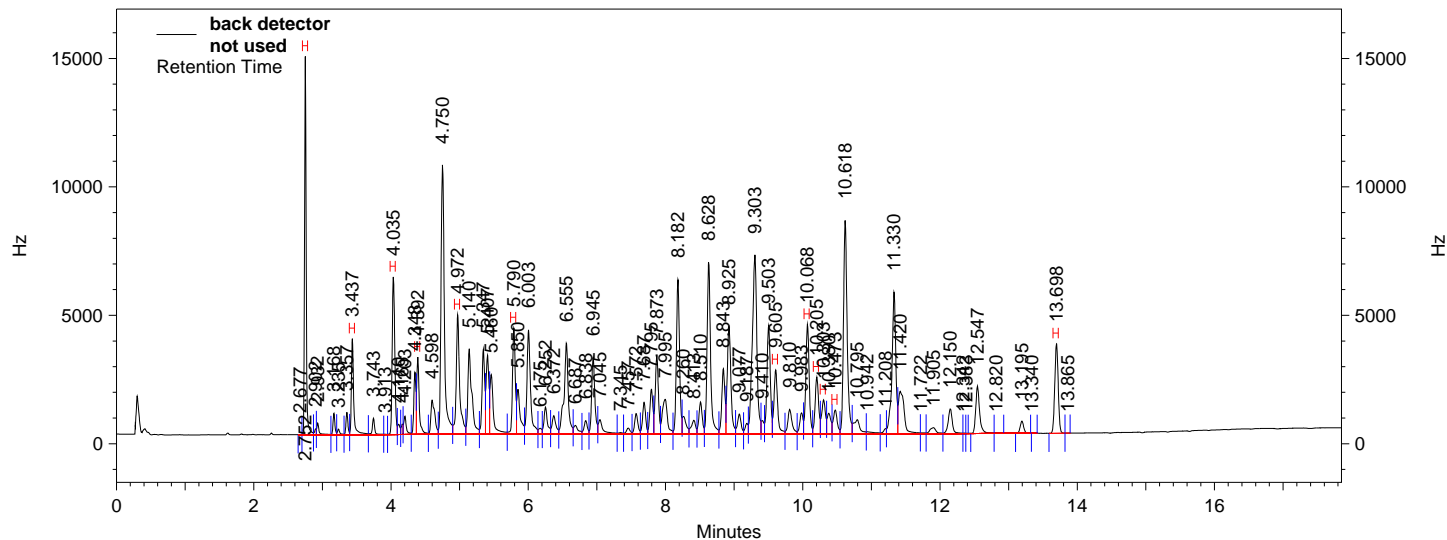
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.352	63747551	200.000 CAL
Aroclor 1016 #1	2.792	21281276	0.200 CAL
Aroclor 1016 #2	4.030	36089193	0.200 CAL
Aroclor 1016 #3	4.118	26183538	0.200 CAL
Aroclor 1016 #4	4.652	38907147	0.200 CAL
Aroclor 1016 #5	5.267	24832484	0.200 CAL
Aroclor 1260 #1	7.488	43510254	0.200 CAL
Aroclor 1260 #2	8.005	45105766	0.200 CAL
Aroclor 1260 #3	8.088	30148284	0.200 CAL
Aroclor 1260 #4	8.458	49293748	0.200 CAL
Aroclor 1260 #5	8.617	21324558	0.200 CAL
SURRDCBPCB	11.818	55252566	200.000 CAL
Aroclor 1016		147293638	1.000 CAL
Aroclor 1260		189382610	1.000 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: not used
Acquired: Oct 24,2016 17:36:49
Printed: Oct 25,2016 13:50:41

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.752	188160299	200.000 CAL
Aroclor 1016 #1	3.437	66729375	0.200 CAL
Aroclor 1016 #2	4.035	124574561	0.200 CAL
Aroclor 1016 #3	4.392	59290848	0.200 CAL
Aroclor 1016 #4	4.972	127795601	0.200 CAL
Aroclor 1016 #5	5.790	89786253	0.200 CAL
Aroclor 1260 #1	9.605	70715577	0.200 CAL
Aroclor 1260 #2	10.068	112213979	0.200 CAL
Aroclor 1260 #3	10.205	59641148	0.200 CAL
Aroclor 1260 #4	10.303	38705627	0.200 CAL
Aroclor 1260 #5	10.473	28948862	0.200 CAL
SURRDCBPCB	13.698	93067161	200.000 CAL
Aroclor 1016		468176638	1.000 CAL
Aroclor 1260		310225193	1.000 CAL

QC Check Standard Report

Page 1 of 1 (19)

Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
 User : JJY
 Printed : Oct 25,2016 13:50:45

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\009.d at	PCB ICV PP5138	Oct 25,2016 13:50:44

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.444	0.444	20.000	Passed
Aroclor 1016 #1	0.100	0.099	1.260	20.000	Passed
Aroclor 1016 #2	0.100	0.099	1.399	20.000	Passed
Aroclor 1016 #3	0.100	0.099	1.183	20.000	Passed
Aroclor 1016 #4	0.100	0.098	1.693	20.000	Passed
Aroclor 1016 #5	0.100	0.087	13.066	20.000	Passed
Aroclor 1260 #1	0.100	0.096	3.644	20.000	Passed
Aroclor 1260 #2	0.100	0.113	12.575	20.000	Passed
Aroclor 1260 #3	0.100	0.106	6.245	20.000	Passed
Aroclor 1260 #4	0.100	0.107	6.996	20.000	Passed
Aroclor 1260 #5	0.100	0.104	4.150	20.000	Passed
SURRDCBPCB	100.000	95.999	4.001	20.000	Passed
Aroclor 1016	0.500	0.481	3.720	20.000	Passed
Aroclor 1260	0.500	0.526	5.264	20.000	Passed

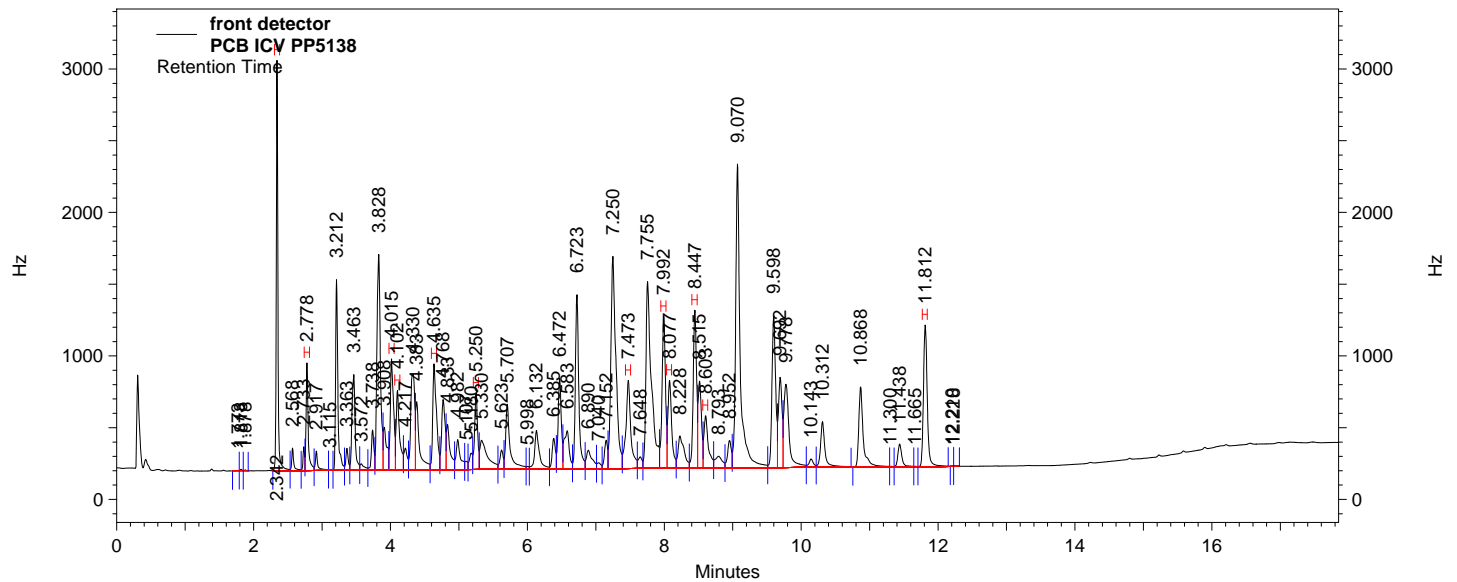
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.336	0.336	20.000	Passed
Aroclor 1016 #1	0.100	0.100	0.127	20.000	Passed
Aroclor 1016 #2	0.100	0.100	0.379	20.000	Passed
Aroclor 1016 #3	0.100	0.101	0.514	20.000	Passed
Aroclor 1016 #4	0.100	0.100	0.068	20.000	Passed
Aroclor 1016 #5	0.100	0.098	2.383	20.000	Passed
Aroclor 1260 #1	0.100	0.107	6.999	20.000	Passed
Aroclor 1260 #2	0.100	0.110	9.733	20.000	Passed
Aroclor 1260 #3	0.100	0.108	8.438	20.000	Passed
Aroclor 1260 #4	0.100	0.103	2.965	20.000	Passed
Aroclor 1260 #5	0.100	0.104	3.554	20.000	Passed
SURRDCBPCB	100.000	96.153	3.847	20.000	Passed
Aroclor 1016	0.500	0.498	0.461	20.000	Passed
Aroclor 1260	0.500	0.532	6.338	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
User: JJY
Sample ID: PCB ICV PP5138
Acquired: Oct 24,2016 17:58:11
Printed: Oct 25,2016 13:50:43

Data Summary: {Data Description}



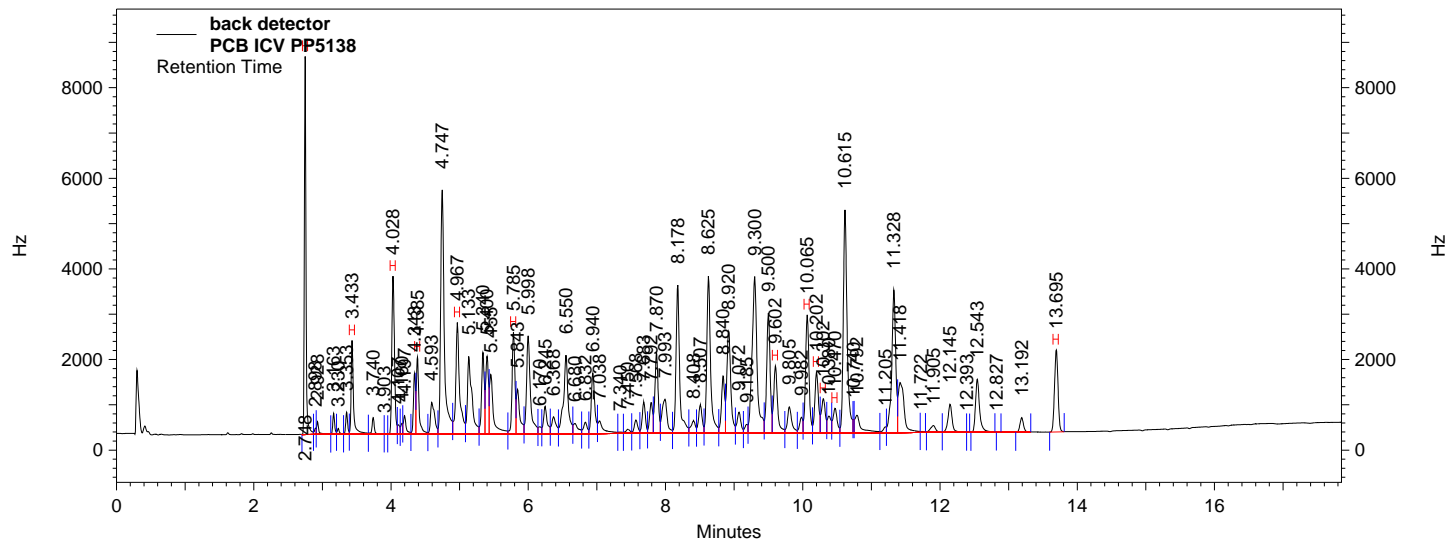
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	35453415	100.444
Aroclor 1016 #1	2.778	11986511	0.099
Aroclor 1016 #2	4.015	19716437	0.099
Aroclor 1016 #3	4.102	14855750	0.099
Aroclor 1016 #4	4.635	21608379	0.098
Aroclor 1016 #5	5.250	12399100	0.087
Aroclor 1260 #1	7.473	23660765	0.096
Aroclor 1260 #2	7.992	28409321	0.113
Aroclor 1260 #3	8.077	18226726	0.106
Aroclor 1260 #4	8.447	28763448	0.107
Aroclor 1260 #5	8.603	12701268	0.104
SURRDCBPCB	11.812	29272043	95.999
Aroclor 1016		80566177	0.481
Aroclor 1260		111761528	0.526

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\009.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\102416pcbic.met
 User: JJY
 Sample ID: PCB ICV PP5138
 Acquired: Oct 24,2016 17:58:11
 Printed: Oct 25,2016 13:50:43

Data Summary: {Data Description}



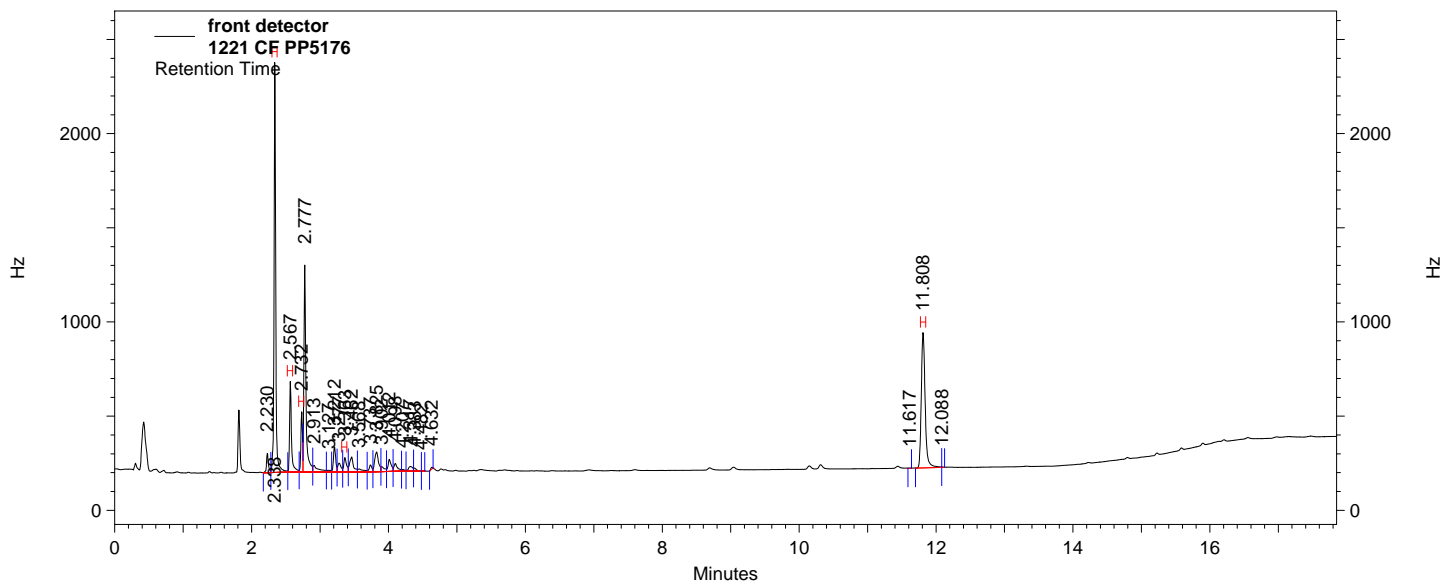
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.748	105349551	100.336
Aroclor 1016 #1	3.433	38630408	0.100
Aroclor 1016 #2	4.028	72092425	0.100
Aroclor 1016 #3	4.385	35469550	0.101
Aroclor 1016 #4	4.967	74062528	0.100
Aroclor 1016 #5	5.785	49231160	0.098
Aroclor 1260 #1	9.602	44832677	0.107
Aroclor 1260 #2	10.065	70997320	0.110
Aroclor 1260 #3	10.202	37934235	0.108
Aroclor 1260 #4	10.302	23140333	0.103
Aroclor 1260 #5	10.470	17621362	0.104
SURRDCBPCB	13.695	49470559	96.153
Aroclor 1016		269486071	0.498
Aroclor 1260		194525927	0.532

PCB Analysis Report (1221) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\011.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
 User: JJY
 Sample ID: 1221 CF PP5176
 Acquired: Oct 24,2016 18:41:07
 Printed: Oct 25,2016 13:50:53

Data Summary: {Data Description}



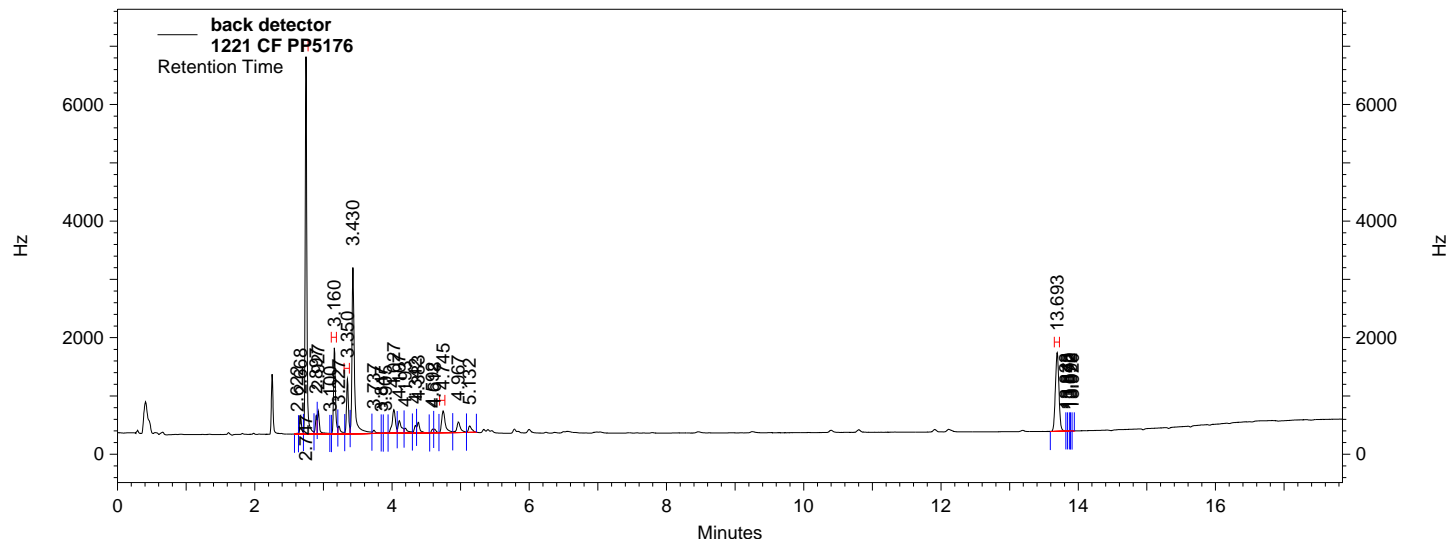
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	28496727	100.000 CAL
Aroclor 1221 #1	2.567	7386400	0.167 CAL
Aroclor 1221 #2	2.732	4056024	0.167 CAL
Aroclor 1221 #3	3.363	1599616	0.167 CAL
SURRDCB	11.808	21694923	100.000 CAL
Aroclor 1221		13042040	0.500 CAL

PCB Analysis Report (1221) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP5176
Acquired: Oct 24,2016 18:41:07
Printed: Oct 25,2016 13:50:53

Data Summary: {Data Description}



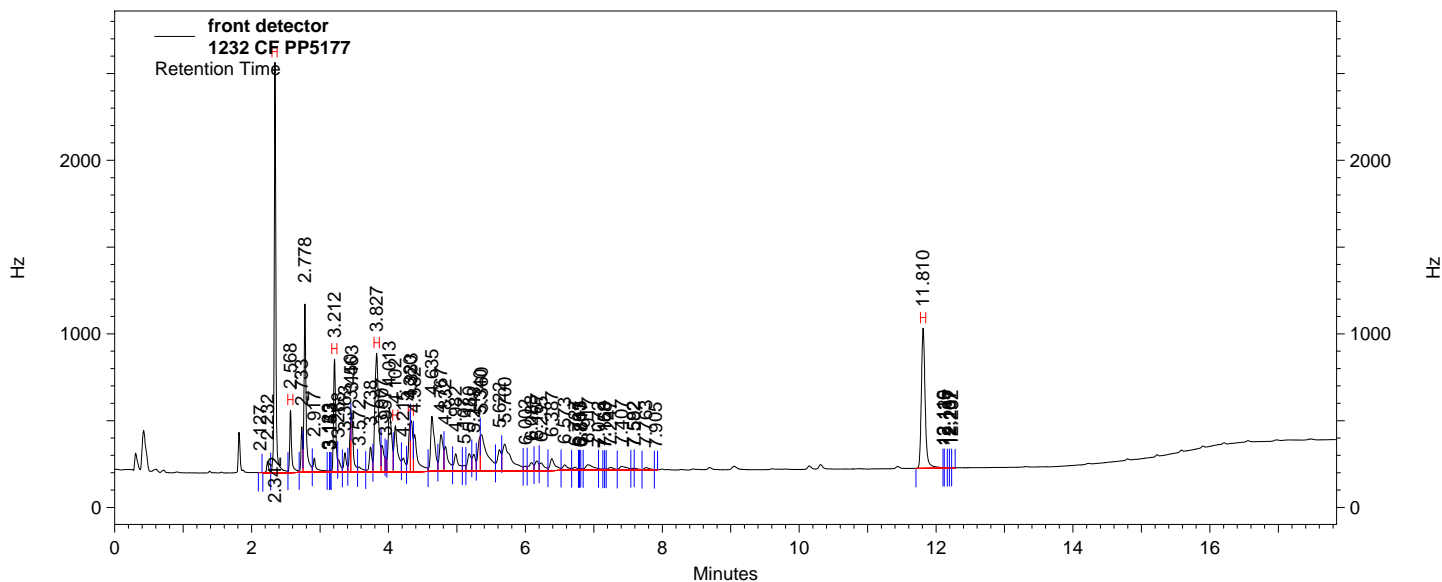
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	81882037	100.000 CAL
Aroclor 1221 #1	3.160	21591181	0.167 CAL
Aroclor 1221 #2	3.350	14144496	0.167 CAL
Aroclor 1221 #3	4.745	10824471	0.167 CAL
SURRDCB	13.693	37011867	100.000 CAL
Aroclor 1221		46560148	0.500 CAL

PCB Analysis Report (1232) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\012.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 User: JJY
 Sample ID: 1232 CF PP5177
 Acquired: Oct 24,2016 19:02:36
 Printed: Oct 25,2016 13:50:59

Data Summary: {Data Description}



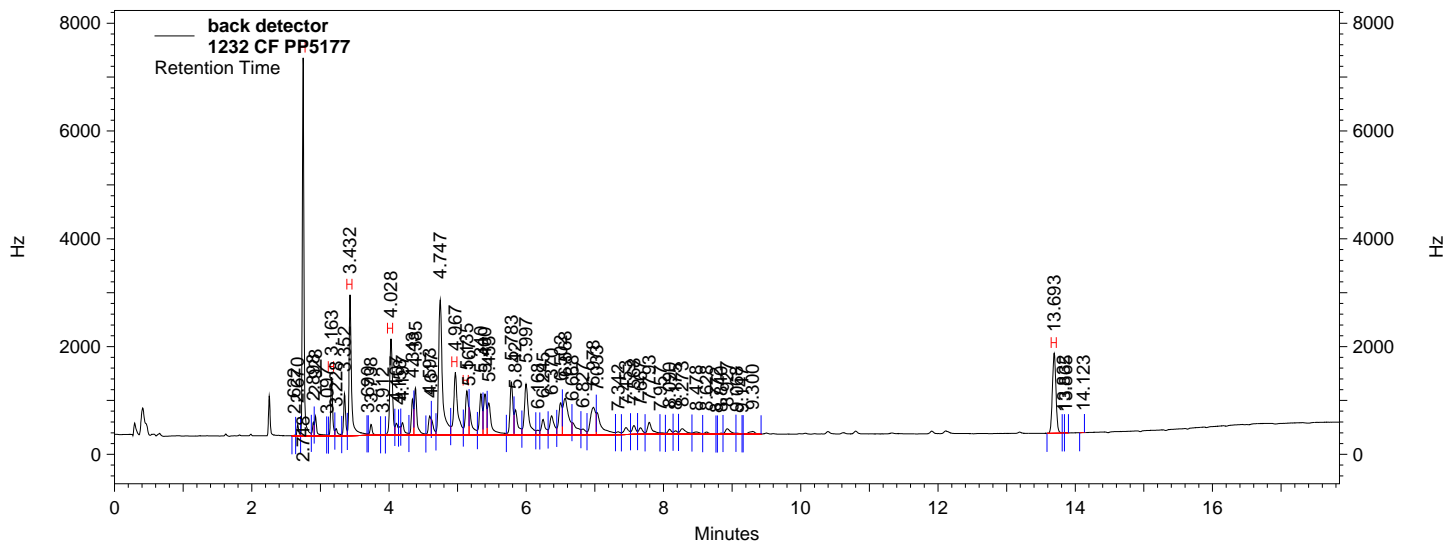
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	30286427	100.000 CAL
Aroclor 1232 #1	2.568	5485729	0.100 CAL
Aroclor 1232 #2	3.212	11176914	0.100 CAL
Aroclor 1232 #3	3.827	19359506	0.100 CAL
Aroclor 1232 #4	4.102	7562301	0.100 CAL
Aroclor 1232 #5	4.333	5053915	0.100 CAL
SURRDCB	11.810	24004420	100.000 CAL
Aroclor 1232		48638365	0.500 CAL

PCB Analysis Report (1232) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\012.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 User: JJY
 Sample ID: 1232 CF PP5177
 Acquired: Oct 24,2016 19:02:36
 Printed: Oct 25,2016 13:50:59

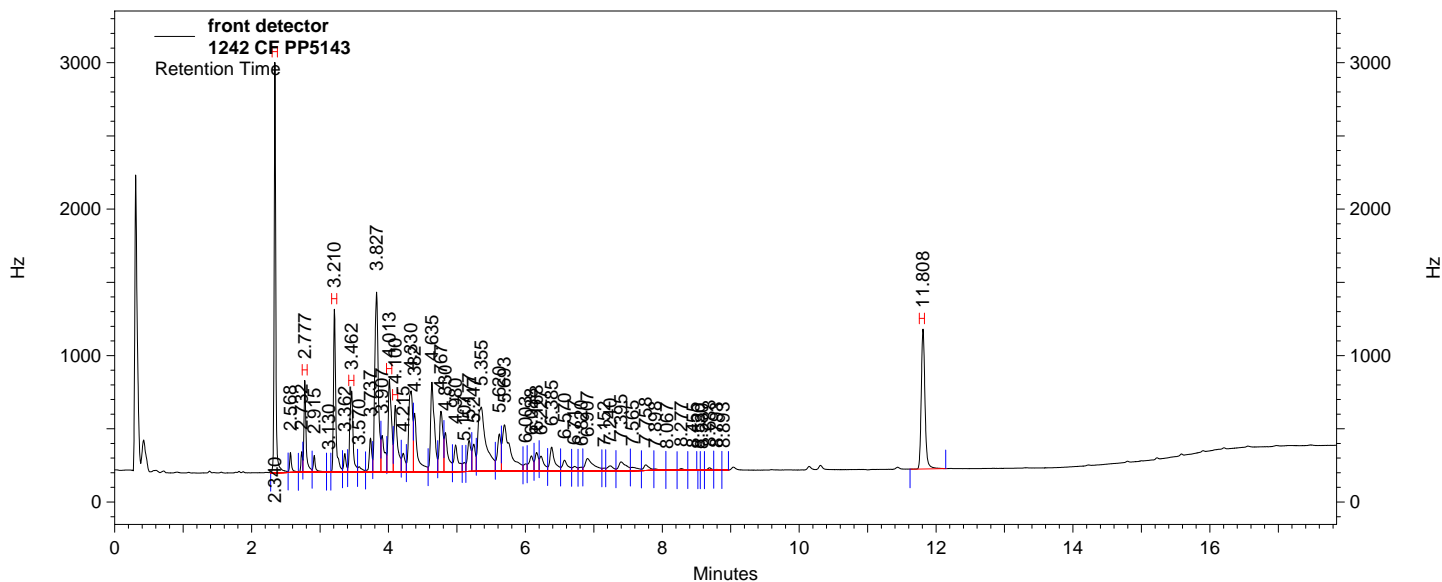
Data Summary: {Data Description}



PCB Analysis Report (1242) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5143
Acquired: Oct 24,2016 19:24:04
Printed: Oct 25,2016 13:51:04

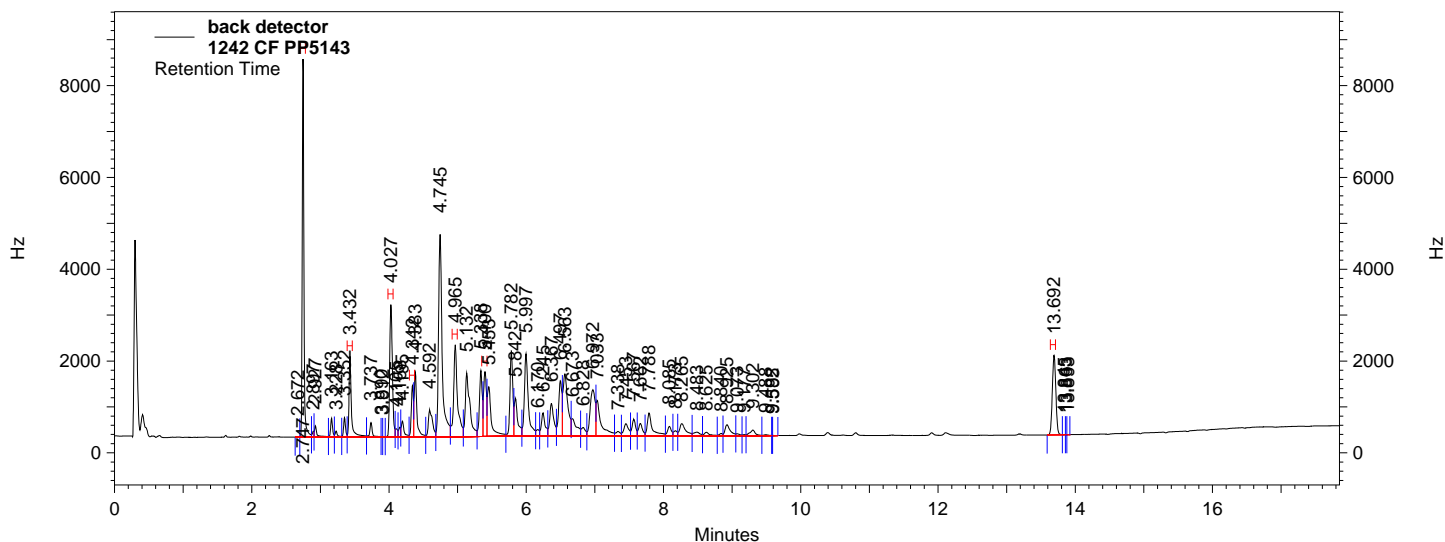
Data Summary: {Data Description}



PCB Analysis Report (1242) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP5143
Acquired: Oct 24,2016 19:24:04
Printed: Oct 25,2016 13:51:04

Data Summary: {Data Description}



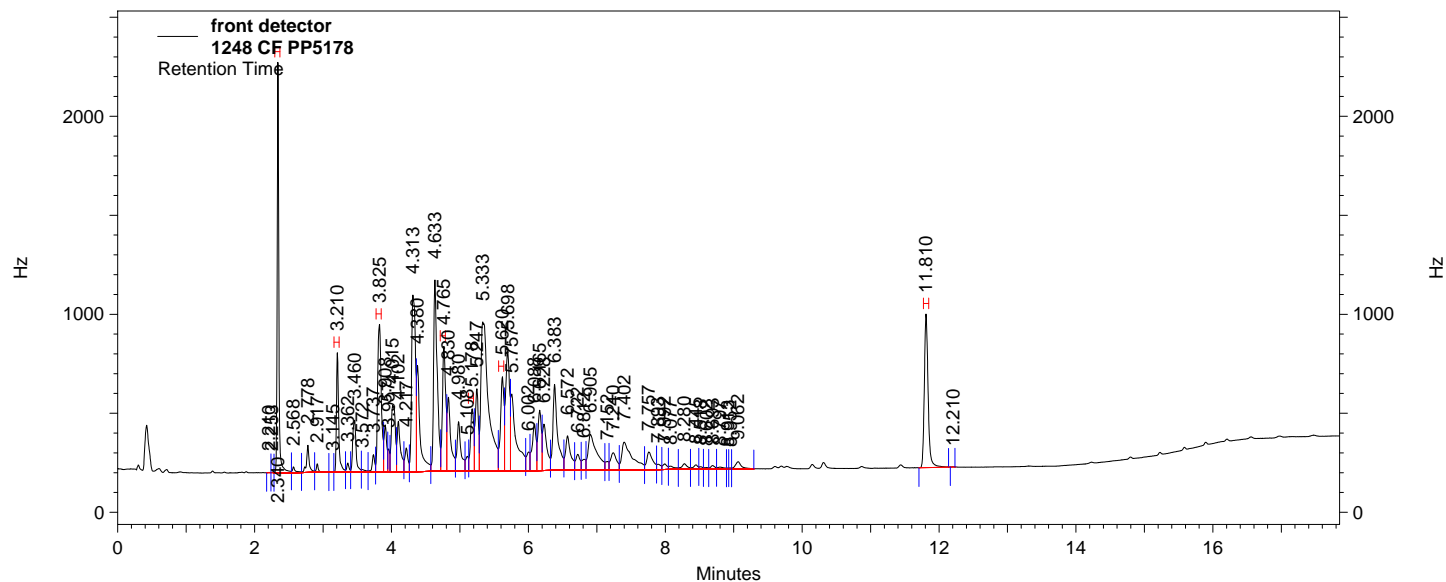
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	104686158	100.000 CAL
Aroclor 1242 #1	3.432	32797316	0.100 CAL
Aroclor 1242 #2	4.027	60121505	0.100 CAL
Aroclor 1242 #3	4.342	17560805	0.100 CAL
Aroclor 1242 #4	4.965	61420374	0.100 CAL
Aroclor 1242 #5	5.400	30890794	0.100 CAL
SURRDCB	13.692	47246906	100.000 CAL
Aroclor 1242		202790794	0.500 CAL

PCB Analysis Report (1248) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5178
Acquired: Oct 24,2016 19:45:32
Printed: Oct 25,2016 13:51:10

Data Summary: {Data Description}



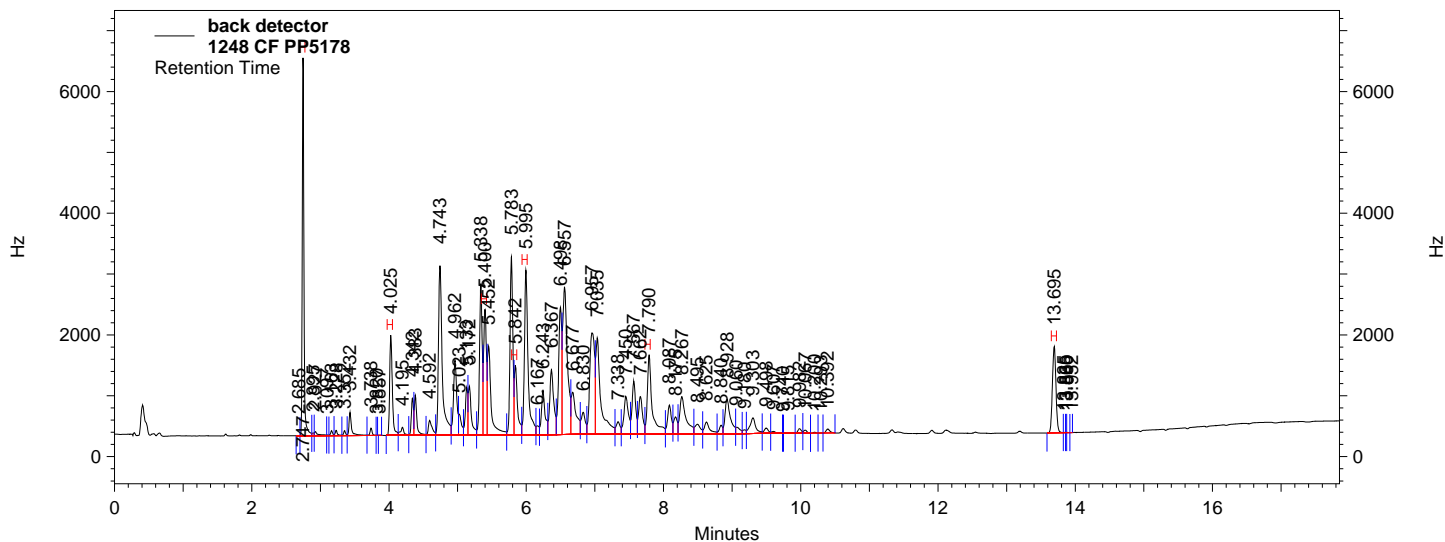
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.340	26131868	100.000 CAL
Aroclor 1248 #1	3.210	10645937	0.100 CAL
Aroclor 1248 #2	3.825	21016261	0.100 CAL
Aroclor 1248 #3	4.765	16300151	0.100 CAL
Aroclor 1248 #4	5.178	7922512	0.100 CAL
Aroclor 1248 #5	5.620	12775636	0.100 CAL
SURRDCB	11.810	22992158	100.000 CAL
Aroclor 1248		68660497	0.500 CAL

PCB Analysis Report (1248) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP5178
Acquired: Oct 24,2016 19:45:32
Printed: Oct 25,2016 13:51:10

Data Summary: {Data Description}



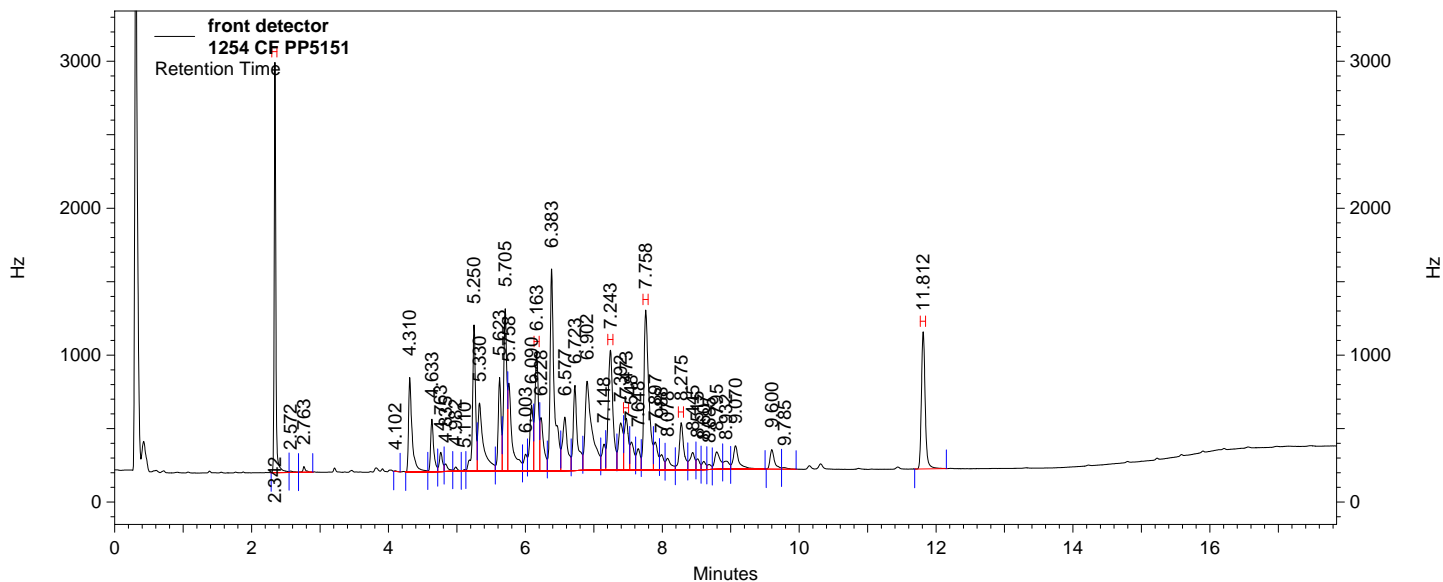
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	79131998	100.000 CAL
Aroclor 1248 #1	4.025	34039214	0.100 CAL
Aroclor 1248 #2	5.400	44451898	0.100 CAL
Aroclor 1248 #3	5.842	28168614	0.100 CAL
Aroclor 1248 #4	5.995	77875669	0.100 CAL
Aroclor 1248 #5	7.790	49250709	0.100 CAL
SURRDCB	13.695	39142249	100.000 CAL
Aroclor 1248		233786104	0.500 CAL

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5151
Acquired: Oct 24,2016 20:07:02
Printed: Oct 25,2016 13:51:16

Data Summary: {Data Description}



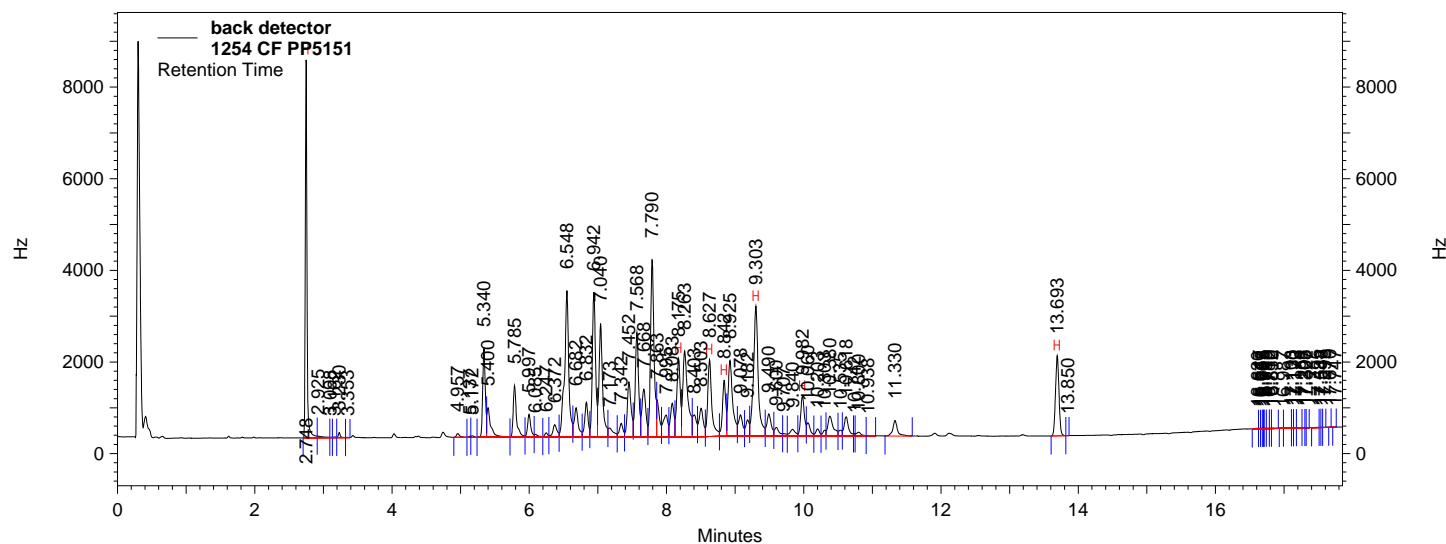
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	35107654	100.000 CAL
Aroclor 1254 #1	6.163	22196793	0.100 CAL
Aroclor 1254 #2	7.243	30665324	0.100 CAL
Aroclor 1254 #3	7.473	11075183	0.100 CAL
Aroclor 1254 #4	7.758	41368116	0.100 CAL
Aroclor 1254 #5	8.275	11049289	0.100 CAL
SURRDCB	11.812	27504809	100.000 CAL
Aroclor 1254		116354705	0.500 CAL

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP5151
Acquired: Oct 24,2016 20:07:02
Printed: Oct 25,2016 13:51:16

Data Summary: {Data Description}



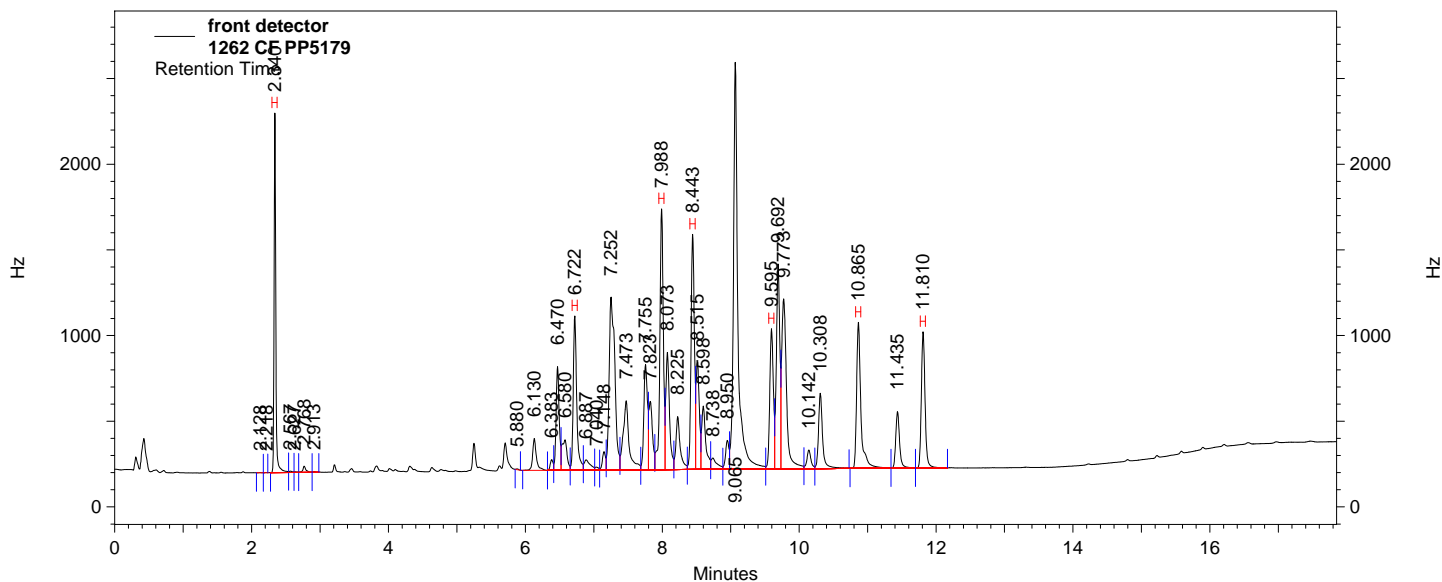
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.748	105847597	100.000 CAL
Aroclor 1254 #1	8.175	45816734	0.100 CAL
Aroclor 1254 #2	8.627	53625969	0.100 CAL
Aroclor 1254 #3	8.842	31547621	0.100 CAL
Aroclor 1254 #4	9.303	105722759	0.100 CAL
Aroclor 1254 #5	9.982	25384664	0.100 CAL
SURRDCB	13.693	46995993	100.000 CAL
Aroclor 1254		262097747	0.500 CAL

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\016.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 User: JJY
 Sample ID: 1262 CF PP5179
 Acquired: Oct 24,2016 20:28:26
 Printed: Oct 25,2016 13:51:21

Data Summary: {Data Description}



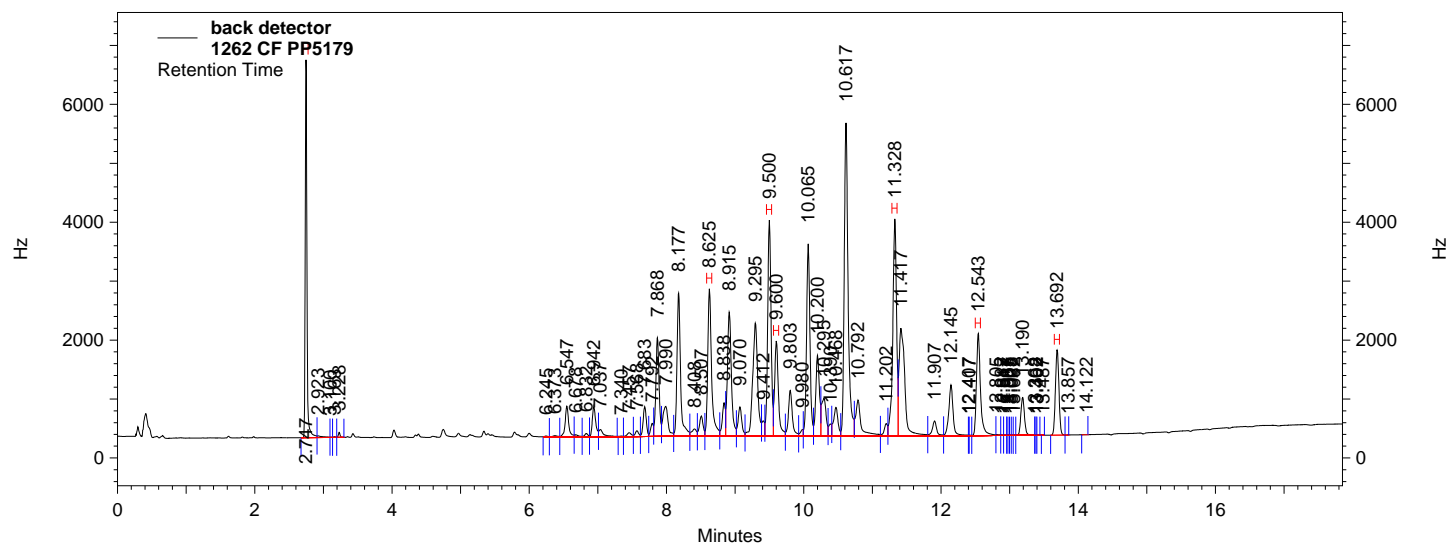
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	27606679	100.000 CAL
Aroclor 1262 #1	6.722	24208535	0.100 CAL
Aroclor 1262 #2	7.988	41393363	0.100 CAL
Aroclor 1262 #3	8.443	35209273	0.100 CAL
Aroclor 1262 #4	9.595	22716627	0.100 CAL
Aroclor 1262 #5	10.865	29039879	0.100 CAL
SURRDCB	11.810	23020009	100.000 CAL
Aroclor 1262		152567677	0.500 CAL

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP5179
Acquired: Oct 24,2016 20:28:26
Printed: Oct 25,2016 13:51:21

Data Summary: {Data Description}



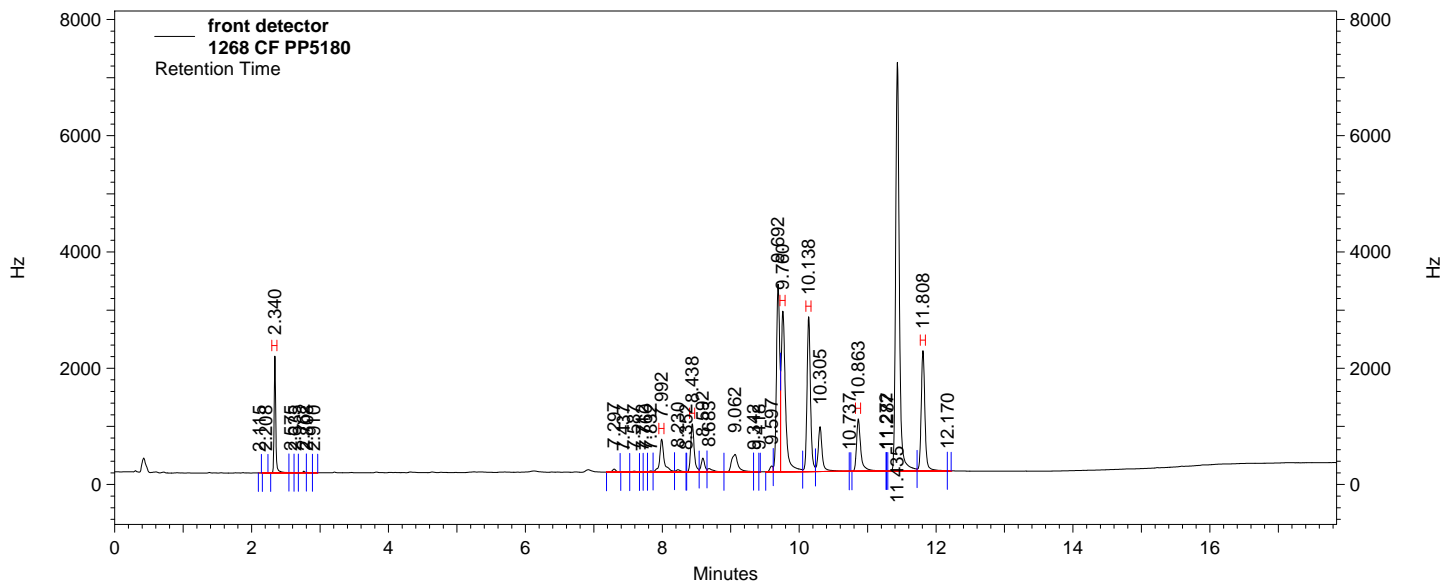
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	84161119	100.000 CAL
Aroclor 1262 #1	8.625	74972837	0.100 CAL
Aroclor 1262 #2	9.500	96704826	0.100 CAL
Aroclor 1262 #3	9.600	47736361	0.100 CAL
Aroclor 1262 #4	11.328	109327082	0.100 CAL
Aroclor 1262 #5	12.543	54701459	0.100 CAL
SURRDCB	13.692	39344752	100.000 CAL
Aroclor 1262		383442565	0.500 CAL

PCB Analysis Report (1268) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5180
Acquired: Oct 24,2016 20:49:49
Printed: Oct 25,2016 13:51:27

Data Summary: {Data Description}



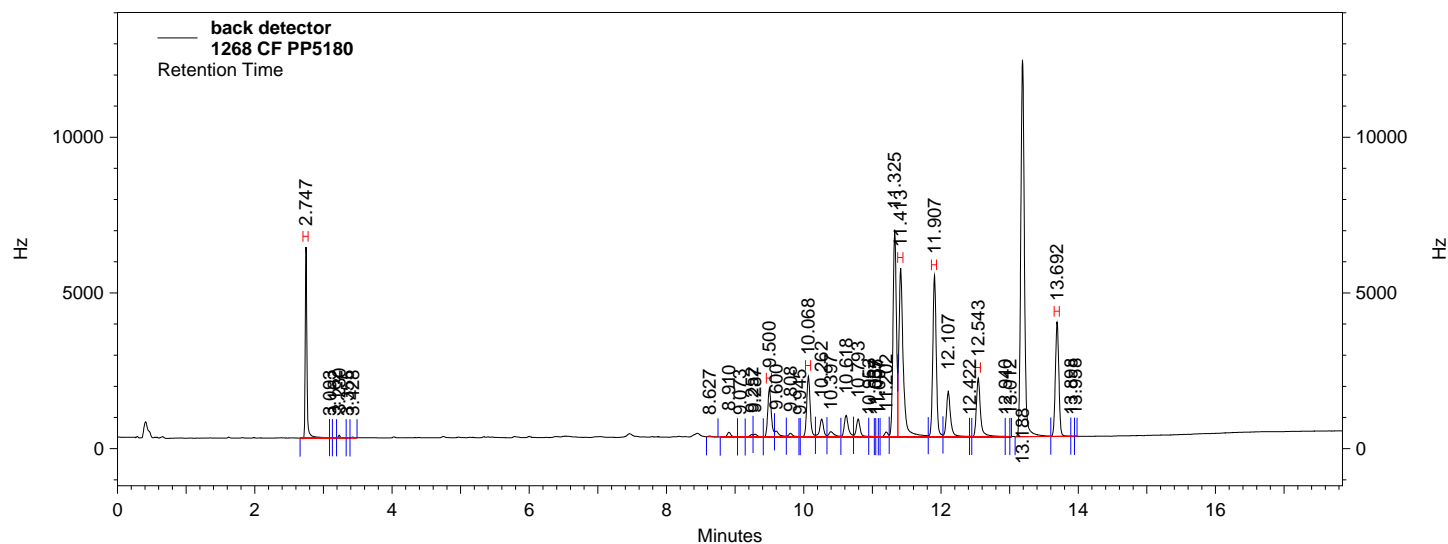
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	25627824	100.000 CAL
Aroclor 1268 #1	7.992	19500881	0.100 CAL
Aroclor 1268 #2	8.438	22647827	0.100 CAL
Aroclor 1268 #3	9.760	92551124	0.100 CAL
Aroclor 1268 #4	10.138	72616621	0.100 CAL
Aroclor 1268 #5	10.863	30270513	0.100 CAL
SURRDCB	11.808	60316709	100.000 CAL
Aroclor 1268		237586966	0.500 CAL

PCB Analysis Report (1268) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP5180
Acquired: Oct 24,2016 20:49:49
Printed: Oct 25,2016 13:51:27

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	80520970	100.000 CAL
Aroclor 1268 #1	9.500	42919613	0.100 CAL
Aroclor 1268 #2	10.068	52843058	0.100 CAL
Aroclor 1268 #3	11.413	181472134	0.100 CAL
Aroclor 1268 #4	11.907	139567521	0.100 CAL
Aroclor 1268 #5	12.543	59839446	0.100 CAL
SURRDCB	13.692	99953750	100.000 CAL
Aroclor 1268		476641772	0.500 CAL

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
User : JJY
Printed : Oct 25,2016 13:51:40

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\019.d at	1221 ICV PP5181	Oct 25,2016 13:51:40

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	89.515	10.485	20.000	Passed
Aroclor 1221 #1	0.167	0.163	2.097	20.000	Passed
Aroclor 1221 #2	0.167	0.160	4.483	20.000	Passed
Aroclor 1221 #3	0.167	0.162	3.113	20.000	Passed
SURRDCB	100.000	86.990	13.010	20.000	Passed
Aroclor 1221	0.500	0.485	3.037	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	88.324	11.676	20.000	Passed
Aroclor 1221 #1	0.167	0.163	2.108	20.000	Passed
Aroclor 1221 #2	0.167	0.164	1.912	20.000	Passed
Aroclor 1221 #3	0.167	0.163	2.420	20.000	Passed
SURRDCB	100.000	86.569	13.431	20.000	Passed
Aroclor 1221	0.500	0.490	1.951	20.000	Passed

Data File: C:\Instarch\Sem7\Data\102416pcbic\019.dat
Method: C:\Instarch\Sem7\Methods\Aroclor\102416pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5181
Acquired: Oct 24,2016 21:32:40
Printed: Oct 25,2016 13:51:38

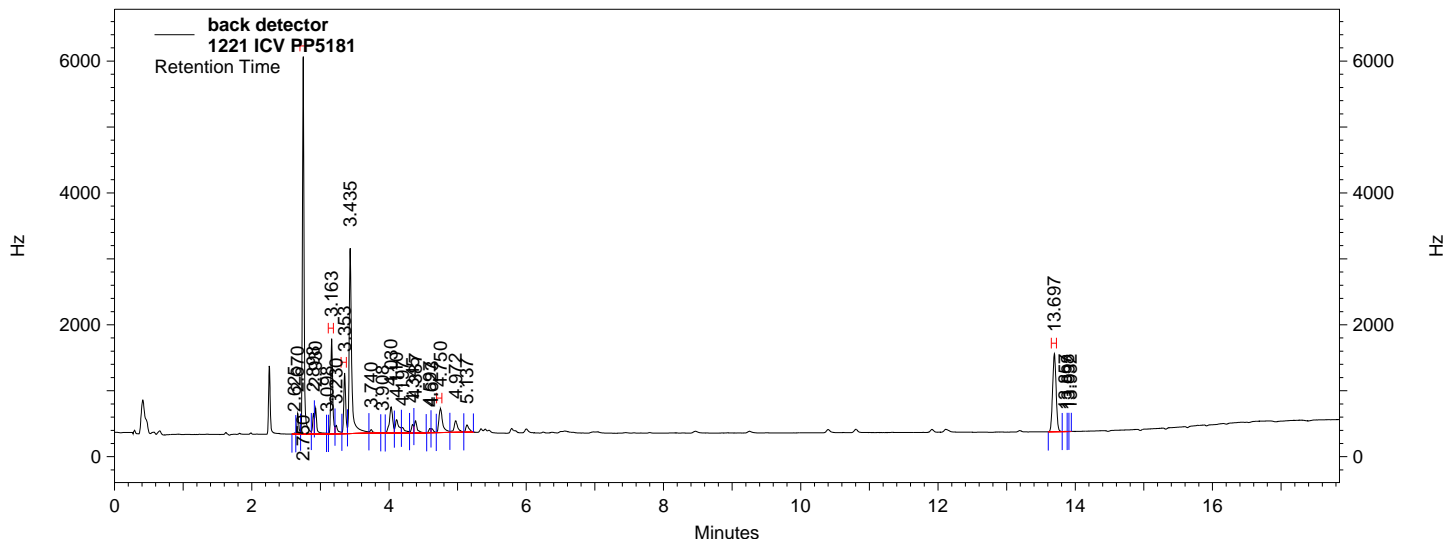
Chromatogram showing detector response (Hz) versus time (Minutes). The plot features a baseline with several peaks. A major peak is labeled 'front detector' and '1221 ICV PP5181' with a retention time of 2.342. Other labeled peaks include 2.233, 2.570, 2.778, 2.917, 3.128, 3.181, 3.376, 3.480, 3.516, 3.545, 3.585, 3.637, 4.037, 11.813, and 12.003. A red line indicates a baseline shift around 3.5 minutes.

<i>Component</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMX	2.342	25508919	89.515
Aroclor 1221 #1	2.570	7246001	0.163
Aroclor 1221 #2	2.733	3881942	0.160
Aroclor 1221 #3	3.367	1552924	0.162
SURRDCB	11.813	18872436	86.990
Aroclor 1221		12680867	0.485

PCB Analysis Report (1221) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP5181
Acquired: Oct 24,2016 21:32:40
Printed: Oct 25,2016 13:51:38

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.750	72321466	88.324
Aroclor 1221 #1	3.163	21178397	0.163
Aroclor 1221 #2	3.353	13901867	0.164
Aroclor 1221 #3	4.750	10583643	0.163
SURRDCB	13.697	32040929	86.569
Aroclor 1221		45663907	0.490

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
User : JJY
Printed : Oct 25,2016 13:52:07

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\020.d at	1232 ICV PP5182	Oct 25,2016 13:52:06

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	94.120	5.880	20.000	Passed
Aroclor 1232 #1	0.100	0.094	6.051	20.000	Passed
Aroclor 1232 #2	0.100	0.094	5.874	20.000	Passed
Aroclor 1232 #3	0.100	0.092	7.778	20.000	Passed
Aroclor 1232 #4	0.100	0.093	6.958	20.000	Passed
Aroclor 1232 #5	0.100	0.090	10.419	20.000	Passed
SURRDCB	100.000	87.501	12.499	20.000	Passed
Aroclor 1232	0.500	0.463	7.416	20.000	Passed

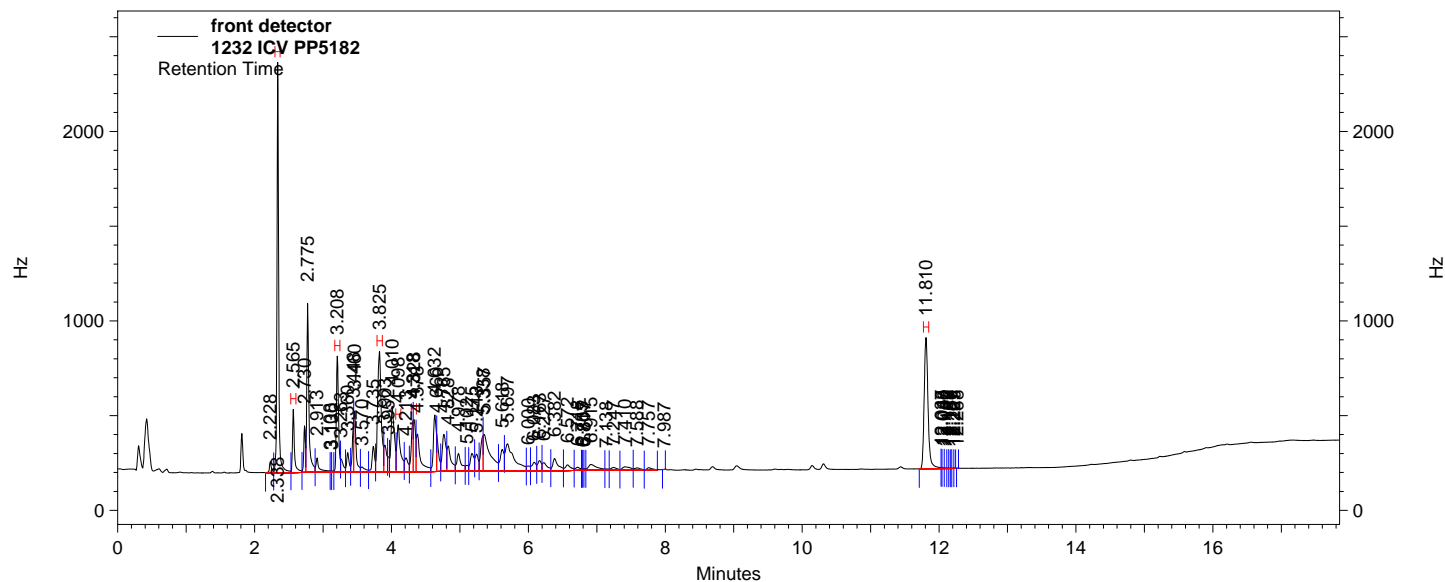
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRDCB	100.000	94.759	5.241	20.000	Passed
Aroclor 1232 #1	0.100	0.094	6.208	20.000	Passed
Aroclor 1232 #2	0.100	0.094	6.319	20.000	Passed
Aroclor 1232 #3	0.100	0.094	5.537	20.000	Passed
Aroclor 1232 #4	0.100	0.081	18.586	20.000	Passed
Aroclor 1232 #5	0.100	0.093	6.697	20.000	Passed
SURRTCMX	100.000	88.202	11.798	20.000	Passed
Aroclor 1232	0.500	0.457	8.669	20.000	Passed

PCB Analysis Report (1232) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\020.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
 User: JJY
 Sample ID: 1232 ICV PP5182
 Acquired: Oct 24,2016 21:54:05
 Printed: Oct 25,2016 13:51:47

Data Summary: {Data Description}



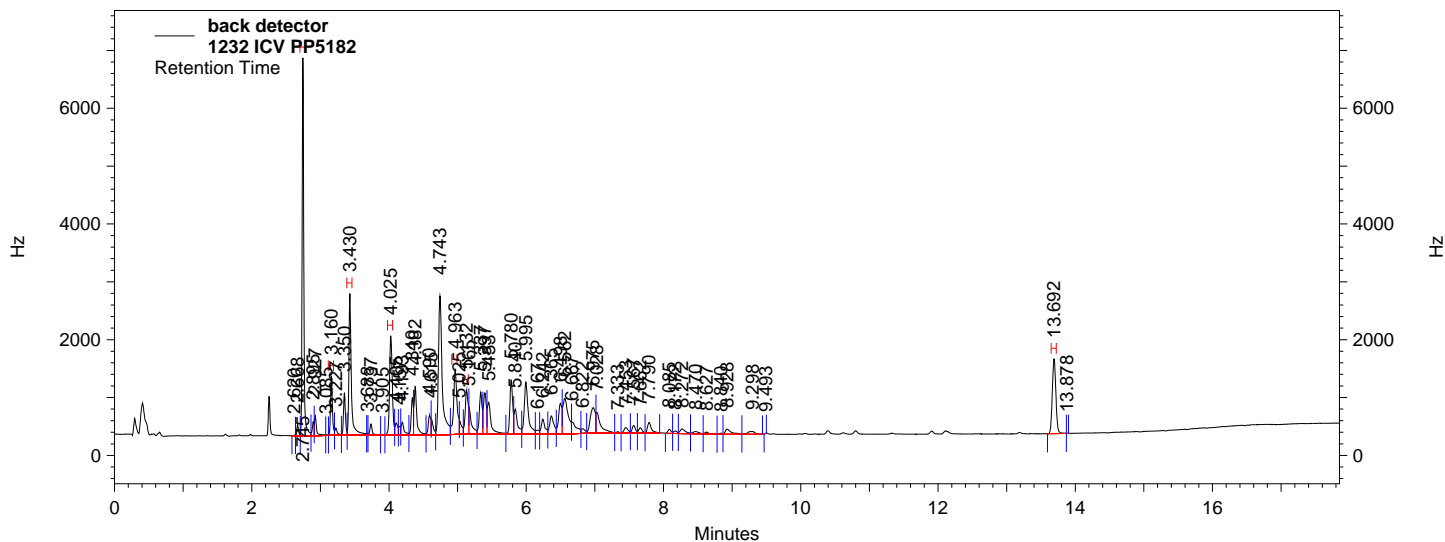
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	28505504	94.120
Aroclor 1232 #1	2.565	5153767	0.094
Aroclor 1232 #2	3.208	10520417	0.094
Aroclor 1232 #3	3.825	17853751	0.092
Aroclor 1232 #4	4.098	7036095	0.093
Aroclor 1232 #5	4.328	4527346	0.090
SURRDCB	11.810	21004126	87.501
Aroclor 1232		45091376	0.463

PCB Analysis Report (1232) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP5182
Acquired: Oct 24,2016 21:54:05
Printed: Oct 25,2016 13:51:47

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRDCB	2.745	83384638	94.759
Aroclor 1232 #1	3.160	14978596	0.094
Aroclor 1232 #2	3.430	46444785	0.094
Aroclor 1232 #3	4.025	36186562	0.094
Aroclor 1232 #4	4.963	30318052	0.081
Aroclor 1232 #5	5.132	17809877	0.093
SURRTCMX	13.692	35913751	88.202
Aroclor 1232		145737872	0.457

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
User : JJY
Printed : Oct 25,2016 13:52:17

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\021.d at	1242 ICV PP5146	Oct 25,2016 13:52:17

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.430	2.430	20.000	Passed
Aroclor 1242 #1	0.100	0.102	1.601	20.000	Passed
Aroclor 1242 #2	0.100	0.101	1.360	20.000	Passed
Aroclor 1242 #3	0.100	0.101	1.114	20.000	Passed
Aroclor 1242 #4	0.100	0.100	0.080	20.000	Passed
Aroclor 1242 #5	0.100	0.100	0.107	20.000	Passed
SURRDCB	100.000	95.352	4.648	20.000	Passed
Aroclor 1242	0.500	0.504	0.777	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.326	3.326	20.000	Passed
Aroclor 1242 #1	0.100	0.103	2.840	20.000	Passed
Aroclor 1242 #2	0.100	0.103	3.428	20.000	Passed
Aroclor 1242 #3	0.100	0.103	3.297	20.000	Passed
Aroclor 1242 #4	0.100	0.102	2.108	20.000	Passed
Aroclor 1242 #5	0.100	0.103	2.593	20.000	Passed
SURRDCB	100.000	96.392	3.608	20.000	Passed
Aroclor 1242	0.500	0.514	2.853	20.000	Passed

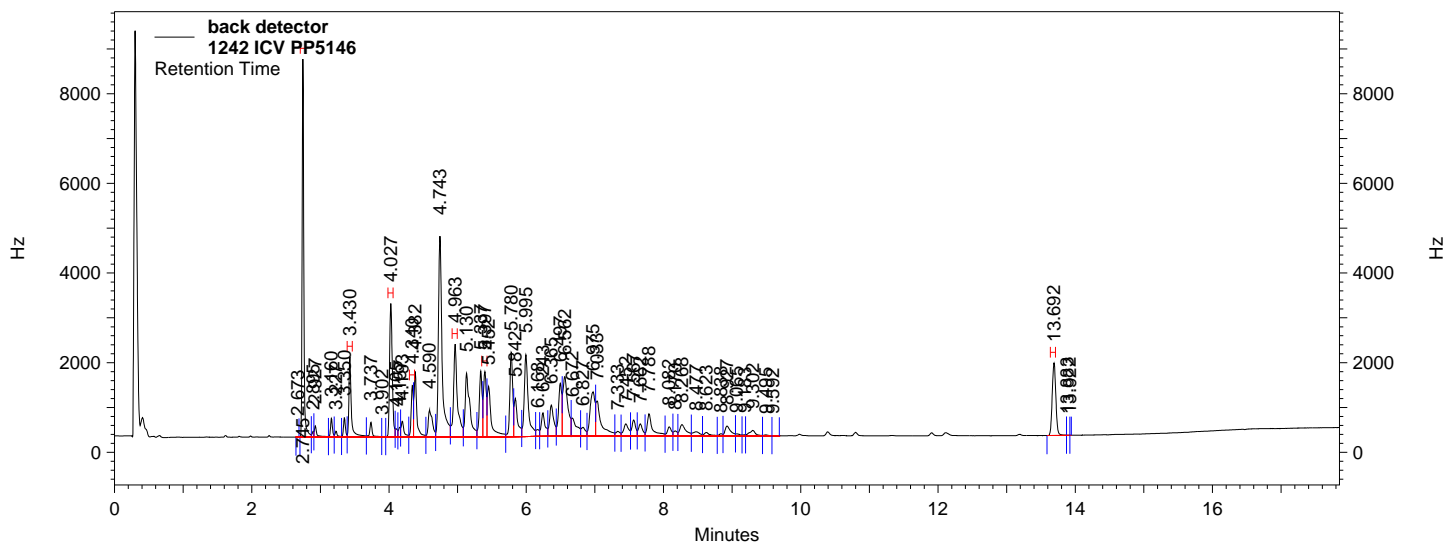
Data File: C:\Instarch\Sem7\Data\102416pcbic\021.dat
Method: C:\Instarch\Sem7\Methods\Aroclor\102416pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5146
Acquired: Oct 24,2016 22:15:29
Printed: Oct 25,2016 13:52:15

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	36014543	102.430
Aroclor 1242 #1	2.777	10463973	0.102
Aroclor 1242 #2	3.208	20510204	0.101
Aroclor 1242 #3	3.460	13930704	0.101
Aroclor 1242 #4	4.012	16173697	0.100
Aroclor 1242 #5	4.097	12354952	0.100
SURRDCB	11.807	26383910	95.352
Aroclor 1242		73433530	0.504

PCB Analysis Report (1242) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP5146
Acquired: Oct 24,2016 22:15:29
Printed: Oct 25,2016 13:52:15

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.745	108167888	103.326
Aroclor 1242 #1	3.430	33728824	0.103
Aroclor 1242 #2	4.027	62182612	0.103
Aroclor 1242 #3	4.340	18139856	0.103
Aroclor 1242 #4	4.963	62715004	0.102
Aroclor 1242 #5	5.397	31691702	0.103
SURRDCB	13.692	45542138	96.392
Aroclor 1242		208457998	0.514

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
 User : JJY
 Printed : Oct 25,2016 13:52:26

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\022.d at	1248 ICV PP5183	Oct 25,2016 13:52:25

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	101.910	1.910	20.000	Passed
Aroclor 1248 #1	0.100	0.099	1.342	20.000	Passed
Aroclor 1248 #2	0.100	0.096	3.624	20.000	Passed
Aroclor 1248 #3	0.100	0.097	2.743	20.000	Passed
Aroclor 1248 #4	0.100	0.096	3.948	20.000	Passed
Aroclor 1248 #5	0.100	0.097	2.955	20.000	Passed
SURRDCB	100.000	88.181	11.819	20.000	Passed
Aroclor 1248	0.500	0.485	2.922	20.000	Passed

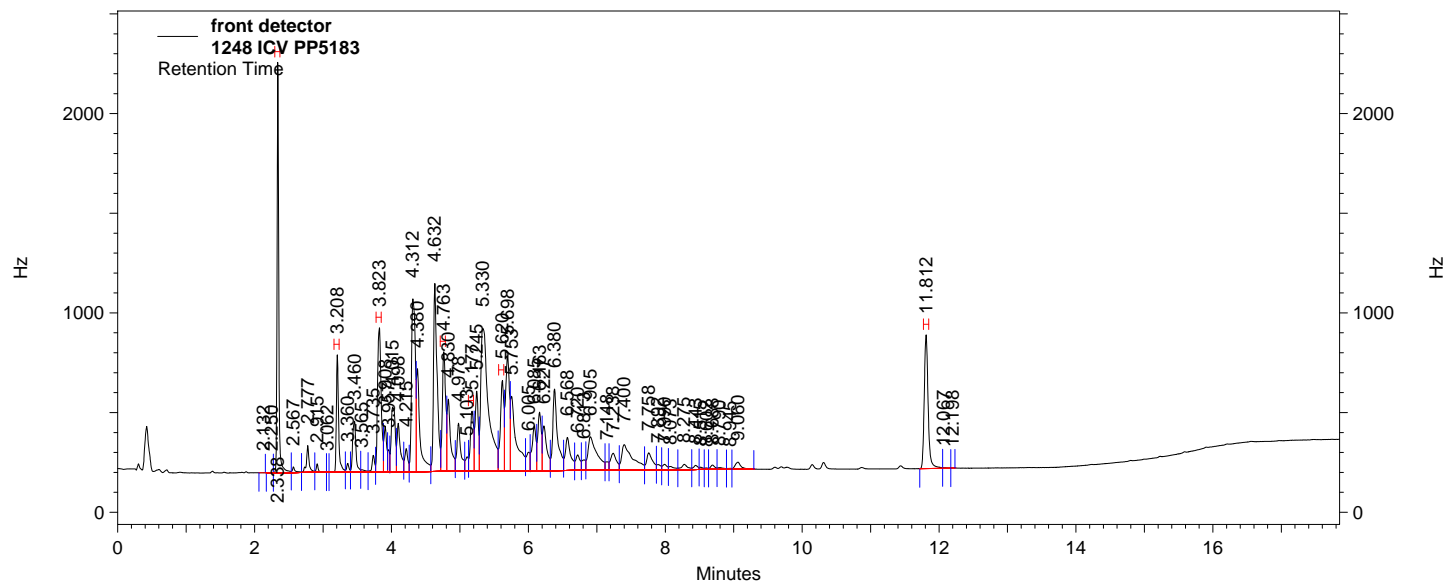
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.080	3.080	20.000	Passed
Aroclor 1248 #1	0.100	0.100	0.274	20.000	Passed
Aroclor 1248 #2	0.100	0.099	0.862	20.000	Passed
Aroclor 1248 #3	0.100	0.098	2.471	20.000	Passed
Aroclor 1248 #4	0.100	0.099	1.498	20.000	Passed
Aroclor 1248 #5	0.100	0.089	11.378	20.000	Passed
SURRDCB	100.000	89.381	10.619	20.000	Passed
Aroclor 1248	0.500	0.484	3.187	20.000	Passed

PCB Analysis Report (1248) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\022.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
 User: JJY
 Sample ID: 1248 ICV PP5183
 Acquired: Oct 24,2016 22:36:53
 Printed: Oct 25,2016 13:52:24

Data Summary: {Data Description}



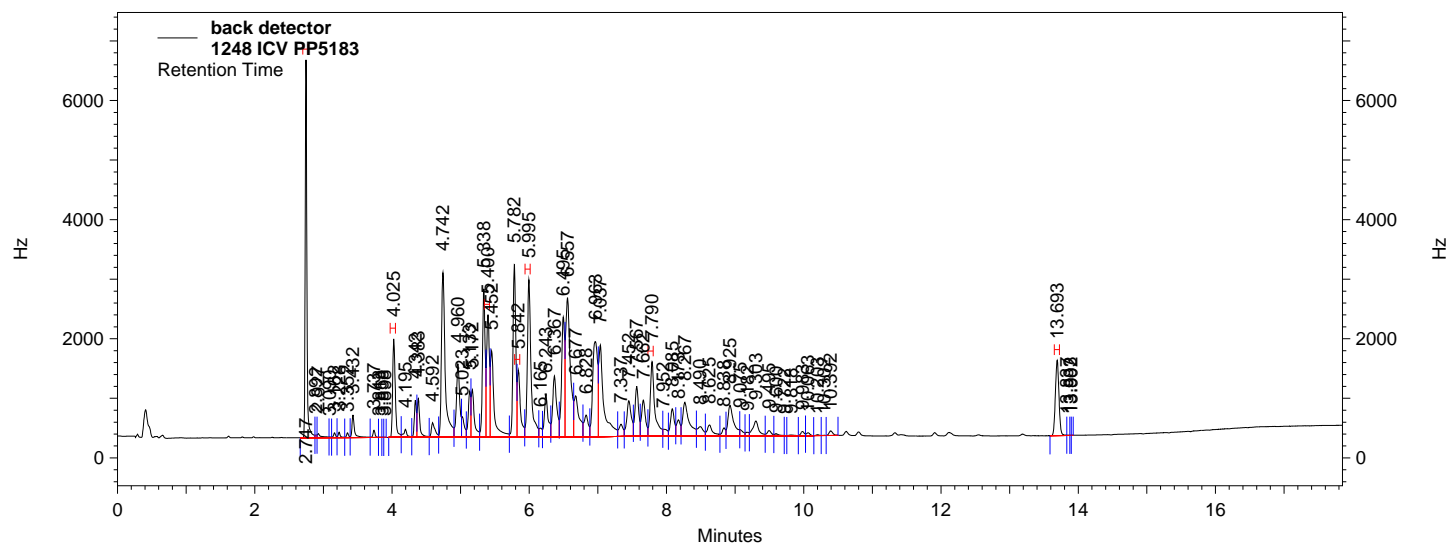
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	26630922	101.910
Aroclor 1248 #1	3.208	10503089	0.099
Aroclor 1248 #2	3.823	20254691	0.096
Aroclor 1248 #3	4.763	15853102	0.097
Aroclor 1248 #4	5.177	7609756	0.096
Aroclor 1248 #5	5.620	12398136	0.097
SURRDCB	11.812	20274816	88.181
Aroclor 1248		66618774	0.485

PCB Analysis Report (1248) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP5183
Acquired: Oct 24,2016 22:36:53
Printed: Oct 25,2016 13:52:24

Data Summary: {Data Description}



QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
 User : JJY
 Printed : Oct 25,2016 13:52:35

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\023.d at	1254 ICV PP5154	Oct 25,2016 13:52:34

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	100.938	0.938	20.000	Passed
Aroclor 1254 #1	0.100	0.103	2.983	20.000	Passed
Aroclor 1254 #2	0.100	0.102	2.300	20.000	Passed
Aroclor 1254 #3	0.100	0.105	5.432	20.000	Passed
Aroclor 1254 #4	0.100	0.102	2.076	20.000	Passed
Aroclor 1254 #5	0.100	0.105	5.055	20.000	Passed
SURRDCB	100.000	94.916	5.084	20.000	Passed
Aroclor 1254	0.500	0.518	3.569	20.000	Passed

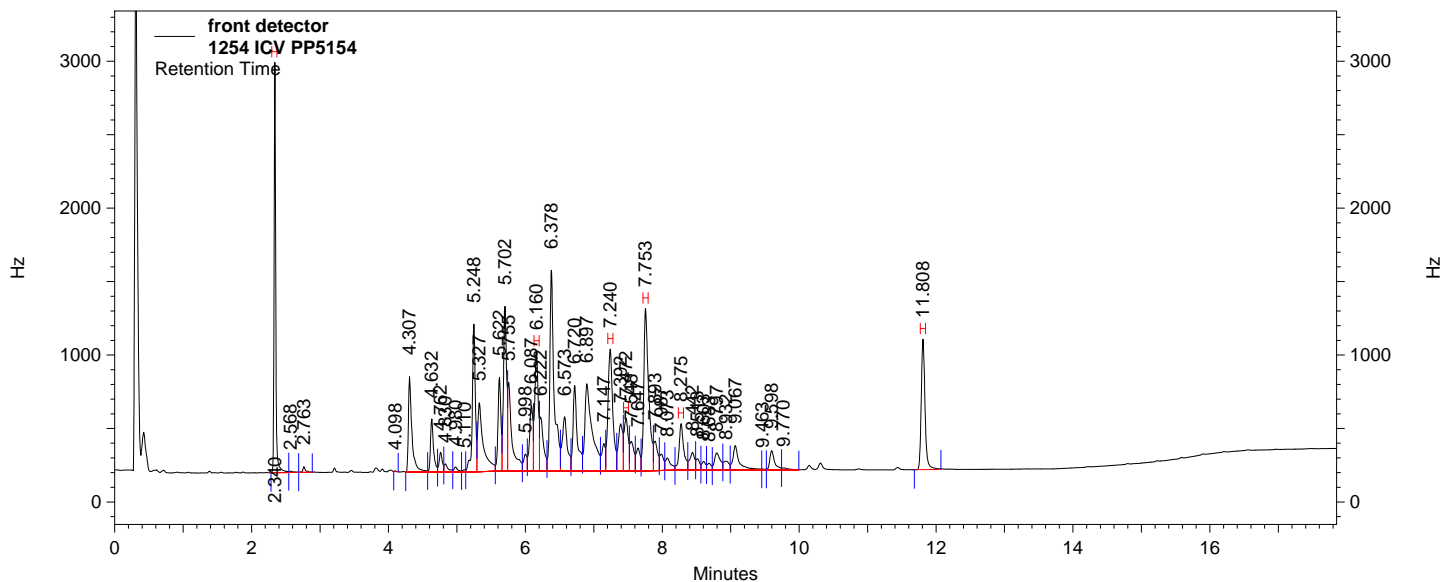
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	101.921	1.921	20.000	Passed
Aroclor 1254 #1	0.100	0.102	2.494	20.000	Passed
Aroclor 1254 #2	0.100	0.104	4.208	20.000	Passed
Aroclor 1254 #3	0.100	0.102	2.265	20.000	Passed
Aroclor 1254 #4	0.100	0.104	3.860	20.000	Passed
Aroclor 1254 #5	0.100	0.103	2.810	20.000	Passed
SURRDCB	100.000	96.075	3.925	20.000	Passed
Aroclor 1254	0.500	0.516	3.128	20.000	Passed

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5154
Acquired: Oct 24,2016 22:58:18
Printed: Oct 25,2016 13:52:33

Data Summary: {Data Description}



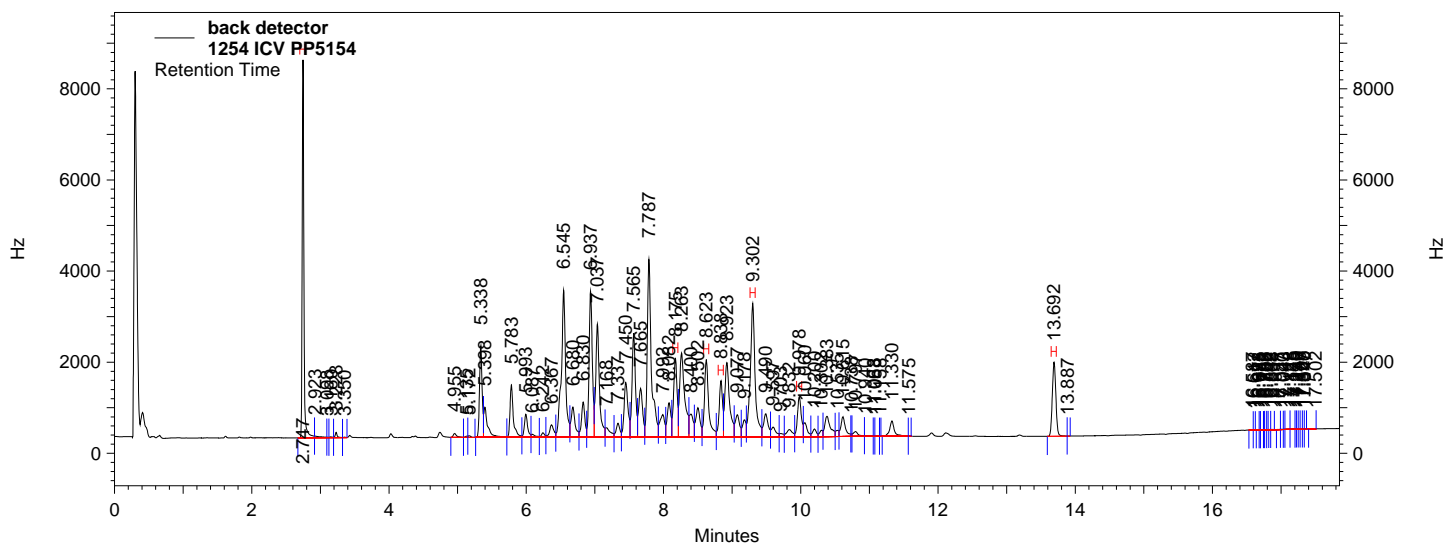
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	35436788	100.937
Aroclor 1254 #1	6.160	22858943	0.103
Aroclor 1254 #2	7.240	31370613	0.102
Aroclor 1254 #3	7.472	11676793	0.105
Aroclor 1254 #4	7.753	42227036	0.102
Aroclor 1254 #5	8.275	11607821	0.105
SURRDCB	11.808	26106569	94.916
Aroclor 1254		119741206	0.518

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP5154
Acquired: Oct 24,2016 22:58:18
Printed: Oct 25,2016 13:52:33

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.747	107880668	101.921
Aroclor 1254 #1	8.175	46959603	0.102
Aroclor 1254 #2	8.623	55882613	0.104
Aroclor 1254 #3	8.838	32262224	0.102
Aroclor 1254 #4	9.302	109804176	0.104
Aroclor 1254 #5	9.978	26098044	0.103
SURRDCB	13.692	45151243	96.075
Aroclor 1254		271006660	0.516

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
User : JJY
Printed : Oct 25,2016 13:52:44

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\024.d at	1262 ICV PP5184	Oct 25,2016 13:52:44

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	100.799	0.799	20.000	Passed
Aroclor 1262 #1	0.100	0.103	3.442	20.000	Passed
Aroclor 1262 #2	0.100	0.103	3.350	20.000	Passed
Aroclor 1262 #3	0.100	0.106	5.766	20.000	Passed
Aroclor 1262 #4	0.100	0.102	2.430	20.000	Passed
Aroclor 1262 #5	0.100	0.101	0.719	20.000	Passed
SURRDCB	100.000	91.494	8.506	20.000	Passed
Aroclor 1262	0.500	0.516	3.141	20.000	Passed

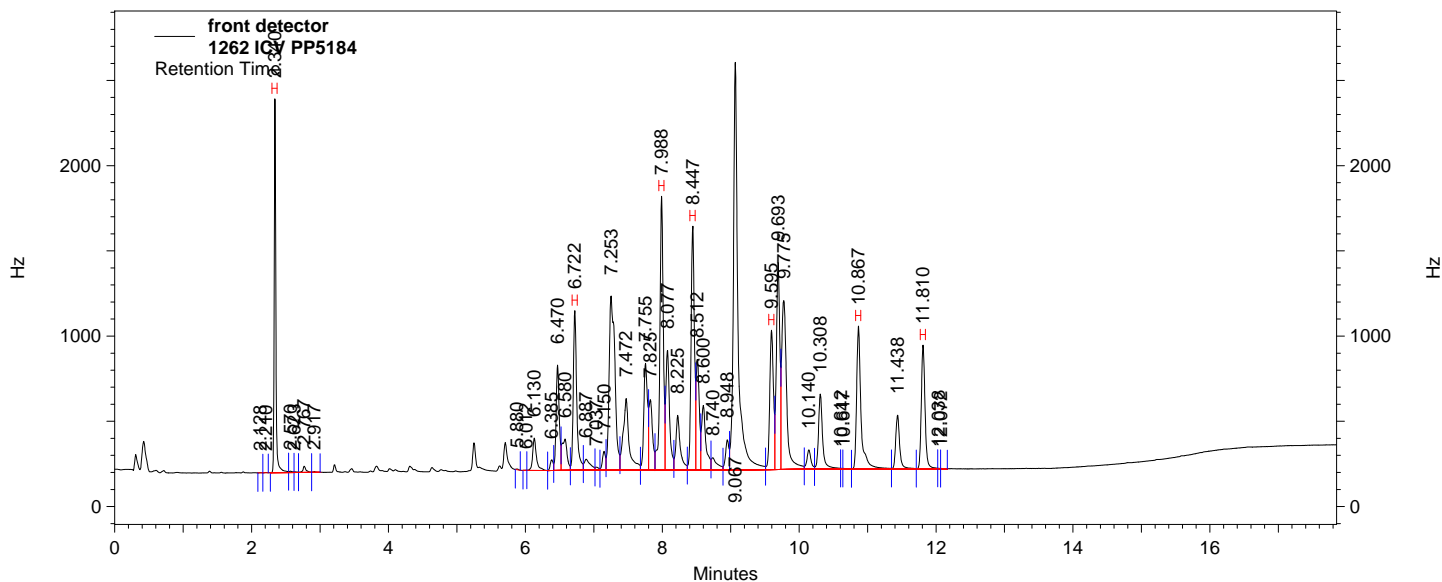
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.198	2.198	20.000	Passed
Aroclor 1262 #1	0.100	0.103	3.331	20.000	Passed
Aroclor 1262 #2	0.100	0.103	3.419	20.000	Passed
Aroclor 1262 #3	0.100	0.104	4.308	20.000	Passed
Aroclor 1262 #4	0.100	0.102	1.736	20.000	Passed
Aroclor 1262 #5	0.100	0.102	2.127	20.000	Passed
SURRDCB	100.000	92.257	7.743	20.000	Passed
Aroclor 1262	0.500	0.515	2.984	20.000	Passed

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\102416pcbic\024.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
 User: JJY
 Sample ID: 1262 ICV PP5184
 Acquired: Oct 24,2016 23:19:43
 Printed: Oct 25,2016 13:52:42

Data Summary: {Data Description}



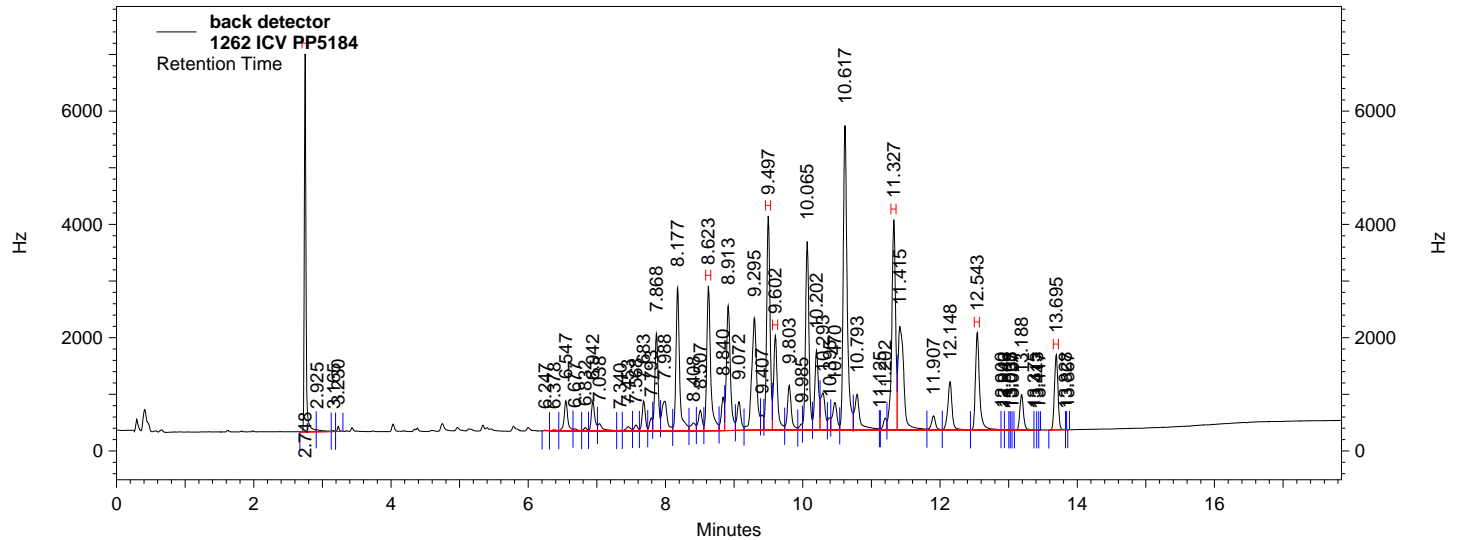
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	27827351	100.799
Aroclor 1262 #1	6.722	25041803	0.103
Aroclor 1262 #2	7.988	42779872	0.103
Aroclor 1262 #3	8.447	37239312	0.106
Aroclor 1262 #4	9.595	23268623	0.102
Aroclor 1262 #5	10.867	29248812	0.101
SURRDCB	11.810	21062042	91.494
Aroclor 1262		157578422	0.516

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP5184
Acquired: Oct 24,2016 23:19:43
Printed: Oct 25,2016 13:52:42

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.748	86011124	102.198
Aroclor 1262 #1	8.623	77470184	0.103
Aroclor 1262 #2	9.497	100011446	0.103
Aroclor 1262 #3	9.602	49793009	0.104
Aroclor 1262 #4	11.327	111224719	0.102
Aroclor 1262 #5	12.543	55864959	0.102
SURRDCB	13.695	36298292	92.257
Aroclor 1262		394364317	0.515

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\102416pcbic.seq
User : JJY
Printed : Oct 25,2016 13:52:57

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102416pcbic\025.d at	1268 ICV PP5185	Oct 25,2016 13:52:56

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	100.649	0.649	20.000	Passed
Aroclor 1268 #1	0.100	0.106	5.591	20.000	Passed
Aroclor 1268 #2	0.100	0.104	3.562	20.000	Passed
Aroclor 1268 #3	0.100	0.101	1.218	20.000	Passed
Aroclor 1268 #4	0.100	0.100	0.301	20.000	Passed
Aroclor 1268 #5	0.100	0.103	2.860	20.000	Passed
SURRDCB	100.000	95.838	4.162	20.000	Passed
Aroclor 1268	0.500	0.513	2.586	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	101.454	1.454	20.000	Passed
Aroclor 1268 #1	0.100	0.105	5.453	20.000	Passed
Aroclor 1268 #2	0.100	0.103	2.940	20.000	Passed
Aroclor 1268 #3	0.100	0.101	0.584	20.000	Passed
Aroclor 1268 #4	0.100	0.099	0.589	20.000	Passed
Aroclor 1268 #5	0.100	0.102	2.342	20.000	Passed
SURRDCB	100.000	96.789	3.211	20.000	Passed
Aroclor 1268	0.500	0.511	2.146	20.000	Passed

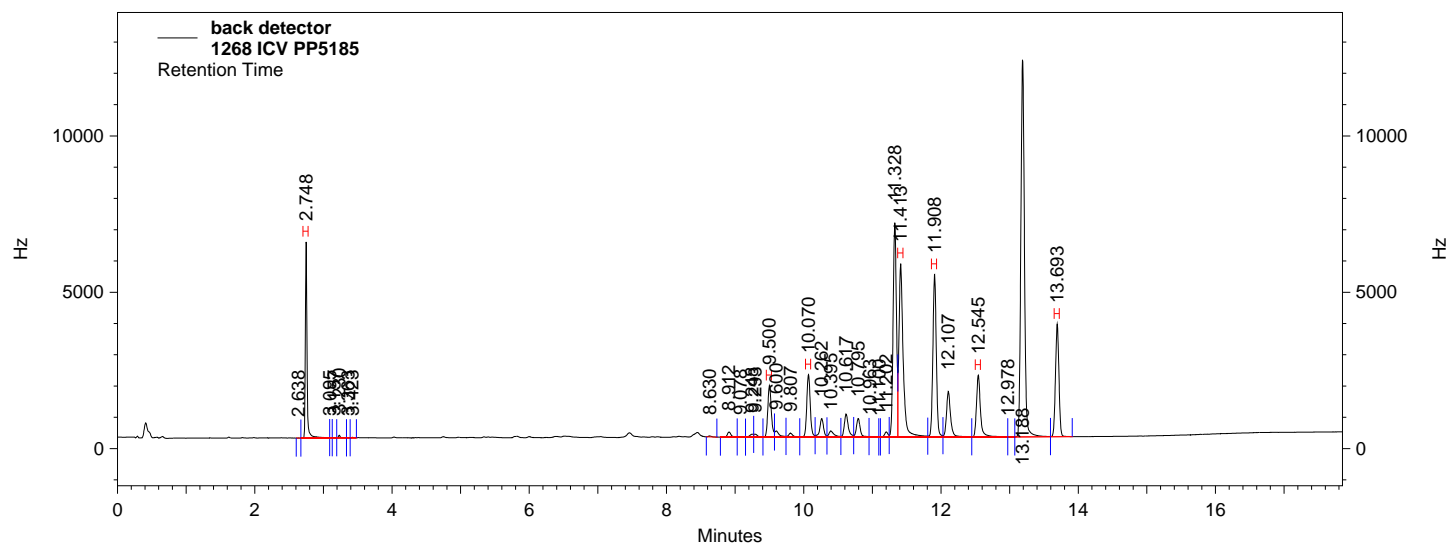
Data File: C:\Instarch\Semr7\Data\102416pcbic\025.dat
Method: C:\Instarch\Semr7\Methods\Aroclor\102416pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5185
Acquired: Oct 24,2016 23:41:08
Printed: Oct 25,2016 13:52:51

<i>Component</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMX	2.342	25794039	100.649
Aroclor 1268 #1	7.992	20591134	0.106
Aroclor 1268 #2	8.438	23454550	0.104
Aroclor 1268 #3	9.762	93678676	0.101
Aroclor 1268 #4	10.140	72398182	0.100
Aroclor 1268 #5	10.863	31136190	0.103
SURRDCB	11.808	57806339	95.838
Aroclor 1268		241258732	0.513

PCB Analysis Report (1268) (Channel B)

Data File: C:\Instarch\Semi7\Data\102416pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP5185
Acquired: Oct 24,2016 23:41:08
Printed: Oct 25,2016 13:52:51

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.748	81691834	101.454
Aroclor 1268 #1	9.500	45259876	0.105
Aroclor 1268 #2	10.070	54396837	0.103
Aroclor 1268 #3	11.413	182532357	0.101
Aroclor 1268 #4	11.908	138745068	0.099
Aroclor 1268 #5	12.545	61240765	0.102
SURRDCB	13.693	96744304	96.789
Aroclor 1268		482174903	0.511

**POLYCHLORINATED BIPHENYL
CONTINUING AND ENDING STANDARDS
DOCUMENTS**

QC Check Standard Report

Page 1 of 1 (7)

Sequence : C:\Instarch\Semi7\Sequence\111516pcb.seq
 User : JJY
 Printed : Nov 16,2016 13:25:04

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111516pcb\003.dat	PCB CCV PP5222	Nov 16,2016 13:25:03

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	110.689	10.689	20.000	Passed
Aroclor 1016 #1	0.100	0.109	8.546	20.000	Passed
Aroclor 1016 #2	0.100	0.109	9.401	20.000	Passed
Aroclor 1016 #3	0.100	0.111	10.577	20.000	Passed
Aroclor 1016 #4	0.100	0.112	12.299	20.000	Passed
Aroclor 1016 #5	0.100	0.114	13.935	20.000	Passed
Aroclor 1260 #1	0.100	0.116	16.265	20.000	Passed
Aroclor 1260 #2	0.100	0.114	14.073	20.000	Passed
Aroclor 1260 #3	0.100	0.114	14.232	20.000	Passed
Aroclor 1260 #4	0.100	0.112	12.398	20.000	Passed
Aroclor 1260 #5	0.100	0.123	23.326	20.000	FAILED
SURRDCBPCB	100.000	94.922	5.078	20.000	Passed
Aroclor 1016	0.500	0.555	10.951	20.000	Passed
Aroclor 1260	0.500	0.580	16.059	20.000	Passed

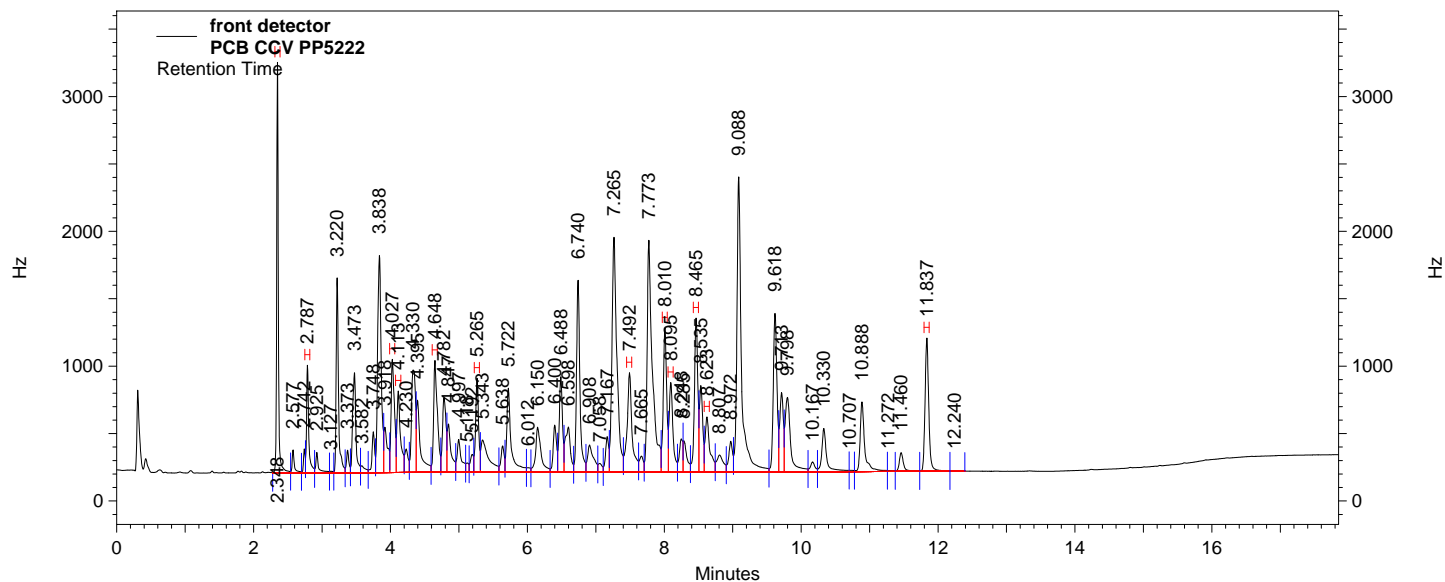
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	107.452	7.452	20.000	Passed
Aroclor 1016 #1	0.100	0.107	6.968	20.000	Passed
Aroclor 1016 #2	0.100	0.106	6.043	20.000	Passed
Aroclor 1016 #3	0.100	0.108	8.207	20.000	Passed
Aroclor 1016 #4	0.100	0.107	7.364	20.000	Passed
Aroclor 1016 #5	0.100	0.107	7.161	20.000	Passed
Aroclor 1260 #1	0.100	0.111	11.418	20.000	Passed
Aroclor 1260 #2	0.100	0.109	8.616	20.000	Passed
Aroclor 1260 #3	0.100	0.109	8.983	20.000	Passed
Aroclor 1260 #4	0.100	0.112	11.676	20.000	Passed
Aroclor 1260 #5	0.100	0.109	8.956	20.000	Passed
SURRDCBPCB	100.000	92.425	7.575	20.000	Passed
Aroclor 1016	0.500	0.536	7.149	20.000	Passed
Aroclor 1260	0.500	0.550	9.930	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111516pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 15,2016 16:01:50
Printed: Nov 16,2016 13:25:02

Data Summary: {Data Description}



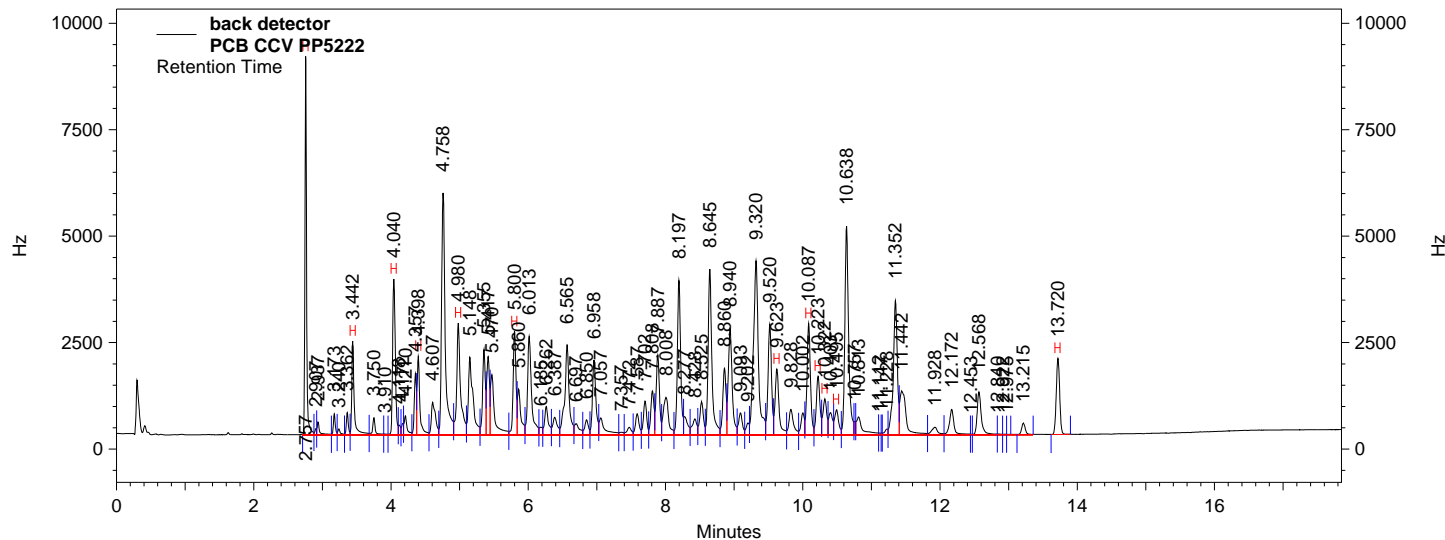
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.348	39043447	110.689
Aroclor 1016 #1	2.787	13156931	0.109
Aroclor 1016 #2	4.027	21855317	0.109
Aroclor 1016 #3	4.113	16606548	0.111
Aroclor 1016 #4	4.648	24651731	0.112
Aroclor 1016 #5	5.265	16194994	0.114
Aroclor 1260 #1	7.492	28512432	0.116
Aroclor 1260 #2	8.010	28782672	0.114
Aroclor 1260 #3	8.095	19581185	0.114
Aroclor 1260 #4	8.465	30203783	0.112
Aroclor 1260 #5	8.623	15009713	0.123
SURRDCBPCB	11.837	28950439	94.922
Aroclor 1016		92465521	0.555
Aroclor 1260		122089785	0.580

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111516pcb\003.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 15,2016 16:01:50
 Printed: Nov 16,2016 13:25:02

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.757	112742270	107.452
Aroclor 1016 #1	3.442	41346871	0.107
Aroclor 1016 #2	4.040	76615998	0.106
Aroclor 1016 #3	4.398	38140748	0.108
Aroclor 1016 #4	4.980	79378030	0.107
Aroclor 1016 #5	5.800	53964718	0.107
Aroclor 1260 #1	9.623	46644572	0.111
Aroclor 1260 #2	10.087	70290730	0.109
Aroclor 1260 #3	10.223	38121043	0.109
Aroclor 1260 #4	10.322	25056875	0.112
Aroclor 1260 #5	10.495	18526349	0.109
SURRDCBPCB	13.720	47632031	92.425
Aroclor 1016		289446365	0.536
Aroclor 1260		198639569	0.550

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\111516pcb.seq
 User : JJY
 Printed : Nov 16,2016 13:25:30

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111516pcb\012.dat	PCB CCV PP5222	Nov 16,2016 13:25:30

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	108.847	8.847	20.000	Passed
Aroclor 1016 #1	0.100	0.108	7.818	20.000	Passed
Aroclor 1016 #2	0.100	0.108	8.188	20.000	Passed
Aroclor 1016 #3	0.100	0.109	9.294	20.000	Passed
Aroclor 1016 #4	0.100	0.110	10.325	20.000	Passed
Aroclor 1016 #5	0.100	0.111	10.908	20.000	Passed
Aroclor 1260 #1	0.100	0.111	11.205	20.000	Passed
Aroclor 1260 #2	0.100	0.109	9.393	20.000	Passed
Aroclor 1260 #3	0.100	0.110	10.161	20.000	Passed
Aroclor 1260 #4	0.100	0.108	7.839	20.000	Passed
Aroclor 1260 #5	0.100	0.113	13.205	20.000	Passed
SURRDCBPCB	100.000	100.983	0.983	20.000	Passed
Aroclor 1016	0.500	0.547	9.307	20.000	Passed
Aroclor 1260	0.500	0.552	10.360	20.000	Passed

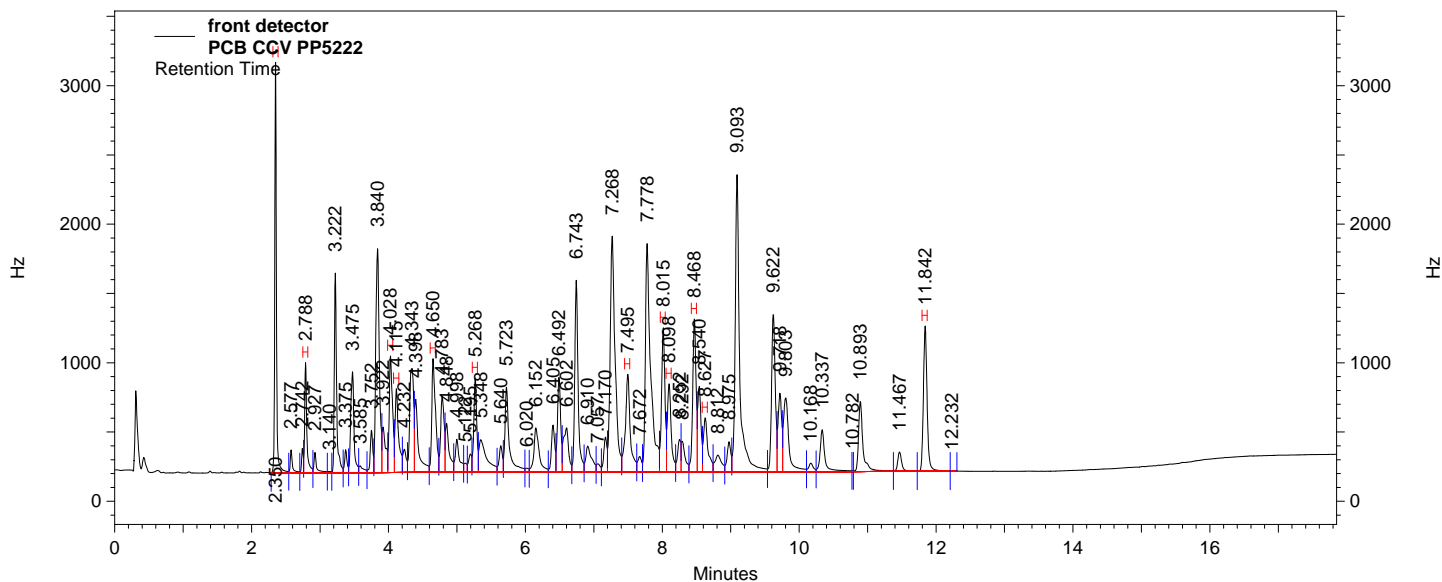
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	108.487	8.487	20.000	Passed
Aroclor 1016 #1	0.100	0.108	8.214	20.000	Passed
Aroclor 1016 #2	0.100	0.108	8.177	20.000	Passed
Aroclor 1016 #3	0.100	0.110	9.597	20.000	Passed
Aroclor 1016 #4	0.100	0.109	8.819	20.000	Passed
Aroclor 1016 #5	0.100	0.107	7.020	20.000	Passed
Aroclor 1260 #1	0.100	0.108	8.475	20.000	Passed
Aroclor 1260 #2	0.100	0.107	6.902	20.000	Passed
Aroclor 1260 #3	0.100	0.108	7.646	20.000	Passed
Aroclor 1260 #4	0.100	0.109	9.348	20.000	Passed
Aroclor 1260 #5	0.100	0.110	9.810	20.000	Passed
SURRDCBPCB	100.000	102.186	2.186	20.000	Passed
Aroclor 1016	0.500	0.542	8.365	20.000	Passed
Aroclor 1260	0.500	0.542	8.436	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111516pcb\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 15,2016 19:40:36
Printed: Nov 16,2016 13:25:28

Data Summary: {Data Description}



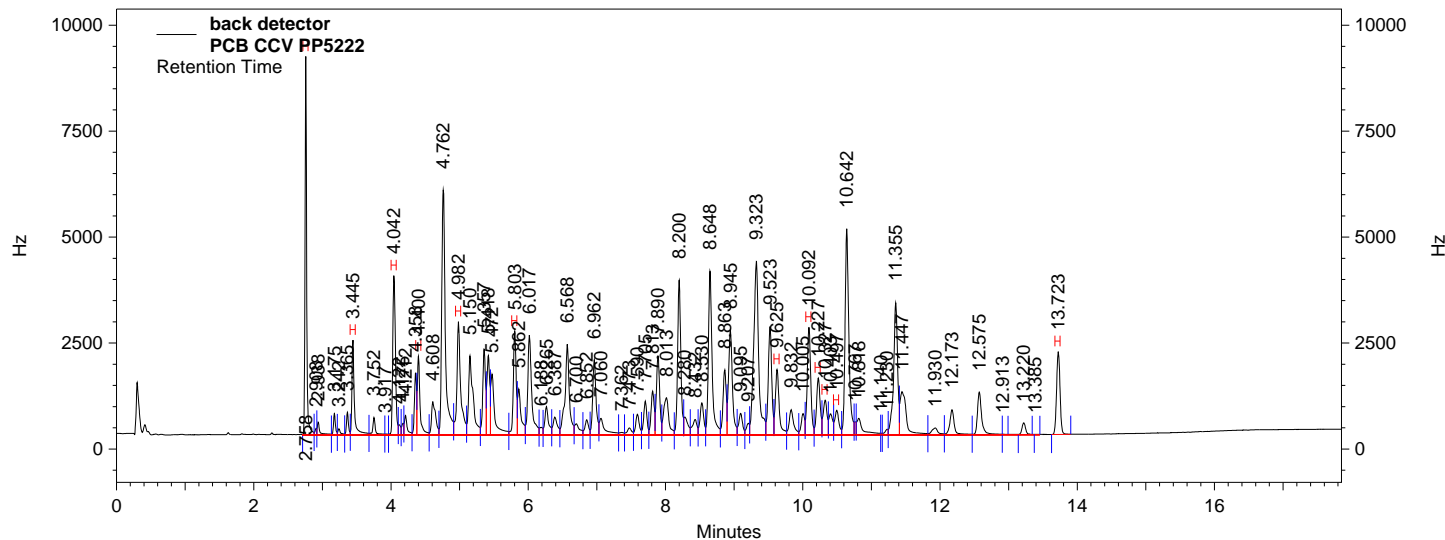
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.350	38398177	108.847
Aroclor 1016 #1	2.788	13070065	0.108
Aroclor 1016 #2	4.028	21615079	0.108
Aroclor 1016 #3	4.115	16415570	0.109
Aroclor 1016 #4	4.650	24222506	0.110
Aroclor 1016 #5	5.268	15769406	0.111
Aroclor 1260 #1	7.495	27279336	0.111
Aroclor 1260 #2	8.015	27616283	0.109
Aroclor 1260 #3	8.098	18890778	0.110
Aroclor 1260 #4	8.468	28988152	0.108
Aroclor 1260 #5	8.627	13791255	0.113
SURRDCBPCB	11.842	30759644	100.983
Aroclor 1016		91092626	0.547
Aroclor 1260		116565804	0.552

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111516pcb\012.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 15,2016 19:40:36
 Printed: Nov 16,2016 13:25:28

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.758	113817277	108.487
Aroclor 1016 #1	3.445	41823890	0.108
Aroclor 1016 #2	4.042	78119064	0.108
Aroclor 1016 #3	4.400	38623531	0.110
Aroclor 1016 #4	4.982	80437789	0.109
Aroclor 1016 #5	5.803	53894730	0.107
Aroclor 1260 #1	9.625	45437810	0.108
Aroclor 1260 #2	10.092	69206654	0.107
Aroclor 1260 #3	10.227	37663386	0.108
Aroclor 1260 #4	10.327	24544747	0.109
Aroclor 1260 #5	10.497	18669308	0.110
SURRDCBPCB	13.723	52445747	102.186
Aroclor 1016		292899004	0.542
Aroclor 1260		195521905	0.542

QC Check Standard Report

Page 1 of 1 (7)

Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 08:23:46

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\003.dat	PCB CCV PP5222	Nov 18,2016 08:23:46

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	106.187	6.187	20.000	Passed
Aroclor 1016 #1	0.100	0.105	4.893	20.000	Passed
Aroclor 1016 #2	0.100	0.105	5.069	20.000	Passed
Aroclor 1016 #3	0.100	0.107	6.713	20.000	Passed
Aroclor 1016 #4	0.100	0.107	7.314	20.000	Passed
Aroclor 1016 #5	0.100	0.108	7.958	20.000	Passed
Aroclor 1260 #1	0.100	0.108	8.132	20.000	Passed
Aroclor 1260 #2	0.100	0.107	6.630	20.000	Passed
Aroclor 1260 #3	0.100	0.108	8.050	20.000	Passed
Aroclor 1260 #4	0.100	0.106	5.732	20.000	Passed
Aroclor 1260 #5	0.100	0.111	11.168	20.000	Passed
SURRDCBPCB	100.000	93.677	6.323	20.000	Passed
Aroclor 1016	0.500	0.532	6.389	20.000	Passed
Aroclor 1260	0.500	0.540	7.942	20.000	Passed

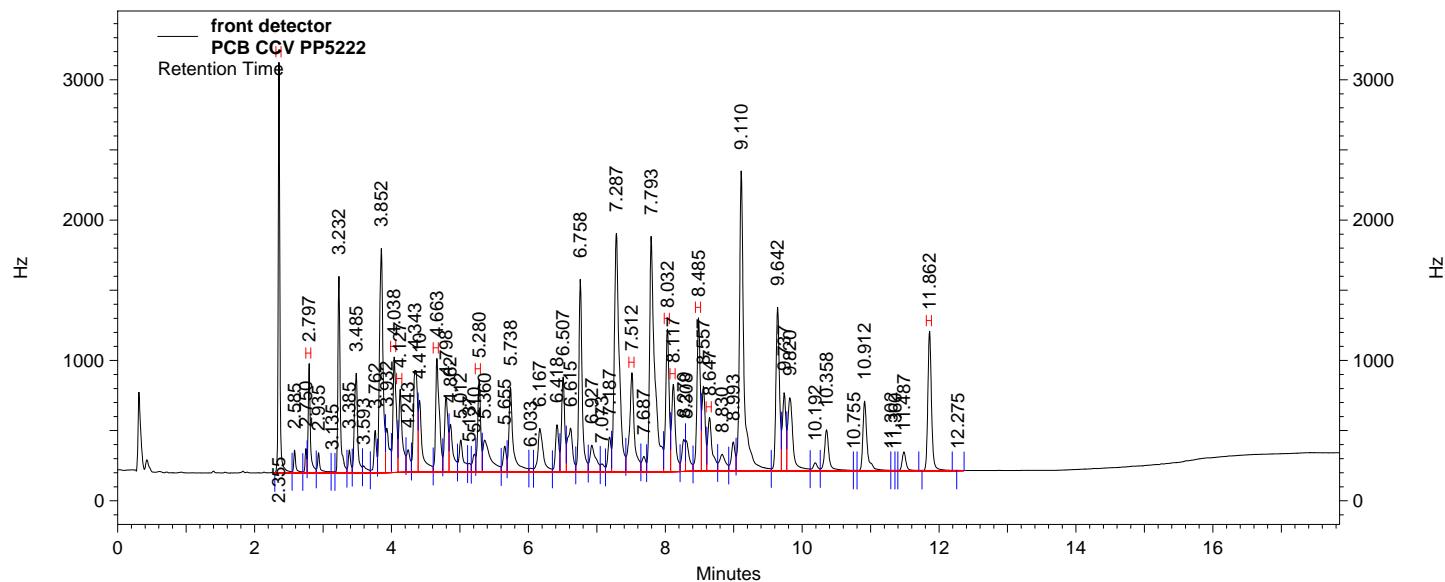
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.414	11.414	20.000	Passed
Aroclor 1016 #1	0.100	0.111	10.814	20.000	Passed
Aroclor 1016 #2	0.100	0.110	10.496	20.000	Passed
Aroclor 1016 #3	0.100	0.111	10.780	20.000	Passed
Aroclor 1016 #4	0.100	0.110	10.473	20.000	Passed
Aroclor 1016 #5	0.100	0.110	9.783	20.000	Passed
Aroclor 1260 #1	0.100	0.111	11.177	20.000	Passed
Aroclor 1260 #2	0.100	0.110	9.648	20.000	Passed
Aroclor 1260 #3	0.100	0.110	9.991	20.000	Passed
Aroclor 1260 #4	0.100	0.111	10.638	20.000	Passed
Aroclor 1260 #5	0.100	0.109	9.245	20.000	Passed
SURRDCBPCB	100.000	98.833	1.167	20.000	Passed
Aroclor 1016	0.500	0.552	10.469	20.000	Passed
Aroclor 1260	0.500	0.551	10.140	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 17,2016 10:32:05
Printed: Nov 18,2016 08:23:44

Data Summary: {Data Description}



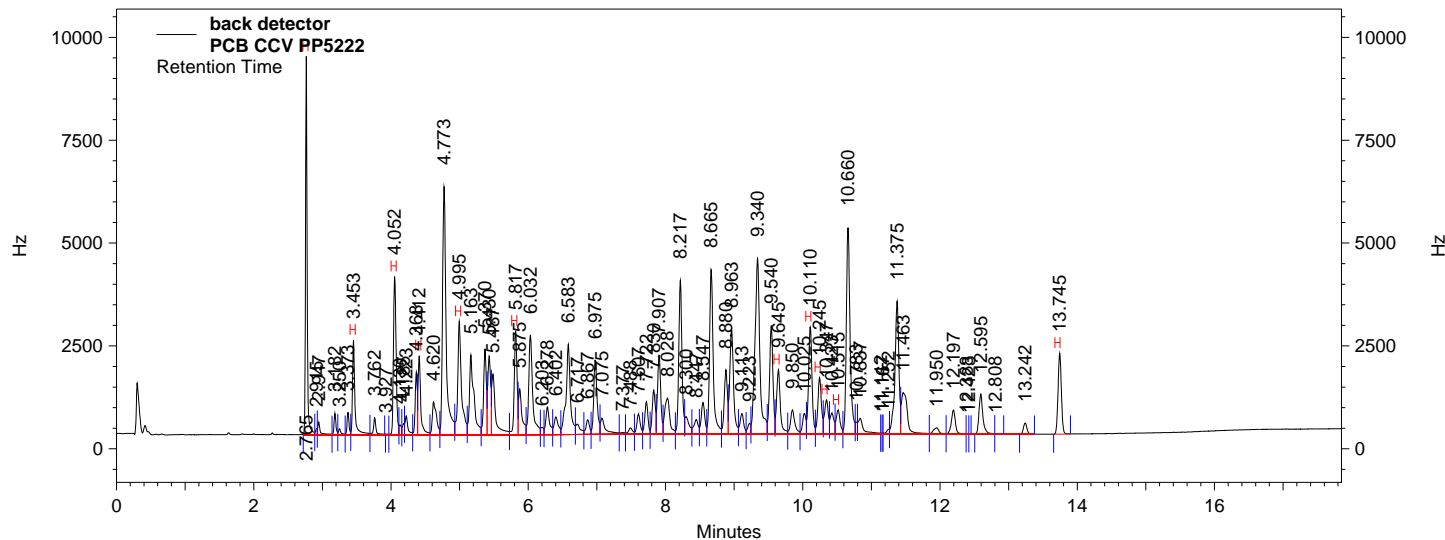
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.355	37465935	106.187
Aroclor 1016 #1	2.797	12720938	0.105
Aroclor 1016 #2	4.038	20997392	0.105
Aroclor 1016 #3	4.127	16031289	0.107
Aroclor 1016 #4	4.663	23567442	0.107
Aroclor 1016 #5	5.280	15354773	0.108
Aroclor 1260 #1	7.512	26530650	0.108
Aroclor 1260 #2	8.032	26927658	0.107
Aroclor 1260 #3	8.117	18532768	0.108
Aroclor 1260 #4	8.485	28426318	0.106
Aroclor 1260 #5	8.647	13546124	0.111
SURRDCBPCB	11.862	28579131	93.677
Aroclor 1016		88671834	0.532
Aroclor 1260		113963518	0.540

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\003.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 17,2016 10:32:05
 Printed: Nov 18,2016 08:23:44

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	116857933	111.414
Aroclor 1016 #1	3.453	42819661	0.111
Aroclor 1016 #2	4.052	79752668	0.110
Aroclor 1016 #3	4.412	39034167	0.111
Aroclor 1016 #4	4.995	81642576	0.110
Aroclor 1016 #5	5.817	55265112	0.110
Aroclor 1260 #1	9.645	46545528	0.111
Aroclor 1260 #2	10.110	70943688	0.110
Aroclor 1260 #3	10.245	38465846	0.110
Aroclor 1260 #4	10.347	24828496	0.111
Aroclor 1260 #5	10.515	18574695	0.109
SURRDCBPCB	13.745	50791888	98.833
Aroclor 1016		298514184	0.552
Aroclor 1260		199358253	0.551

QC Check Standard Report

Page 1 of 1 (1)

Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 08:29:02

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\014.dat	PCB CCV PP5222	Nov 18,2016 08:29:02

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	107.951	7.951	20.000	Passed
Aroclor 1016 #1	0.100	0.107	6.687	20.000	Passed
Aroclor 1016 #2	0.100	0.106	5.981	20.000	Passed
Aroclor 1016 #3	0.100	0.108	7.693	20.000	Passed
Aroclor 1016 #4	0.100	0.108	8.214	20.000	Passed
Aroclor 1016 #5	0.100	0.110	10.370	20.000	Passed
Aroclor 1260 #1	0.100	0.112	11.741	20.000	Passed
Aroclor 1260 #2	0.100	0.111	10.652	20.000	Passed
Aroclor 1260 #3	0.100	0.110	10.209	20.000	Passed
Aroclor 1260 #4	0.100	0.109	8.685	20.000	Passed
Aroclor 1260 #5	0.100	0.116	15.508	20.000	Passed
SURRDCBPCB	100.000	95.332	4.668	20.000	Passed
Aroclor 1016	0.500	0.539	7.789	20.000	Passed
Aroclor 1260	0.500	0.557	11.359	20.000	Passed

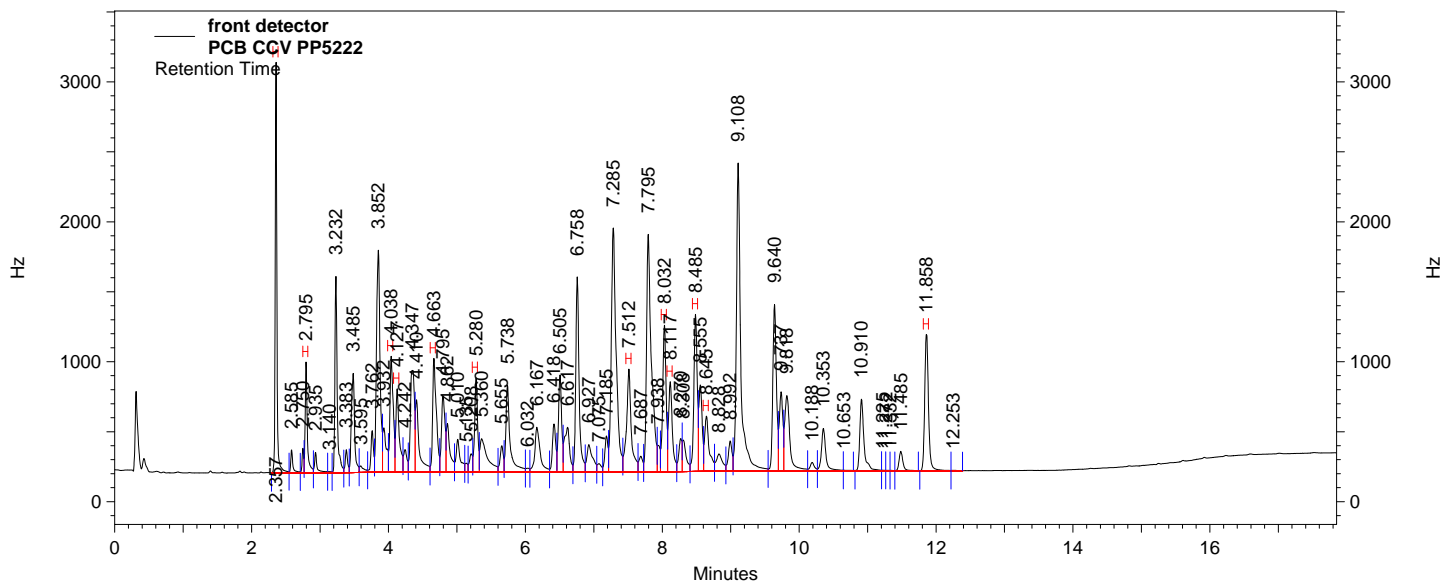
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	112.447	12.447	20.000	Passed
Aroclor 1016 #1	0.100	0.113	12.839	20.000	Passed
Aroclor 1016 #2	0.100	0.112	12.439	20.000	Passed
Aroclor 1016 #3	0.100	0.114	14.432	20.000	Passed
Aroclor 1016 #4	0.100	0.114	13.587	20.000	Passed
Aroclor 1016 #5	0.100	0.112	12.069	20.000	Passed
Aroclor 1260 #1	0.100	0.112	12.317	20.000	Passed
Aroclor 1260 #2	0.100	0.111	10.676	20.000	Passed
Aroclor 1260 #3	0.100	0.111	10.595	20.000	Passed
Aroclor 1260 #4	0.100	0.111	10.598	20.000	Passed
Aroclor 1260 #5	0.100	0.111	11.467	20.000	Passed
SURRDCBPCB	100.000	98.692	1.308	20.000	Passed
Aroclor 1016	0.500	0.565	13.073	20.000	Passed
Aroclor 1260	0.500	0.556	11.131	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 17,2016 14:28:40
Printed: Nov 18,2016 08:24:24

Data Summary: {Data Description}



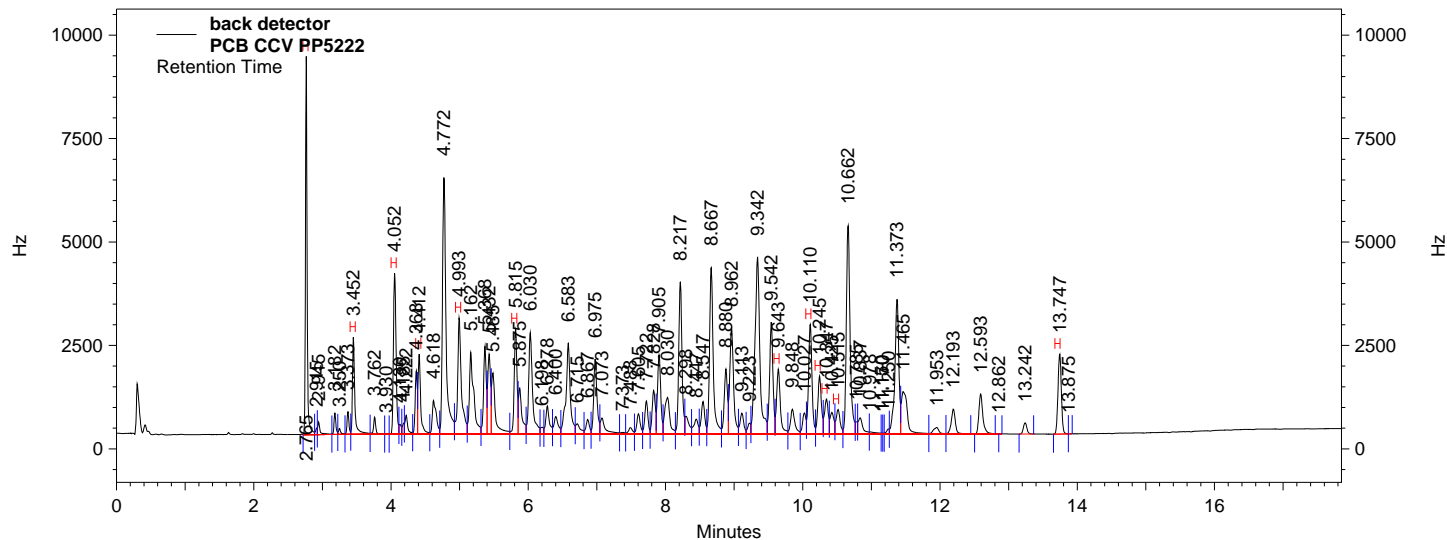
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	38084228	107.951
Aroclor 1016 #1	2.795	12935092	0.107
Aroclor 1016 #2	4.038	21177980	0.106
Aroclor 1016 #3	4.127	16177155	0.108
Aroclor 1016 #4	4.663	23763214	0.108
Aroclor 1016 #5	5.280	15693892	0.110
Aroclor 1260 #1	7.512	27410137	0.112
Aroclor 1260 #2	8.032	27930088	0.111
Aroclor 1260 #3	8.117	18898909	0.110
Aroclor 1260 #4	8.485	29213777	0.109
Aroclor 1260 #5	8.645	14068573	0.116
SURRDCBPCB	11.858	29072828	95.332
Aroclor 1016		89747333	0.539
Aroclor 1260		117521484	0.557

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\014.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 17,2016 14:28:40
 Printed: Nov 18,2016 08:24:24

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	117931858	112.447
Aroclor 1016 #1	3.452	43594862	0.113
Aroclor 1016 #2	4.052	81120963	0.112
Aroclor 1016 #3	4.412	40302078	0.114
Aroclor 1016 #4	4.993	83911652	0.114
Aroclor 1016 #5	5.815	56399103	0.112
Aroclor 1260 #1	9.643	47013016	0.112
Aroclor 1260 #2	10.110	71593833	0.111
Aroclor 1260 #3	10.245	38672757	0.111
Aroclor 1260 #4	10.347	24819849	0.111
Aroclor 1260 #5	10.515	18947070	0.111
SURRDCBPCB	13.747	50722201	98.692
Aroclor 1016		305328658	0.565
Aroclor 1260		201046525	0.556

QC Check Standard Report

Page 1 of 1 (53)

Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 08:24:55

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\025.dat	PCB CCV PP5222	Nov 18,2016 08:24:54

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	104.145	4.145	20.000	Passed
Aroclor 1016 #1	0.100	0.104	4.026	20.000	Passed
Aroclor 1016 #2	0.100	0.105	4.959	20.000	Passed
Aroclor 1016 #3	0.100	0.104	4.351	20.000	Passed
Aroclor 1016 #4	0.100	0.106	6.049	20.000	Passed
Aroclor 1016 #5	0.100	0.108	7.614	20.000	Passed
Aroclor 1260 #1	0.100	0.108	7.551	20.000	Passed
Aroclor 1260 #2	0.100	0.106	5.846	20.000	Passed
Aroclor 1260 #3	0.100	0.107	7.043	20.000	Passed
Aroclor 1260 #4	0.100	0.107	7.164	20.000	Passed
Aroclor 1260 #5	0.100	0.109	9.023	20.000	Passed
SURRDCBPCB	100.000	97.100	2.900	20.000	Passed
Aroclor 1016	0.500	0.527	5.400	20.000	Passed
Aroclor 1260	0.500	0.537	7.325	20.000	Passed

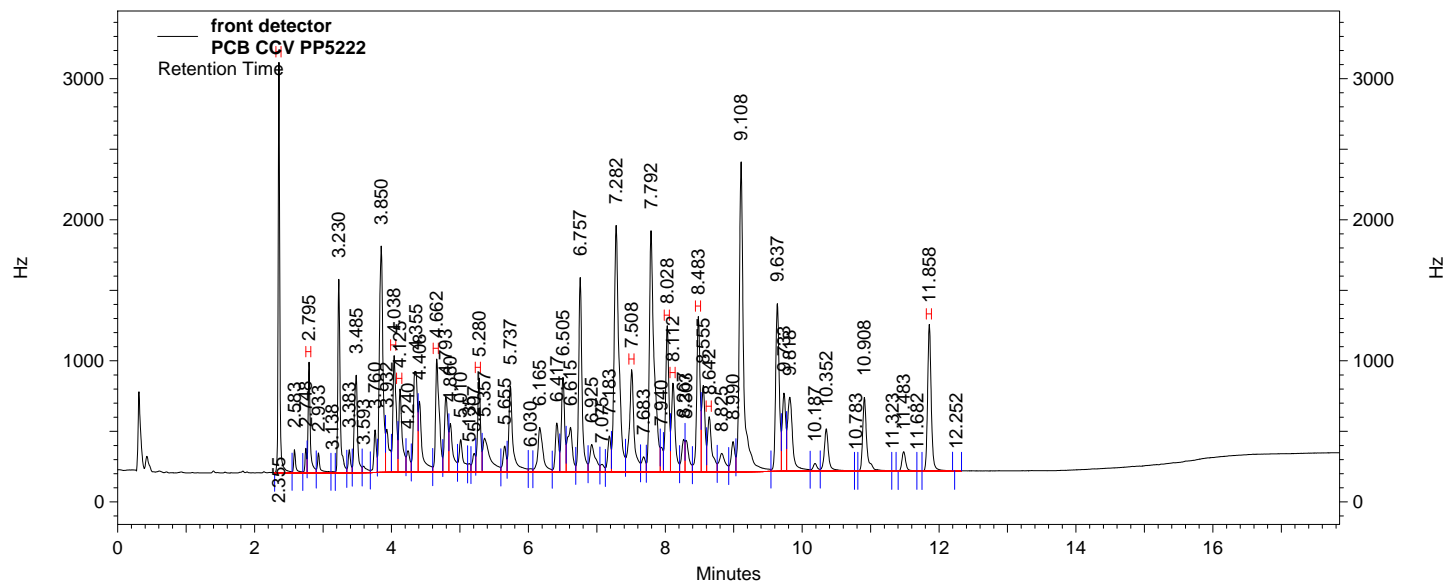
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	107.916	7.916	20.000	Passed
Aroclor 1016 #1	0.100	0.109	8.531	20.000	Passed
Aroclor 1016 #2	0.100	0.108	8.119	20.000	Passed
Aroclor 1016 #3	0.100	0.108	8.466	20.000	Passed
Aroclor 1016 #4	0.100	0.110	10.072	20.000	Passed
Aroclor 1016 #5	0.100	0.108	8.200	20.000	Passed
Aroclor 1260 #1	0.100	0.107	6.701	20.000	Passed
Aroclor 1260 #2	0.100	0.108	7.691	20.000	Passed
Aroclor 1260 #3	0.100	0.107	7.210	20.000	Passed
Aroclor 1260 #4	0.100	0.109	8.982	20.000	Passed
Aroclor 1260 #5	0.100	0.108	7.735	20.000	Passed
SURRDCBPCB	100.000	100.709	0.709	20.000	Passed
Aroclor 1016	0.500	0.543	8.678	20.000	Passed
Aroclor 1260	0.500	0.538	7.664	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 17,2016 18:27:25
Printed: Nov 18,2016 08:24:53

Data Summary: {Data Description}



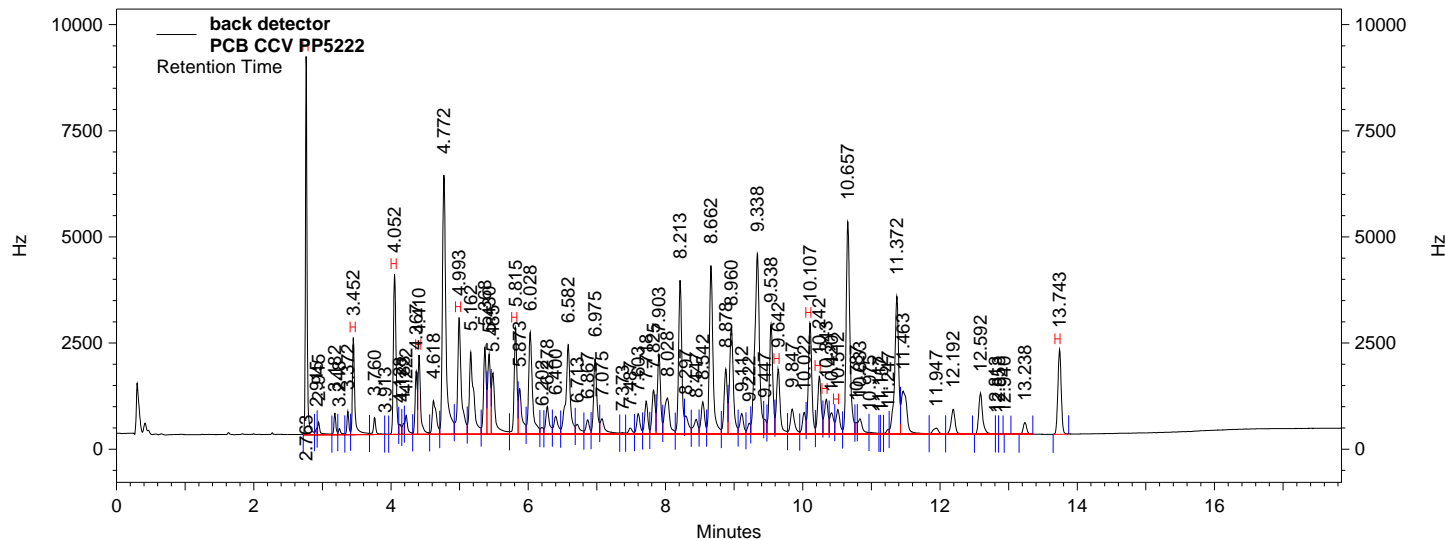
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.355	36750281	104.145
Aroclor 1016 #1	2.795	12617509	0.104
Aroclor 1016 #2	4.038	20975554	0.105
Aroclor 1016 #3	4.125	15679564	0.104
Aroclor 1016 #4	4.662	23292380	0.106
Aroclor 1016 #5	5.280	15306378	0.108
Aroclor 1260 #1	7.508	26388903	0.108
Aroclor 1260 #2	8.028	26732166	0.106
Aroclor 1260 #3	8.112	18361971	0.107
Aroclor 1260 #4	8.483	28808168	0.107
Aroclor 1260 #5	8.642	13287823	0.109
SURRDCBPCB	11.858	29600474	97.100
Aroclor 1016		87871385	0.527
Aroclor 1260		113579031	0.537

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\025.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 17,2016 18:27:25
 Printed: Nov 18,2016 08:24:53

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.763	113224499	107.916
Aroclor 1016 #1	3.452	41945347	0.109
Aroclor 1016 #2	4.052	78078249	0.108
Aroclor 1016 #3	4.410	38230794	0.108
Aroclor 1016 #4	4.993	81350473	0.110
Aroclor 1016 #5	5.815	54479998	0.108
Aroclor 1260 #1	9.642	44710874	0.107
Aroclor 1260 #2	10.107	69706227	0.108
Aroclor 1260 #3	10.242	37514171	0.107
Aroclor 1260 #4	10.343	24464172	0.109
Aroclor 1260 #5	10.512	18321701	0.108
SURRDCBPCB	13.743	51717073	100.709
Aroclor 1016		294084861	0.543
Aroclor 1260		194717145	0.538

QC Check Standard Report

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Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 08:25:26

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\036.dat	PCB CCV PP5222	Nov 18,2016 08:25:26

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.170	11.170	20.000	Passed
Aroclor 1016 #1	0.100	0.112	11.955	20.000	Passed
Aroclor 1016 #2	0.100	0.112	11.807	20.000	Passed
Aroclor 1016 #3	0.100	0.110	9.699	20.000	Passed
Aroclor 1016 #4	0.100	0.112	11.947	20.000	Passed
Aroclor 1016 #5	0.100	0.110	9.770	20.000	Passed
Aroclor 1260 #1	0.100	0.109	8.731	20.000	Passed
Aroclor 1260 #2	0.100	0.110	10.227	20.000	Passed
Aroclor 1260 #3	0.100	0.107	6.743	20.000	Passed
Aroclor 1260 #4	0.100	0.113	12.659	20.000	Passed
Aroclor 1260 #5	0.100	0.106	6.270	20.000	Passed
SURRDCBPCB	100.000	110.146	10.146	20.000	Passed
Aroclor 1016	0.500	0.555	11.036	20.000	Passed
Aroclor 1260	0.500	0.545	8.926	20.000	Passed

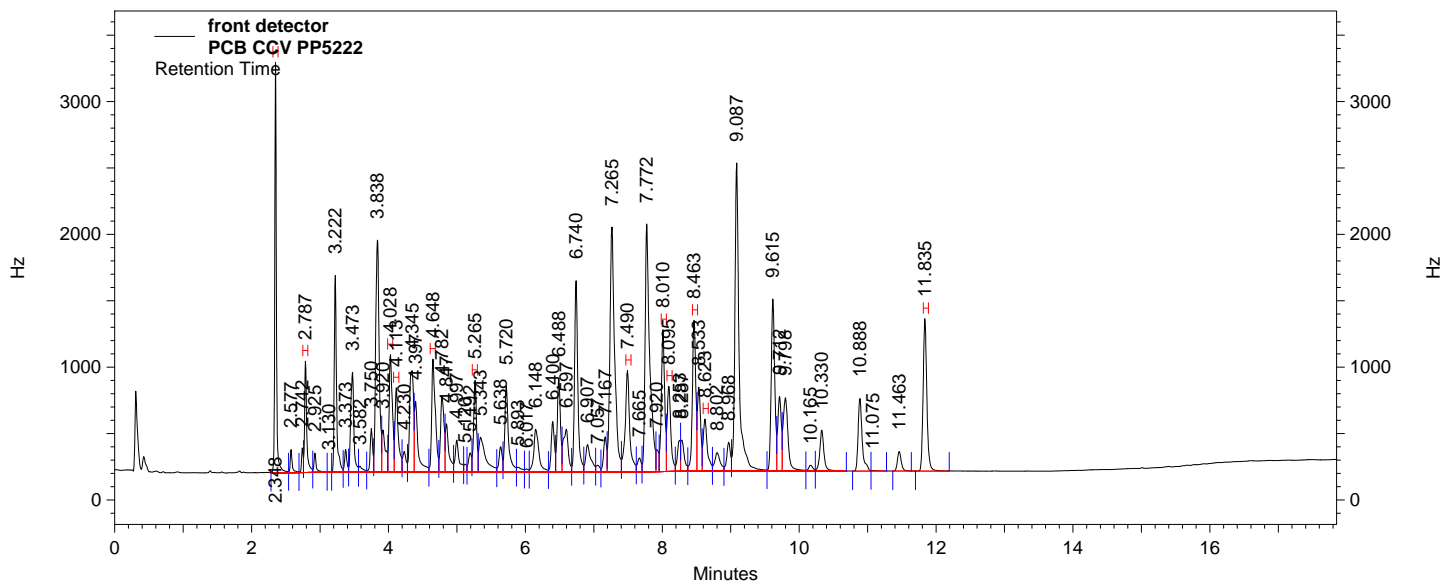
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	84.599	15.401	20.000	Passed
Aroclor 1016 #1	0.100	0.086	13.603	20.000	Passed
Aroclor 1016 #2	0.100	0.086	14.003	20.000	Passed
Aroclor 1016 #3	0.100	0.085	14.935	20.000	Passed
Aroclor 1016 #4	0.100	0.088	11.550	20.000	Passed
Aroclor 1016 #5	0.100	0.091	8.720	20.000	Passed
Aroclor 1260 #1	0.100	0.088	12.181	20.000	Passed
Aroclor 1260 #2	0.100	0.090	10.406	20.000	Passed
Aroclor 1260 #3	0.100	0.090	10.400	20.000	Passed
Aroclor 1260 #4	0.100	0.090	9.573	20.000	Passed
Aroclor 1260 #5	0.100	0.090	9.736	20.000	Passed
SURRDCBPCB	100.000	90.135	9.865	20.000	Passed
Aroclor 1016	0.500	0.437	12.562	20.000	Passed
Aroclor 1260	0.500	0.448	10.459	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\036.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 17,2016 22:23:52
Printed: Nov 18,2016 08:25:25

Data Summary: {Data Description}



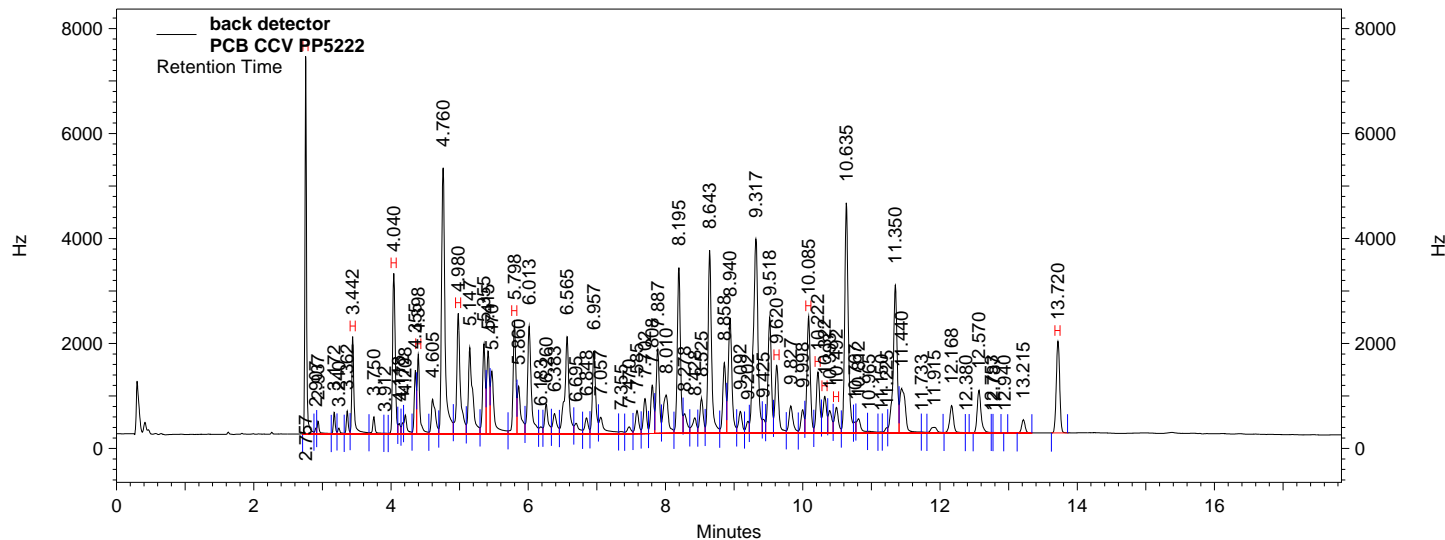
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.348	39212079	111.170
Aroclor 1016 #1	2.787	13563955	0.112
Aroclor 1016 #2	4.028	22331889	0.112
Aroclor 1016 #3	4.113	16475808	0.110
Aroclor 1016 #4	4.648	24575159	0.112
Aroclor 1016 #5	5.265	15609456	0.110
Aroclor 1260 #1	7.490	26676428	0.109
Aroclor 1260 #2	8.010	27824073	0.110
Aroclor 1260 #3	8.095	18311060	0.107
Aroclor 1260 #4	8.463	30273303	0.113
Aroclor 1260 #5	8.623	12956448	0.106
SURRDCBPCB	11.835	33494186	110.146
Aroclor 1016		92556267	0.555
Aroclor 1260		116041312	0.545

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\036.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 17,2016 22:23:52
Printed: Nov 18,2016 08:25:25

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.757	89000227	84.599
Aroclor 1016 #1	3.442	33470253	0.086
Aroclor 1016 #2	4.040	62496610	0.086
Aroclor 1016 #3	4.398	30105465	0.085
Aroclor 1016 #4	4.980	65598191	0.088
Aroclor 1016 #5	5.798	46087758	0.091
Aroclor 1260 #1	9.620	36969673	0.088
Aroclor 1260 #2	10.085	58260115	0.090
Aroclor 1260 #3	10.222	31486302	0.090
Aroclor 1260 #4	10.322	20381856	0.090
Aroclor 1260 #5	10.492	15394864	0.090
SURRDCBPCB	13.720	46502438	90.135
Aroclor 1016		237758277	0.437
Aroclor 1260		162492810	0.448

QC Check Standard Report

Page 1 of 1 (5)

Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 16:13:43

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\038.dat	PCB CCV PP5222	Nov 18,2016 16:13:43

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	112.083	12.083	20.000	Passed
Aroclor 1016 #1	0.100	0.112	12.319	20.000	Passed
Aroclor 1016 #2	0.100	0.112	12.376	20.000	Passed
Aroclor 1016 #3	0.100	0.111	10.550	20.000	Passed
Aroclor 1016 #4	0.100	0.112	12.141	20.000	Passed
Aroclor 1016 #5	0.100	0.110	10.166	20.000	Passed
Aroclor 1260 #1	0.100	0.109	8.818	20.000	Passed
Aroclor 1260 #2	0.100	0.110	9.881	20.000	Passed
Aroclor 1260 #3	0.100	0.107	7.234	20.000	Passed
Aroclor 1260 #4	0.100	0.112	12.380	20.000	Passed
Aroclor 1260 #5	0.100	0.105	5.412	20.000	Passed
SURRDCBPCB	100.000	107.919	7.919	20.000	Passed
Aroclor 1016	0.500	0.558	11.510	20.000	Passed
Aroclor 1260	0.500	0.544	8.745	20.000	Passed

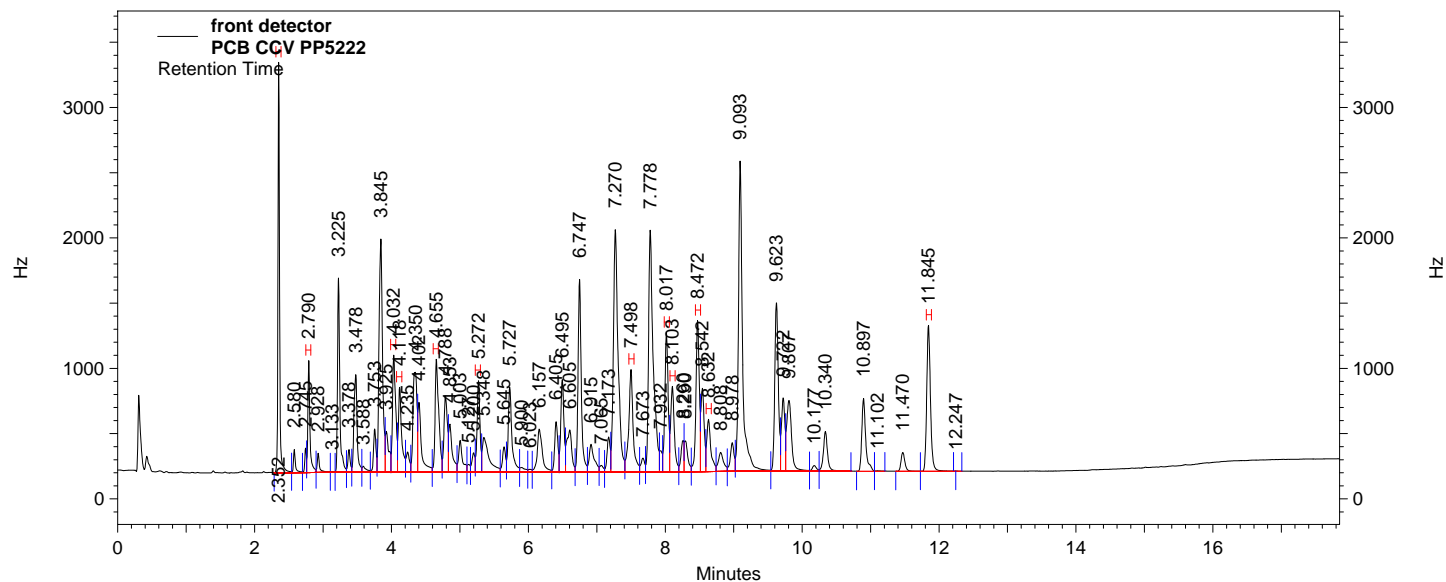
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	103.969	3.969	20.000	Passed
Aroclor 1016 #1	0.100	0.104	4.105	20.000	Passed
Aroclor 1016 #2	0.100	0.105	4.826	20.000	Passed
Aroclor 1016 #3	0.100	0.103	3.048	20.000	Passed
Aroclor 1016 #4	0.100	0.106	6.052	20.000	Passed
Aroclor 1016 #5	0.100	0.108	7.823	20.000	Passed
Aroclor 1260 #1	0.100	0.101	0.988	20.000	Passed
Aroclor 1260 #2	0.100	0.105	4.928	20.000	Passed
Aroclor 1260 #3	0.100	0.104	4.389	20.000	Passed
Aroclor 1260 #4	0.100	0.104	3.963	20.000	Passed
Aroclor 1260 #5	0.100	0.102	2.365	20.000	Passed
SURRDCBPCB	100.000	104.524	4.524	20.000	Passed
Aroclor 1016	0.500	0.526	5.171	20.000	Passed
Aroclor 1260	0.500	0.517	3.327	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\038.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 18,2016 09:49:39
Printed: Nov 18,2016 16:13:41

Data Summary: {Data Description}



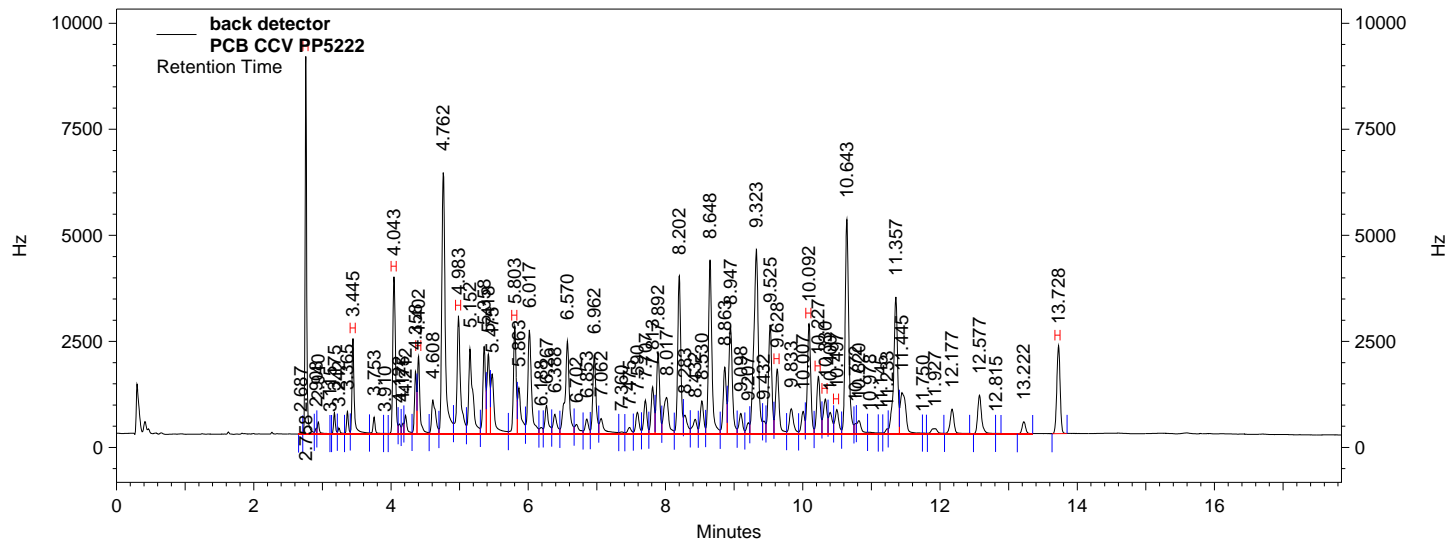
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.352	39531959	112.083
Aroclor 1016 #1	2.790	13607396	0.112
Aroclor 1016 #2	4.032	22444432	0.112
Aroclor 1016 #3	4.118	16602514	0.111
Aroclor 1016 #4	4.655	24617357	0.112
Aroclor 1016 #5	5.272	15665134	0.110
Aroclor 1260 #1	7.498	26697667	0.109
Aroclor 1260 #2	8.017	27737933	0.110
Aroclor 1260 #3	8.103	18394496	0.107
Aroclor 1260 #4	8.472	30198958	0.112
Aroclor 1260 #5	8.632	12853114	0.105
SURRDCBPCB	11.845	32829601	107.919
Aroclor 1016		92936833	0.558
Aroclor 1260		115882168	0.544

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\038.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: PCB CCV PP5222
 Acquired: Nov 18,2016 09:49:39
 Printed: Nov 18,2016 16:13:41

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.758	109124078	103.969
Aroclor 1016 #1	3.445	40250696	0.104
Aroclor 1016 #2	4.043	75759027	0.105
Aroclor 1016 #3	4.402	36349289	0.103
Aroclor 1016 #4	4.983	78422202	0.106
Aroclor 1016 #5	5.803	54293154	0.108
Aroclor 1260 #1	9.628	42368750	0.101
Aroclor 1260 #2	10.092	67958444	0.105
Aroclor 1260 #3	10.227	36548440	0.104
Aroclor 1260 #4	10.330	23360043	0.104
Aroclor 1260 #5	10.497	17422167	0.102
SURRDCBPCB	13.728	53598549	104.524
Aroclor 1016		285074368	0.526
Aroclor 1260		187657844	0.517

QC Check Standard Report

Page 1 of 1 (20)

Sequence : C:\Instarch\Semi7\Sequence\111716pcb.seq
 User : JJY
 Printed : Nov 18,2016 16:14:04

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111716pcb\045.dat	PCB CCV PP5222	Nov 18,2016 16:14:03

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	114.310	14.310	20.000	Passed
Aroclor 1016 #1	0.100	0.115	15.344	20.000	Passed
Aroclor 1016 #2	0.100	0.115	15.325	20.000	Passed
Aroclor 1016 #3	0.100	0.115	15.233	20.000	Passed
Aroclor 1016 #4	0.100	0.115	15.414	20.000	Passed
Aroclor 1016 #5	0.100	0.113	12.998	20.000	Passed
Aroclor 1260 #1	0.100	0.113	13.319	20.000	Passed
Aroclor 1260 #2	0.100	0.114	14.428	20.000	Passed
Aroclor 1260 #3	0.100	0.112	12.398	20.000	Passed
Aroclor 1260 #4	0.100	0.116	15.550	20.000	Passed
Aroclor 1260 #5	0.100	0.113	12.590	20.000	Passed
SURRDCBPCB	100.000	110.482	10.482	20.000	Passed
Aroclor 1016	0.500	0.574	14.863	20.000	Passed
Aroclor 1260	0.500	0.568	13.657	20.000	Passed

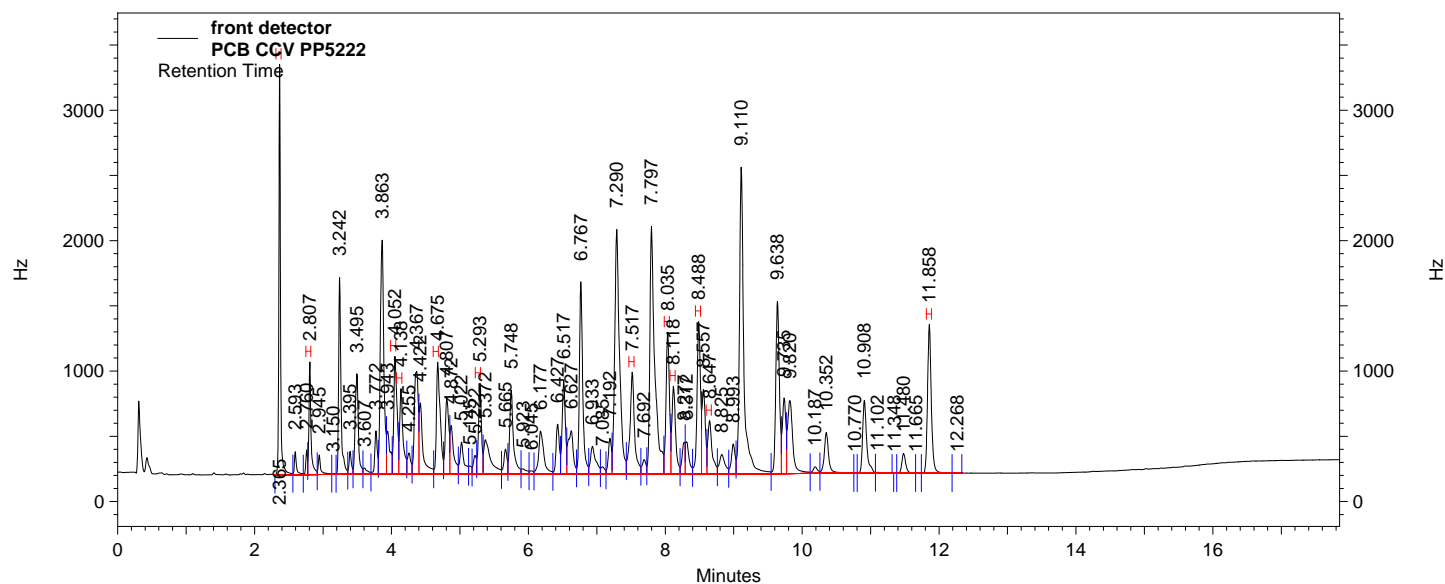
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	83.264	16.736	20.000	Passed
Aroclor 1016 #1	0.100	0.082	17.991	20.000	Passed
Aroclor 1016 #2	0.100	0.082	17.665	20.000	Passed
Aroclor 1016 #3	0.100	0.081	19.154	20.000	Passed
Aroclor 1016 #4	0.100	0.082	18.260	20.000	Passed
Aroclor 1016 #5	0.100	0.084	15.599	20.000	Passed
Aroclor 1260 #1	0.100	0.080	19.544	20.000	Passed
Aroclor 1260 #2	0.100	0.083	16.651	20.000	Passed
Aroclor 1260 #3	0.100	0.083	16.692	20.000	Passed
Aroclor 1260 #4	0.100	0.084	15.776	20.000	Passed
Aroclor 1260 #5	0.100	0.081	18.617	20.000	Passed
SURRDCBPCB	100.000	83.072	16.928	20.000	Passed
Aroclor 1016	0.500	0.411	17.734	20.000	Passed
Aroclor 1260	0.500	0.413	17.456	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 18,2016 15:39:44
Printed: Nov 18,2016 16:14:02

Data Summary: {Data Description}



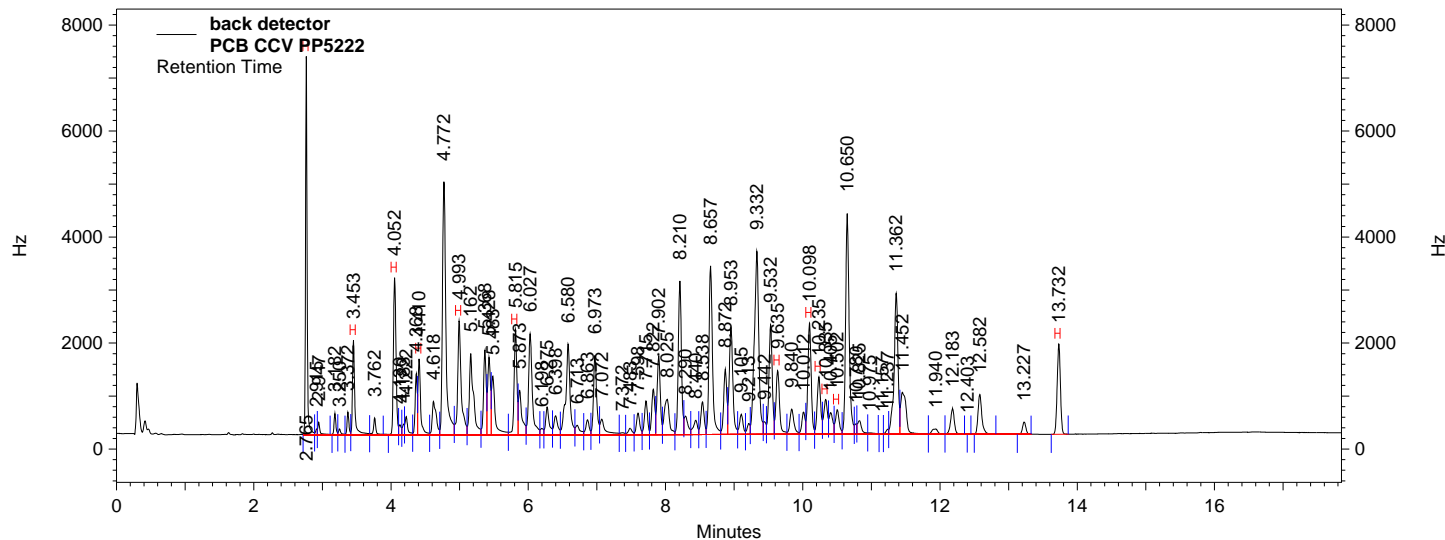
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.365	40312458	114.310
Aroclor 1016 #1	2.807	13968414	0.115
Aroclor 1016 #2	4.052	23028501	0.115
Aroclor 1016 #3	4.138	17299765	0.115
Aroclor 1016 #4	4.675	25329416	0.115
Aroclor 1016 #5	5.293	16063336	0.113
Aroclor 1260 #1	7.517	27794528	0.113
Aroclor 1260 #2	8.035	28871276	0.114
Aroclor 1260 #3	8.118	19270196	0.112
Aroclor 1260 #4	8.488	31044158	0.116
Aroclor 1260 #5	8.647	13717310	0.113
SURRDCBPCB	11.858	33594572	110.482
Aroclor 1016		95689432	0.574
Aroclor 1260		120697468	0.568

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: PCB CCV PP5222
Acquired: Nov 18,2016 15:39:44
Printed: Nov 18,2016 16:14:02

Data Summary: {Data Description}



back detector Results

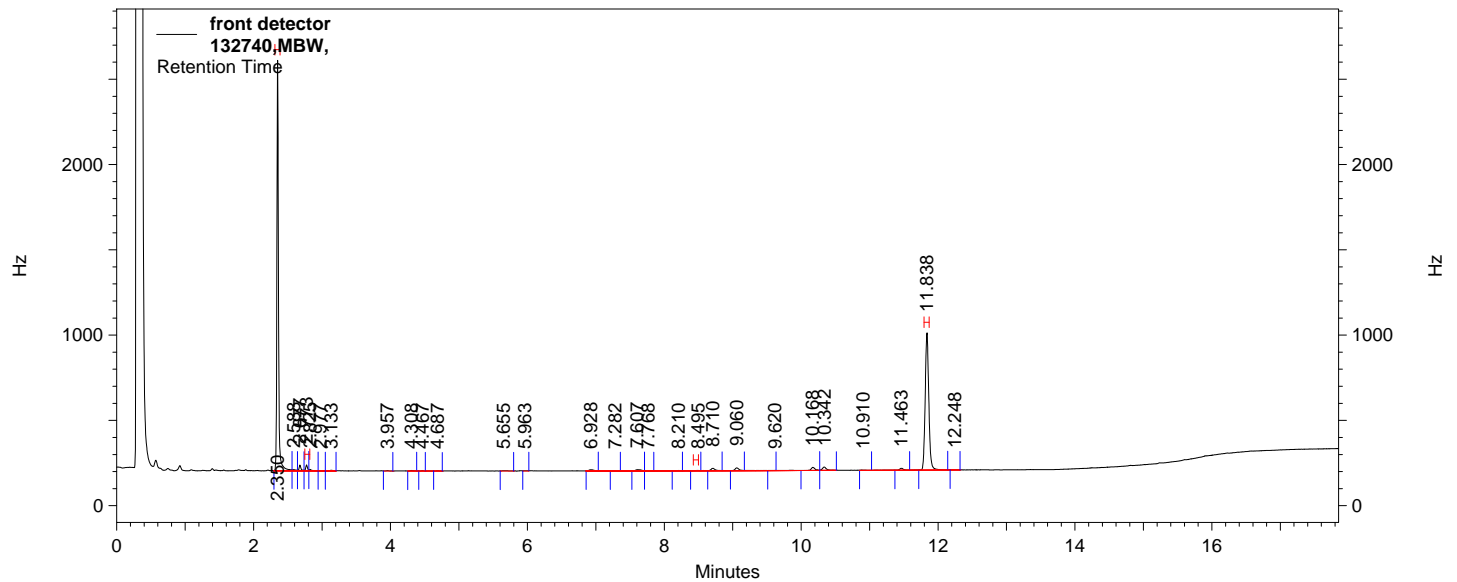
Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	87613064	83.264
Aroclor 1016 #1	3.453	31790099	0.082
Aroclor 1016 #2	4.052	59917676	0.082
Aroclor 1016 #3	4.410	28640511	0.081
Aroclor 1016 #4	4.993	60709864	0.082
Aroclor 1016 #5	5.815	42675779	0.084
Aroclor 1260 #1	9.635	33951309	0.080
Aroclor 1260 #2	10.098	54310127	0.083
Aroclor 1260 #3	10.235	29332553	0.083
Aroclor 1260 #4	10.335	19017107	0.084
Aroclor 1260 #5	10.502	13907004	0.081
SURRDCBPCB	13.732	43019280	83.072
Aroclor 1016		223733929	0.411
Aroclor 1260		150518100	0.413

**POLYCHLORINATED BIPHENYL
QUALITY CONTROL
DOCUMENTS**

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111516pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,MBW,
Acquired: Nov 15,2016 18:36:07
Printed: Nov 16,2016 13:25:21

Data Summary: {Data Description}



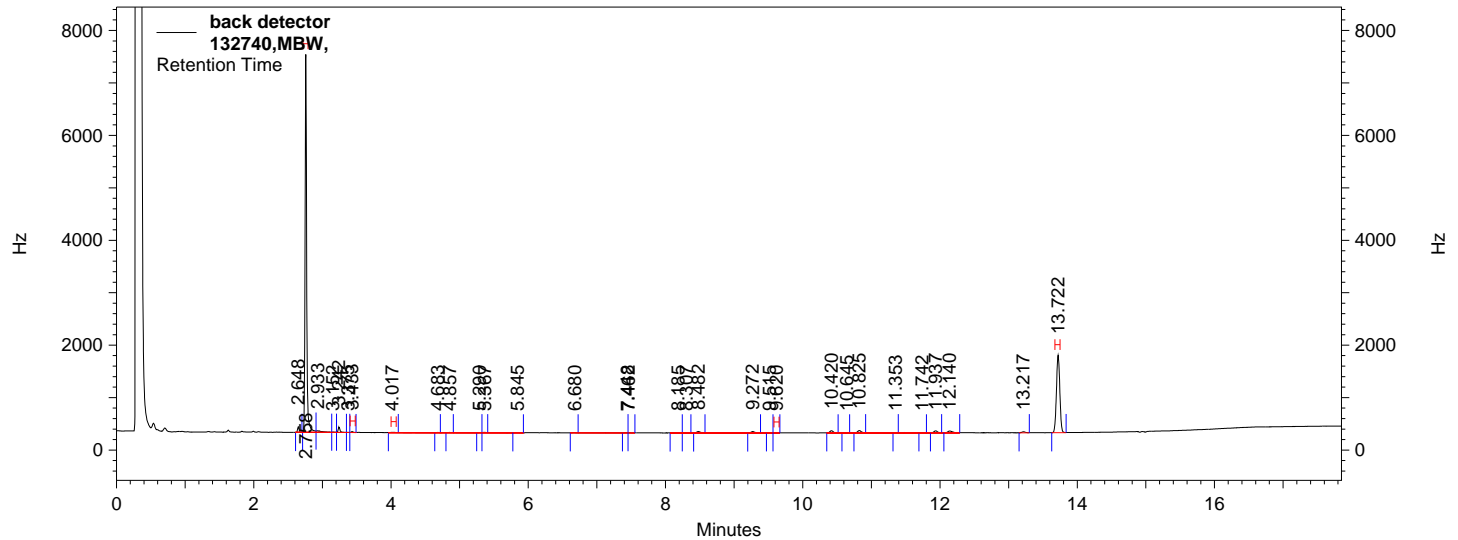
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.350	29863339	84.492
Aroclor 1016 #1	2.773	480607	0.002
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.495	65039	0.000
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.838	22863708	74.527
Aroclor 1016		480607	0.002
Aroclor 1260		65039	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111516pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,MBW,
Acquired: Nov 15,2016 18:36:07
Printed: Nov 16,2016 13:25:21

Data Summary: {Data Description}



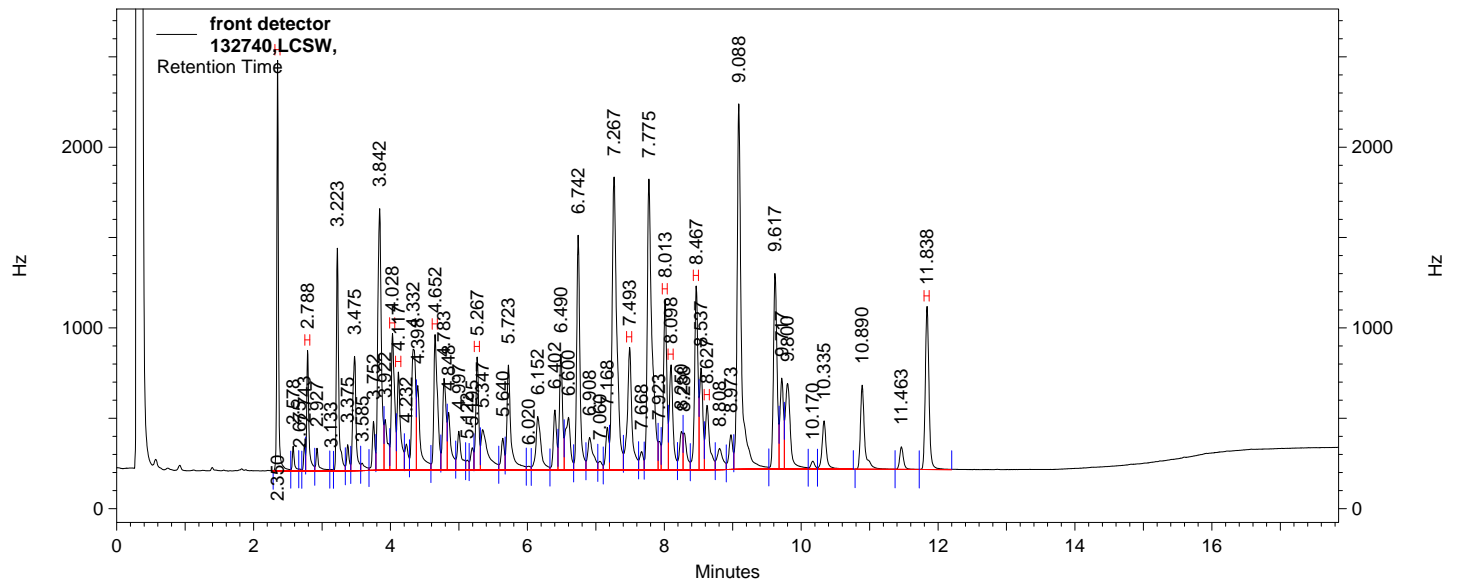
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.758	90637310	86.175
Aroclor 1016 #1	3.433	344798	0.000
Aroclor 1016 #2	4.017	259214	0.000
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	9.620	224656	0.000
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.722	38726510	74.367
Aroclor 1016		604012	0.000
Aroclor 1260		224656	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111516pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,LCSW,
Acquired: Nov 15,2016 18:57:39
Printed: Nov 16,2016 13:25:23

Data Summary: {Data Description}



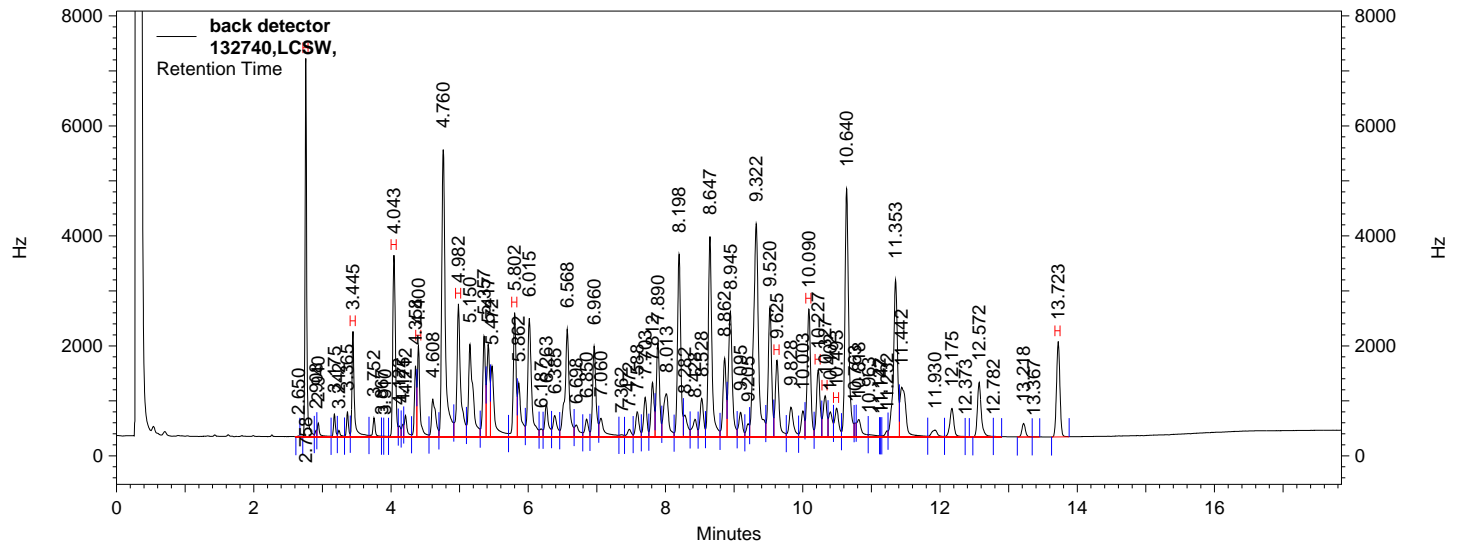
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.350	29221336	82.659
Aroclor 1016 #1	2.788	10982636	0.090
Aroclor 1016 #2	4.028	19118993	0.096
Aroclor 1016 #3	4.117	14411958	0.096
Aroclor 1016 #4	4.652	21831011	0.099
Aroclor 1016 #5	5.267	14296099	0.100
Aroclor 1260 #1	7.493	24256964	0.099
Aroclor 1260 #2	8.013	24762339	0.098
Aroclor 1260 #3	8.098	16501783	0.096
Aroclor 1260 #4	8.467	26417589	0.098
Aroclor 1260 #5	8.627	11934476	0.098
SURRDCBPCB	11.838	26373232	86.286
Aroclor 1016		80640697	0.482
Aroclor 1260		103873151	0.489

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111516pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111516pcb.met
User: JJY
Sample ID: 132740,LCSW,
Acquired: Nov 15,2016 18:57:39
Printed: Nov 16,2016 13:25:23

Data Summary: {Data Description}



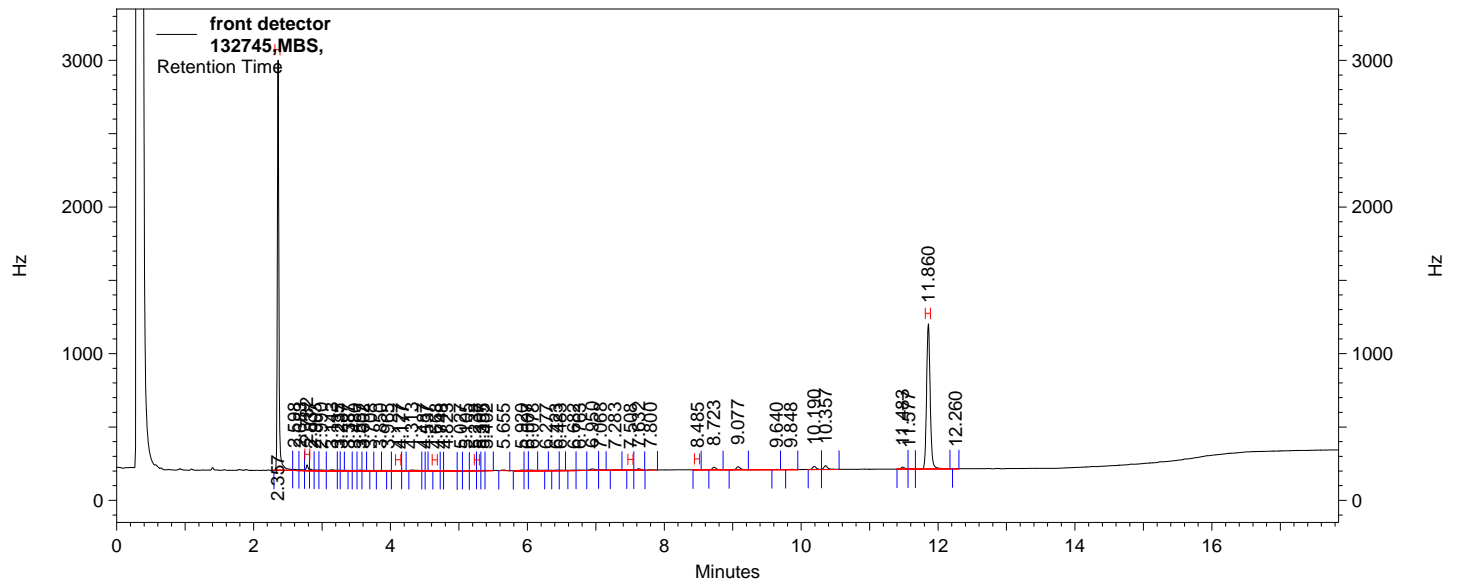
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.758	87881449	83.523
Aroclor 1016 #1	3.445	35204197	0.091
Aroclor 1016 #2	4.043	67762625	0.093
Aroclor 1016 #3	4.400	33488046	0.095
Aroclor 1016 #4	4.982	70516865	0.095
Aroclor 1016 #5	5.802	48860617	0.097
Aroclor 1260 #1	9.625	40159853	0.096
Aroclor 1260 #2	10.090	62755334	0.097
Aroclor 1260 #3	10.227	33888996	0.097
Aroclor 1260 #4	10.327	21852746	0.097
Aroclor 1260 #5	10.493	16522850	0.097
SURRDCBPCB	13.723	45541904	88.187
Aroclor 1016		255832350	0.471
Aroclor 1260		175179779	0.483

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,MBS,
Acquired: Nov 17,2016 11:15:04
Printed: Nov 18,2016 08:23:54

Data Summary: {Data Description}



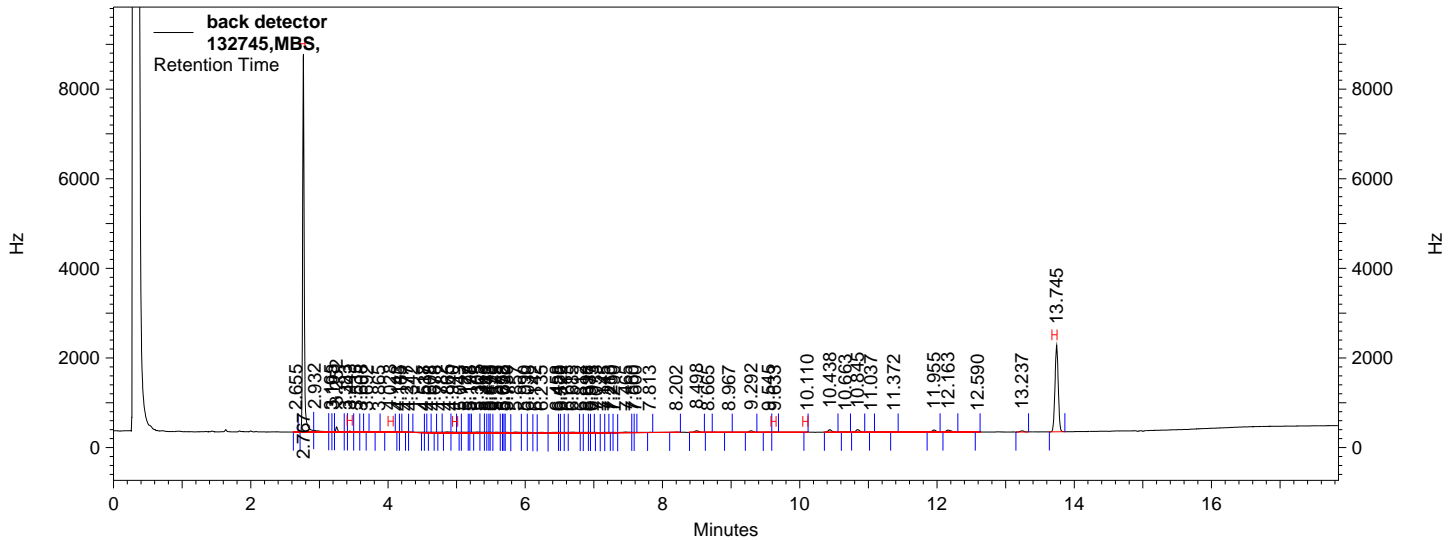
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	34157729	96.746
Aroclor 1016 #1	2.782	550958	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	4.127	176292	0.000
Aroclor 1016 #4	4.668	152524	0.000
Aroclor 1016 #5	5.238	131932	0.000
Aroclor 1260 #1	7.508	83538	0.000
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4	8.485	72807	0.000
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.860	28028083	91.831
Aroclor 1016		1011706	0.003
Aroclor 1260		156345	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,MBS,
Acquired: Nov 17,2016 11:15:04
Printed: Nov 18,2016 08:23:54

Data Summary: {Data Description}



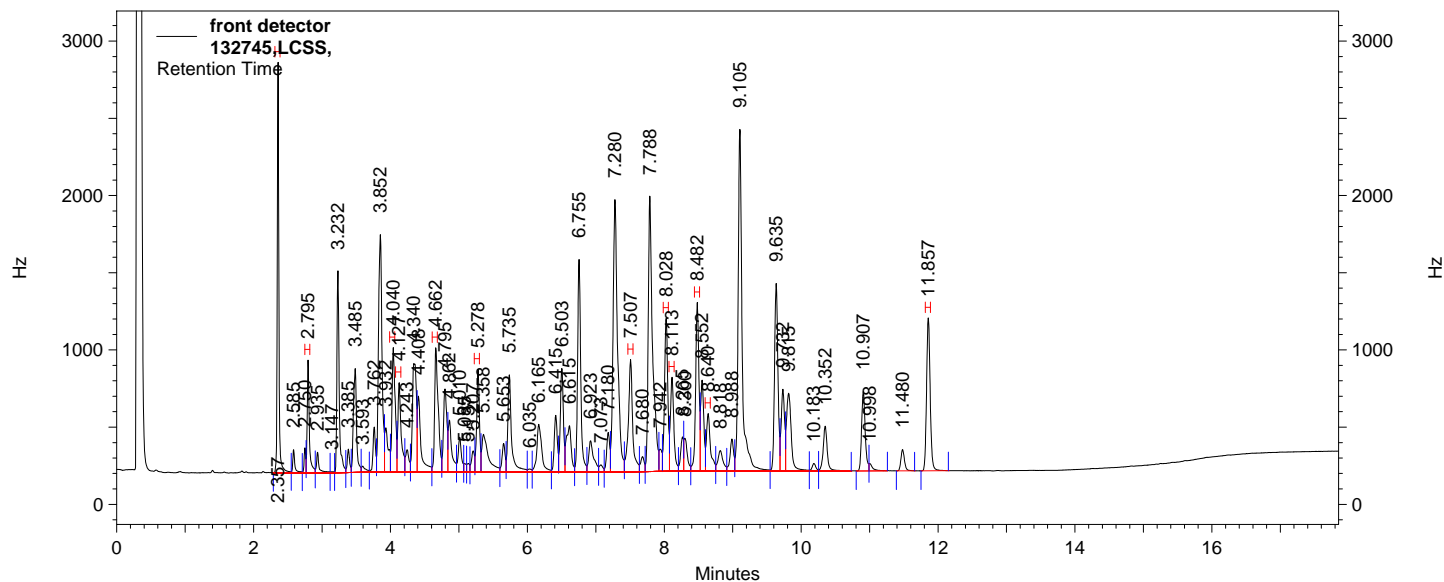
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.767	106710390	101.646
Aroclor 1016 #1	3.443	585723	0.001
Aroclor 1016 #2	4.028	615735	0.000
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.940	418237	0.000
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	9.633	185151	0.000
Aroclor 1260 #2	10.110	100383	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.745	49039118	95.279
Aroclor 1016		1619695	0.001
Aroclor 1260		285534	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,LCSS,
Acquired: Nov 17,2016 11:36:33
Printed: Nov 18,2016 08:23:58

Data Summary: {Data Description}



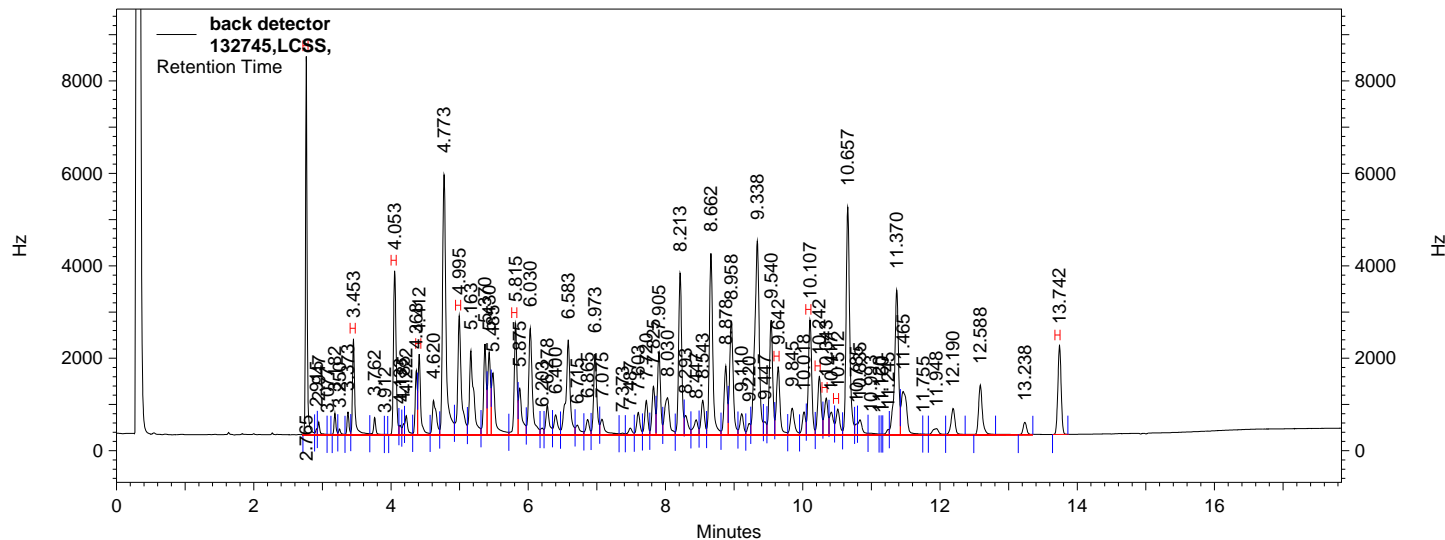
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	33365171	94.485
Aroclor 1016 #1	2.795	11729060	0.097
Aroclor 1016 #2	4.040	20031445	0.100
Aroclor 1016 #3	4.127	14877613	0.099
Aroclor 1016 #4	4.662	22691608	0.103
Aroclor 1016 #5	5.278	14534986	0.102
Aroclor 1260 #1	7.507	24320394	0.099
Aroclor 1260 #2	8.028	25360441	0.100
Aroclor 1260 #3	8.113	16435439	0.096
Aroclor 1260 #4	8.482	27840647	0.104
Aroclor 1260 #5	8.640	11810106	0.097
SURRDCBPCB	11.857	27992366	91.711
Aroclor 1016		83864712	0.501
Aroclor 1260		105767027	0.495

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,LCSS,
Acquired: Nov 17,2016 11:36:33
Printed: Nov 18,2016 08:23:58

Data Summary: {Data Description}



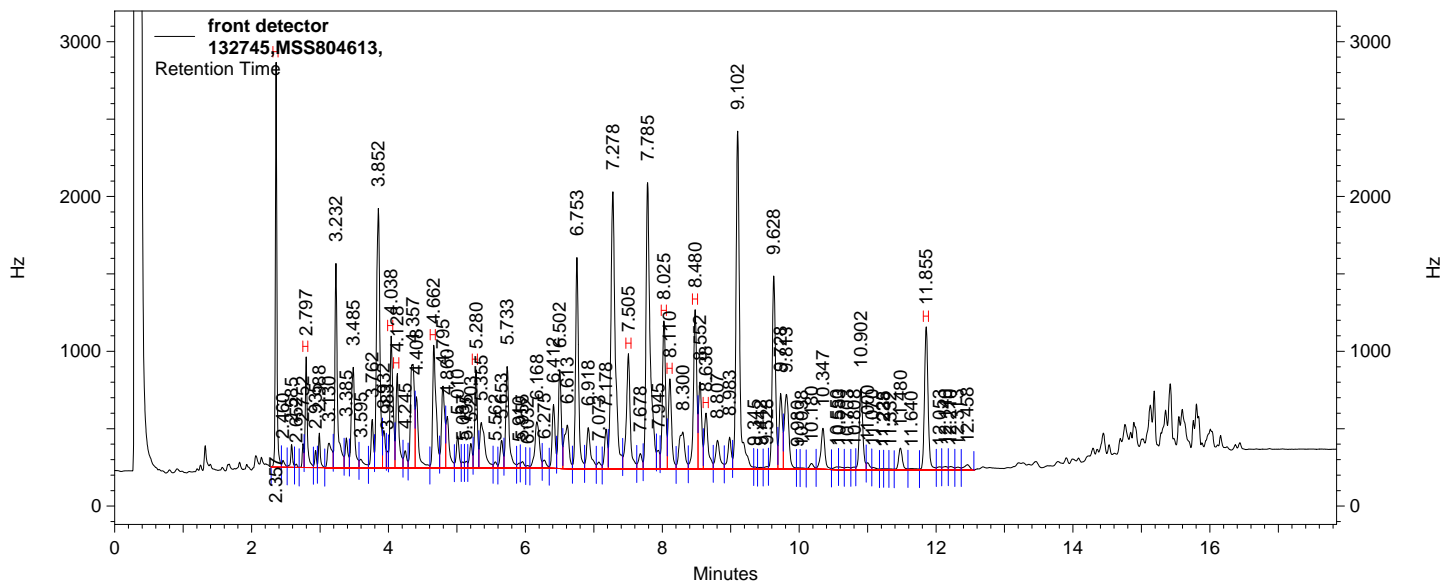
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	102095994	97.205
Aroclor 1016 #1	3.453	38076214	0.098
Aroclor 1016 #2	4.053	73126534	0.101
Aroclor 1016 #3	4.412	35651694	0.101
Aroclor 1016 #4	4.995	74608089	0.101
Aroclor 1016 #5	5.815	51718100	0.103
Aroclor 1260 #1	9.642	40335040	0.096
Aroclor 1260 #2	10.107	64259375	0.099
Aroclor 1260 #3	10.242	34170347	0.097
Aroclor 1260 #4	10.343	22440703	0.100
Aroclor 1260 #5	10.512	16666596	0.098
SURRDCBPCB	13.742	49083831	95.369
Aroclor 1016		273180631	0.504
Aroclor 1260		177872061	0.490

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,MSS804613,
Acquired: Nov 17,2016 17:22:50
Printed: Nov 18,2016 08:24:46

Data Summary: {Data Description}



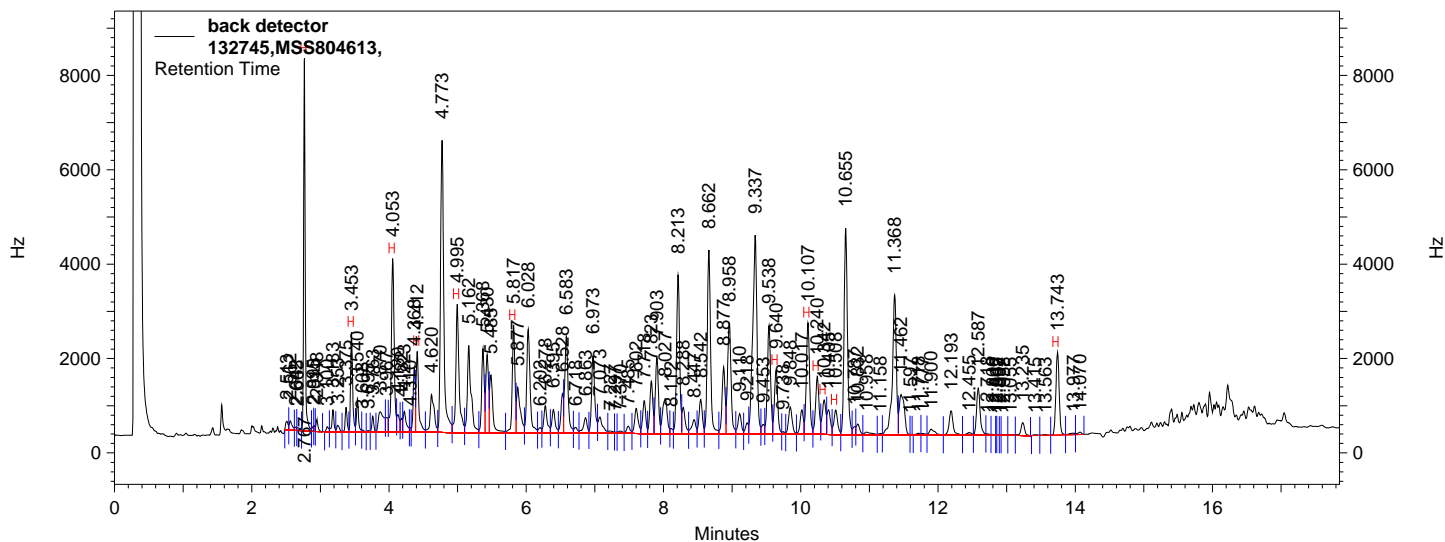
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	31136754	88.125
Aroclor 1016 #1	2.797	11187353	0.092
Aroclor 1016 #2	4.038	19437889	0.097
Aroclor 1016 #3	4.128	13675897	0.091
Aroclor 1016 #4	4.662	21124819	0.096
Aroclor 1016 #5	5.280	13070016	0.092
Aroclor 1260 #1	7.505	22434425	0.091
Aroclor 1260 #2	8.025	23977784	0.095
Aroclor 1260 #3	8.110	14982949	0.087
Aroclor 1260 #4	8.480	26428187	0.098
Aroclor 1260 #5	8.638	10999384	0.090
SURRDCBPCB	11.855	26105064	85.388
Aroclor 1016		78495974	0.468
Aroclor 1260		98822729	0.461

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,MSS804613,
Acquired: Nov 17,2016 17:22:50
Printed: Nov 18,2016 08:24:46

Data Summary: {Data Description}



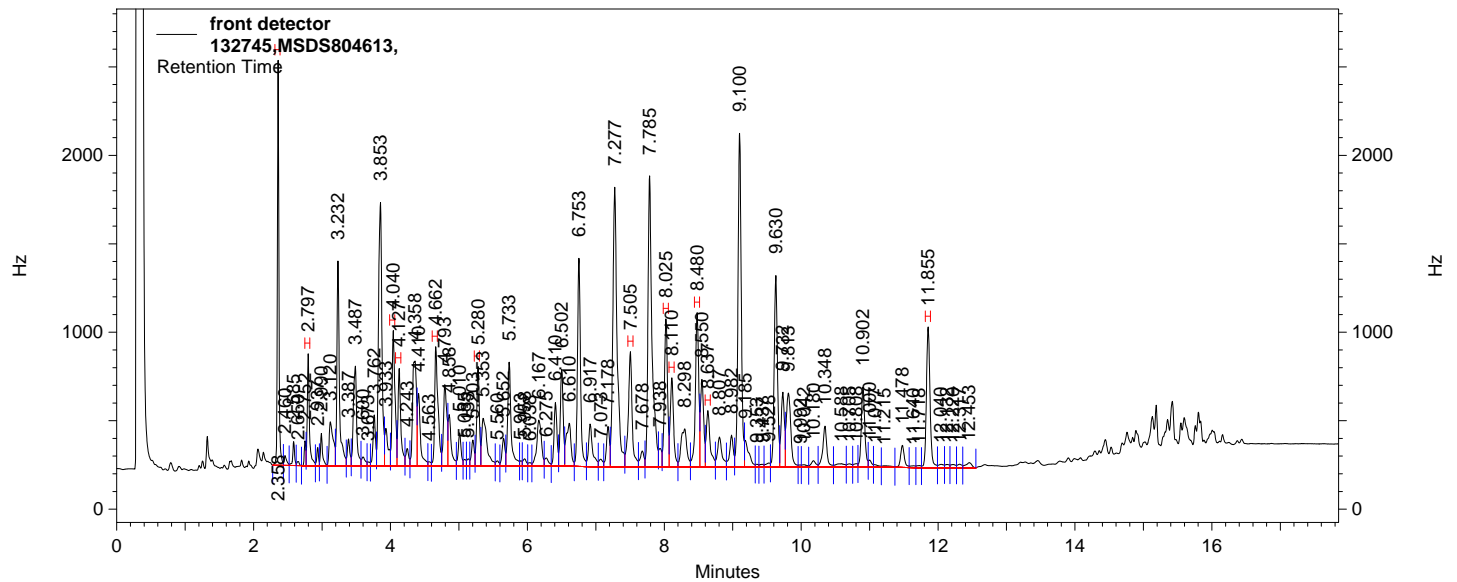
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.767	97562196	92.841
Aroclor 1016 #1	3.453	33310813	0.086
Aroclor 1016 #2	4.053	81712329	0.113
Aroclor 1016 #3	4.412	34503582	0.098
Aroclor 1016 #4	4.995	69100408	0.093
Aroclor 1016 #5	5.817	48244745	0.096
Aroclor 1260 #1	9.640	34895714	0.083
Aroclor 1260 #2	10.107	60309448	0.093
Aroclor 1260 #3	10.240	32349578	0.092
Aroclor 1260 #4	10.342	20680719	0.092
Aroclor 1260 #5	10.508	15438350	0.091
SURRDCBPCB	13.743	45224149	87.543
Aroclor 1016		266871877	0.486
Aroclor 1260		163673809	0.450

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132745,MSDS804613,
Acquired: Nov 17,2016 17:44:21
Printed: Nov 18,2016 08:24:38

Data Summary: {Data Description}



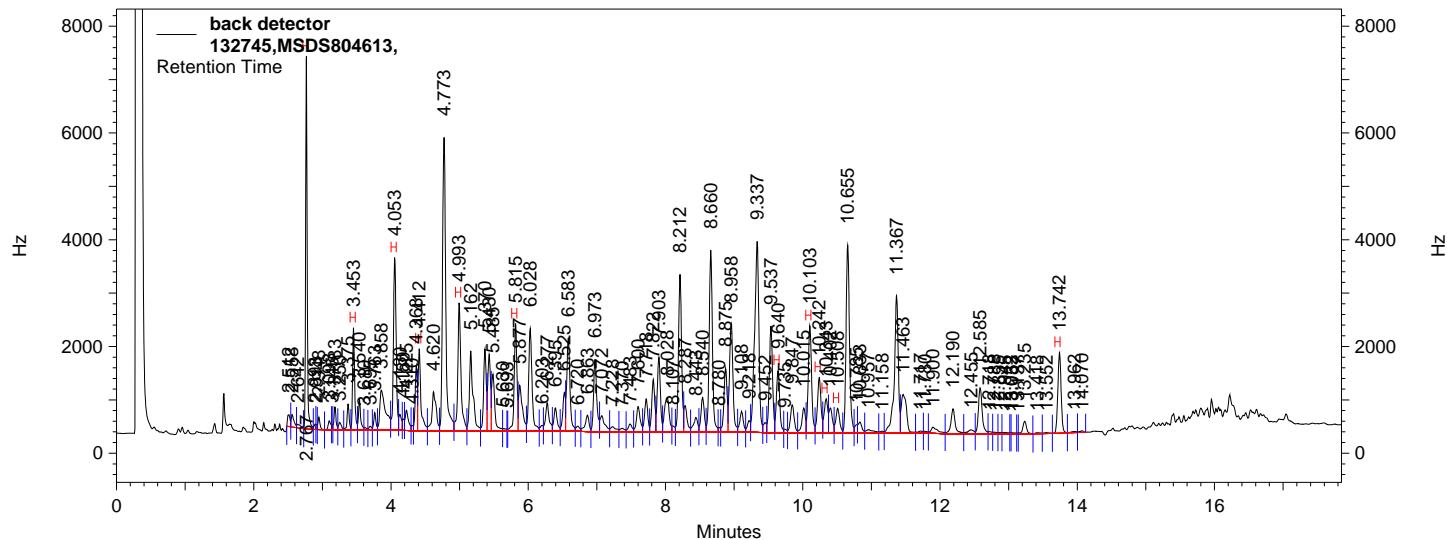
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.358	27345934	77.308
Aroclor 1016 #1	2.797	10215631	0.084
Aroclor 1016 #2	4.040	17355747	0.087
Aroclor 1016 #3	4.127	12224078	0.081
Aroclor 1016 #4	4.662	17853770	0.081
Aroclor 1016 #5	5.280	11553497	0.081
Aroclor 1260 #1	7.505	19509073	0.079
Aroclor 1260 #2	8.025	20576763	0.081
Aroclor 1260 #3	8.110	13053454	0.076
Aroclor 1260 #4	8.480	22587934	0.084
Aroclor 1260 #5	8.637	9737562	0.080
SURRDCBPCB	11.855	22433672	73.087
Aroclor 1016		69202723	0.414
Aroclor 1260		85464786	0.400

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\023.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132745,MSDS804613,
 Acquired: Nov 17,2016 17:44:21
 Printed: Nov 18,2016 08:24:48

Data Summary: {Data Description}



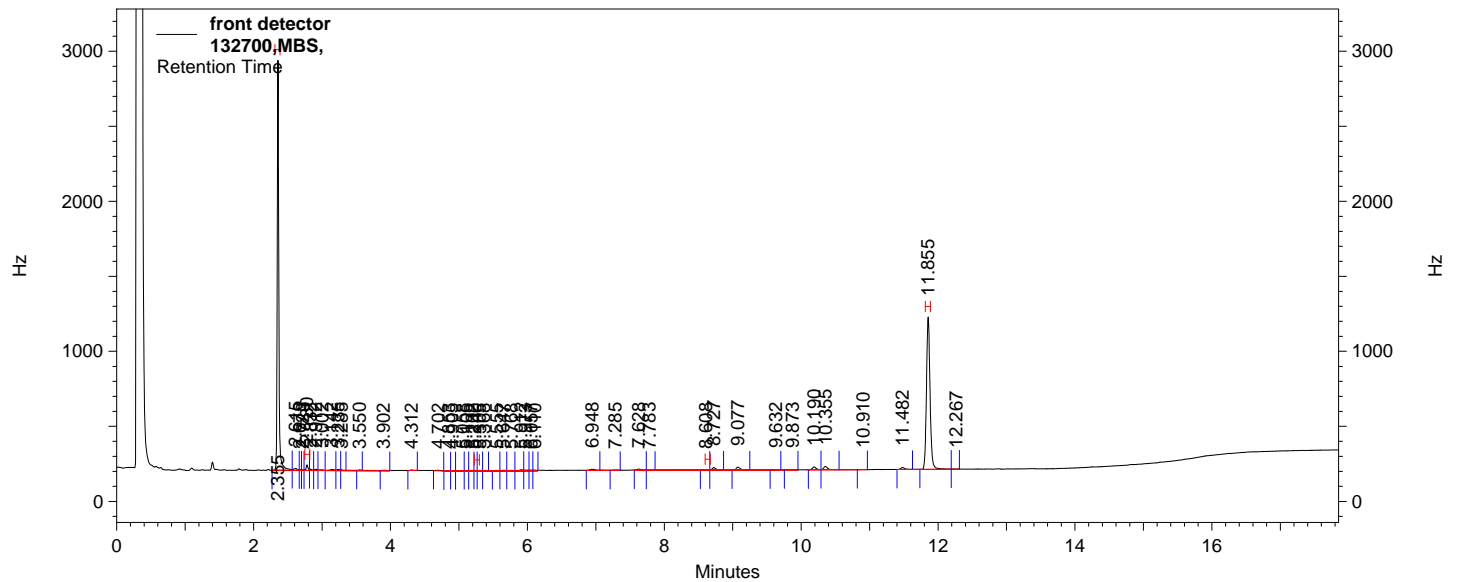
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.767	85114945	80.860
Aroclor 1016 #1	3.453	30229224	0.078
Aroclor 1016 #2	4.053	69289948	0.096
Aroclor 1016 #3	4.412	32337877	0.091
Aroclor 1016 #4	4.993	59826870	0.081
Aroclor 1016 #5	5.815	43047786	0.085
Aroclor 1260 #1	9.640	30628822	0.072
Aroclor 1260 #2	10.103	52175703	0.080
Aroclor 1260 #3	10.242	28214327	0.080
Aroclor 1260 #4	10.343	17776762	0.079
Aroclor 1260 #5	10.508	13857366	0.081
SURRDCBPCB	13.742	38643683	74.199
Aroclor 1016		234731705	0.431
Aroclor 1260		142652980	0.392

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\027.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,MBS,
Acquired: Nov 17,2016 19:10:29
Printed: Nov 18,2016 08:25:01

Data Summary: {Data Description}



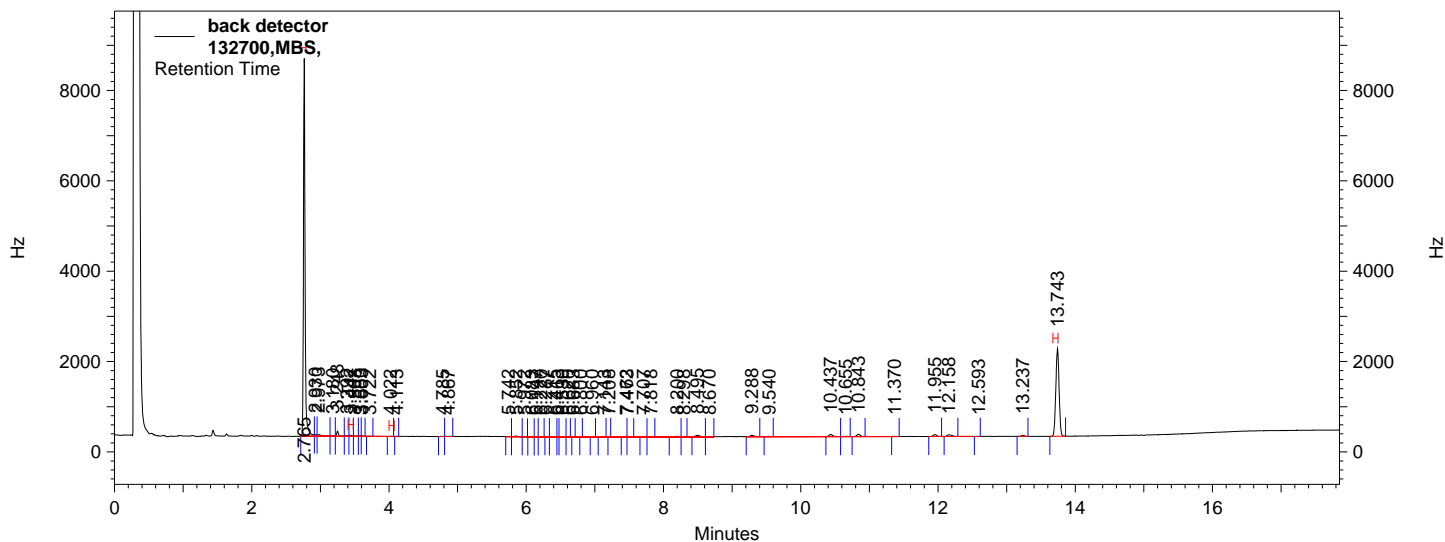
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.355	33556120	95.030
Aroclor 1016 #1	2.780	521064	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.240	62785	0.000
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	8.608	83666	0.000
SURRDCBPCB	11.855	28506019	93.432
Aroclor 1016		583849	0.003
Aroclor 1260		83666	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\027.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132700,MBS,
 Acquired: Nov 17,2016 19:10:29
 Printed: Nov 18,2016 08:25:01

Data Summary: {Data Description}



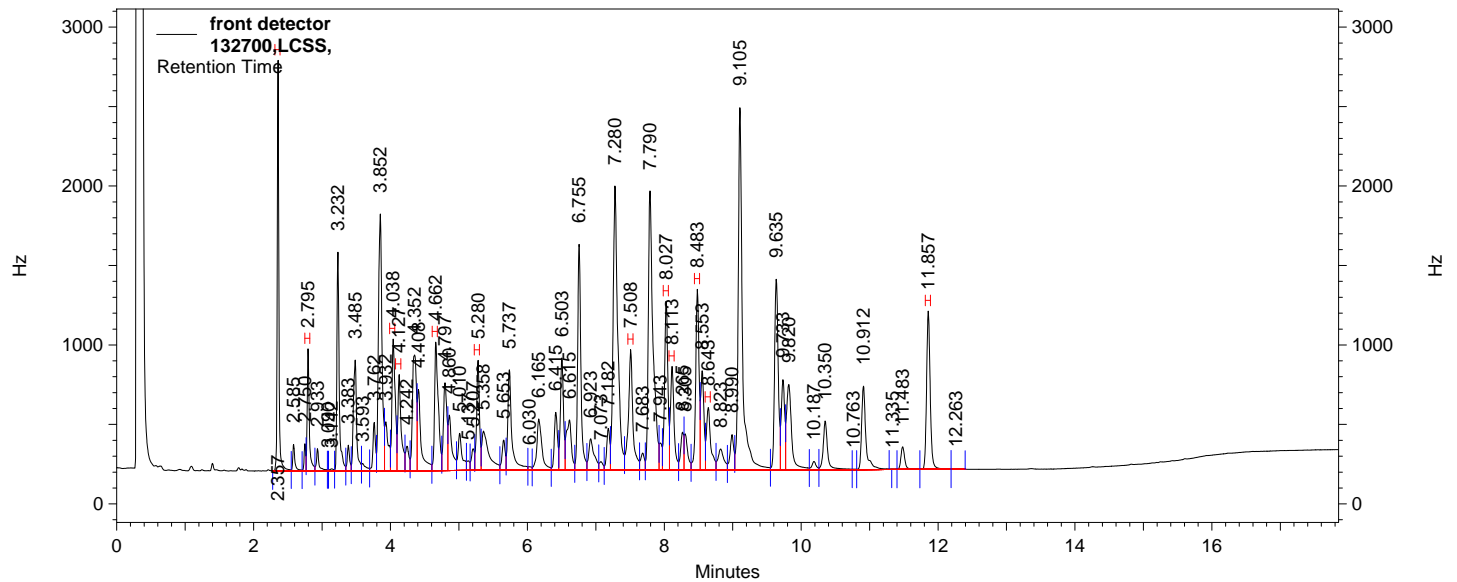
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	105949798	100.914
Aroclor 1016 #1	3.442	462303	0.000
Aroclor 1016 #2	4.022	206629	0.000
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.743	49660193	96.538
Aroclor 1016		668932	0.000
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\111716pcb\028.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
User: JJY
Sample ID: 132700,LCSS,
Acquired: Nov 17,2016 19:31:57
Printed: Nov 18,2016 08:25:03

Data Summary: {Data Description}



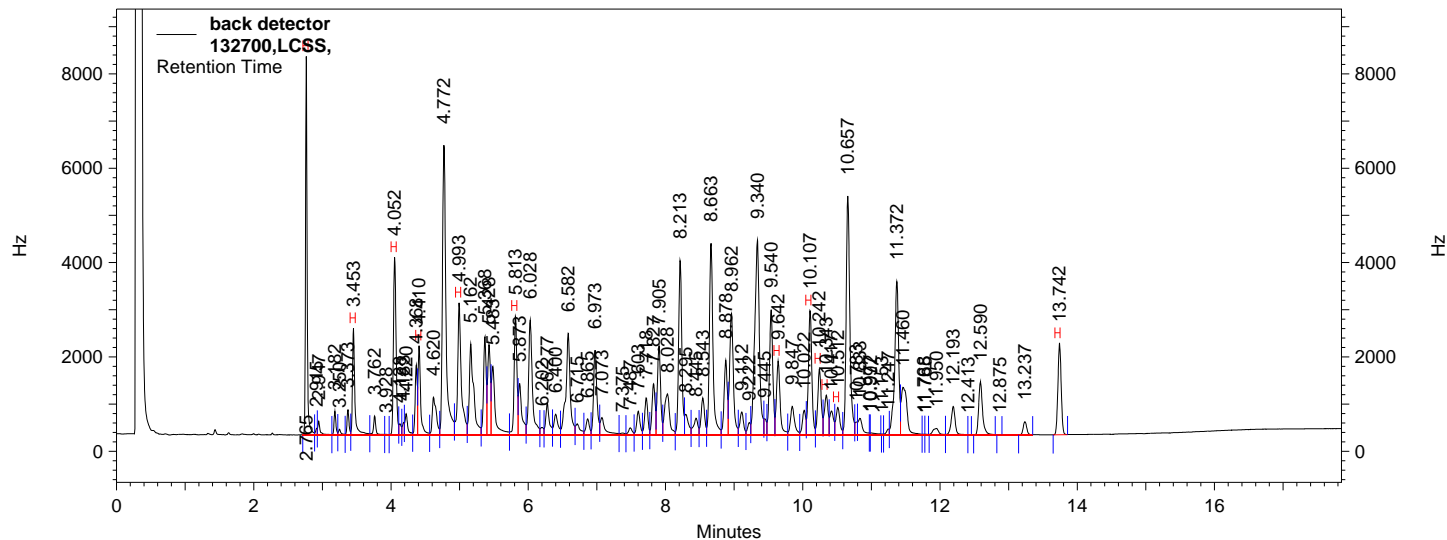
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.357	32752718	92.737
Aroclor 1016 #1	2.795	12380258	0.102
Aroclor 1016 #2	4.038	20957304	0.105
Aroclor 1016 #3	4.127	15830431	0.105
Aroclor 1016 #4	4.662	23341096	0.106
Aroclor 1016 #5	5.280	15504623	0.109
Aroclor 1260 #1	7.508	26607373	0.108
Aroclor 1260 #2	8.027	27465428	0.109
Aroclor 1260 #3	8.113	18370192	0.107
Aroclor 1260 #4	8.483	29607252	0.110
Aroclor 1260 #5	8.643	13211079	0.108
SURRDCBPCB	11.857	28375186	92.994
Aroclor 1016		88013712	0.528
Aroclor 1260		115261324	0.543

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\111716pcb\028.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\102416pcb\111716pcb.met
 User: JJY
 Sample ID: 132700,LCSS,
 Acquired: Nov 17,2016 19:31:57
 Printed: Nov 18,2016 08:25:03

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.765	101994655	97.107
Aroclor 1016 #1	3.453	41817208	0.108
Aroclor 1016 #2	4.052	77606638	0.107
Aroclor 1016 #3	4.410	38445345	0.109
Aroclor 1016 #4	4.993	80983920	0.110
Aroclor 1016 #5	5.813	54935142	0.109
Aroclor 1260 #1	9.642	44924742	0.107
Aroclor 1260 #2	10.107	70178592	0.108
Aroclor 1260 #3	10.242	38055051	0.109
Aroclor 1260 #4	10.343	24393360	0.109
Aroclor 1260 #5	10.512	18099131	0.106
SURRDCBPCB	13.742	49376670	95.963
Aroclor 1016		293788253	0.543
Aroclor 1260		195650876	0.540

**POLYCHLORINATED BIPHENYLS
LOGBOOK
DOCUMENTS**

S PCB Analytical Run
132740 on 11/15/2016

Date Analyzed: _____

Date Entered: _____

JUL
12/06/16

Date Reviewed: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804577		11/09/2016 1230		TETRA TECH	VE CARTER SCHOOL	PCB EPA		SW	4	
		VEC-SUMP1-110916						60169			
	805535						PCB EPA				
				MBW				60169			
	805536						PCB EPA				
				LCSW				60169			
3	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

PREP WORKSHEET
on 11/15/2016

Prep Batch 60,169 Date Prepped: 11/14/2016 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	805535	MBW		PCB EPA	LIQUID	10		1.00		
	805536	LCSW		PCB EPA	LIQUID	10		1.00		
123585	804577			PCB EPA	SURFACE WATER	10		1.00	4	

Notes:_____

(SOP Reference # SV002 & SV004)

(PFE=Pressurized Fluid Extraction)

8082 = PCBs

Ave MW Temp (°C): NA

$$\text{H}_2\text{SO}_4 \quad \overline{\text{NA}}$$

Concentration Date: 11/15/2016

Date: 11/15/2016

8082 PCB Analysis Data Review Checklist

Analytical Run #: 132740	Independent Reviewer: RED
Sequence Date: 11/15/2016	Date of Review: 11/16/2016
Analyst/Data Interpreter: AJZ	Approval: Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	Yes		X		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is $r^2 > 0.990$, or $r > 0.990$ for the regression line?	RSD < 20%, $r^2 > 0.990$, or $r > 0.990$	Yes		X		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		Yes		X		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		Yes		X		
e. Was an initial calibration blank (ICB) analyzed?		Yes		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		Yes		X		
b. Were the recoveries for the ICVs within program limits?	Second source	Yes		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	% Recovery	Yes		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		Yes		X		
b. Were the recoveries for the CCVs within program limits?	% Recovery	Yes		X		
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		Yes		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		X		

Additional Comments:

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		Yes		X		
b. Was the MB result less than 1/2 the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	Yes		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		X		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequency of one per Prep Batch?	In-house limits or client specified limits	Yes		X		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	Yes		X		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	NA		NA		INSURRICIENT SAMPLE
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	NA		NA		INSURRICIENT SAMPLE
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	NA		NA		

Additional Comments:

FSV4-01
8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		Yes		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		X		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		X		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	Yes		X		Acid and Sulfur
f. Was there a hexane injection performed prior to sample analysis?		Yes		X		
g. Was there a priming standard injected prior to sample analysis?		Yes		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		Yes		X		
b. Are all manually integrated chromatograms stamped with initials and date?		Yes		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		Yes		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		X		
e. Is the ICAL method referenced on the Raw Data?		Yes		X		

Additional Comments:

S PCB Analytical Run
132745 on 11/15/2016

Date Analyzed: _____

JUL
12/06/16

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804613		11/09/2016 1238		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-WASTE5-110916						60167			
123585	804616		11/09/2016 1240		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-WASTE6-110916						60167			
123585	804619		11/09/2016 1129		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-PAINT1-110916						60167			
123585	804624		11/09/2016 1135		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-PAINT2-110916						60167			
123585	804625		11/09/2016 1147		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-PAINT3-110916						60167			
123585	804626		11/09/2016 1223		TETRA TECH	VE CARTER SCHOOL	PCB EPA		S	4	
		VEC-PAINT4-110916						60167			
	805530						PCB EPA				
				MBS				60167			
	805531						PCB EPA				
				LCSS				60167			
	805533		11/09/2016 1238				PCB EPA				
		VEC-WASTE5-110916		MSS 804613				60167			
	805534		11/09/2016 1238				PCB EPA				
		VEC-WASTE5-110916		MSDS 805533				60167			
10	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

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PREP WORKSHEET
on 11/15/2016

Prep Batch **60,167** Date Prepped: 11/14/2016 Prepped By BMM

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	805530	MBS		PCB EPA	SOLID	10	10.00			
	805531	LCSS		PCB EPA	SOLID	10	10.00			
123585	804613			PCB EPA	SOIL	10	10.05		4	
	804616			PCB EPA	SOIL	10	9.95		4	
	804619			PCB EPA	SOIL	10	9.96		4	
	804624			PCB EPA	SOIL	10	10.08		4	
	804625			PCB EPA	SOIL	10	10.01		4	
	804626			PCB EPA	SOIL	10	1.00		4	
	805533	MSS	804613	PCB EPA	SOIL	10	10.01			
	805534	MSDS	805533	PCB EPA	SOIL	10	10.02			

Notes: _____

(SOP Reference # SV002 & SV004)

(PFE=Pressurized Fluid Extraction)

Ave MW Temp (°C): 110.0

$$\text{H}_2\text{SO}_4 \quad \text{NA}$$

Concentration Date: 11/15/2016

9D	805533	(MS)	Parent Sample	10.01		10	
10D	805534	(MSD)	804613	10.02		10	

Date: 11/15/2016

8082 PCB Analysis Data Review Checklist

Analytical Run #: 132745	Independent Reviewer: RED
Sequence Date: 11/17/2016	Date of Review: 11/18/2016
Analyst/Data Interpreter: AJZ	Approval: Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is $r^2 > 0.990$, or $r > 0.990$ for the regression line?	RSD < 20%, $r^2 > 0.990$, or $r > 0.990$	X		X		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	% Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		X		X		
b. Were the recoveries for the CCVs within program limits?	% Recovery	X		X		
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		X		X		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	X		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	X		X		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequency of one per Prep Batch?	In-house limits or client specified limits	X		X		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	X		X		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	X		X		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	X		X		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	X		X		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	X		X		

Additional Comments:

FSV4-01
8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			X		X	SEE BELOW
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	X		X		ACID, SULFUR
f. Was there a hexane injection performed prior to sample analysis?		X		X		
g. Was there a priming standard injected prior to sample analysis?		X		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		X		X		
b. Are all manually integrated chromatograms stamped with initials and date?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:

Samples 804619 and 804624 had one or more surrogate recoveries outside QC limits due to matrix. The surrogates were qualified with an "S".

S PCB Analytical Run
132700 on 11/14/2016

Date Analyzed: _____

JUL
12/06/16

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804611		11/09/2016 1225		TETRA TECH	VE CARTER SCHOOL	PCB EPA		M	4	
		VEC-WASTE4-110916						60170			
	805538						PCB EPA				
				MBS				60170			
	805539						PCB EPA				
				LCSS				60170			
3	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

PREP WORKSHEET
on 11/14/2016

Prep Batch **60,170** Date Prepped: **11/14/2016** Prepped By **BMM**

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	805538	MBS		PCB EPA	SOLID	10	10.00			
	805539	LCSS		PCB EPA	SOLID	10	10.00			
123585	804611			PCB EPA	WASTE	10	10.05		4	

Notes:_____

(SOP Reference # SV002 & SV004)

(PFE=Pressurized Fluid Extraction)

8082 = PCBs

Ave MW Temp (°C): 110.0

$$\text{H}_2\text{SO}_4 \quad \text{NA}$$

Concentration Date: 11/14/2016

Date: 11/14/2016

8082 PCB Analysis Data Review Checklist

Analytical Run #: 132700	Independent Reviewer: JJY
Sequence Date: 11/17/2016	Date of Review: 11/23/2016
Analyst/Data Interpreter: AJZ	Approval: Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	Yes		Yes		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is $r^2 > .990$, or $r > 0.990$ for the regression line?	RSD < 20%, $r^2 > 0.990$, or $r > 0.990$	Yes		Yes		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		Yes		Yes		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		Yes		Yes		
e. Was an initial calibration blank (ICB) analyzed?		Yes		Yes		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		Yes		Yes		
b. Were the recoveries for the ICVs within program limits?	Second source	Yes		Yes		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	% Recovery	Yes		Yes		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		Yes		Yes		
b. Were the recoveries for the CCVs within program limits?	% Recovery	Yes		Yes		
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		Yes		Yes		
d. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		Yes		

Additional Comments:

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		Yes		Yes		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	Yes		Yes		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		Yes		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequency of one per Prep Batch?	In-house limits or client specified limits	Yes		Yes		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	Yes		Yes		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	NA		NA		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	NA		NA		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	NA		NA		

Additional Comments:

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			No		No	See below
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		Yes		See below
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		Yes		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	Yes		Yes		
f. Was there a hexane injection performed prior to sample analysis?		Yes		Yes		
g. Was there a priming standard injected prior to sample analysis?		Yes		Yes		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		Yes		Yes		
b. Are all manually integrated chromatograms stamped with initials and date?		Yes		Yes		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		Yes		Yes		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		Yes		
e. Is the ICAL method referenced on the Raw Data?		Yes		Yes		

Additional Comments:

Sample#804611matrix caused shifting of surrogates outside the retention windows on both channel A and B when run at a 1:10 dilution.

The sample was rerun at a 1:20 dilution. The 1:20 dilution was reported.

Sample 804611 had a low recovery of surrogate TCMX. The surrogate was qualified with an "S".

No aroclors were detected, the sample was qualified with a "V" flag.

Summary Report

Instrument ID: Semi 7

Data Path: C:\Instarch\Semi7\Sequence\102416pcbic.seq

User ID: JJY

Printed Date: Oct 24,2016 14:35:02

SRT
11/09/2016

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP5127 1:10	001.dat	102416pcbic.met	Oct 24,2016 14:17:06	
2	Hexane	002.dat	102416pcbic.met	Oct 24,2016 14:38:29	
3	PCB ICAL PT 1 PP5132	003.dat	102416pcbic.met	Oct 24,2016 14:59:54	
4	PCB ICAL PT 2 PP5133	004.dat	102416pcbic.met	Oct 24,2016 15:21:18	
5	PCB ICAL PT 3 PP5134	005.dat	102416pcbic.met	Oct 24,2016 15:42:44	
6	PCB ICAL PT 4 PP5135	006.dat	102416pcbic.met	Oct 24,2016 16:04:10	
7	PCB ICAL PT 5 PP5136	007.dat	102416pcbic.met	Oct 24,2016 16:25:34	
8	PCB ICAL PT 6 PP5137	008.dat	102416pcbic.met	Oct 24,2016 17:36:49	
9	PCB ICV PP5138	009.dat	102416pcbic.met	Oct 24,2016 17:58:11	
10	Hexane	010.dat	102416pcbic.met	Oct 24,2016 18:19:36	
11	1221 CF PP5176	011.dat	1221.met	Oct 24,2016 18:41:07	
12	1232 CF PP5177	012.dat	1232.met	Oct 24,2016 19:02:36	
13	1242 CF PP5143	013.dat	1242.met	Oct 24,2016 19:24:04	
14	1248 CF PP5178	014.dat	1248.met	Oct 24,2016 19:45:32	
15	1254 CF PP5151	015.dat	1254.met	Oct 24,2016 20:07:02	
16	1262 CF PP5179	016.dat	1262.met	Oct 24,2016 20:28:26	
17	1268 CF PP5180	017.dat	1268.met	Oct 24,2016 20:49:49	
18	Hexane	018.dat	102416pcbic.met	Oct 24,2016 21:11:15	
19	1221 ICV PP5181	019.dat	1221.met	Oct 24,2016 21:32:40	
20	1232 ICV PP5182	020.dat	1232.met	Oct 24,2016 21:54:05	
21	1242 ICV PP5146	021.dat	1242.met	Oct 24,2016 22:15:29	
22	1248 ICV PP5183	022.dat	1248.met	Oct 24,2016 22:36:53	
23	1254 ICV PP5154	023.dat	1254.met	Oct 24,2016 22:58:18	
24	1262 ICV PP5184	024.dat	1262.met	Oct 24,2016 23:19:43	
25	1268 ICV PP5185	025.dat	1268.met	Oct 24,2016 23:41:08	

Summary Report

Instrument ID: Semi 7
Data Path: C:\Instarch\Semi7\Sequence\111516pcb.seq
User ID: JJY
Printed Date: Nov 16,2016 13:24:44

JJY
12/06/16

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP5127 1:10	001.dat	111516pcb.met	Nov 15,2016 15:18:56	
2	Hexane	002.dat	111516pcb.met	Nov 15,2016 15:40:24	
3	PCB CCV PP5222	003.dat	111516pcb.met	Nov 15,2016 16:01:50	
4	Hexane	004.dat	111516pcb.met	Nov 15,2016 16:48:50	
5	132673,MBW,	005.dat	111516pcb.met	Nov 15,2016 17:10:13	
6	132673,LCSW,	006.dat	111516pcb.met	Nov 15,2016 17:31:37	
7	132673,800842,	007.dat	111516pcb.met	Nov 15,2016 17:53:08	
8	132673,800843,	008.dat	111516pcb.met	Nov 15,2016 18:14:35	
9	132740,MBW,	009.dat	111516pcb.met	Nov 15,2016 18:36:07	
10	132740,LCSW,	010.dat	111516pcb.met	Nov 15,2016 18:57:39	
11	132740,804577,	011.dat	111516pcb.met	Nov 15,2016 19:19:11	
12	PCB CCV PP5222	012.dat	111516pcb.met	Nov 15,2016 19:40:36	

Summary Report

Instrument ID: Semi 7

Data Path: C:\Instarch\Semi7\Sequence\111716pcb.seq

User ID: JJY

Printed Date: Nov 18,2016 16:14:38

JJY
12/06/16

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP5127 1:10	001.dat	111716pcb.met	Nov 17,2016 09:49:07	
2	Hexane	002.dat	111716pcb.met	Nov 17,2016 10:10:37	
3	PCB CCV PP5222	003.dat	111716pcb.met	Nov 17,2016 10:32:05	
4	Hexane	004.dat	111716pcb.met	Nov 17,2016 10:53:36	
5	132745,MBS,	005.dat	111716pcb.met	Nov 17,2016 11:15:04	
6	132745,LCSS,	006.dat	111716pcb.met	Nov 17,2016 11:36:33	
7	132745,804616,10	007.dat	111716pcb.met	Nov 17,2016 11:58:00	
8	132745,804619,10	008.dat	111716pcb.met	Nov 17,2016 12:19:29	
9	132745,804624,10	009.dat	111716pcb.met	Nov 17,2016 12:41:01	
10	Hexane	010.dat	111716pcb.met	Nov 17,2016 13:02:33	
11	132745,804625,10	011.dat	111716pcb.met	Nov 17,2016 13:24:04	M.I. Index Reason #2 AJZ 11...
12	132745,804626,10	012.dat	111716pcb.met	Nov 17,2016 13:45:35	
13	Hexane	013.dat	111716pcb.met	Nov 17,2016 14:07:09	
14	PCB CCV PP5222	014.dat	111716pcb.met	Nov 17,2016 14:28:40	
15	132745,804613,10	015.dat	111716pcb.met	Nov 17,2016 14:50:15	
16	132745,MSS804613,10	016.dat	111716pcb.met	Nov 17,2016 15:11:45	
17	132745,MSDS804613,10	017.dat	111716pcb.met	Nov 17,2016 15:33:11	
18	Hexane	018.dat	111716pcb.met	Nov 17,2016 15:54:40	
19	132745,804616,	019.dat	111716pcb.met	Nov 17,2016 16:18:29	
20	132745,804624,	020.dat	111716pcb.met	Nov 17,2016 16:39:54	M.I. Index Reason #2 AJZ 11...
21	132745,804613,	021.dat	111716pcb.met	Nov 17,2016 17:01:25	
22	132745,MSS804613,	022.dat	111716pcb.met	Nov 17,2016 17:22:50	
23	132745,MSDS804613,	023.dat	111716pcb.met	Nov 17,2016 17:44:21	
24	Hexane	024.dat	111716pcb.met	Nov 17,2016 18:05:54	
25	PCB CCV PP5222	025.dat	111716pcb.met	Nov 17,2016 18:27:25	
26	Hexane	026.dat	111716pcb.met	Nov 17,2016 18:48:57	
27	132700,MBS,	027.dat	111716pcb.met	Nov 17,2016 19:10:29	
28	132700,LCSS,	028.dat	111716pcb.met	Nov 17,2016 19:31:57	
29	132700,804611,10	029.dat	111716pcb.met	Nov 17,2016 19:53:31	
30	Hexane	030.dat	111716pcb.met	Nov 17,2016 20:14:59	
31	132841,MBS,	031.dat	111716pcb.met	Nov 17,2016 20:36:31	
32	132841,LCSS,	032.dat	111716pcb.met	Nov 17,2016 20:57:56	
33	132841,805713,	033.dat	111716pcb.met	Nov 17,2016 21:19:23	
34	132841,MSS805713,	034.dat	111716pcb.met	Nov 17,2016 21:40:54	
35	132841,MSDS805713,	035.dat	111716pcb.met	Nov 17,2016 22:02:23	
36	PCB CCV PP5222	036.dat	111716pcb.met	Nov 17,2016 22:23:52	
37	Hexane	037.dat	111716pcb.met	Nov 18,2016 09:28:11	
38	PCB CCV PP5222	038.dat	111716pcb.met	Nov 18,2016 09:49:39	
39	132700,804611,20	039.dat	111716pcb.met	Nov 18,2016 10:11:09	
40	Hexane	040.dat	111716pcb.met	Nov 18,2016 10:57:41	
41	Hexane	041.dat	111716pcb.met	Nov 18,2016 13:00:57	
42	Hexane	042.dat	111716pcb.met	Nov 18,2016 13:22:29	
43	Hexane	043.dat	111716pcb.met	Nov 18,2016 13:44:03	
44	Hexane	044.dat	111716pcb.met	Nov 18,2016 14:27:12	
45	PCB CCV PP5222	045.dat	111716pcb.met	Nov 18,2016 15:39:44	

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01/19/2015

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5126	PCB Stock 1016/1260	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3527A	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5127	PCB ICV Stock 1016/1260	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3528	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5128	1242 Stock	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3319A	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5129	1242 ICV Stock	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3318	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5130	1254 Stock	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3317A	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5131	1254 ICV Stock	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3316	1000	ug/ml	0.100	10.00	10.0
S3526A	200	ug/ml	0.025	10.00	0.50

	PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date		
	1242and 1254 ICALS	Hexane OmniSolv lot 56062	JJY	08/10/2016	02/10/2017		
Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5140	1242 ICAL PT 1	PP5128	10.0	ug/ml	0.020	10.0	0.02
PP5141	1242 ICAL PT 2	PP5128	10.0	ug/ml	0.050	10.0	0.05
PP5142	1242 ICAL PT 3	PP5128	10.0	ug/ml	0.200	10.0	0.20
PP5143	1242 ICAL PT 4	PP5128	10.0	ug/ml	0.500	10.0	0.50
PP5144	1242 ICAL PT 5	PP5128	10.0	ug/ml	0.700	10.0	0.70
PP5145	1242 ICAL PT 6	PP5128	10.0	ug/ml	1.000	10.0	1.00
PP5146	1242 ICV	PP5129	10.0	ug/ml	0.500	10.0	0.50
PP5147	1242 CCV	PP5128	10.0	ug/ml	0.500	10.0	0.50
PP5148	1254 ICAL PT 1	PP5130	10.0	ug/ml	0.020	10.0	0.02
PP5149	1254 ICAL PT 2	PP5130	10.0	ug/ml	0.050	10.0	0.05
PP5150	1254 ICAL PT 3	PP5130	10.0	ug/ml	0.200	10.0	0.20
PP5151	1254 ICAL PT 4	PP5130	10.0	ug/ml	0.500	10.0	0.50
PP5152	1254 ICAL PT 5	PP5130	10.0	ug/ml	0.700	10.0	0.70
PP5153	1254 ICAL PT 6	PP5130	10.0	ug/ml	1.000	10.0	1.00
PP5154	1254 ICV	PP5131	10.0	ug/ml	0.500	10.0	0.50
PP5155	1254 CCV	PP5130	10.0	ug/ml	0.500	10.0	0.50

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5166	Aroclor 1221 Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/17/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3540	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5167	Aroclor 1232 Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/17/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3542	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5168	Aroclor 1248 Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3544	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5169	Aroclor 1262 Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3546	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5170	Aroclor 1268 Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3548	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5171	Aroclor1221 ICV Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3541	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5172	Aroclor 1232 ICV Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3543	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5173	Aroclor 1248 ICV Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3545	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5174	Aroclor 1262 ICV Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2016	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3547	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5175	Aroclor 1268 ICV Stock	Hexane Omnivsol Lot 56062	AJZ	09/20/2017	03/20/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3549	1000	ug/ml	0.100	10.00	10.0
S3533A	200	ug/ml	0.025	10.00	0.50

	PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
	CF and ICV	Hexane Omnivolv Lot 56062	AJZ	09/20/2016	03/20/2017

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP5176	1221 CF	PP5166	10.0	ug/ml	0.500	10.0	0.50
PP5177	1232 CF	PP5167	10.0	ug/ml	0.500	10.0	0.50
PP5178	1248 CF	PP5168	10.0	ug/ml	0.500	10.0	0.50
PP5179	1262 CF	PP5169	10.0	ug/ml	0.500	10.0	0.50
PP5180	1268 CF	PP5170	10.0	ug/ml	0.500	10.0	0.50
PP5181	1221 ICV	PP5171	10.0	ug/ml	0.500	10.0	0.50
PP5182	1232 ICV	PP5172	10.0	ug/ml	0.500	10.0	0.50
PP5183	1248 ICV	PP5173	10.0	ug/ml	0.500	10.0	0.50
PP5184	1262 ICV	PP5174	10.0	ug/ml	0.500	10.0	0.50
PP5185	1268 ICV	PP5175	10.0	ug/ml	0.500	10.0	0.50

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Pest PCB Logbook 01

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5209	Pest PCB Surrogates	Acetone EMD Millipore lot 55338	JJY	09/22/2016	03/22/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3533B	200	ug/mL	0.250	100.0	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5210	Pest PCB Surrogates	Acetone EMD Millipore lot 55338	JJY	09/22/2016	03/22/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3533B	200	ug/mL	0.250	100.0	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5211	Pest PCB Surrogates	Acetone EMD Millipore lot 55338	JJY	09/22/2016	03/22/2017
STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3533B	200	ug/mL	0.250	100.0	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP5212	Pest PCB Surrogates	Acetone EMD Millipore lot 55338	JJY	09/22/2016	03/22/2017
STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3533B	200	ug/mL	0.250	100.0	0500

01/19/2015

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Pest PCB Logbook 01

01/19/2015

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Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP 5220	PCB SPIKE	ACETONE EMD MILLIPORE LOT 55338	AJZ	10/21/2016	04/21/2017

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3434	1000	ug/ml	0.500	50	10.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP 5221	Acid Herbicide Surrogates	Acetone EMD MILLIPORE LOT 55338	AJZ	10/21/2016	12/21/2016

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3477	1000	ug/ml	0.250	50.0	5.0

1

CT Laboratories LLC

**METALS
CLP FORMS
DOCUMENTS**

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804619</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>20.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133031</u>	Analysis Date/Time	<u>11/29/2016 16:44</u>
Analytical Prep Batch #:	<u>60301</u>	Prep. Date/Time:	<u>11/23/2016 07:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	28000		0.81	2.5	5.1	5.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT2-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804624</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>20.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133031</u>	Analysis Date/Time	<u>11/29/2016 16:51</u>
Analytical Prep Batch #:	<u>60301</u>	Prep. Date/Time:	<u>11/23/2016 07:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	3930		0.83	2.6	5.2	5.2

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT3-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804625</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133031</u>	Analysis Date/Time	<u>11/29/2016 05:27</u>
Analytical Prep Batch #:	<u>60301</u>	Prep. Date/Time:	<u>11/23/2016 07:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	203		0.051	0.16	0.32	0.32

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT4-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804626</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>20.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133031</u>	Analysis Date/Time	<u>11/29/2016 16:59</u>
Analytical Prep Batch #:	<u>60301</u>	Prep. Date/Time:	<u>11/23/2016 07:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	67800		2.3	7.2	14	14

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804577</u>
Analytical Method:	<u>EPA 7470A</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133084</u>	Analysis Date/Time	<u>11/29/2016 12:02</u>
Analytical Prep Batch #:	<u>60367</u>	Prep. Date/Time:	<u>11/28/2016 09:35</u>
ICAL Calibration #:	<u>11292016</u>	Concentration Units:	<u>ug/L</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.15	M	0.030	0.060	0.12	0.12

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804577</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132729</u>	Analysis Date/Time	<u>11/15/2016 20:03</u>
Analytical Prep Batch #:	<u>60178</u>	Prep. Date/Time:	<u>11/14/2016 15:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>ug/L</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Total Arsenic	12	U	4.0	12	24	24
7440-39-3	Total Barium	36.7		0.29	0.90	1.8	1.8
7440-43-9	Total Cadmium	1.0	U	0.30	1.0	2.0	2.0
7440-47-3	Total Chromium	0.82	J	0.60	2.0	4.0	4.0
7439-92-1	Total Lead	21.0		1.4	2.0	4.0	4.0
7782-49-2	Total Selenium	2.5	J	2.2	6.5	13	13
7440-22-4	Total Silver	2.0	U	0.70	2.0	4.0	4.0

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE5-110916

Lab Name:	CT Laboratories	Contract:	TETRA TECH-VE CARTER SCHOOL
Matrix (soil/water):	SOIL	SDG No.:	123585
% Solids:	77.5	Lab Sample ID:	804613
Analytical Method:	EPA 6010C	Date Received:	11/11/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	133031	Analysis Date/Time	11/29/2016 04:24
Analytical Prep Batch #:	60301	Prep. Date/Time:	11/23/2016 07:00
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	28.5		0.15	0.47	0.94	0.94
7440-39-3	Barium	69.8		0.011	0.029	0.059	0.059
7440-43-9	Cadmium	2.0		0.0070	0.023	0.047	0.047
7440-47-3	Chromium	6.9	M	0.027	0.082	0.16	0.16
7439-92-1	Lead	119		0.047	0.15	0.29	0.29
7782-49-2	Selenium	10.9		0.070	0.23	0.47	0.47
7440-22-4	Silver	0.10	J M	0.020	0.059	0.12	0.12

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE5-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>77.5</u>	Lab Sample ID:	<u>804613</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>10.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133129</u>	Analysis Date/Time	<u>11/30/2016 14:42</u>
Analytical Prep Batch #:	<u>60383</u>	Prep. Date/Time:	<u>11/29/2016 07:00</u>
ICAL Calibration #:	<u>11302016</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	1.4	M	0.030	0.059	0.12	0.12

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE6-110916

Lab Name:	CT Laboratories	Contract:	TETRA TECH-VE CARTER SCHOOL
Matrix (soil/water):	SOIL	SDG No.:	123585
% Solids:	83.3	Lab Sample ID:	804616
Analytical Method:	EPA 6010C	Date Received:	11/11/2016
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	133031	Analysis Date/Time	11/29/2016 05:05
Analytical Prep Batch #:	60301	Prep. Date/Time:	11/23/2016 07:00
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	2.3		0.17	0.53	1.1	1.1
7440-43-9	Cadmium	14.5		0.0079	0.026	0.053	0.053
7440-47-3	Chromium	60.7		0.030	0.092	0.18	0.18
7439-92-1	Lead	1230		0.053	0.16	0.33	0.33
7782-49-2	Selenium	0.26	U	0.079	0.26	0.53	0.53
7440-22-4	Silver	0.73		0.022	0.066	0.13	0.13

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE6-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>83.3</u>	Lab Sample ID:	<u>804616</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133129</u>	Analysis Date/Time	<u>11/30/2016 14:11</u>
Analytical Prep Batch #:	<u>60383</u>	Prep. Date/Time:	<u>11/29/2016 07:00</u>
ICAL Calibration #:	<u>11302016</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.39		0.0027	0.0055	0.011	0.011

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE6-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>83.3</u>	Lab Sample ID:	<u>804616</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>10.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>133031</u>	Analysis Date/Time	<u>11/30/2016 20:07</u>
Analytical Prep Batch #:	<u>60301</u>	Prep. Date/Time:	<u>11/23/2016 07:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-39-3	Barium	554		0.12	0.33	0.66	0.66



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811969

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/29/16	09:53	3.00	3.12	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812980

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/30/16	12:29	3.00	3.01	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808863

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	14:03	2000	2120	106	90	110
Barium	11/15/16	14:03	2000	2060	103	90	110
Cadmium	11/15/16	14:03	50.00	50.00	100	90	110
Chromium	11/15/16	14:03	200.0	203.0	102	90	110
Lead	11/15/16	14:03	500.0	522.0	104	90	110
Selenium	11/15/16	14:03	2000	2060	103	90	110
Silver	11/15/16	14:03	50.00	49.10	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808864

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	14:10	60.00	63.70	106	80	120
Barium	11/15/16	14:10	30.00	30.70	102	80	120
Cadmium	11/15/16	14:10	15.00	16.10	107	80	120
Chromium	11/15/16	14:10	30.00	30.30	101	80	120
Lead	11/15/16	14:10	30.00	31.90	106	80	120
Selenium	11/15/16	14:10	60.00	68.20	114	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

Sample No.

LLQC

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808868

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/15/16	14:54	10.00	9.16	92	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812440

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/28/16	15:02	2000	2180	109	90	110
Barium	11/28/16	15:02	2000	2080	104	90	110
Cadmium	11/28/16	15:02	50.00	54.00	108	90	110
Chromium	11/28/16	15:02	200.0	216.0	108	90	110
Lead	11/28/16	15:02	500.0	538.0	108	90	110
Selenium	11/28/16	15:02	2000	2090	104	90	110
Silver	11/28/16	15:02	50.00	48.70	97	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812442

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/28/16	15:31	20.00	16.50	82	80	120
Barium	11/28/16	15:31	10.00	11.30	113	80	120
Cadmium	11/28/16	15:31	5.00	5.60	112	80	120
Chromium	11/28/16	15:31	10.00	11.10	111	80	120
Lead	11/28/16	15:31	10.00	11.80	118	80	120
Selenium	11/28/16	15:31	20.00	22.10	110	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

Sample No.

LLQC

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812445

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/28/16	15:53	10.00	9.35	94	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812602

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	13:53	2000	2070	104	90	110
Barium	11/29/16	13:53	2000	2020	101	90	110
Cadmium	11/29/16	13:53	50.00	48.00	96	90	110
Chromium	11/29/16	13:53	200.0	200.0	100	90	110
Lead	11/29/16	13:53	500.0	519.0	104	90	110
Selenium	11/29/16	13:53	2000	2120	106	90	110
Silver	11/29/16	13:53	50.00	48.50	97	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812603

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	14:00	60.00	64.70	108	80	120
Barium	11/29/16	14:00	30.00	32.10	107	80	120
Cadmium	11/29/16	14:00	15.00	16.10	107	80	120
Chromium	11/29/16	14:00	30.00	30.70	102	80	120
Lead	11/29/16	14:00	30.00	32.00	107	80	120
Selenium	11/29/16	14:00	60.00	64.80	108	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

Sample No.

LLQC

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812608

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/29/16	14:44	10.00	9.59	96	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813319

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	11:27	2000	2060	103	90	110
Barium	11/30/16	11:27	2000	2020	101	90	110
Cadmium	11/30/16	11:27	50.00	49.30	99	90	110
Chromium	11/30/16	11:27	200.0	204.0	102	90	110
Lead	11/30/16	11:27	500.0	515.0	103	90	110
Selenium	11/30/16	11:27	2000	2020	101	90	110
Silver	11/30/16	11:27	50.00	48.50	97	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813320

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	11:33	60.00	64.00	107	80	120
Barium	11/30/16	11:33	30.00	31.90	106	80	120
Cadmium	11/30/16	11:33	15.00	16.60	111	80	120
Chromium	11/30/16	11:33	30.00	32.70	109	80	120
Lead	11/30/16	11:33	30.00	34.40	115	80	120
Selenium	11/30/16	11:33	60.00	66.90	112	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808869

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	19:07	5000	4720	94	90	110
Barium	11/15/16	19:07	5000	4820	96	90	110
Cadmium	11/15/16	19:07	500.0	469.0	94	90	110
Chromium	11/15/16	19:07	5000	4970	99	90	110
Lead	11/15/16	19:07	5000	4740	95	90	110
Selenium	11/15/16	19:07	5000	4840	97	90	110
Silver	11/15/16	19:07	500.0	483.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808870

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	19:13	500.0	497.0	99	90	110
Barium	11/15/16	19:13	500.0	499.0	100	90	110
Cadmium	11/15/16	19:13	50.00	50.80	102	90	110
Chromium	11/15/16	19:13	500.0	470.0	94	90	110
Lead	11/15/16	19:13	500.0	496.0	99	90	110
Selenium	11/15/16	19:13	500.0	478.0	96	90	110
Silver	11/15/16	19:13	50.00	52.10	104	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808873

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	20:39	5000	4650	93	90	110
Barium	11/15/16	20:39	5000	4870	97	90	110
Cadmium	11/15/16	20:39	500.0	471.0	94	90	110
Chromium	11/15/16	20:39	5000	5050	101	90	110
Lead	11/15/16	20:39	5000	4780	96	90	110
Selenium	11/15/16	20:39	5000	4920	98	90	110
Silver	11/15/16	20:39	500.0	497.0	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808874

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	20:45	500.0	504.0	101	90	110
Barium	11/15/16	20:45	500.0	509.0	102	90	110
Cadmium	11/15/16	20:45	50.00	50.70	101	90	110
Chromium	11/15/16	20:45	500.0	474.0	95	90	110
Lead	11/15/16	20:45	500.0	497.0	99	90	110
Selenium	11/15/16	20:45	500.0	514.0	103	90	110
Silver	11/15/16	20:45	50.00	52.90	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808877

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	22:10	5000	4620	92	90	110
Barium	11/15/16	22:10	5000	4870	97	90	110
Cadmium	11/15/16	22:10	500.0	469.0	94	90	110
Chromium	11/15/16	22:10	5000	5060	101	90	110
Lead	11/15/16	22:10	5000	4780	96	90	110
Selenium	11/15/16	22:10	5000	4950	99	90	110
Silver	11/15/16	22:10	500.0	500.0	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729

Lab Sample ID: 808878

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/15/16	22:16	500.0	504.0	101	90	110
Barium	11/15/16	22:16	500.0	510.0	102	90	110
Cadmium	11/15/16	22:16	50.00	50.60	101	90	110
Chromium	11/15/16	22:16	500.0	471.0	94	90	110
Lead	11/15/16	22:16	500.0	500.0	100	90	110
Selenium	11/15/16	22:16	500.0	486.0	97	90	110
Silver	11/15/16	22:16	50.00	53.60	107	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811971

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/29/16	12:40	3.00	3.18	106	80	120

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811973

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/29/16	13:06	3.00	2.82	94	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811977

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/29/16	11:44	3.00	3.13	104	80	120

Default Limits (not applicable to MDL Check)
 whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811979

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/29/16	12:14	3.00	3.10	103	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812446

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	02:33	5000	5280	106	90	110
Barium	11/29/16	02:33	5000	4810	96	90	110
Cadmium	11/29/16	02:33	500.0	518.0	104	90	110
Chromium	11/29/16	02:33	5000	5130	103	90	110
Lead	11/29/16	02:33	5000	5270	105	90	110
Selenium	11/29/16	02:33	5000	4560	91	90	110
Silver	11/29/16	02:33	500.0	496.0	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812447

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	02:39	500.0	520.0	104	90	110
Barium	11/29/16	02:39	500.0	496.0	99	90	110
Cadmium	11/29/16	02:39	50.00	54.60	109	90	110
Chromium	11/29/16	02:39	500.0	545.0	109	90	110
Lead	11/29/16	02:39	500.0	545.0	109	90	110
Selenium	11/29/16	02:39	500.0	466.0	93	90	110
Silver	11/29/16	02:39	50.00	52.80	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812449

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	04:04	5000	5320	106	90	110
Barium	11/29/16	04:04	5000	4970	99	90	110
Cadmium	11/29/16	04:04	500.0	509.0	102	90	110
Chromium	11/29/16	04:04	5000	5040	101	90	110
Lead	11/29/16	04:04	5000	5230	105	90	110
Selenium	11/29/16	04:04	5000	4530	91	90	110
Silver	11/29/16	04:04	500.0	493.0	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812450

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	04:10	500.0	518.0	104	90	110
Barium	11/29/16	04:10	500.0	510.0	102	90	110
Cadmium	11/29/16	04:10	50.00	54.30	109	90	110
Chromium	11/29/16	04:10	500.0	543.0	109	90	110
Lead	11/29/16	04:10	500.0	542.0	108	90	110
Selenium	11/29/16	04:10	500.0	540.0	108	90	110
Silver	11/29/16	04:10	50.00	53.30	107	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812454

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	05:34	5000	5240	105	90	110
Barium	11/29/16	05:34	5000	5240	105	90	110
Cadmium	11/29/16	05:34	500.0	497.0	99	90	110
Chromium	11/29/16	05:34	5000	4920	98	90	110
Lead	11/29/16	05:34	5000	5120	102	90	110
Selenium	11/29/16	05:34	5000	4510	90	90	110
Silver	11/29/16	05:34	500.0	486.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812455

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	05:40	500.0	516.0	103	90	110
Barium	11/29/16	05:40	500.0	539.0	108	90	110
Cadmium	11/29/16	05:40	50.00	52.40	105	90	110
Chromium	11/29/16	05:40	500.0	523.0	105	90	110
Lead	11/29/16	05:40	500.0	531.0	106	90	110
Selenium	11/29/16	05:40	500.0	534.0	107	90	110
Silver	11/29/16	05:40	50.00	52.00	104	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812609

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	15:55	5000	4660	93	90	110
Barium	11/29/16	15:55	5000	4650	93	90	110
Cadmium	11/29/16	15:55	500.0	458.0	92	90	110
Chromium	11/29/16	15:55	5000	4950	99	90	110
Lead	11/29/16	15:55	5000	4750	95	90	110
Selenium	11/29/16	15:55	5000	4990	100	90	110
Silver	11/29/16	15:55	500.0	461.0	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812610

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	16:02	500.0	494.0	99	90	110
Barium	11/29/16	16:02	500.0	471.0	94	90	110
Cadmium	11/29/16	16:02	50.00	49.90	100	90	110
Chromium	11/29/16	16:02	500.0	461.0	92	90	110
Lead	11/29/16	16:02	500.0	502.0	100	90	110
Selenium	11/29/16	16:02	500.0	501.0	100	90	110
Silver	11/29/16	16:02	50.00	50.10	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812612

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	17:28	5000	4710	94	90	110
Barium	11/29/16	17:28	5000	4700	94	90	110
Cadmium	11/29/16	17:28	500.0	468.0	94	90	110
Chromium	11/29/16	17:28	5000	5050	101	90	110
Lead	11/29/16	17:28	5000	4840	97	90	110
Selenium	11/29/16	17:28	5000	4960	99	90	110
Silver	11/29/16	17:28	500.0	472.0	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812613

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	17:34	500.0	494.0	99	90	110
Barium	11/29/16	17:34	500.0	478.0	96	90	110
Cadmium	11/29/16	17:34	50.00	50.50	101	90	110
Chromium	11/29/16	17:34	500.0	470.0	94	90	110
Lead	11/29/16	17:34	500.0	505.0	101	90	110
Selenium	11/29/16	17:34	500.0	516.0	103	90	110
Silver	11/29/16	17:34	50.00	50.10	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812985

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/30/16	13:33	3.00	2.99	100	80	120

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812987

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/30/16	14:04	3.00	2.70	90	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812989

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/30/16	14:31	3.00	3.06	102	80	120

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812992

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/30/16	14:51	3.00	2.97	99	80	120

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813324

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	19:47	5000	4640	93	90	110
Barium	11/30/16	19:47	5000	5080	102	90	110
Cadmium	11/30/16	19:47	500.0	467.0	93	90	110
Chromium	11/30/16	19:47	5000	5220	104	90	110
Lead	11/30/16	19:47	5000	4680	94	90	110
Selenium	11/30/16	19:47	5000	4540	91	90	110
Silver	11/30/16	19:47	500.0	471.0	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813325

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	19:53	500.0	482.0	96	90	110
Barium	11/30/16	19:53	500.0	493.0	99	90	110
Cadmium	11/30/16	19:53	50.00	51.40	103	90	110
Chromium	11/30/16	19:53	500.0	521.0	104	90	110
Lead	11/30/16	19:53	500.0	510.0	102	90	110
Selenium	11/30/16	19:53	500.0	489.0	98	90	110
Silver	11/30/16	19:53	50.00	50.20	100	90	110

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813327

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	20:43	5000	4640	93	90	110
Barium	11/30/16	20:43	5000	4900	98	90	110
Cadmium	11/30/16	20:43	500.0	461.0	92	90	110
Chromium	11/30/16	20:43	5000	5170	103	90	110
Lead	11/30/16	20:43	5000	4640	93	90	110
Selenium	11/30/16	20:43	5000	4570	91	90	110
Silver	11/30/16	20:43	500.0	459.0	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 813328

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/30/16	20:49	500.0	476.0	95	90	110
Barium	11/30/16	20:49	500.0	485.0	97	90	110
Cadmium	11/30/16	20:49	50.00	50.60	101	90	110
Chromium	11/30/16	20:49	500.0	505.0	101	90	110
Lead	11/30/16	20:49	500.0	501.0	100	90	110
Selenium	11/30/16	20:49	500.0	487.0	97	90	110
Silver	11/30/16	20:49	50.00	49.60	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2B

MRL STANDARD CHECK

Sample No.

MRL

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031

Lab Sample ID: 812605

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	11/29/16	14:21	20.00	21.50	108	70	130
Barium	11/29/16	14:21	10.00	10.80	108	70	130
Cadmium	11/29/16	14:21	5.00	5.04	101	70	130
Chromium	11/29/16	14:21	10.00	8.42	84	70	130
Lead	11/29/16	14:21	10.00	10.00	100	70	130
Selenium	11/29/16	14:21	20.00	17.80	89	70	130
Silver	11/29/16	14:21	20.00	14.40	72	70	130

Default Limits (not applicable to MDL Check) whether the analyte is detected.

**No percent recovery is calculated for MDL checks. The check is simply

(1) Control Limits: 70-130

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084 Lab Sample ID: 811970

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11292016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/29/2016 09:55	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812981

Analytical Prep Batch # 0

Preparation Date/Time: _____

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 12:31	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729 Lab Sample ID: 808865

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/15/2016	14:24	-1.85	U	4	12
Barium	11/15/2016	14:24	-0.562	U	0.29	0.90
Cadmium	11/15/2016	14:24	0.0230	U	0.3	1.0
Chromium	11/15/2016	14:24	-0.904	U	0.6	2.0
Lead	11/15/2016	14:24	-0.614	U	1.4	2.0
Selenium	11/15/2016	14:24	1.45	U	2.2	6.5
Silver	11/15/2016	14:24	-0.263	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812441

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/28/2016	15:23	-6.02	U	4	16
Barium	11/28/2016	15:23	-0.174	U	0.29	1.0
Cadmium	11/28/2016	15:23	-0.0230	U	0.3	0.8
Chromium	11/28/2016	15:23	0.140	U	0.6	2.8
Lead	11/28/2016	15:23	0.132	U	1.4	5.0
Selenium	11/28/2016	15:23	-1.42	U	2.2	8.0
Silver	11/28/2016	15:23	-0.343	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812604

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016	14:14	-1.67	U	4	16
Barium	11/29/2016	14:14	-0.00500	U	0.29	1.0
Cadmium	11/29/2016	14:14	-0.100	U	0.3	0.8
Chromium	11/29/2016	14:14	-1.65	U	0.6	2.8
Lead	11/29/2016	14:14	0.443	U	1.4	5.0
Selenium	11/29/2016	14:14	2.52	U	2.2	8.0
Silver	11/29/2016	14:14	-0.132	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 813321

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/30/2016	11:48	-1.40	U	4	16
Barium	11/30/2016	11:48	-0.0670	U	0.29	1.0
Cadmium	11/30/2016	11:48	-0.0230	U	0.3	0.8
Chromium	11/30/2016	11:48	-0.643	U	0.6	2.8
Lead	11/30/2016	11:48	0.970	U	1.4	5.0
Selenium	11/30/2016	11:48	2.75	U	2.2	8.0
Silver	11/30/2016	11:48	-0.788	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084 Lab Sample ID: 811972

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11292016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/29/2016 12:42	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084 Lab Sample ID: 811974

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11292016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/29/2016 13:08	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084 Lab Sample ID: 811978

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11292016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/29/2016 11:46	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084

Lab Sample ID: 811980

Analytical Prep Batch # 0

Preparation Date/Time: _____

ICAL Calibration #: 11292016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/29/2016 12:16	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129 Lab Sample ID: 812986

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11302016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 13:35	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129 Lab Sample ID: 812988

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11302016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 14:06	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129 Lab Sample ID: 812990

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 11302016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 14:33	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

Sample No

CCB

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129

Lab Sample ID: 812993

Analytical Prep Batch # 0

Preparation Date/Time: _____

ICAL Calibration #: 11302016

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 14:53	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729 Lab Sample ID: 808871

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/15/2016	19:20	1.03	U	4	12
Barium	11/15/2016	19:20	-0.449	U	0.29	0.90
Cadmium	11/15/2016	19:20	-0.0780	U	0.3	1.0
Chromium	11/15/2016	19:20	-0.745	U	0.6	2.0
Lead	11/15/2016	19:20	-0.509	U	1.4	2.0
Selenium	11/15/2016	19:20	1.56	U	2.2	6.5
Silver	11/15/2016	19:20	-0.666	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729 Lab Sample ID: 808875

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/15/2016	20:52	-0.0550	U	4	12
Barium	11/15/2016	20:52	-0.368	U	0.29	0.90
Cadmium	11/15/2016	20:52	-0.0580	U	0.3	1.0
Chromium	11/15/2016	20:52	-0.698	U	0.6	2.0
Lead	11/15/2016	20:52	-0.934	U	1.4	2.0
Selenium	11/15/2016	20:52	0.593	U	2.2	6.5
Silver	11/15/2016	20:52	-0.0700	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729 Lab Sample ID: 808879

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/15/2016	22:23	-0.606	U	4	12
Barium	11/15/2016	22:23	-0.273	U	0.29	0.90
Cadmium	11/15/2016	22:23	-0.0350	U	0.3	1.0
Chromium	11/15/2016	22:23	-0.713	U	0.6	2.0
Lead	11/15/2016	22:23	0.128	U	1.4	2.0
Selenium	11/15/2016	22:23	-0.0220	U	2.2	6.5
Silver	11/15/2016	22:23	0.0300	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812448

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016 02:46	-4.19	U	4	16
Barium	11/29/2016 02:46	-0.0960	U	0.29	1.0
Cadmium	11/29/2016 02:46	-0.0420	U	0.3	0.8
Chromium	11/29/2016 02:46	0.185	U	0.6	2.8
Lead	11/29/2016 02:46	-0.00200	U	1.4	5.0
Selenium	11/29/2016 02:46	-0.416	U	2.2	8.0
Silver	11/29/2016 02:46	-0.617	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812451

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016	04:17	-4.98	U	4	16
Barium	11/29/2016	04:17	-0.0820	U	0.29	1.0
Cadmium	11/29/2016	04:17	-0.0630	U	0.3	0.8
Chromium	11/29/2016	04:17	0.305	U	0.6	2.8
Lead	11/29/2016	04:17	-0.625	U	1.4	5.0
Selenium	11/29/2016	04:17	2.10	U	2.2	8.0
Silver	11/29/2016	04:17	-0.499	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812456

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016	05:47	-5.22	U	4	16
Barium	11/29/2016	05:47	-0.0650	U	0.29	1.0
Cadmium	11/29/2016	05:47	-0.0760	U	0.3	0.8
Chromium	11/29/2016	05:47	0.391	U	0.6	2.8
Lead	11/29/2016	05:47	-1.10	U	1.4	5.0
Selenium	11/29/2016	05:47	0.781	U	2.2	8.0
Silver	11/29/2016	05:47	-0.678	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812611

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016	16:08	-0.0700	U	4	16
Barium	11/29/2016	16:08	-0.104	U	0.29	1.0
Cadmium	11/29/2016	16:08	-0.105	U	0.3	0.8
Chromium	11/29/2016	16:08	-1.33	U	0.6	2.8
Lead	11/29/2016	16:08	-1.01	U	1.4	5.0
Selenium	11/29/2016	16:08	1.51	U	2.2	8.0
Silver	11/29/2016	16:08	0.0320	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 812614

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/29/2016	17:41	2.46	U	4	16
Barium	11/29/2016	17:41	0.0890	U	0.29	1.0
Cadmium	11/29/2016	17:41	-0.195	U	0.3	0.8
Chromium	11/29/2016	17:41	-1.59	U	0.6	2.8
Lead	11/29/2016	17:41	-0.261	U	1.4	5.0
Selenium	11/29/2016	17:41	1.33	U	2.2	8.0
Silver	11/29/2016	17:41	0.118	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 813326

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/30/2016	20:00	1.21	U	4	16
Barium	11/30/2016	20:00	0.0690	U	0.29	1.0
Cadmium	11/30/2016	20:00	-0.130	U	0.3	0.8
Chromium	11/30/2016	20:00	-0.979	U	0.6	2.8
Lead	11/30/2016	20:00	1.60	U	1.4	5.0
Selenium	11/30/2016	20:00	1.89	U	2.2	8.0
Silver	11/30/2016	20:00	-1.27	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 813329

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	11/30/2016	20:56	0.597	U	4	16
Barium	11/30/2016	20:56	0.193	U	0.29	1.0
Cadmium	11/30/2016	20:56	-0.117	U	0.3	0.8
Chromium	11/30/2016	20:56	-0.720	U	0.6	2.8
Lead	11/30/2016	20:56	2.59	U	1.4	5.0
Selenium	11/30/2016	20:56	-0.383	U	2.2	8.0
Silver	11/30/2016	20:56	-1.24	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133084 Lab Sample ID: 811123

Analytical Prep Batch # 60367 Preparation Date/Time: 11/28/2016 09:35

ICAL Calibration #: 11292016 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	11/29/2016 11:59	0	U	0.03	0.06

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133129 Lab Sample ID: 811256

Analytical Prep Batch # 60383 Preparation Date/Time: 11/29/2016 07:00

ICAL Calibration #: 11302016 Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/30/2016 13:51	0	U	0.0021	0.00415

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 132729 Lab Sample ID: 805598

Analytical Prep Batch # 60178 Preparation Date/Time: 11/14/2016 15:00

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Total Arsenic	11/15/2016	19:56	-1.58	U	4	12
Total Barium	11/15/2016	19:56	-0.363	U	0.29	0.90
Total Cadmium	11/15/2016	19:56	-0.0570	U	0.3	1.0
Total Chromium	11/15/2016	19:56	-0.924	U	0.6	2.0
Total Lead	11/15/2016	19:56	0.571	U	1.4	2.0
Total Selenium	11/15/2016	19:56	0.937	U	2.2	6.5
Total Silver	11/15/2016	19:56	-0.453	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Analytical Run #: 133031 Lab Sample ID: 809599

Analytical Prep Batch # 60301 Preparation Date/Time: 11/23/2016 07:00

ICAL Calibration #: _____ Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit	
Arsenic	11/29/2016	03:57	-0.44	U	0.13	0.40	
Barium	11/29/2016	03:57	0.0082	U	0.009	0.025	
Cadmium	11/29/2016	03:57	0.0062		0.006	0.020	FAIL
Chromium	11/29/2016	03:57	0.014	U	0.023	0.125	
Lead	11/29/2016	03:57	0.23		0.04	0.125	FAIL
Selenium	11/29/2016	03:57	0.061		0.06	0.20	FAIL
Silver	11/29/2016	03:57	-0.014	U	0.017	0.050	

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX
 Analytical Run #: 132729 Lab Sample ID: 808866
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/15/2016 14:38	500000	510000	102	80	120
Arsenic	11/15/2016 14:38	0	0.0110		-6	6
Barium	11/15/2016 14:38	0	0		-0.7	0.7
Cadmium	11/15/2016 14:38	0	0.00600		-0.26	0.26
Calcium	11/15/2016 14:38	500000	503000	101	80	120
Chromium	11/15/2016 14:38	0	0.0290		-1.9	1.9
Iron	11/15/2016 14:38	500000	445000	89	80	120
Lead	11/15/2016 14:38	0	0.0500		-1.5	1.5
Magnesium	11/15/2016 14:38	500000	505000	101	80	120
Selenium	11/15/2016 14:38	0	0		-12	12
Silver	11/15/2016 14:38	0	-0.209		-2.0	2.0

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX
 Analytical Run #: 133031 Lab Sample ID: 812443
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/28/2016 15:38	500000	578000	116	80	120
Arsenic	11/28/2016 15:38	0	-0.0420		-16	16
Barium	11/28/2016 15:38	0	0		-1	1
Cadmium	11/28/2016 15:38	0	0		-0.8	0.8
Calcium	11/28/2016 15:38	500000	568000	114	80	120
Chromium	11/28/2016 15:38	0	0		-2.8	2.8
Iron	11/28/2016 15:38	500000	497000	99	80	120
Lead	11/28/2016 15:38	0	0		-5	5
Magnesium	11/28/2016 15:38	500000	552000	110	80	120
Selenium	11/28/2016 15:38	0	0.00400		-8	8
Silver	11/28/2016 15:38	0	0.510		-2	2

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX
 Analytical Run #: 133031 Lab Sample ID: 812606
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/29/2016 14:28	500000	549000	110	80	120
Arsenic	11/29/2016 14:28	0	0.00200		-16	16
Barium	11/29/2016 14:28	0	0.203		-1	1
Cadmium	11/29/2016 14:28	0	0.00100		-0.8	0.8
Calcium	11/29/2016 14:28	500000	518000	104	80	120
Chromium	11/29/2016 14:28	0	-0.451		-2.8	2.8
Iron	11/29/2016 14:28	500000	462000	92	80	120
Lead	11/29/2016 14:28	0	-0.121		-5	5
Magnesium	11/29/2016 14:28	500000	529000	106	80	120
Selenium	11/29/2016 14:28	0	0.00100		-8	8
Silver	11/29/2016 14:28	0	-0.0920		-2	2

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX
 Analytical Run #: 133031 Lab Sample ID: 813322
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/30/2016 12:03	500000	525000	105	80	120
Arsenic	11/30/2016 12:03	0	0.0110		-16	16
Barium	11/30/2016 12:03	0	0.185		-1	1
Cadmium	11/30/2016 12:03	0	0		-0.8	0.8
Calcium	11/30/2016 12:03	500000	552000	110	80	120
Chromium	11/30/2016 12:03	0	-0.581		-2.8	2.8
Iron	11/30/2016 12:03	500000	486000	97	80	120
Lead	11/30/2016 12:03	0	-0.603		-5	5
Magnesium	11/30/2016 12:03	500000	547000	109	80	120
Selenium	11/30/2016 12:03	0	0.00100		-8	8
Silver	11/30/2016 12:03	0	0.115		-2	2

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX, Ultra
 Analytical Run #: 132729 Lab Sample ID: 808867
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/15/2016 14:46	500000	517000	103	80	120
Arsenic	11/15/2016 14:46	500.0	532.0	106	80	120
Barium	11/15/2016 14:46	500.0	456.0	91	80	120
Cadmium	11/15/2016 14:46	500.0	472.0	94	80	120
Calcium	11/15/2016 14:46	500000	509000	102	80	120
Chromium	11/15/2016 14:46	500.0	488.0	98	80	120
Iron	11/15/2016 14:46	500000	454000	91	80	120
Lead	11/15/2016 14:46	500.0	469.0	94	80	120
Magnesium	11/15/2016 14:46	500000	512000	102	80	120
Selenium	11/15/2016 14:46	500.0	522.0	104	80	120
Silver	11/15/2016 14:46	500.0	551.0	110	80	120

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX, Ultra
 Analytical Run #: 133031 Lab Sample ID: 812444
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/28/2016 15:45	500000	518000	104	80	120
Arsenic	11/28/2016 15:45	500.0	471.0	94	80	120
Barium	11/28/2016 15:45	500.0	438.0	88	80	120
Cadmium	11/28/2016 15:45	500.0	466.0	93	80	120
Calcium	11/28/2016 15:45	500000	509000	102	80	120
Chromium	11/28/2016 15:45	500.0	445.0	89	80	120
Iron	11/28/2016 15:45	500000	454000	91	80	120
Lead	11/28/2016 15:45	500.0	401.0	80	80	120
Magnesium	11/28/2016 15:45	500000	495000	99	80	120
Selenium	11/28/2016 15:45	500.0	456.0	91	80	120
Silver	11/28/2016 15:45	500.0	474.0	95	80	120

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX, Ultra
 Analytical Run #: 133031 Lab Sample ID: 812607
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/29/2016 14:36	500000	508000	102	80	120
Arsenic	11/29/2016 14:36	500.0	543.0	109	80	120
Barium	11/29/2016 14:36	500.0	441.0	88	80	120
Cadmium	11/29/2016 14:36	500.0	451.0	90	80	120
Calcium	11/29/2016 14:36	500000	484000	97	80	120
Chromium	11/29/2016 14:36	500.0	465.0	93	80	120
Iron	11/29/2016 14:36	500000	426000	85	80	120
Lead	11/29/2016 14:36	500.0	455.0	91	80	120
Magnesium	11/29/2016 14:36	500000	487000	97	80	120
Selenium	11/29/2016 14:36	500.0	504.0	101	80	120
Silver	11/29/2016 14:36	500.0	542.0	108	80	120

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 123585
 ICS Source: SPEX, Ultra
 Analytical Run #: 133031 Lab Sample ID: 813323
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/30/2016 12:10	500000	496000	99	80	120
Arsenic	11/30/2016 12:10	500.0	560.0	112	80	120
Barium	11/30/2016 12:10	500.0	476.0	95	80	120
Cadmium	11/30/2016 12:10	500.0	473.0	95	80	120
Calcium	11/30/2016 12:10	500000	522000	104	80	120
Chromium	11/30/2016 12:10	500.0	509.0	102	80	120
Iron	11/30/2016 12:10	500000	466000	93	80	120
Lead	11/30/2016 12:10	500.0	475.0	95	80	120
Magnesium	11/30/2016 12:10	500000	518000	104	80	120
Selenium	11/30/2016 12:10	500.0	536.0	107	80	120
Silver	11/30/2016 12:10	500.0	565.0	113	80	120

5A

Sample Description

SPIKE SAMPLE RECOVERY

VEC-SUMP1-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solids for Sample:

Concentration Units: ug/L

Sample No 811126

Parent Sample No.: 804577

Analytical Prep Batch # 60367

Analytical Preparation Date/Time: 11/28/2016 09:35

Analytical Run #: 133084

ICAL Calibration #: 11292016

Analysis Type	Initial Analysis	Analysis Date: -----	11/29/2016	Analysis Time: -----	13:00
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Mercury	80-120	4.2		0.15		2.0	202		CV FAIL

BDL = analyte concentration was below detection limit

5A

Sample Description

SPIKE SAMPLE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 77.5
 Sample No 811259
 Analytical Prep Batch # 60383
 Analytical Run #: 133129

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Concentration Units: mg/kg
 Parent Sample No.: 804613
 Analytical Preparation Date/Time: 11/29/2016 07:00
 ICAL Calibration #: 11302016

Analysis Type	Initial Analysis	Analysis Date: -----	11/30/2016	Analysis Time: -----	14:46
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	80-120	1.9		1.4		1.1	45		CV FAIL

BDL = analyte concentration was below detection limit

5A

Sample Description

SPIKE SAMPLE RECOVERY

VEC-SUMP1-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solids for Sample:

Concentration Units: ug/L

Sample No 805601

Parent Sample No.: 804577

Analytical Prep Batch # 60178

Analytical Preparation Date/Time: 11/14/2016 15:00

Analytical Run #: 132729

ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	11/15/2016	Analysis Time: -----	20:25
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Arsenic	80-120	916		BDL	U	800	114		P
Total Barium	80-120	927		36.7		800	111		P
Total Cadmium	80-120	20.0		BDL	U	20.0	100		P
Total Chromium	80-120	81.2		0.82	J	80.0	100		P
Total Lead	80-120	229		21.0		200	104		P
Total Selenium	80-120	815		2.5	J	800	102		P
Total Silver	80-120	21.0		BDL	U	20.0	105		P

BDL = analyte concentration was below detection limit

5A

Sample Description

SPIKE SAMPLE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories
Matrix: SOLID
% Solids for Sample: 77.5
Sample No: 809602
Analytical Prep Batch #: 60301
Analytical Run #: 133031

Contract: TETRA TECH-VE CARTER SCHOOL
SDG No.: 123585
Concentration Units: mg/kg
Parent Sample No.: 804613
Analytical Preparation Date/Time: 11/23/2016 07:00
ICAL Calibration #: _____

Analysis Type	Initial Analysis	Analysis Date: -----	11/29/2016	Analysis Time: -----	04:45
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	162		28.5		137	97		P
Barium	80-120	181		69.8		137	81		P
Cadmium	80-120	5.6		2.0		3.4	106		P
Chromium	80-120	17.8		6.9		13.7	80		P
Lead	80-120	211		119		34.1	270		P <i>FAIL</i>
Selenium	80-120	151		10.9		137	102		P
Silver	75-125	2.9		0.10	J	3.4	82		P

BDL = analyte concentration was below detection limit

5B

Sample Description

POST DIGESTION SPIKE SAMPLE RECOVERY

VEC-SUMP1-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solids for Sample:

Concentration Units: ug/L

Sample No 808876

Parent Sample No.: 804577

Analytical Prep Batch # 0

Analytical Preparation Date/Time:

Analytical Run #: 132729

ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	11/15/2016	Analysis Time: -----	20:59
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	4020		BDL	U	4000	100		P
Barium	80-120	4150		36.7		4000	103		P
Cadmium	80-120	91.1		BDL	U	100	91		P
Chromium	80-120	378		0.82	J	400	94		P
Lead	80-120	994		21.0		1000	97		P
Selenium	80-120	4160		2.5	J	4000	104		P
Silver	80-120	100		BDL	U	100	100		P

BDL = analyte concentration was below detection limit

5B

Sample Description

POST DIGESTION SPIKE SAMPLE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 77.5
 Sample No 812453
 Analytical Prep Batch # 0
 Analytical Run #: 133031

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Concentration Units: ug/L
 Parent Sample No.: 804613
 Analytical Preparation Date/Time: _____
 ICAL Calibration #: _____

Analysis Type	Initial Analysis	Analysis Date: -----	11/29/2016	Analysis Time: -----	04:58
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	4390.		971.		4000	85		P
Barium	80-120	5630.		2380.		4000	81		P
Cadmium	80-120	170.		66.9		100	103		P
Chromium	80-120	525.		236.		400	72		P <i>FAIL</i>
Lead	80-120	4850.		4050.		1000	80		P
Selenium	80-120	4190.		373		4000	95		P
Silver	80-120	82.8		3.50		100	79		P <i>FAIL</i>

BDL = analyte concentration was below detection limit

SPIKE DUPLICATE SAMPLE RECOVERY

VEC-SUMP1-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solids for Sample:

Concentration Units: ug/L

Sample No 811127

Parent Sample No.: 811126

Analytical Prep Batch # 60367

Analytical Preparation Date/Time: 11/28/2016 09:35

Analytical Run #: 133084

ICAL Calibration #: 11292016

Analysis Type	Initial Analysis	Analysis Date: -----	11/29/2016	Analysis Time: -----	12:08
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Mercury	80-120	4.6		0.15		2.0	222		CV FAIL

BDL = analyte concentration was below detection limit

SPIKE DUPLICATE SAMPLE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 77.5
 Sample No 811260
 Analytical Prep Batch # 60383
 Analytical Run #: 133129

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Concentration Units: mg/kg
 Parent Sample No.: 811259
 Analytical Preparation Date/Time: 11/29/2016 07:00
 ICAL Calibration #: 11302016

Analysis Type	Initial Analysis	Analysis Date: -----	11/30/2016	Analysis Time: -----	14:48
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	80-120	1.5		1.4		1.1	9		CV FAIL

BDL = analyte concentration was below detection limit

SPIKE DUPLICATE SAMPLE RECOVERY

VEC-SUMP1-110916

Lab Name: CT Laboratories
 Matrix: LIQUID
 % Solids for Sample: _____
 Sample No 805602
 Analytical Prep Batch # 60178
 Analytical Run #: 132729

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Concentration Units: ug/L
 Parent Sample No.: 805601
 Analytical Preparation Date/Time: 11/14/2016 15:00
 ICAL Calibration #: _____

Analysis Type	Initial Analysis	Analysis Date: -----	11/15/2016	Analysis Time: -----	20:32
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Arsenic	80-120	889		BDL	U	800	111		P
Total Barium	80-120	894		36.7		800	107		P
Total Cadmium	80-120	19.4		BDL	U	20.0	97		P
Total Chromium	80-120	78.3		0.82	J	80.0	97		P
Total Lead	80-120	225		21.0		200	102		P
Total Selenium	80-120	742		2.5	J	800	92		P
Total Silver	80-120	21.0		BDL	U	20.0	105		P

BDL = analyte concentration was below detection limit

5C

Sample Description

SPIKE DUPLICATE SAMPLE RECOVERY

VEC-WASTE5-110916

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 77.5
 Sample No 809603
 Analytical Prep Batch # 60301
 Analytical Run #: 133031

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Concentration Units: mg/kg
 Parent Sample No.: 809602
 Analytical Preparation Date/Time: 11/23/2016 07:00
 ICAL Calibration #: _____

Analysis Type *Initial Analysis* Analysis Date: ----- 11/29/2016 Analysis Time: ----- 04:52

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	157		28.5		142	90		P
Barium	80-120	202		69.8		142	93		P
Cadmium	80-120	6.0		2.0		3.5	114		P
Chromium	80-120	18.5		6.9		14.2	82		P
Lead	80-120	174		119		35.4	155		P <i>FAIL</i>
Selenium	80-120	152		10.9		142	99		P
Silver	75-125	3.0		0.10	J	3.5	83		P

BDL = analyte concentration was below detection limit

6

Sample Description

VEC-SUMP1-110916

DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solid for Sample: _____

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 60367

Analytical Run #: 133084

ICAL Calibration #: 11292016

Sample #: 811125

Parent Sample #: 804577

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Mercury	11/29/2016 12:04	20	0.15		0.15		0		CV

6

DUPLICATES

Sample Description

VEC-WASTE5-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: 77.5

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 60383

Analytical Run #: 133129

ICAL Calibration #: 11302016

Sample #: 811258

Parent Sample #: 804613

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Mercury	11/30/2016 14:44	20	1.4		1.7		19		CV



6

DUPLICATES

Sample Description

VEC-SUMP1-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solid for Sample: _____

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 60178

Analytical Run #: 132729

ICAL Calibration #: _____

Sample #: 805600

Parent Sample #: 804577

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Arsenic	11/15/2016	20:17	20	4.0	U	4.0	U	0		P
Total Barium	11/15/2016	20:17	20	36.7		38.7		5		P
Total Cadmium	11/15/2016	20:17	20	0.30	U	0.30	U	0		P
Total Chromium	11/15/2016	20:17	20	0.82	J	1.0	J	20		P
Total Lead	11/15/2016	20:17	20	21.0		20.3		3		P
Total Selenium	11/15/2016	20:17	20	2.5	J	2.2	U	200		P <i>FAIL</i>
Total Silver	11/15/2016	20:17	20	0.70	U	0.70	U	0		P

6

DUPLICATES

Sample Description

VEC-WASTE5-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: 77.5

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 60301

Analytical Run #: 133031

ICAL Calibration #:

Sample #: 809601

Parent Sample #: 804613

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Arsenic	11/29/2016	04:38	20	28.5	24.8		14		P
Barium	11/29/2016	04:38	20	69.8	65.4		7		P
Cadmium	11/29/2016	04:38	20	2.0	1.8		11		P
Chromium	11/29/2016	04:38	20	6.9	6.1		12		P
Lead	11/29/2016	04:38	20	119	107		11		P
Selenium	11/29/2016	04:38	20	10.9	9.2		17		P
Silver	11/29/2016	04:38	20	0.10	0.10	J	0		P

6A

Sample Description

VEC-SUMP1-110916

MATRIX SPIKE DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch #: 60367

Analytical Preparation Date/Time 11/28/2016 09:35

Analytical Run #: 133084

ICAL Calibration #: 11292016

Sample #: 811127

Parent Sample #: 811126

Analysis Type Initial Analysis

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Mercury	11/29/2016 12:08	20	4.2		4.6		8		CV

6A

Sample Description

VEC-WASTE5-110916

MATRIX SPIKE DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: 77.5

Concentration Units: mg/kg

Analytical Prep Batch # 60383

Analytical Preparation Date/Time 11/29/2016 07:00

Analytical Run #: 133129

ICAL Calibration #: 11302016

Sample #: 811260

Parent Sample #: 811259

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Mercury	11/30/2016 14:48	20	1.9		1.5		18		CV

6A

Sample Description

VEC-SUMP1-110916

MATRIX SPIKE DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 60178

Analytical Preparation Date/Time 11/14/2016 15:00

Analytical Run #: 132729

ICAL Calibration #:

Sample #: 805602

Parent Sample #: 805601

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Arsenic	11/15/2016 20:32	20	916		889		3		P
Total Barium	11/15/2016 20:32	20	927		894		4		P
Total Cadmium	11/15/2016 20:32	20	20.0		19.4		3		P
Total Chromium	11/15/2016 20:32	20	81.2		78.3		4		P
Total Lead	11/15/2016 20:32	20	229		225		2		P
Total Selenium	11/15/2016 20:32	20	815		742		9		P
Total Silver	11/15/2016 20:32	20	21.0		21.0		0		P

6A

Sample Description

VEC-WASTE5-110916

MATRIX SPIKE DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: 77.5

Concentration Units: mg/kg

Analytical Prep Batch # 60301

Analytical Preparation Date/Time 11/23/2016 07:00

Analytical Run #: 133031

ICAL Calibration #:

Sample #: 809603

Parent Sample #: 809602

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Arsenic	11/29/2016	04:52	20	162	157	7		P	
Barium	11/29/2016	04:52	20	181	202	8		P	
Cadmium	11/29/2016	04:52	20	5.6	6.0	4		P	
Chromium	11/29/2016	04:52	20	17.8	18.5	0		P	
Lead	11/29/2016	04:52	20	211	174	23		P	FAIL
Selenium	11/29/2016	04:52	20	151	152	3		P	
Silver	11/29/2016	04:52	20	2.9	3.0	2		P	

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL

LCS Source: SPEX and Ultra SDG No.: 123585

Concentration Units: ug/L

Analytical Run #: 133084 Sample No.:# 811124

Analytical Prep Batch #: 60367 Preparation Date/Time: 11/28/2016 09:35

ICAL Calibration #: 11292016

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	11/29/2016	12:57	80-120	3.14		3.00	105		CV

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL

LCS Source: SPEX and Ultra SDG No.: 123585

Concentration Units: ug/L

Analytical Run #: 132729 Sample No.:# 805599

Analytical Prep Batch #: 60178 Preparation Date/Time: 11/14/2016 15:00

ICAL Calibration #: _____

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Arsenic	11/15/2016	19:48	80-120	885.0		800.0	111		P
Total Barium	11/15/2016	19:48	80-120	855.0		800.0	107		P
Total Cadmium	11/15/2016	19:48	80-120	19.30		20.00	96		P
Total Chromium	11/15/2016	19:48	80-120	77.00		80.00	96		P
Total Lead	11/15/2016	19:48	80-120	202.0		200.0	101		P
Total Selenium	11/15/2016	19:48	80-120	841.0		800.0	105		P
Total Silver	11/15/2016	19:48	80-120	20.30		20.00	102		P

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL

LCS Source: SPEX and Ultra SDG No.: 123585

Concentration Units: mg/kg

Analytical Run #: 133129 Sample No.:# 811257

Analytical Prep Batch #: 60383 Preparation Date/Time: 11/29/2016 07:00

ICAL Calibration #: 11302016

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Mercury	11/30/2016	13:48	80-120	0.090		0.083	108		CV

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract TETRA TECH-VE CARTER SCHOOL

LCS Source: SPEX and Ultra SDG No.: 123585

Concentration Units: mg/kg

Analytical Run #: 133031 Sample No.:# 809600

Analytical Prep Batch #: 60301 Preparation Date/Time: 11/23/2016 07:00

ICAL Calibration #: _____

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Arsenic	11/29/2016	03:50	80-120	104		100	104		P
Barium	11/29/2016	03:50	80-120	99.0		100	99		P
Cadmium	11/29/2016	03:50	80-120	2.5		2.5	100		P
Chromium	11/29/2016	03:50	80-120	10.8		10.0	108		P
Lead	11/29/2016	03:50	80-120	26.8		25.0	107		P
Selenium	11/29/2016	03:50	80-120	86.8		100	87		P
Silver	11/29/2016	03:50	75-120	2.2		2.5	88		P

VEC-SUMP1-110916

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID SDG No.: 123585

Concentration Units: ug/L

Sample No.: 808872 Parent Sample No.: 804577

LIMS Run #: 132729 ICAL Calibration #.:

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M
Arsenic	11/15/2016	20:10	BDL	U	23.75	J	0	P	INVALID
Barium	11/15/2016	20:10	36.7		33		10	P	INVALID
Cadmium	11/15/2016	20:10	BDL	U	1.5	U	0	P	INVALID
Chromium	11/15/2016	20:10	.816	U	3	U	100	P	INVALID
Lead	11/15/2016	20:10	21.0		8.6	J	59	P	INVALID
Selenium	11/15/2016	20:10	2.46	U	11	U	100	P	INVALID
Silver	11/15/2016	20:10	BDL	U	3.5	U	0	P	INVALID

VEC-WASTE5-110916

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID SDG No.: 123585

Concentration Units: ug/L

Sample No.: 812452 Parent Sample No.: 804613

LIMS Run #: 133031 ICAL Calibration #.:

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M
Arsenic	11/29/2016 04:31	971.		1085		12	P	INVALID
Barium	11/29/2016 04:31	2380.		2505		5	P	
Cadmium	11/29/2016 04:31	66.9		78.5		17	P	INVALID
Chromium	11/29/2016 04:31	236.		289		22	P	INVALID
Lead	11/29/2016 04:31	4050.		5500		36	P	FAIL
Selenium	11/29/2016 04:31	373		439.5		18	P	INVALID
Silver	11/29/2016 04:31	3.50		0.085	U	100	P	INVALID

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

 SDG No.: 123585

 Matrix: LIQUID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (ug/L)	M
Total Mercury	253.7			0.03	CV

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL

 SDG No.: 123585

 Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Mercury	253.7			0.0021	CV

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA SDG No.: 123585
 Matrix: LIQUID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (ug/L)	M
Total Arsenic	193.7			4	P
Total Barium	455.4			0.29	P
Total Cadmium	226.502			0.3	P
Total Chromium	267.716			0.6	P
Total Lead	220.35			1.4	P
Total Selenium	196.02			2.2	P
Total Silver	328.068			0.7	P

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TJA SDG No.: 123585
 Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Arsenic	193.7			0.13	P
Barium	455.4			0.009	P
Cadmium	226.502			0.006	P
Chromium	267.716			0.023	P
Lead	220.35			0.04	P
Selenium	196.02			0.06	P
Silver	328.068			0.017	P

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Ag 328.068 {103}	<input checked="" type="checkbox"/>	1	Fe	0.000006
Al 308.215 {109}	<input checked="" type="checkbox"/>	None		
Al 309.271 {109}	<input checked="" type="checkbox"/>	None		
Al 396.152 {85}	<input checked="" type="checkbox"/>	None		
Al 167.079 {502}	<input checked="" type="checkbox"/>	1	Fe	0.000627
As 193.759 {474}	<input checked="" type="checkbox"/>	3	Fe	-0.000324
			Mo	0.000000
			Co	0.000000
As 189.042 {479}	<input checked="" type="checkbox"/>	1	Fe	0.000027
Ba 455.403 {74}	<input checked="" type="checkbox"/>	1	Fe	-0.000000
Ba 493.409 {68}	<input checked="" type="checkbox"/>	1	Fe	0.000106
Be 313.042 {108}	<input checked="" type="checkbox"/>	1	Fe	0.000000
Be 234.861 {144}	<input checked="" type="checkbox"/>	1	Fe	0.000101
Ca 315.887 {107}	<input checked="" type="checkbox"/>	None		
Ca 317.933 {106}	<input checked="" type="checkbox"/>	None		
Ca 393.366 {86}	<input checked="" type="checkbox"/>	None		
Ca 396.847 {85}	<input checked="" type="checkbox"/>	None		
Cd 226.502 {449}	<input checked="" type="checkbox"/>	2	Fe	0.000381
			Ag	-0.049000
Cd 228.802 {447}	<input checked="" type="checkbox"/>	1	Fe	0.000100
Co 228.616 {447}	<input checked="" type="checkbox"/>	6	Ti	-0.002110
			Mo	-0.001300
			Cr	-0.000235
			Ba	0.000315
			Ni	0.000000
			Fe	0.000017
Co 238.892 {141}	<input checked="" type="checkbox"/>	1	Fe	0.000242
Cr 267.716 {126}	<input checked="" type="checkbox"/>	1	Fe	0.000010
Cr 283.563 {119}	<input checked="" type="checkbox"/>	1	Fe	0.000949
Cu 224.700 {450}	<input checked="" type="checkbox"/>	2	Fe	0.000062
			Ag	-0.050000
Cu 324.754 {104}	<input checked="" type="checkbox"/>	1	Fe	0.000200
Cu 327.396 {103}	<input checked="" type="checkbox"/>	1	Fe	-0.000016
Fe 234.349 {144}	<input checked="" type="checkbox"/>	None		
Fe 239.562 {141}	<input checked="" type="checkbox"/>	None		
Fe 259.940 {130}	<input checked="" type="checkbox"/>	None		
Mg 202.582 {466}	<input checked="" type="checkbox"/>	None		
Mg 279.079 {121}	<input checked="" type="checkbox"/>	None		
Mg 280.270 {120}	<input checked="" type="checkbox"/>	None		
Mn 257.610 {131}	<input checked="" type="checkbox"/>	1	Al	-0.000055
Mn 259.373 {130}	<input checked="" type="checkbox"/>	1	Mg	0.001246
Mo 203.844 {465}	<input checked="" type="checkbox"/>	1	Fe	-0.000027
Mo 202.030 {467}	<input checked="" type="checkbox"/>	1	Fe	-0.000020
Mo 204.598 {465}	<input checked="" type="checkbox"/>	1	Fe	-0.000100

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Ni 221.647 {452}	<input checked="" type="checkbox"/>	1	Ca	0.000022
Ni 231.604 {445}	<input checked="" type="checkbox"/>	4	Fe	0.000117
			Co	-0.050000
			Ag	-0.050000
			Mo	-0.000200
Pb 216.999 {455}	<input checked="" type="checkbox"/>	2	Al	0.000478
			Na	0.000000
Pb 220.353 {153}	<input checked="" type="checkbox"/>	1	Fe	0.000024
Pb 220.353 {453}	<input checked="" type="checkbox"/>	9	Fe	0.000071
			Si	0.000940
			Ti	0.000640
			Cu	0.000370
			Ni	0.000109
			Al	0.000000
			Co	-0.000149
			Mn	0.000074
			Ti	0.000004
Sh 206.833 {463}	<input checked="" type="checkbox"/>	1	Fe	0.000032
Sb 217.581 {455}	<input checked="" type="checkbox"/>	1	Fe	-0.000048
Se 196.090 {172}	<input checked="" type="checkbox"/>	1	Fe	-0.000205
Se 196.090 {472}	<input checked="" type="checkbox"/>	1	Fe	0.000022
Se 206.279 {463}	<input checked="" type="checkbox"/>	1	Fe	0.001119
Ti 276.787 {122}	<input checked="" type="checkbox"/>	1	Mg	0.006492
Ti 190.856 {477}	<input checked="" type="checkbox"/>	10	Ti	0.000050
			Al	-0.000002
			V	0.000586
			Mn	0.000398
			Mo	-0.000120
			Be	-0.000013
			Fe	-0.000033
			Sr	-0.000027
			Co	0.000016
			Cr	0.000251
V 290.882 {116}	<input checked="" type="checkbox"/>	1	Fe	0.000170
V 292.402 {115}	<input checked="" type="checkbox"/>	1	Fe	0.000041
Zn 206.200 {463}	<input checked="" type="checkbox"/>	1	Fe	0.000173
Zn 213.856 {458}	<input checked="" type="checkbox"/>	1	Fe	0.000380
Y 360.073 {94}*	<input checked="" type="checkbox"/>	None		
Na 330.298 {102}	<input checked="" type="checkbox"/>	1	Fe	0.000991
Si 251.611 {134}	<input checked="" type="checkbox"/>	1	Fe	-0.000042
Ti 334.941 {101}	<input checked="" type="checkbox"/>	1	Fe	0.000050
Ti 337.280 {100}	<input checked="" type="checkbox"/>	1	Fe	0.000006
Gr 407.771 {83}	<input checked="" type="checkbox"/>	1	Fe	0.000039
Sr 421.552 {80}	<input checked="" type="checkbox"/>	1	Fe	0.000039

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Sn 189.989 {477}	<input checked="" type="checkbox"/>	1	Fe	0.000011
Sn 283.999 {119}	<input checked="" type="checkbox"/>	1	Fe	-0.003092
B 249.678 {135}	<input checked="" type="checkbox"/>	1	Fe	-0.000918
B 249.773 {135}	<input checked="" type="checkbox"/>	1	Fe	0.000199
Li 670.784 {50}	<input checked="" type="checkbox"/>	1	Fe	0.000029
K 766.490 {44}	<input checked="" type="checkbox"/>	1	Fe	0.006630

Element, Wavelength and Order	Use?	# IECs	IEC	k1
K 766.490 {44}	<input checked="" type="checkbox"/>	1	Fe	0.000178
Na 330.237 {102}	<input checked="" type="checkbox"/>	1	Fe	-0.004289
Na 589.592 {57}	<input checked="" type="checkbox"/>	1	Fe	0.000173
Y 350.073 {94}	<input checked="" type="checkbox"/>	None		
Y 320.332 {105}*	<input checked="" type="checkbox"/>	None		
Al 308.215 {109}	<input checked="" type="checkbox"/>	1	Fe	0.000000
Al 396.152 {85}	<input checked="" type="checkbox"/>	None		
Mg 285.213 {118}	<input checked="" type="checkbox"/>	None		
Ca 317.933 {106}	<input checked="" type="checkbox"/>	None		
Fe 234.349 {144}	<input checked="" type="checkbox"/>	None		

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: TETRA TECH-VE CARTER SCHOOL
 ICP ID Number: TA SDG No.: 123585

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

PREPARATION LOG

Lab Name: CT Laboratories Project: TETRA TECH-VE CARTER SCHOOL

Method: EPA 3010A SDG No.: 123585

Preparation Batch #: 60178 Preparation Date/Time: 11/14/2016 / 15:00

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
804577	Normal Sample	VEC-SUMP1-110916	SURFACE WATER	50.0
805598	Method Blank		LIQUID	50.0
805599	Lab Control Spike		LIQUID	50.0
805600	Lab Duplicate	VEC-SUMP1-110916	SURFACE WATER	50.0
805601	Matrix Spike	VEC-SUMP1-110916	SURFACE WATER	50.0
805602	Matrix Spike Duplicate	VEC-SUMP1-110916	SURFACE WATER	50

PREPARATION LOG

Lab Name: CT Laboratories Project: TETRA TECH-VE CARTER SCHOOL

Method: EPA 3050B SDG No.: 123585

Preparation Batch #: 60301 Preparation Date/Time: 11/23/2016 / 07:00

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
804613	Normal Sample	VEC-WASTE5-110916	SOIL	2.20
804616	Normal Sample	VEC-WASTE6-110916	SOIL	1.82
804619	Normal Sample	VEC-PAINT1-110916	SOIL	1.98
804624	Normal Sample	VEC-PAINT2-110916	SOIL	1.93
804625	Normal Sample	VEC-PAINT3-110916	SOIL	1.58
804626	Normal Sample	VEC-PAINT4-110916	SOIL	0.69
809599	Method Blank		SOLID	2.00
809600	Lab Control Spike		SOLID	2.00
809601	Lab Duplicate	VEC-WASTE5-110916	SOIL	2.15
809602	Matrix Spike	VEC-WASTE5-110916	SOIL	1.89
809603	Matrix Spike Duplicate	VEC-WASTE5-110916	SOIL	1.82

PREPARATION LOG

Lab Name: CT Laboratories Project: TETRA TECH-VE CARTER SCHOOL

Method: EPA 7470A SDG No.: 123585

Preparation Batch #: 60367 Preparation Date/Time: 11/28/2016 / 09:35

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
804577	Normal Sample	VEC-SUMP1-110916	SURFACE WATER	25.0
811123	Method Blank		LIQUID	25.0
811124	Lab Control Spike		LIQUID	25.0
811125	Lab Duplicate	VEC-SUMP1-110916	SURFACE WATER	25.0
811126	Matrix Spike	VEC-SUMP1-110916	SURFACE WATER	25.0
811127	Matrix Spike Duplicate	VEC-SUMP1-110916	SURFACE WATER	25.0

PREPARATION LOG

Lab Name: CT Laboratories Project: TETRA TECH-VE CARTER SCHOOL

Method: EPA 7471A SDG No.: 123585

Preparation Batch #: 60383 Preparation Date/Time: 11/29/2016 / 07:00

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
804613	Normal Sample	VEC-WASTE5-110916	SOIL	0.55
804616	Normal Sample	VEC-WASTE6-110916	SOIL	0.55
811256	Method Blank		SOLID	0.60
811257	Lab Control Spike		SOLID	0.60
811258	Lab Duplicate	VEC-WASTE5-110916	SOIL	0.58
811259	Matrix Spike	VEC-WASTE5-110916	SOIL	0.57
811260	Matrix Spike Duplicate	VEC-WASTE5-110916	SOIL	0.60



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ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: CETAC

Start & End Date: 11/29/2016 to 11/29/2016

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Method Number: CV

Analytical Run #: 133084

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
811969	ICV	1.00	11/29 09:53																	X													
811970	ICB	1.00	11/29 09:55																	X													
811977	CCV	1.00	11/29 11:44																	X													
811978	CCB	1.00	11/29 11:46																	X													
811123	MBW	1.00	11/29 11:59																	X													
804577	Initial	1.00	11/29 12:02																	X													
811125	DUP	1.00	11/29 12:04																	X													
811127	MSDW	1.00	11/29 12:08																	X													
811979	CCV	1.00	11/29 12:14																	X													
811980	CCB	1.00	11/29 12:16																	X													
811971	CCV	1.00	11/29 12:40																	X													
811972	CCB	1.00	11/29 12:42																	X													
811124	LCSW	1.00	11/29 12:57																	X													
811126	MSW	1.00	11/29 13:00																	X													
811973	CCV	1.00	11/29 13:06																	X													
811974	CCB	1.00	11/29 13:08																	X													

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: CETAC

Start & End Date: 11/30/2016 to 11/30/2016

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Method Number: CV

Analytical Run #: 133129

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
812980	ICV	1.00	11/30 12:29																X														
812981	ICB	1.00	11/30 12:31																X														
812985	CCV	1.00	11/30 13:33																X														
812986	CCB	1.00	11/30 13:35																X														
811257	LCSS	1.00	11/30 13:48																X														
811256	MBS	1.00	11/30 13:51																X														
812987	CCV	1.00	11/30 14:04																X														
812988	CCB	1.00	11/30 14:06																X														
804616	Initial	1.00	11/30 14:11																X														
812989	CCV	1.00	11/30 14:31																X														
812990	CCB	1.00	11/30 14:33																X														
804613	Initial	10.00	11/30 14:42																X														
811258	DUP	10.00	11/30 14:44																X														
811259	MSS	10.00	11/30 14:46																X														
811260	MSDS	10.00	11/30 14:48																X														
812992	CCV	1.00	11/30 14:51																X														
812993	CCB	1.00	11/30 14:53																X														

ANALYSIS RUN LOG

Lab Name: CT Laboratories
 Lab Code: CTL
 Instrument ID Number: TJA
 Start & End Date: 11/15/2016 to 11/15/2016

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Method Number: P
 Analytical Run #: 132729

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
808863	ICV	1.00	11/15 14:03			X	X			X		X				X								X		X							
808864	ICVLL	1.00	11/15 14:10			X	X			X		X				X								X									
808865	ICB	1.00	11/15 14:24			X	X			X		X				X								X		X							
808866	ICSA	1.00	11/15 14:38	X		X	X			X	X	X			X	X	X							X		X							
808867	ICSAB	1.00	11/15 14:46	X		X	X			X	X	X			X	X	X							X		X							
808868	ICVLL	1.00	11/15 14:54																											X			
808869	CCV1	1.00	11/15 19:07			X	X			X		X				X								X		X							
808870	CCV2	1.00	11/15 19:13			X	X			X		X				X								X		X							
808871	CCB	1.00	11/15 19:20			X	X			X		X				X								X		X							
805599	LCSW	1.00	11/15 19:48			X	X			X		X				X								X		X							
805598	MBW	1.00	11/15 19:56			X	X			X		X				X								X		X							
804577	Initial	1.00	11/15 20:03			X	X			X		X				X								X		X							
808872	L	5	11/15 20:10			X	X			X		X				X								X		X							
805600	DUP	1.00	11/15 20:17			X	X			X		X				X								X		X							
805601	MSW	1.00	11/15 20:25			X	X			X		X				X								X		X							
805602	MSDW	1.00	11/15 20:32			X	X			X		X				X								X		X							
808873	CCV1	1.00	11/15 20:39			X	X			X		X				X								X		X							
808874	CCV2	1.00	11/15 20:45			X	X			X		X				X								X		X							
808875	CCB	1.00	11/15 20:52			X	X			X		X				X								X		X							
808876	PDSW	1.00	11/15 20:59			X	X			X		X				X								X		X							
808877	CCV1	1.00	11/15 22:10			X	X			X		X				X								X		X							
808878	CCV2	1.00	11/15 22:16			X	X			X		X				X								X		X							
808879	CCB	1.00	11/15 22:23			X	X			X		X				X								X		X							

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: TJA

Start & End Date: 11/28/2016 to 11/30/2016

Contract: TETRA TECH-VE CARTER SCHOOL

SDG No.: 123585

Method Number: P

Analytical Run #: 133031

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
812440	ICV	1.00	11/28 15:02			X	X			X		X				X								X		X							
812441	ICB	1.00	11/28 15:23			X	X			X		X				X								X		X							
812442	ICVLL	1.00	11/28 15:31			X	X			X		X				X								X									
812443	ICSA	1.00	11/28 15:38	X		X	X			X	X	X			X	X	X							X		X							
812444	ICSAB	1.00	11/28 15:45	X		X	X			X	X	X			X	X	X							X		X							
812445	ICVLL	1.00	11/28 15:53																								X						
812446	CCV1	1.00	11/29 02:33			X	X			X		X				X								X		X							
812447	CCV2	1.00	11/29 02:39			X	X			X		X				X								X		X							
812448	CCB	1.00	11/29 02:46			X	X			X		X				X								X		X							
809600	LCSS	1.00	11/29 03:50			X	X			X		X				X								X		X							
809599	MBS	1.00	11/29 03:57			X	X			X		X				X								X		X							
812449	CCV1	1.00	11/29 04:04			X	X			X		X				X								X		X							
812450	CCV2	1.00	11/29 04:10			X	X			X		X				X								X		X							
812451	CCB	1.00	11/29 04:17			X	X			X		X				X								X		X							
804613	Initial	1.00	11/29 04:24			X	X			X		X				X								X		X							
812452	L	5	11/29 04:31			X	X			X		X				X								X		X							
809601	DUP	1.00	11/29 04:38			X	X			X		X				X								X		X							
809602	MSS	1.00	11/29 04:45			X	X			X		X				X								X		X							
809603	MSDS	1.00	11/29 04:52			X	X			X		X				X								X		X							
812453	PDSS	1.00	11/29 04:58			X	X			X		X				X								X		X							
804616	Initial	1.00	11/29 05:05			X				X		X				X								X		X							
804625	Initial	1.00	11/29 05:27													X																	
812454	CCV1	1.00	11/29 05:34			X	X			X		X				X								X		X							
812455	CCV2	1.00	11/29 05:40			X	X			X		X				X								X		X							
812456	CCB	1.00	11/29 05:47			X	X			X		X				X								X		X							
812602	ICV	1.00	11/29 13:53			X	X			X		X				X								X		X							
812603	ICVLL	1.00	11/29 14:00			X	X			X		X				X								X									
812604	ICB	1.00	11/29 14:14			X	X			X		X				X								X		X							

ANALYSIS RUN LOG

Lab Name: CT Laboratories
 Lab Code: CTL
 Instrument ID Number: TJA
 Start & End Date: 11/28/2016 to 11/30/2016

Contract: TETRA TECH-VE CARTER SCHOOL
 SDG No.: 123585
 Method Number: P
 Analytical Run #: 133031

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn				
812605	MRL	1.00	11/28 14:21			X	X			X		X				X								X		X											
812606	ICSA	1.00	11/28 14:28	X		X	X			X	X	X			X	X	X							X		X											
812607	ICSAB	1.00	11/28 14:36	X		X	X			X	X	X			X	X	X							X		X											
812608	ICVLL	1.00	11/28 14:44																																		
812609	CCV1	1.00	11/28 15:55			X	X			X		X				X								X		X											
812610	CCV2	1.00	11/28 16:02			X	X			X		X				X								X		X											
812611	CCB	1.00	11/28 16:08			X	X			X		X				X								X		X											
804619	Initial	20.00	11/28 16:44													X																					
804624	Initial	20.00	11/28 16:51													X																					
804626	Initial	20.00	11/28 16:59													X																					
812612	CCV1	1.00	11/28 17:28			X	X			X		X				X								X		X											
812613	CCV2	1.00	11/28 17:34			X	X			X		X				X								X		X											
812614	CCB	1.00	11/28 17:41			X	X			X		X				X								X		X											
813319	ICV	1.00	11/30 11:27			X	X			X		X				X								X		X											
813320	ICVLL	1.00	11/30 11:33			X	X			X		X				X								X													
813321	ICB	1.00	11/30 11:48			X	X			X		X				X								X		X											
813322	ICSA	1.00	11/30 12:03	X		X	X			X	X	X			X	X	X							X		X											
813323	ICSAB	1.00	11/30 12:10	X		X	X			X	X	X			X	X	X							X		X											
813324	CCV1	1.00	11/30 19:47			X	X			X		X				X								X		X											
813325	CCV2	1.00	11/30 19:53			X	X			X		X				X								X		X											
813326	CCB	1.00	11/30 20:00			X	X			X		X				X								X		X											
804616	Re-Analysis	10.00	11/30 20:07				X																														
813327	CCV1	1.00	11/30 20:43			X	X			X		X				X								X		X											
813328	CCV2	1.00	11/30 20:49			X	X			X		X				X								X		X											
813329	CCB	1.00	11/30 20:56			X	X			X		X				X								X		X											

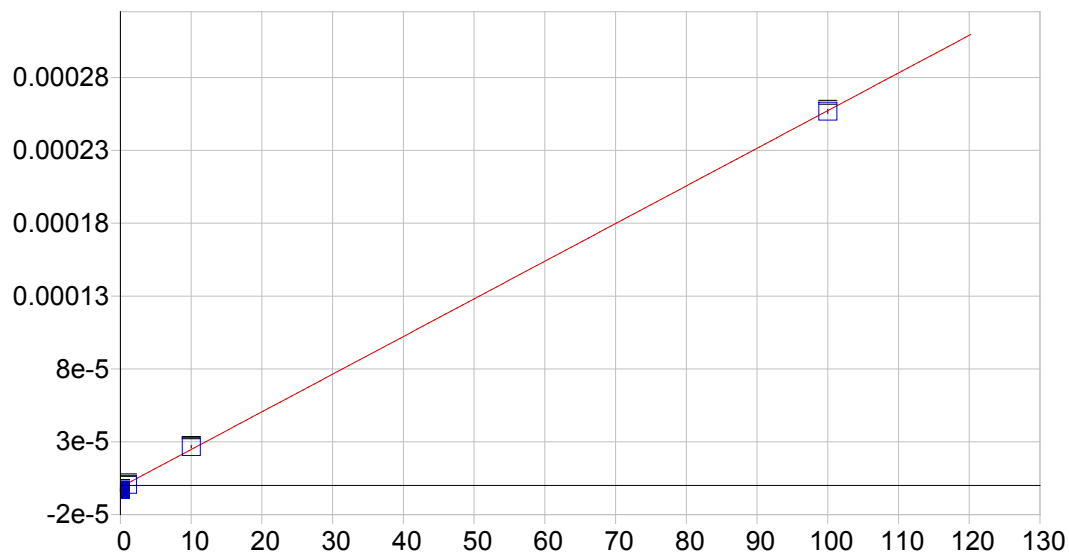
**METALS
RAW DATA
DOCUMENTS**

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resl Slope
Ag 328.068 {103}	11/18/2016 14:51:48	11/15/2016 13:15:11	Linear	1/Var	-0.000001	0.000003	0.000000	1.000000	0.999836	0.000002	0.856089	2.853629	OK	1.000000
Al 309.271 {109}	11/18/2016 14:51:48	11/15/2016 13:42:17	Curvilinear	None	0.000254	0.000001	0.000000	1.000000	1.000000	0.000014	29.790142	99.300473	OK	1.000000
Al 396.152 {85}	11/18/2016 14:51:48	11/15/2016 13:56:41	Curvilinear	1/Conc	0.000231	0.000004	0.000000	1.000000	0.999999	0.000012	10.700064	35.666881	OK	1.000000
Al 167.079 {502}	11/18/2016 14:51:48	11/15/2016 13:21:33	Linear	1/Var	0.000232	0.000021	0.000000	1.000000	0.997935	0.000148	0.984611	3.282035	OK	1.000000
As 193.759 {474}	11/18/2016 14:51:48	11/15/2016 13:27:59	Linear	1/Var	-0.000086	0.000012	0.000000	1.000000	0.999989	0.000019	4.306143	14.353809	OK	1.000000
As 189.042 {479}	11/18/2016 14:51:48	11/15/2016 13:27:59	Linear	1/Conc	0.000029	0.000003	0.000000	1.000000	0.999641	0.000001	10.046132	33.487106	OK	1.000000
Ba 233.527 {445}	11/18/2016 14:51:48	11/15/2016 13:21:33	Linear	1/Conc	0.000070	0.000116	0.000000	1.000000	0.999801	0.000003	0.305927	1.019757	OK	1.000000
Ba 455.403 {74}	11/18/2016 14:51:48	11/15/2016 13:27:59	Linear	None	0.000034	0.000006	0.000000	1.000000	1.000000	0.000008	0.319192	1.063973	OK	1.000000
Ba 493.409 {68}	11/18/2016 14:51:48	11/15/2016 13:27:59	Linear	1/Var	0.017856	0.000144	0.000000	1.000000	0.999935	0.000283	0.844189	2.813963	OK	1.000000
Be 313.042 {108}	11/18/2016 14:51:48	11/15/2016 13:21:34	Linear	1/Conc	-0.000054	0.000073	0.000000	1.000000	0.999962	0.000000	0.028704	0.095681	OK	1.000000
Be 234.861 {144}	11/18/2016 14:51:48	11/15/2016 13:21:34	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999925	0.000000	1.917387	6.391290	OK	1.000000
Ca 315.887 {107}	11/18/2016 14:51:48	11/15/2016 13:56:41	Linear	1/Var	0.000067	0.000000	0.000000	1.000000	0.999153	0.000082	21.121429	70.404762	OK	1.000000
Ca 317.933 {106}	11/18/2016 14:51:48	11/15/2016 13:56:41	Curvilinear	1/Conc	0.000296	0.000001	0.000000	1.000000	0.999998	0.000003	11.337853	37.792845	OK	1.000000
Ca 393.366 {86}	11/18/2016 14:51:48	11/15/2016 13:21:34	Linear	1/Conc	0.000376	0.000023	0.000000	1.000000	0.999926	0.000005	0.065677	0.218924	OK	1.000000
Ca 396.847 {85}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.004139	0.000215	0.000000	1.000000	0.999981	0.000063	0.135255	0.450850	OK	1.000000
Cd 226.502 {449}	11/18/2016 14:51:48	11/15/2016 13:21:34	Linear	1/Conc	-0.000060	0.000303	0.000000	1.000000	0.999935	0.000003	0.205067	0.683557	OK	1.000000
Cd 228.802 {447}	11/18/2016 14:51:48	11/15/2016 13:21:34	Linear	1/Conc	0.000067	0.000555	0.000000	1.000000	0.999971	0.000004	0.141563	0.471876	OK	1.000000
Co 228.616 {447}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000214	0.000287	0.000000	1.000000	0.999927	0.000013	0.243342	0.811139	OK	1.000000
Co 238.892 {141}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Var	0.000000	0.000002	0.000000	1.000000	0.999957	0.000002	0.710004	2.366681	OK	1.000000
Cr 205.560 {464}	11/18/2016 14:51:48	11/15/2016 13:35:05	Linear	1/Var	0.000162	0.000198	0.000000	1.000000	0.998822	0.000629	0.218023	0.726742	OK	1.000000
Cr 267.716 {126}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Var	0.000003	0.000004	0.000000	1.000000	0.999917	0.000004	0.510561	1.701871	OK	1.000000
Cu 224.700 {450}	11/18/2016 14:51:48	11/15/2016 13:28:00	Curvilinear	1/Conc	-0.000087	0.000085	-0.000000	1.000000	0.999943	0.000004	0.909995	3.033316	OK	1.000000
Cu 324.754 {104}	11/18/2016 14:51:48	11/15/2016 13:35:05	Linear	None	-0.000374	0.000004	0.000000	1.000000	0.999989	0.001066	4.426697	14.755656	OK	1.000000
Cu 327.396 {103}	11/18/2016 14:51:48	11/15/2016 13:35:05	Curvilinear	1/Conc	-0.000025	0.000003	0.000000	1.000000	0.999988	0.000001	7.141474	23.804915	Warning	1.000000
Fe 234.349 {144}	11/18/2016 14:51:48	11/15/2016 13:56:41	Curvilinear	1/Var	0.000009	0.000000	0.000000	1.000000	0.999418	0.000018	2.309631	7.698768	OK	1.000000
Fe 239.562 {140}	11/18/2016 14:51:48	11/15/2016 13:56:41	Curvilinear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999925	0.000000	24.239669	80.798896	OK	1.000000
Fe 259.940 {129}	11/18/2016 14:51:48	11/15/2016 13:56:41	Full Fit	1/Var	-0.000015	0.000002	0.000000	0.990000	0.999922	0.000084	6.552249	21.840830	OK	1.000000
Mg 202.582 {466}	11/18/2016 14:51:48	11/15/2016 13:56:41	Curvilinear	1/Conc	-0.000158	0.000016	-0.000000	1.000000	0.999718	0.000605	3.023955	10.079852	OK	1.000000
Mg 279.079 {121}	11/18/2016 14:51:48	11/15/2016 13:56:41	Full Fit	1/Var	0.000003	0.000000	0.000000	1.010000	0.999988	0.000010	96.433870	321.446233	OK	1.000000
Mg 280.270 {120}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Var	0.000112	0.000043	0.000000	1.000000	0.999474	0.000068	0.027372	0.091241	OK	1.000000
Mn 257.610 {131}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.000535	0.001415	0.000000	1.000000	0.999664	0.000316	0.085249	0.284164	OK	1.000000
Mn 259.373 {130}	11/18/2016 14:51:48	11/15/2016 13:35:05	Curvilinear	1/Var	0.000001	0.000000	0.000000	1.000000	0.999999	0.000000	1.968093	6.560309	OK	1.000000
Mo 202.030 {466}	11/18/2016 14:51:48	11/15/2016 13:21:35	Linear	1/Conc	0.000027	0.000142	0.000000	1.000000	0.999798	0.000008	0.361984	1.206612	OK	1.000000
Mo 204.598 {464}	11/18/2016 14:51:48	11/15/2016 13:28:00	Curvilinear	1/Conc	-0.000000	0.000001	-0.000000	1.000000	0.999978	0.000000	0.634758	2.115859	OK	1.000000
Mo 204.598 {465}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999985	0.000000	0.797428	2.658093	OK	1.000000
Ni 221.647 {452}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	None	0.000027	0.000002	0.000000	1.000000	0.999993	0.000044	0.381228	1.270761	OK	1.000000
Ni 231.604 {445}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.999919	0.000000	0.378380	1.261267	OK	1.000000
Pb 216.999 {455}	11/18/2016 14:51:48	11/15/2016 13:35:05	Linear	1/Var	0.000025	0.000016	0.000000	1.000000	0.999984	0.000072	5.149908	17.166360	OK	1.000000
Pb 220.353 {453}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.000020	0.000039	0.000000	1.000000	0.999980	0.000002	2.150442	7.168140	OK	1.000000
Pb 220.353 {153}	11/18/2016 14:51:48	11/15/2016 13:35:05	Linear	1/Conc	0.000060	0.000027	0.000000	1.000000	0.999982	0.000022	4.834268	16.114228	OK	1.000000
Sb 206.833 {463}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000142	0.000026	0.000000	1.000000	0.999892	0.000005	1.970189	6.567296	OK	1.000000
Sb 217.581 {455}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000024	0.000027	0.000000	1.000000	0.999913	0.000003	2.164337	7.214456	OK	1.000000
Se 196.090 {472}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.000025	0.000011	0.000000	1.000000	0.999911	0.000002	3.804348	12.681161	OK	1.000000
Se 206.279 {463}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	-0.000009	0.000003	0.000000	1.000000	0.999970	0.000001	20.570421	68.568070	OK	1.000000
Se 196.090 {471}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.000035	0.000009	0.000000	1.000000	0.999958	0.000001	4.394657	14.648856	OK	1.000000
Tl 190.856 {476}	11/18/2016 14:51:48	11/15/2016 13:28:00	Curvilinear	1/Conc	0.000075	0.000019	-0.000000	1.000000	0.999996	0.000001	2.545699	8.485663	OK	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Res Slope
Tl 190.856 {477}	11/18/2016 14:51:48	11/15/2016 13:28:00	Curvilinear	1/Var	-0.000025	0.000012	-0.000000	1.000000	1.000000	0.000013	3.293096	10.976986	OK.	1.000000
V 290.882 {116}	11/18/2016 14:51:48	11/15/2016 13:28:00	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999998	0.000000	6.464017	21.546725	OK.	1.000000
V 292.402 {115}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Conc	0.000001	0.000005	0.000000	1.000000	0.999965	0.000001	0.506371	1.687903	OK.	1.000000
Zn 206.200 {463}	11/18/2016 14:51:48	11/15/2016 13:35:05	Linear	1/Var	0.005744	0.000124	0.000000	1.000000	0.999854	0.006567	0.446439	1.488131	OK.	1.000000
Zn 213.856 {458}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Var	0.000003	0.000002	0.000000	1.000000	0.999653	0.000002	0.169459	0.564865	OK.	1.000000
Y 324.228 {104}*	11/18/2016 14:51:48	11/15/2016 12:18:48	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 { 91}*	11/18/2016 14:51:48	11/15/2016 12:18:48	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 224.306 {451}*	11/18/2016 14:51:48	11/15/2016 12:18:48	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 588.995 { 57}	11/18/2016 14:51:48	11/15/2016 13:42:17	Linear	1/Conc	0.000497	0.000001	0.000000	1.000000	0.961887	0.000621	4.179492	13.931638	OK.	1.000000
Si 251.611 {134}	11/18/2016 14:51:48	11/15/2016 13:42:17	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999996	0.000000	17.585542	58.618475	OK.	1.000000
Ti 334.941 {101}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Conc	0.000022	0.000009	0.000000	1.000000	0.999927	0.000001	2.062725	6.875750	OK.	1.000000
Sr 407.771 { 83}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Conc	-0.000050	0.000309	0.000000	1.000000	0.999962	0.000011	0.109326	0.364419	OK.	1.000000
Sn 189.989 {478}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Var	0.000047	0.000007	0.000000	1.000000	0.999974	0.000073	3.768740	12.562466	OK.	1.000000
B 249.678 {135}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Conc	0.000000	0.000002	0.000000	1.000000	0.999980	0.000000	1.182003	3.940010	OK.	1.000000
B 249.773 {135}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Conc	0.000005	0.000004	0.000000	1.000000	0.999993	0.000000	0.525442	1.751472	OK.	1.000000
Li 670.784 { 50}	11/18/2016 14:51:48	11/15/2016 13:28:01	Linear	1/Var	0.000188	0.000104	0.000000	1.000000	0.999960	0.000130	1.052913	3.509712	OK.	1.000000
K 766.490 { 44}	11/18/2016 14:51:48	11/15/2016 13:42:17	Linear	1/Conc	0.000152	0.000004	0.000000	1.000000	0.962173	0.002034	29.156521	97.188404	OK.	1.000000
P 213.618 {457}	11/18/2016 14:51:48	11/15/2016 13:42:17	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	3.517083	11.723609	OK.	1.000000
S 182.034 {485}	11/18/2016 14:51:48	11/15/2016 13:42:17	Linear	1/Var	-0.003864	0.000002	0.000000	1.000000	0.564289	0.021733	21.873599	72.911998	OK.	1.000000
W 239.709 {140}	11/18/2016 14:51:48	11/15/2016 13:42:18	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.375748	0.000000	1137.31666	3791.05553	OK.	1.000000
Hg 184.950 {482}	11/18/2016 14:51:48	11/15/2016 13:21:36	Linear	1/Conc	0.000067	0.000052	0.000000	1.000000	0.999992	0.000004	0.786814	2.622713	OK.	1.000000
Hg 194.227 {473}	11/18/2016 14:51:48	11/15/2016 13:21:36	Linear	1/Conc	-0.000013	0.000047	0.000000	1.000000	0.999994	0.000003	0.814882	2.716274	OK.	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 233.527 {445}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 205.560 {464}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {140}	0.000000	1	0
Fe 259.940 {129}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mo 202.030 {466}	0.000000	1	0
Mo 204.598 {464}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Se 196.090 {471}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0

Element, Wavelength and Order	Slope Y-int	QC Norm	
		Slope factor	Offset
Tl 190.856 {477}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 324.228 {104}*	0.000000	1	0
Y 371.030 { 91}*	0.000000	1	0
Y 224.306 {451}*	0.000000	1	0
Na 588.995 { 57}	0.000000	1	0
Si 251.611 {134}	0.000000	1	0
Ti 334.941 {101}	0.000000	1	0
Sr 407.771 { 83}	0.000000	1	0
Sn 189.989 {478}	0.000000	1	0
B 249.678 {135}	0.000000	1	0
B 249.773 {135}	0.000000	1	0
Li 670.784 { 50}	0.000000	1	0
K 766.490 { 44}	0.000000	1	0
P 213.618 {457}	0.000000	1	0
S 182.034 {485}	0.000000	1	0
W 239.709 {140}	0.000000	1	0
Hg 184.950 {482}	0.000000	1	0
Hg 194.227 {473}	0.000000	1	0

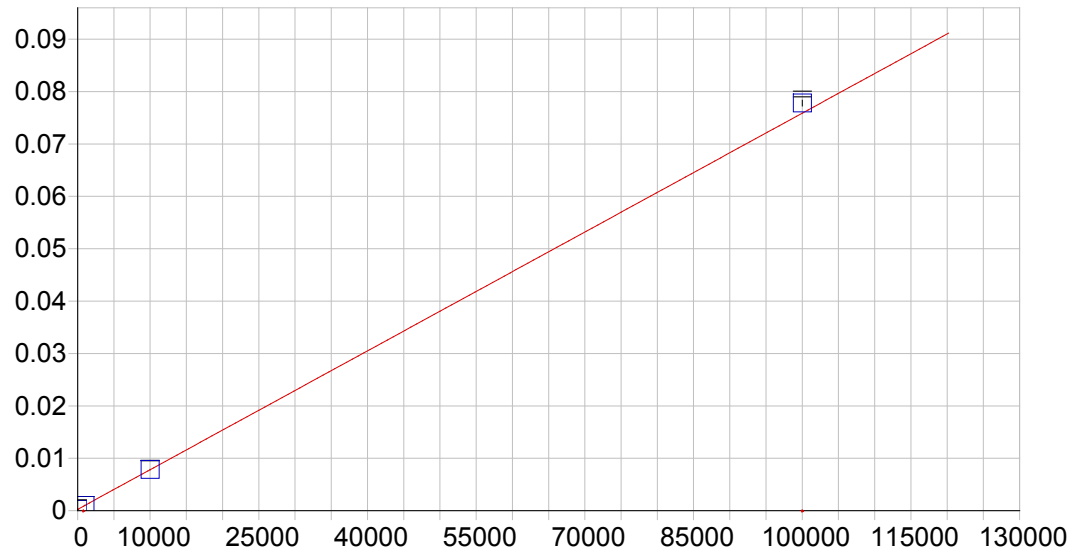


Ag 328.068 {103}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999836 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.856089
 Predicted MQL: 2.853629

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.77323	-.773	.000	.00000	.000	1
CalStd5=10	10.000	10.732	.732	7.32	.00003	.000	1
CalStd8=100	100.00	99.805	-.195	-.195	.00026	.000	1
CalStd3=1	1.0000	.72594	-.274	-27.4	.00000	.000	1

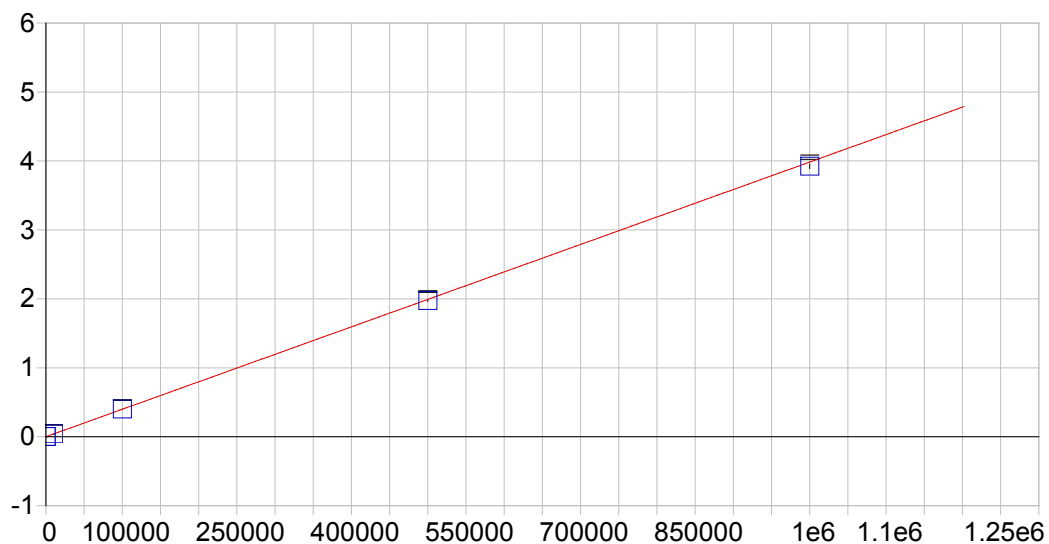


AI 309.271 {109}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: None

A0 (Offset):	0.000254	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000014	
Predicted MDL:	29.790142	
Predicted MQL:	99.300473	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	12.455	12.5	.000	.00026	.000	1
CalStd10=10	10000.	10027.	27.0	.270	.00784	.000	1
CalStd9=100	1000.0	986.28	-13.7	-1.37	.00100	.000	1
CalStd12=100	100000.	102550.	2550.	2.55	.07781	.001	1

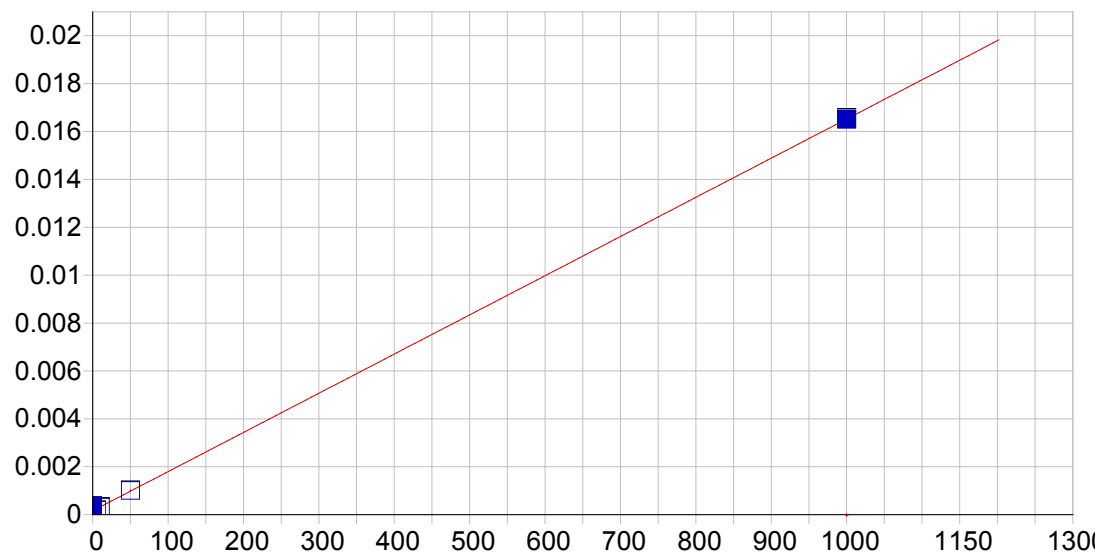


AI 396.152 { 85}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000231 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000012
 Predicted MDL: 10.700064
 Predicted MQL: 35.666881

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03796	.038	.000	.00023	.000	1
CalStd14-100 1000000.		984700.	-15300.	-1.53	3.9233	.031	1
CalStd13=50 500000.		495610.	-4390.	-.877	1.9748	.011	1
CalStd10=10 10000.		9900.9	-99.1	-.991	.03968	.000	1
CalStd12-100 100000.		100270.	270.	.270	.39971	.002	1
CalStd9=100 1000.0		968.35	-31.7	-3.17	.00409	.000	1

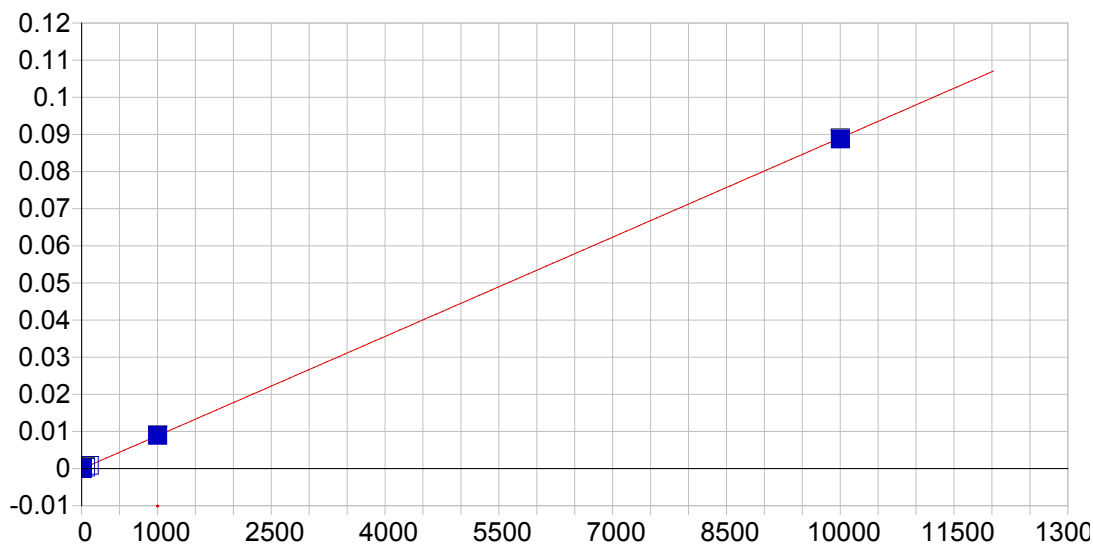


AI 167.079 {502}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000160	Re-Slope: 1.000000
A1 (Gain):	0.000016	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.998795	Status: OK.
Std Error of Est:	0.000104	
Predicted MDL:	0.933982	
Predicted MQL:	3.113272	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	11.388	11.4	.000	.00035	.000	1
CalStd9=100	1000.0	999.01	-.987	-.099	.01652	.000	1
CalStd5=10	10.000	9.8424	-.158	-1.58	.00032	.000	1
CalStd4=5	5.0000	1.7111	-3.29	-65.8	.00019	.000	1
CalStd7=50	50.000	52.164	2.16	4.33	.00101	.000	1

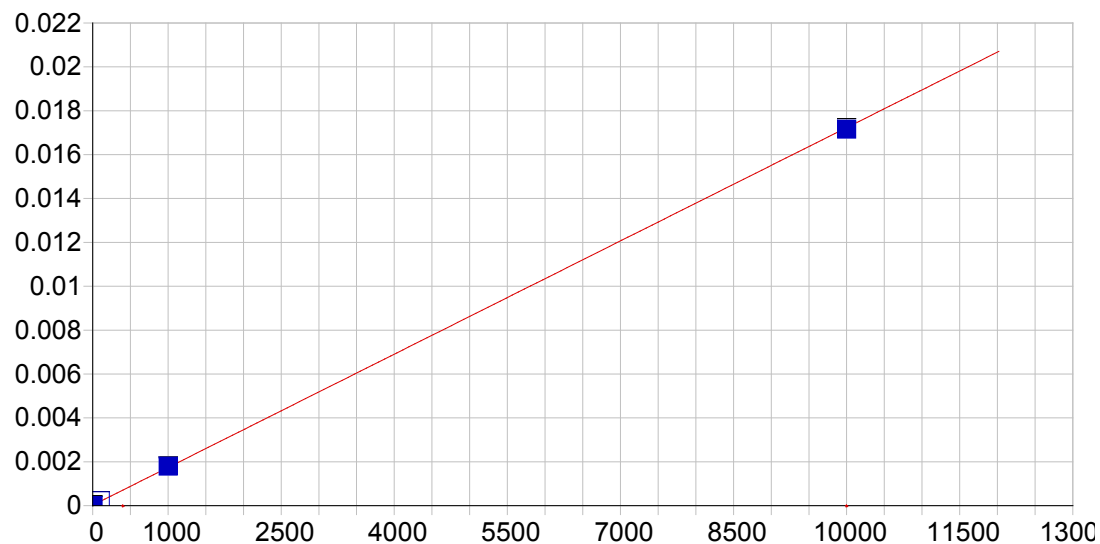


As 193.759 {474}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000059 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999982 Status: OK.
 Std Error of Est: 0.000036
 Predicted MDL: 4.117759
 Predicted MQL: 13.725863

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.95461	-.955	.000	-.00007	.000	1
CalStd9=100	1000.0	1009.8	9.75	.975	.00895	.000	1
CalStd7=50	50.000	50.004	.004	.009	.00039	.000	1
CalStd5=10	10.000	8.8585	-1.14	-11.4	.00002	.000	1
CalStd8=100	100.00	100.68	.683	.683	.00084	.000	1
CalStd10=10	10000.	9966.3	-33.7	-.337	.08885	.000	1

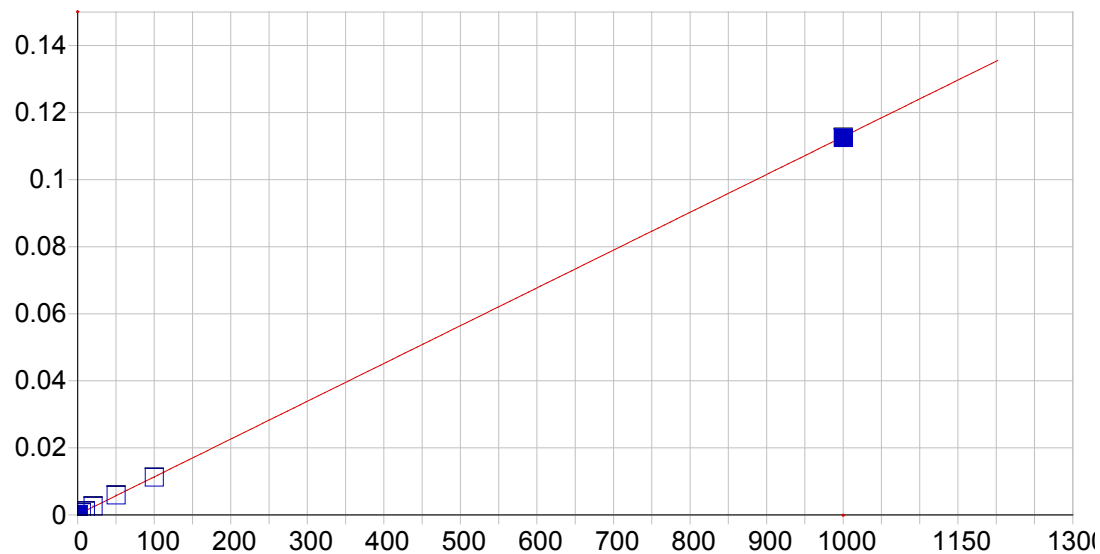


As 189.042 {479}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000019 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999722 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 12.827539
 Predicted MQL: 42.758462

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00253	.003	.000	.00002	.000	1
CalStd9=100	1000.0	1031.1	31.1	3.11	.00179	.000	1
CalStd10=10	10000.	9956.2	-43.8	-.438	.01716	.000	1
CalStd8=100	100.00	116.15	16.2	16.2	.00022	.000	1
CalStd4=5	5.0000	1.5278	-3.47	-69.4	.00002	.000	1

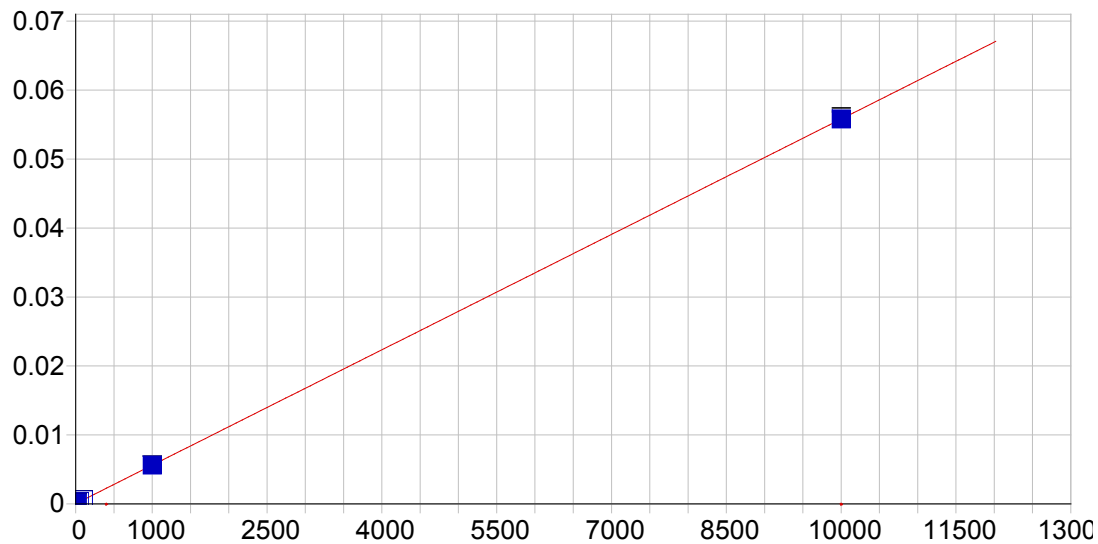


Ba 233.527 {445}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000077 Re-Slope: 1.000000
 A1 (Gain): 0.000113 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999808 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.230968
 Predicted MQL: 0.769894

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00002	.000	.000	.00008	.000	1
CalStd7=50	50.000	51.683	1.68	3.37	.00590	.000	1
CalStd5=10	10.000	9.9194	-.081	-.806	.00119	.000	1
CalStd6=20	20.000	22.656	2.66	13.3	.00263	.000	1
CalStd8=100	100.00	98.747	-1.25	-1.25	.01121	.000	1
CalStd4=5	5.0000	4.8365	-.164	-3.27	.00062	.000	1
CalStd9=100	1000.0	997.29	-2.71	-.271	.11250	.000	1
CalStd3=1	1.0000	.87302	-.127	-12.7	.00018	.000	1

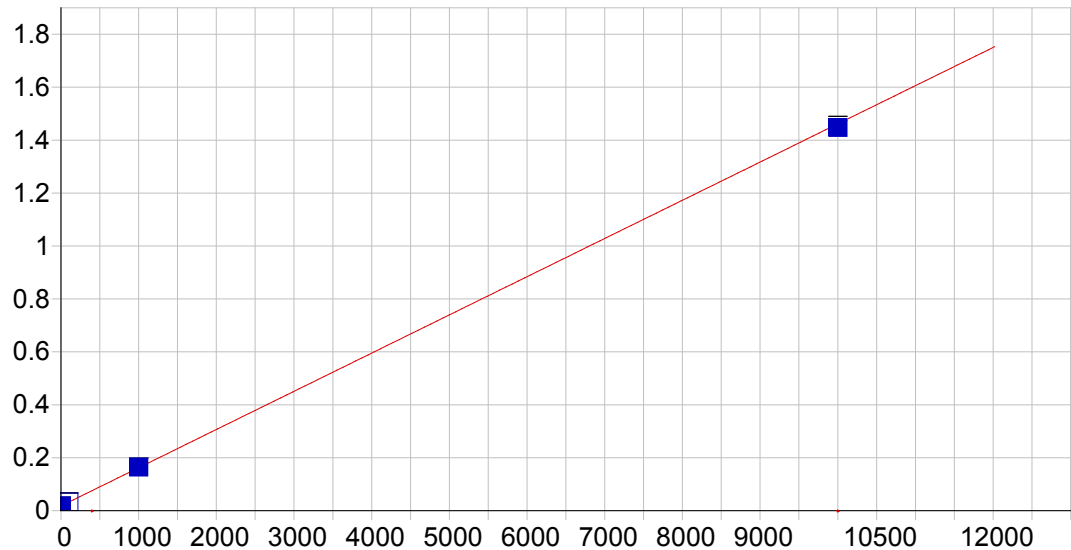


Ba 455.403 { 74}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000034 Re-Slope: 1.000000
 A1 (Gain): 0.000006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000008
 Predicted MDL: 0.319192
 Predicted MQL: 1.063973

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.26844	-.268	.000	.00003	.000	1
CalStd7=50	50.000	51.002	1.00	2.00	.00032	.000	1
CalStd5=10	10.000	9.1645	-.836	-8.36	.00009	.000	1
CalStd6=20	20.000	21.822	1.82	9.11	.00016	.000	1
CalStd8=100	100.00	98.395	-1.61	-1.61	.00058	.000	1
CalStd4=5	5.0000	3.8693	-1.13	-22.6	.00006	.000	1
CalStd9=100	1000.0	1002.0	1.96	.196	.00562	.000	1
CalStd3=1	1.0000	.24047	-.760	-76.0	.00004	.000	1
CalStd10=10	10000.	9999.8	-.187	-.002	.05581	.000	1

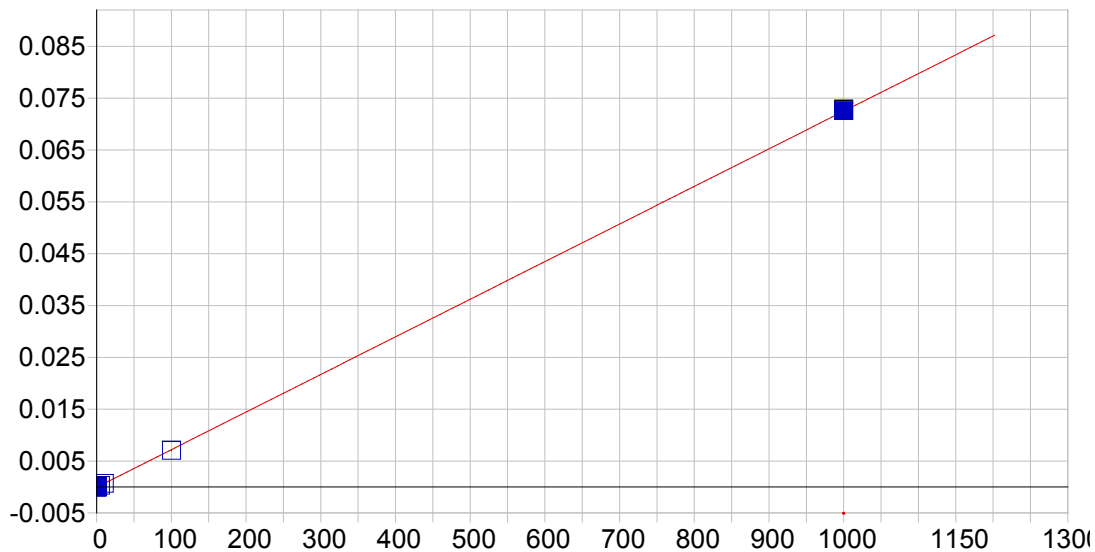


Ba 493.409 { 68 }

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.017856	Re-Slope: 1.000000
A1 (Gain):	0.000144	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999935	Status: OK.
Std Error of Est:	0.000283	
Predicted MDL:	0.844189	
Predicted MQL:	2.813963	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.49547	-.495	.000	.01778	.000	1
CalStd9=100	1000.0	1014.0	14.0	1.40	.16426	.001	1
CalStd8=100	100.00	100.09	.088	.088	.03231	.000	1
CalStd10=10	10000.	9901.6	-98.4	-.984	1.4475	.008	1

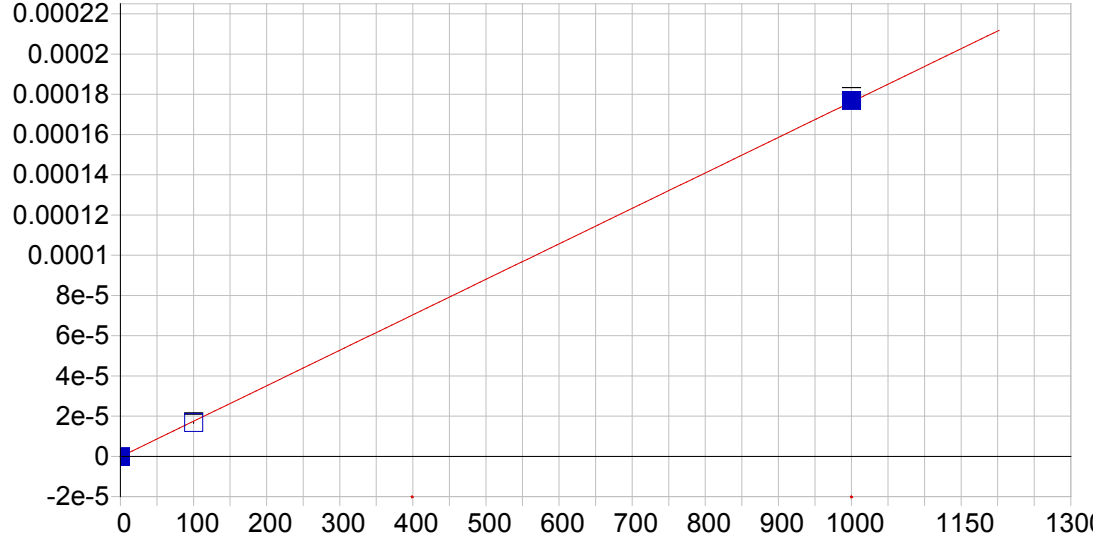


Be 313.042 {108}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000054 Re-Slope: 1.000000
 A1 (Gain): 0.000073 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999962 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.028704
 Predicted MQL: 0.095681

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	.000	.000	-.00005	.000	1
CalStd5=10	10.000	10.396	.396	3.96	.00070	.000	1
CalStd8=100	100.00	97.916	-2.08	-2.08	.00705	.000	1
CalStd2=0.5	.50000	.56838	.068	13.7	-.00001	.000	1
CalStd4=5	5.0000	5.0915	.091	1.83	.00032	.000	1
CalStd1=0.25	.25000	.29882	.049	19.5	-.00003	.000	1
CalStd9=100	1000.0	1001.4	1.42	.142	.07259	.000	1
CalStd3=1	1.0000	1.0632	.063	6.32	.00002	.000	1

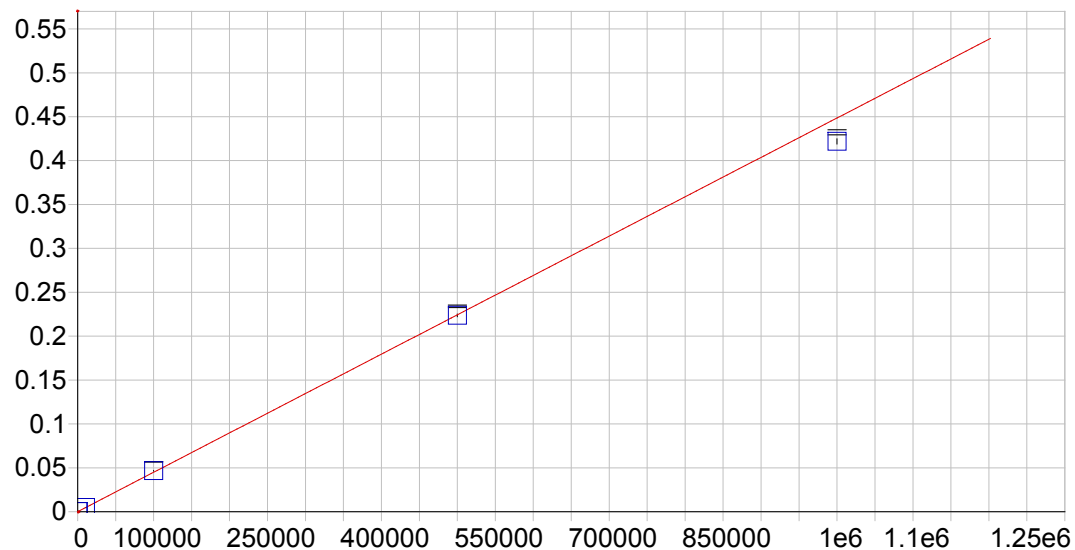


Be 234.861 {144}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999925 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 1.917387
Predicted MQL: 6.391290

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00349	.003	.000	.00000	.000	1
CalStd9=100	1000.0	1003.9	3.87	.387	.00018	.000	1
CalStd8=100	100.00	96.125	-3.87	-3.87	.00002	.000	1

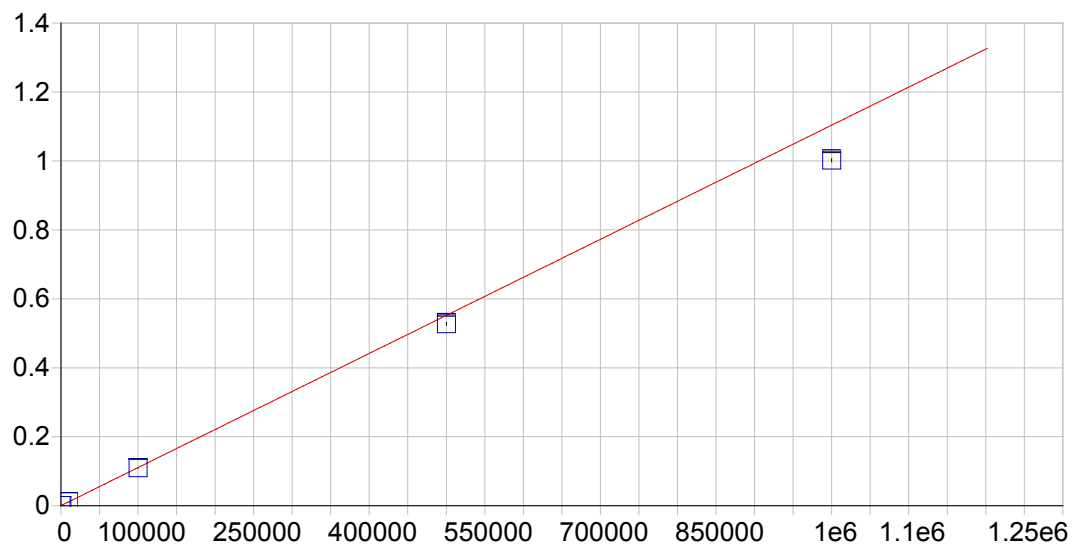


Ca 315.887 {107}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000067 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999153 Status: OK.
 Std Error of Est: 0.000082
 Predicted MDL: 21.121429
 Predicted MQL: 70.404762

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-24.562	-24.6	.000	.00006	.000	1
CalStd10=10	10000.	10422.	422.	4.22	.00474	.000	1
CalStd13=50	500000.	498520.	-1480.	-.296	.22363	.001	1
CalStd14=100	1000000.	940500.	-59500.	-5.95	.42184	.003	1
CalStd9=100	1000.0	1039.5	39.5	3.95	.00053	.000	1
CalStd12=100	100000.	103730.	3730.	3.73	.04658	.000	1

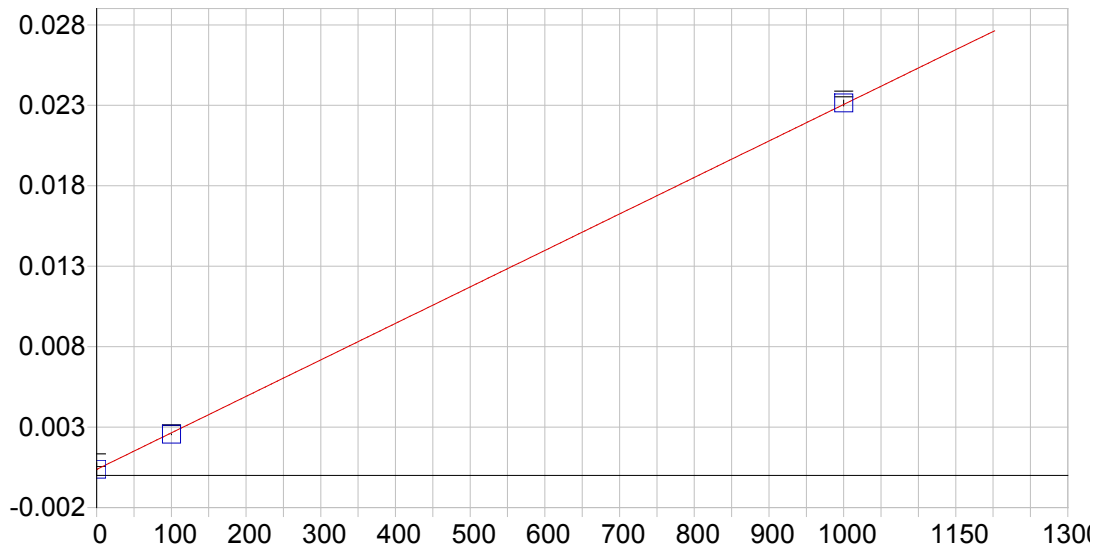


Ca 317.933 {106}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000296 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 11.337853
 Predicted MQL: 37.792845

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03311	.033	.000	.00030	.000	1
CalStd10=10	10000.	9818.6	-181.	-1.81	.01113	.000	1
CalStd13=50	500000.	477750.	-22300.	-4.45	.52750	.004	1
CalStd14=100	1000000.	907700.	-92300.	-9.23	1.0020	.004	1
CalStd9=100	1000.0	984.92	-15.1	-1.51	.00138	.000	1
CalStd12=100	100000.	98877.	-1120.	-1.12	.10941	.001	1

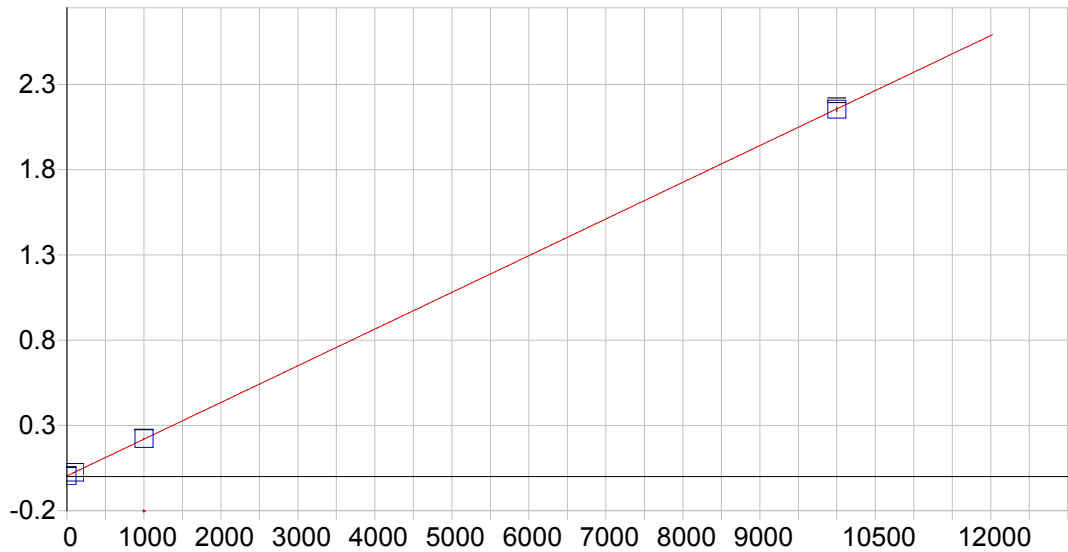


Ca 393.366 { 86}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000376	Re-Slope: 1.000000
A1 (Gain):	0.000023	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999926	Status: OK.
Std Error of Est:	0.000005	
Predicted MDL:	0.065677	
Predicted MQL:	0.218924	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00345	.003	.000	.00038	.000	1
CalStd9=100	1000.0	1003.8	3.84	.384	.02314	.000	1
CalStd8=100	100.00	96.163	-3.84	-3.84	.00256	.000	1

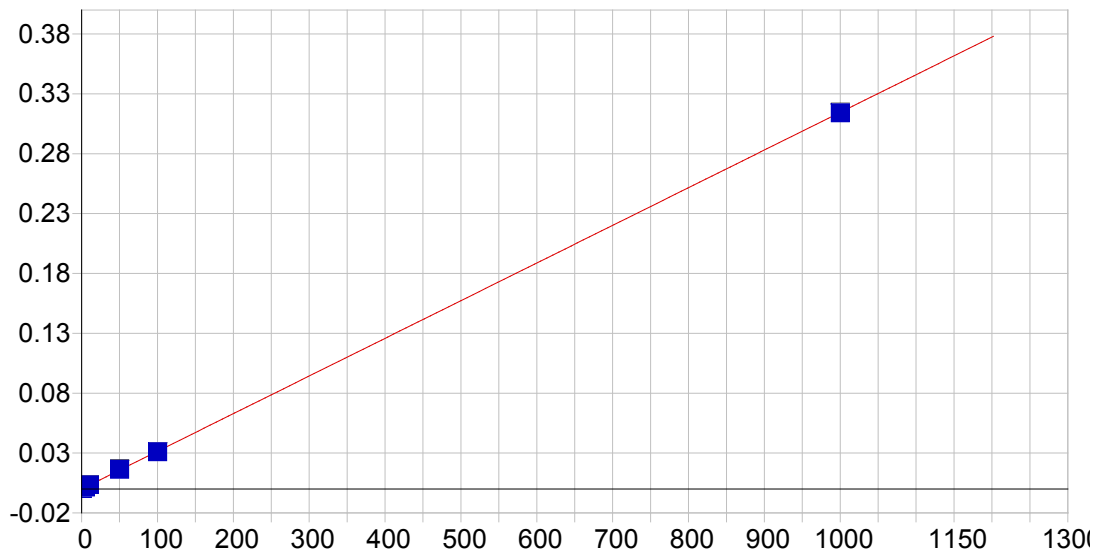


Ca 396.847 { 85}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.004139 Re-Slope: 1.000000
 A1 (Gain): 0.000215 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999981 Status: OK.
 Std Error of Est: 0.000063
 Predicted MDL: 0.135255
 Predicted MQL: 0.450850

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00235	.002	.000	.00414	.005	1
CalStd10=10	10000.	9987.5	-12.5	-.125	2.1542	.014	1
CalStd8=100	100.00	96.138	-3.86	-3.86	.02484	.000	1
CalStd9=100	1000.0	1016.3	16.3	1.63	.22293	.002	1

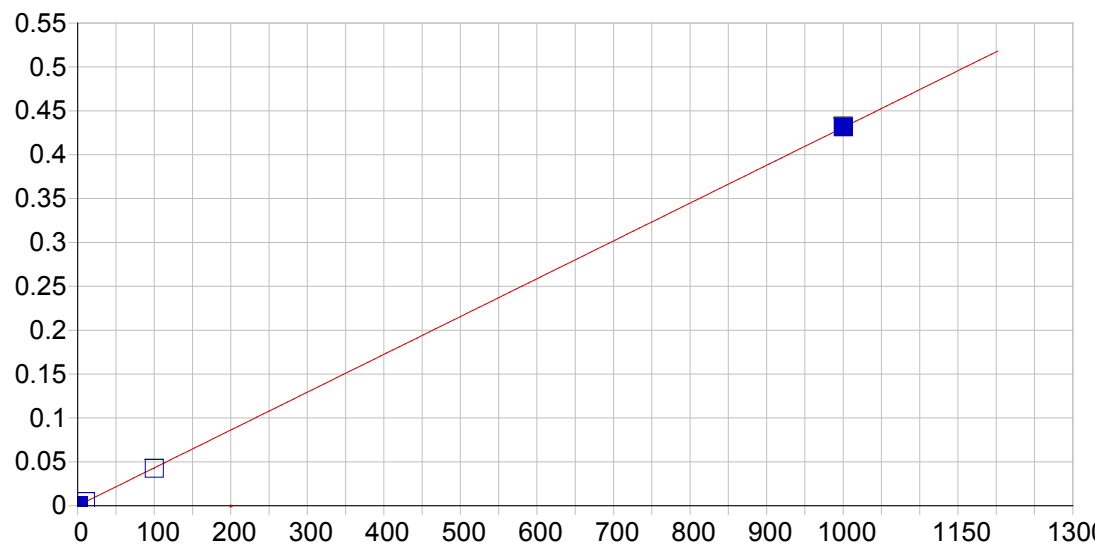


Cd 226.502 {449}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000014 Re-Slope: 1.000000
 A1 (Gain): 0.000315 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999937 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.145622
 Predicted MQL: 0.485407

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00001	.000	.000	-.00001	.000	1
CalStd7=50	50.000	52.070	2.07	4.14	.01636	.000	1
CalStd3=1	1.0000	1.0125	.013	1.25	.00030	.000	1
CalStd2=0.5	.50000	.42867	-.071	-14.3	.00012	.000	1
CalStd4=5	5.0000	5.2008	.201	4.02	.00162	.000	1
CalStd8=100	100.00	98.686	-1.31	-1.31	.03103	.000	1
CalStd5=10	10.000	10.489	.489	4.89	.00329	.000	1
CalStd9=100	1000.0	998.61	-1.39	-.139	.31415	.000	1

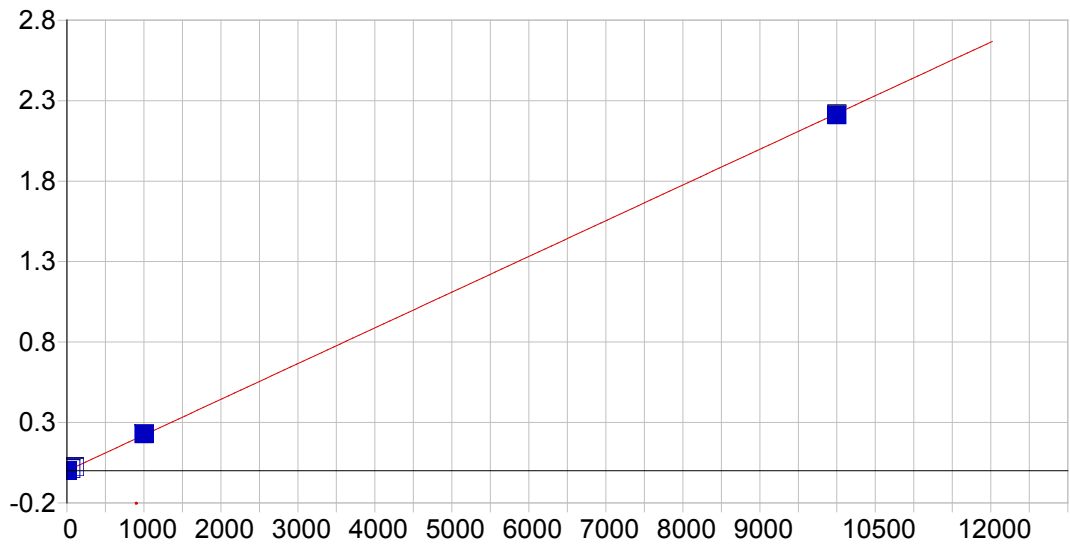


Cd 228.802 {447}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000050 Re-Slope: 1.000000
 A1 (Gain): 0.000431 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999979 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.134634
 Predicted MQL: 0.448779

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	.000	.000	.00005	.000	1
CalStd9=100	1000.0	1001.4	1.37	.137	.43164	.001	1
CalStd8=100	100.00	98.362	-1.64	-1.64	.04245	.000	1
CalStd2=0.5	.50000	.57244	.072	14.5	.00030	.000	1
CalStd3=1	1.0000	.96330	-.037	-3.67	.00046	.000	1
CalStd5=10	10.000	10.236	.236	2.36	.00446	.000	1

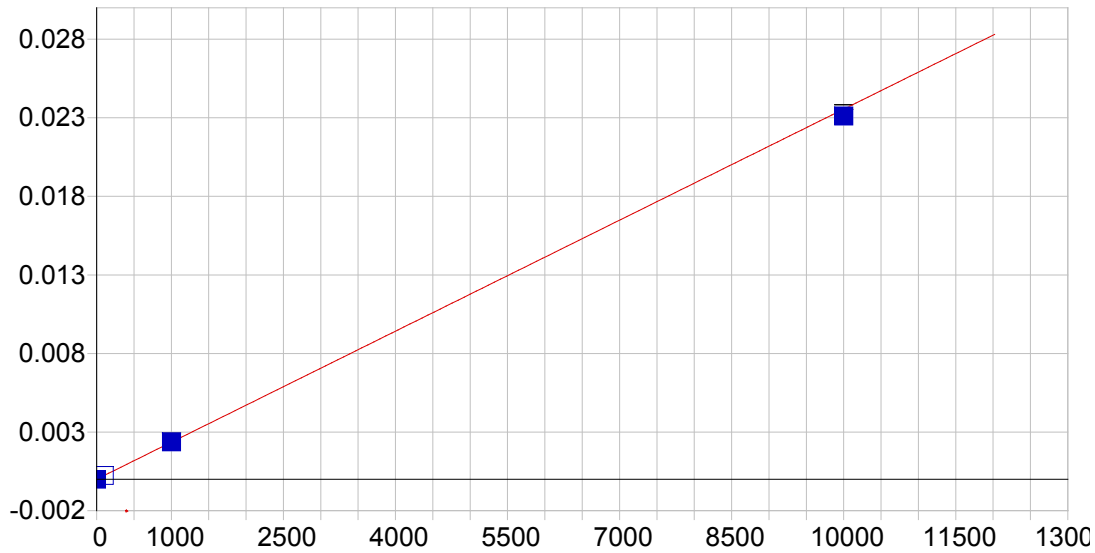


Co 228.616 {447}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000158 Re-Slope: 1.000000
 A1 (Gain): 0.000222 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999922 Status: OK.
 Std Error of Est: 0.000011
 Predicted MDL: 0.232514
 Predicted MQL: 0.775046

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00061	-.001	.000	-.00016	.000	1
CalStd7=50	50.000	53.640	3.64	7.28	.01175	.000	1
CalStd5=10	10.000	10.750	.750	7.50	.00223	.000	1
CalStd4=5	5.0000	5.3553	.355	7.11	.00103	.000	1
CalStd8=100	100.00	102.47	2.47	2.47	.02259	.000	1
CalStd9=100	1000.0	1032.5	32.5	3.25	.22907	.000	1
CalStd3=1	1.0000	1.3353	.335	33.5	.00014	.000	1
CalStd10=10	10000.	9960.0	-40.0	-.400	2.2111	.005	1

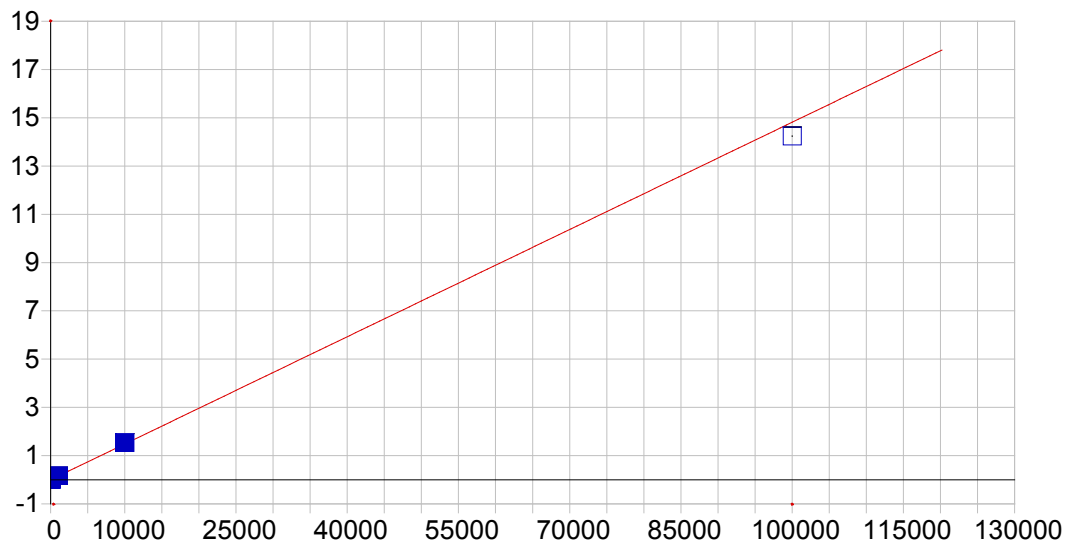


Co 238.892 {141}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999957 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.710004
 Predicted MQL: 2.366681

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0051	-.201	.000	.00000	.000	1
CalStd9=100	1000.0	1005.1	5.13	.513	.00237	.000	1
CalStd10=10	10000.	9809.1	-191.	-1.91	.02310	.000	1
CalStd8=100	100.00	100.03	.030	.030	.00024	.000	1

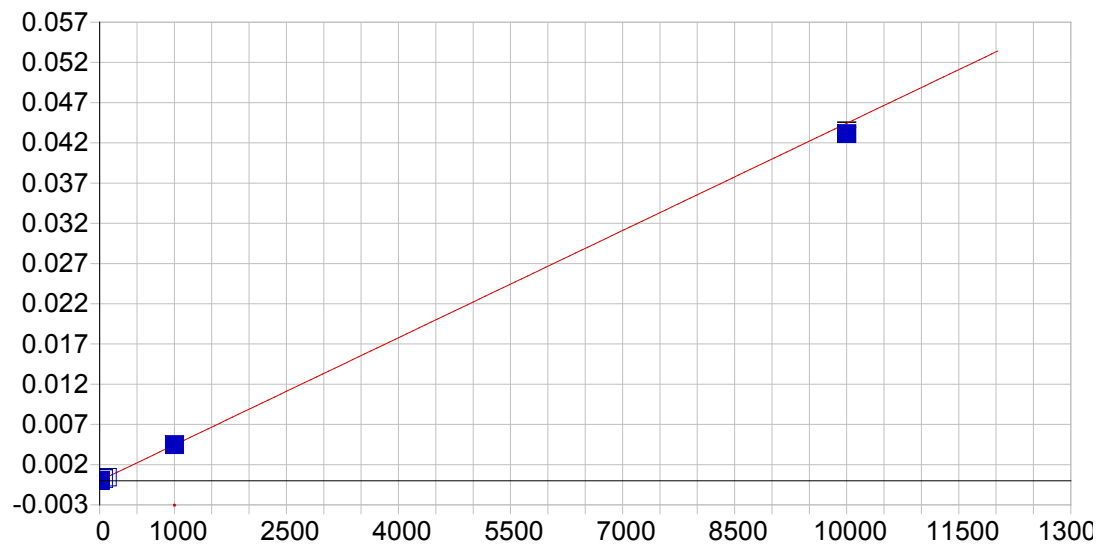


Cr 205.560 {464}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000160 Re-Slope: 1.000000
 A1 (Gain): 0.000148 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998880 Status: OK.
 Std Error of Est: 0.000949
 Predicted MDL: 0.215169
 Predicted MQL: 0.717231

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.3437	-1.34	.000	-.00004	.000	1
CalStd5=10	10.000	10.152	.152	1.52	.00166	.000	1
CalStd7=50	50.000	54.459	4.46	8.92	.00823	.000	1
CalStd9=100	1000.0	1081.6	81.6	8.16	.16039	.000	1
CalStd8=100	100.00	106.03	6.03	6.03	.01587	.000	1
CalStd4=5	5.0000	4.1570	-.843	-16.9	.00078	.000	1
CalStd3=1	1.0000	-.04306	-1.04	-104.	.00015	.000	1
CalStd11=100	100000.	96122.	-3880.	-3.88	14.241	.013	1
CalStd10=10	10000.	10361.	361.	3.61	1.5351	.002	1

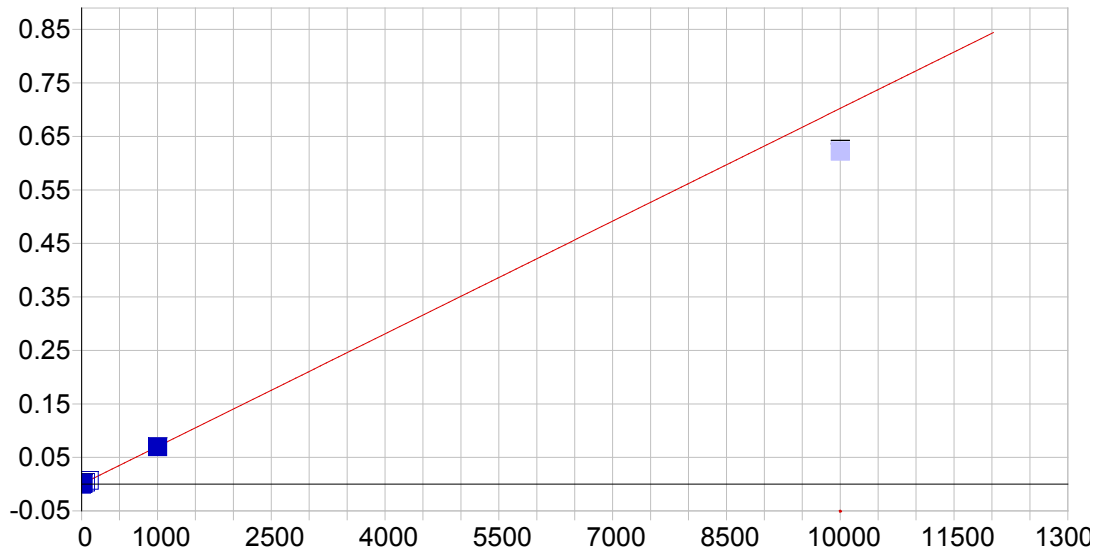


Cr 267.716 {126}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999917 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.510561
 Predicted MQL: 1.701871

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.69895	-.699	.000	.00000	.000	1
CalStd5=10	10.000	10.376	.376	3.76	.00005	.000	1
CalStd7=50	50.000	51.783	1.78	3.57	.00023	.000	1
CalStd9=100	1000.0	1002.8	2.81	.281	.00446	.000	1
CalStd8=100	100.00	98.561	-1.44	-1.44	.00044	.000	1
CalStd4=5	5.0000	4.6707	-.329	-6.59	.00002	.000	1
CalStd10=10	10000.	9707.2	-293.	-2.93	.04313	.000	1

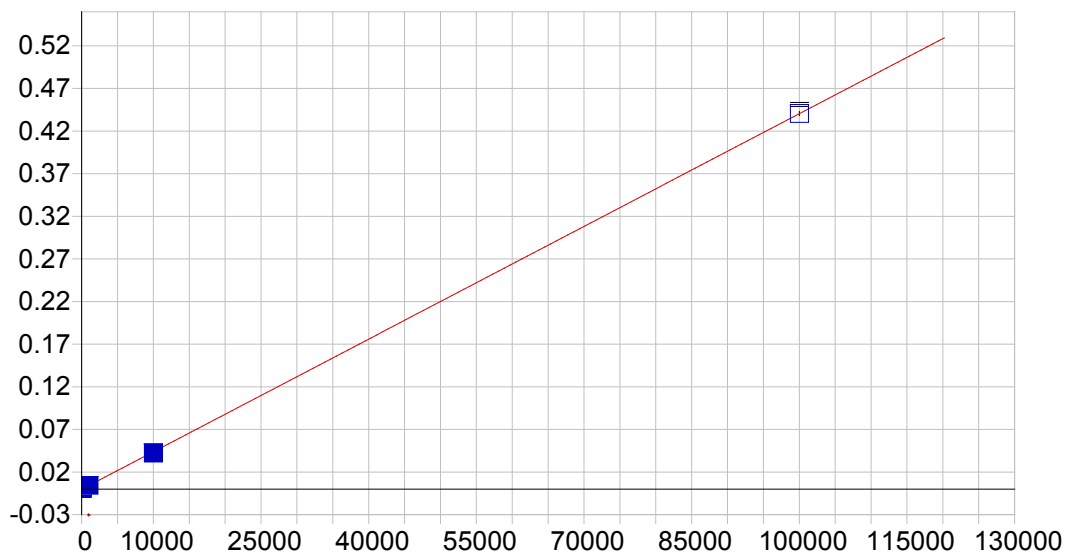


Cu 224.700 {450}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000094 Re-Slope: 1.000000
 A1 (Gain): 0.000070 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999598 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.605996
 Predicted MQL: 2.019988

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00039	.000	.000	-.00009	.000	1
CalStd9=100	1000.0	993.71	-6.29	-.629	.06973	.000	1
CalStd7=50	50.000	52.018	2.02	4.04	.00356	.000	1
CalStd8=100	100.00	99.505	-.495	-.495	.00690	.000	1
CalStd5=10	10.000	10.841	.841	8.41	.00067	.000	1
CalStd10=10	10000.	8860.8	-1140.	-11.4	.62252	.003	0
CalStd4=5	5.0000	4.9639	-.036	-.722	.00025	.000	1
CalStd6=20	20.000	23.876	3.88	19.4	.00158	.000	1
CalStd3=1	1.0000	1.0892	.089	8.92	-.00002	.000	1

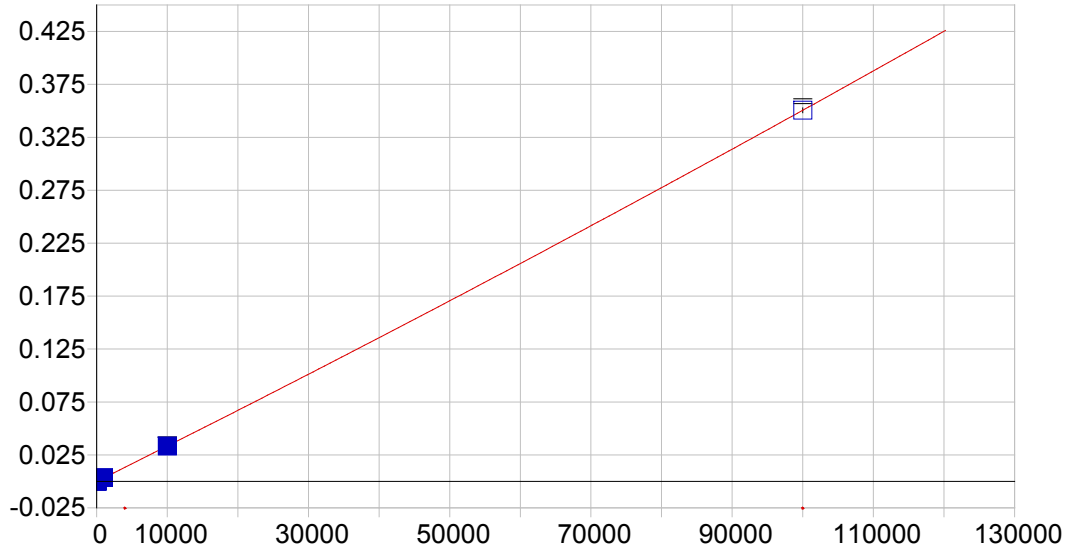


Cu 324.754 {104}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000374 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999989 Status: OK.
 Std Error of Est: 0.001066
 Predicted MDL: 4.426697
 Predicted MQL: 14.755656

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	120.87	121.	.000	.00016	.000	1
CalStd9=100	1000.0	1094.3	94.3	9.43	.00445	.000	1
CalStd8=100	100.00	218.55	119.	119.	.00059	.000	1
CalStd10=10	10000.	9630.4	-370.	-3.70	.04208	.000	1
CalStd11=100	100000.	100040.	35.9	.036	.44058	.002	1

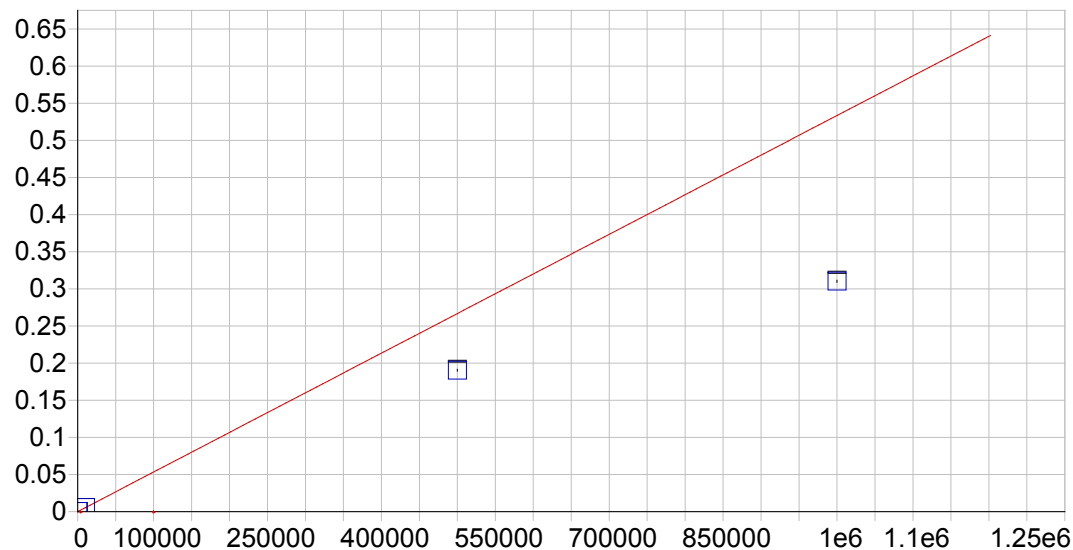


Cu 327.396 {103}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	-0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	Warning Positive Curvature
Std Error of Est:	0.000001		
Predicted MDL:	7.141474		
Predicted MQL:	23.804915		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00837	-.008	.000	-.00003	.000	1
CalStd6=20	20.000	24.782	4.78	23.9	.00006	.000	1
CalStd7=50	50.000	55.427	5.43	10.9	.00016	.000	1
CalStd8=100	100.00	104.80	4.80	4.80	.00032	.000	1
CalStd9=100	1000.0	1027.5	27.5	2.75	.00339	.000	1
CalStd10=10	10000.	9953.6	-46.4	-.464	.03319	.000	1
CalStd11=100	100000.	100000.	3.96	.004	.35055	.002	1

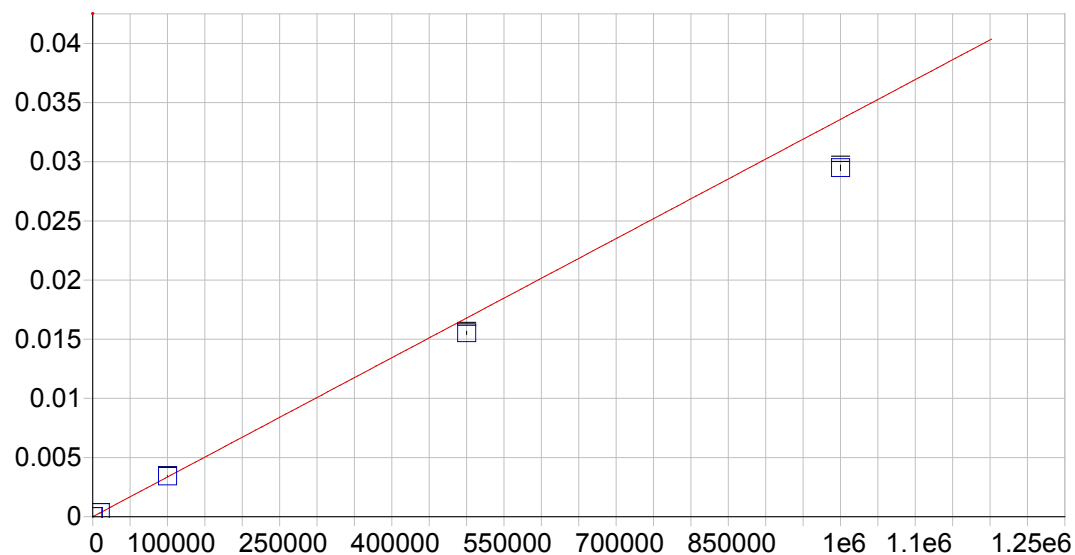


Fe 234.349 {144}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset):	0.000022	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999115	Status: OK.
Std Error of Est:	0.000020	
Predicted MDL:	1.417153	
Predicted MQL:	4.723843	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.3870	-4.39	.000	.00002	.000	1
CalStd10=10	10000.	9887.1	-113.	-1.13	.00530	.000	1
CalStd13=50	500000.	356880.	-143000.	-28.6	.19039	.001	1
CalStd14=100	1000000.	581430.	-419000.	-41.9	.31017	.001	1
CalStd9=100	1000.0	1016.3	16.3	1.63	.00056	.000	1

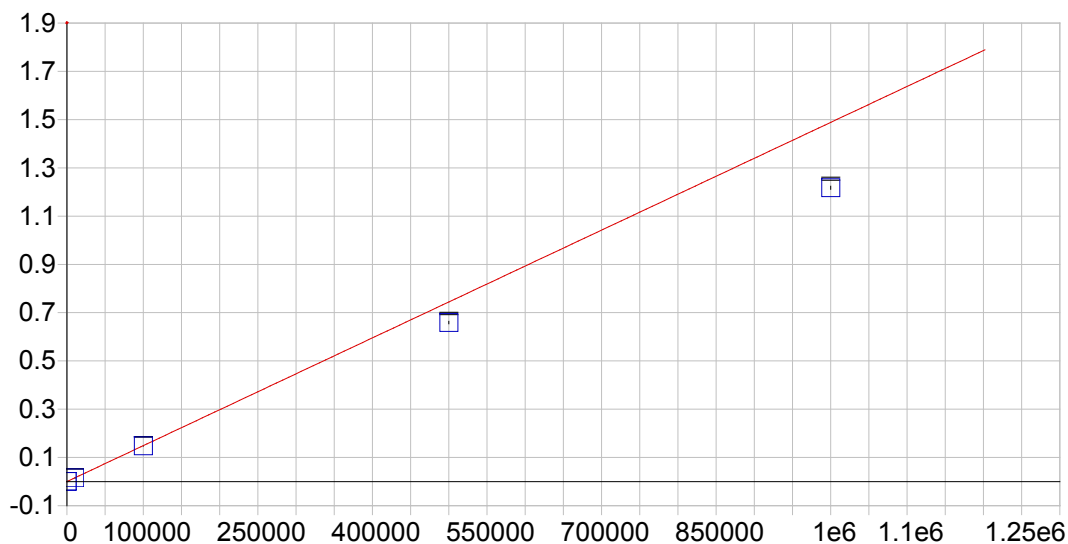


Fe 239.562 {140}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999926 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 11.620775
 Predicted MQL: 38.735916

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01328	-.013	.000	.00000	.000	1
CalStd10=10	10000.	9977.7	-22.3	-.223	.00034	.000	1
CalStd13=50	500000.	462760.	-37200.	-7.45	.01554	.000	1
CalStd14=100	1000000.	877990.	-122000.	-12.2	.02948	.000	1
CalStd9=100	1000.0	989.69	-10.3	-1.03	.00003	.000	1
CalStd12=100	100000.	102140.	2140.	2.14	.00343	.000	1

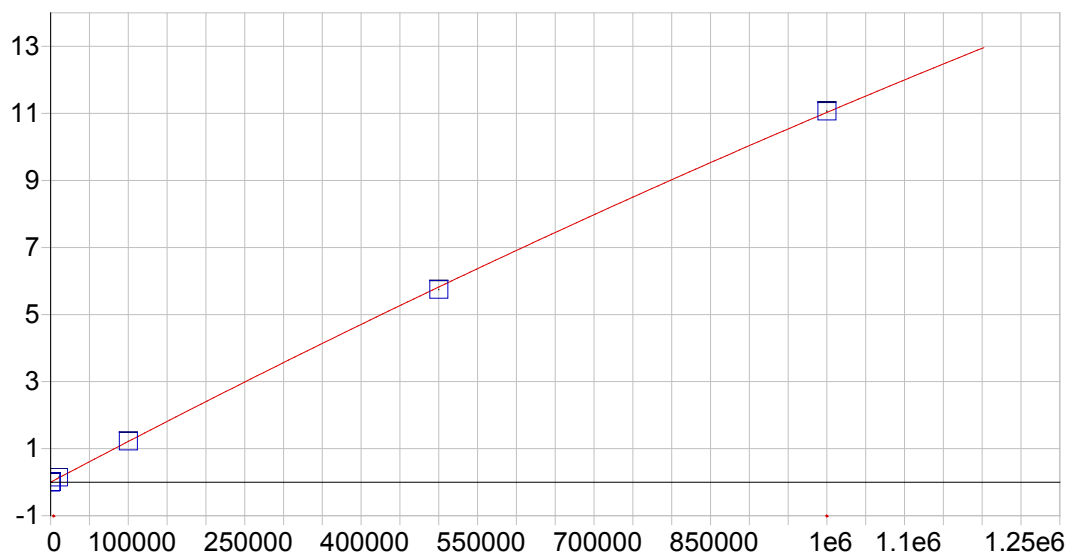


Fe 259.940 {129}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.000031 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999918 Status: OK.
 Std Error of Est: 0.000052
 Predicted MDL: 7.193992
 Predicted MQL: 23.979973

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-8.0454	-8.05	.000	.00002	.000	1
CalStd10=10	10000.	9975.9	-24.1	-.241	.01488	.000	1
CalStd13=50	500000.	442640.	-57400.	-11.5	.65888	.005	1
CalStd14=100	1000000.	817870.	-182000.	-18.2	1.2174	.006	1
CalStd9=100	1000.0	1001.3	1.28	.128	.00152	.000	1
CalStd12=100	100000.	99194.	-806.	-.806	.14768	.001	1

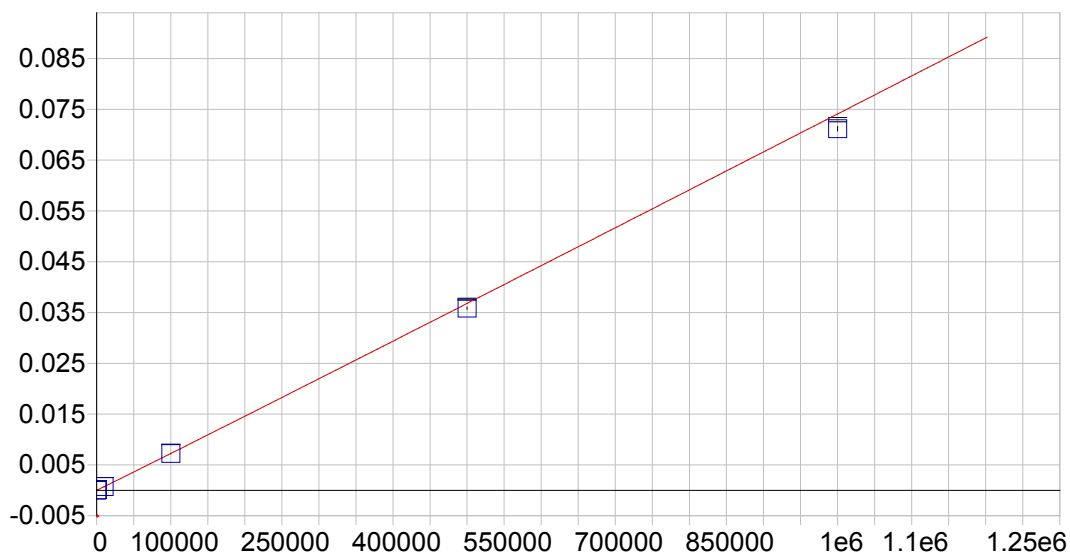


Mg 202.582 {466}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000117 Re-Slope: 1.000000
A1 (Gain): 0.000012 Y-int: 0.000000
A2 (Curvature): -0.000000
n (Exponent): 1.000000
Correlation: 0.999761 Status: OK.
Std Error of Est: 0.000444
Predicted MDL: 2.848303
Predicted MQL: 9.494345

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-20842	-.208	.000	-.00012	.000	1
CalStd13=50	500000.	493280.	-6720.	-1.34	5.7473	.006	1
CalStd10=10	10000.	12388.	2390.	23.9	.15152	.000	1
CalStd14=100	1000000.	1003700.	3660.	.366	11.067	.015	1
CalStd12=100	100000.	100790.	788.	.788	1.2226	.003	1
CalStd9=100	1000.0	971.57	-28.4	-2.84	.01179	.000	1

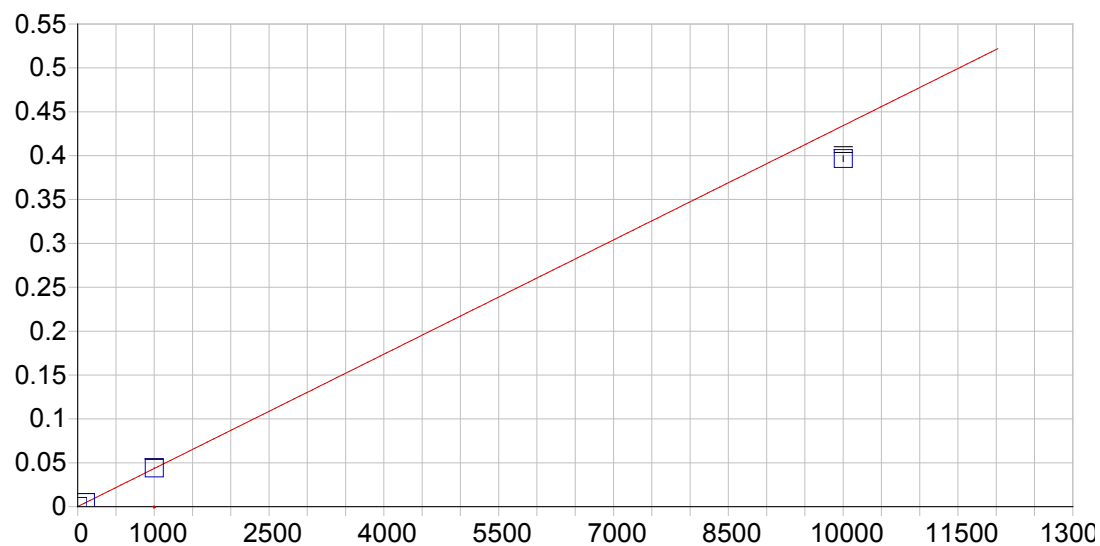


Mg 279.079 {121}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Full Fit Weighting: 1/Var

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.010000
 Correlation: 0.999988 Status: OK.
 Std Error of Est: 0.000010
 Predicted MDL: 96.433870
 Predicted MQL: 321.446233

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd13=50	500000.	487380.	-12600.	-2.52	.03585	.000	1
CalStd10=10	10000.	9924.4	-75.6	-.756	.00071	.000	1
CalStd14=100	1000000.	961010.	-39000.	-3.90	.07117	.000	1
CalStd12=100	100000.	100050.	47.1	.047	.00725	.000	1
CalStd9=100	1000.0	1035.6	35.6	3.56	.00007	.000	1

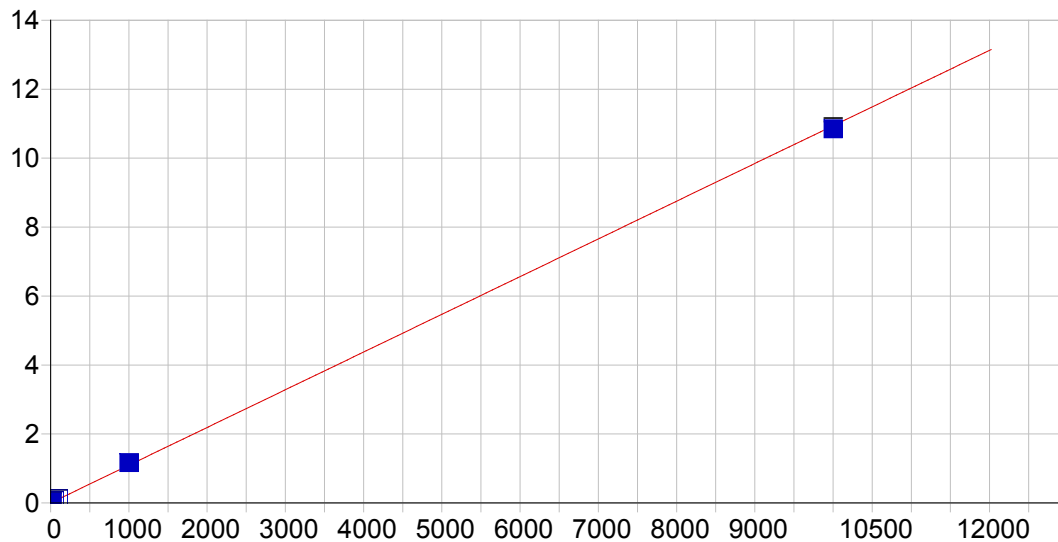


Mg 280.270 {120}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000112 Re-Slope: 1.000000
 A1 (Gain): 0.000043 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999474 Status: OK.
 Std Error of Est: 0.000068
 Predicted MDL: 0.027372
 Predicted MQL: 0.091241

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04568	-.046	.000	.00011	.000	1
CalStd9=100	1000.0	1009.6	9.65	.965	.04394	.000	1
CalStd10=10	10000.	9130.7	-869.	-8.69	.39648	.003	1
CalStd8=100	100.00	102.29	2.29	2.29	.00455	.000	1

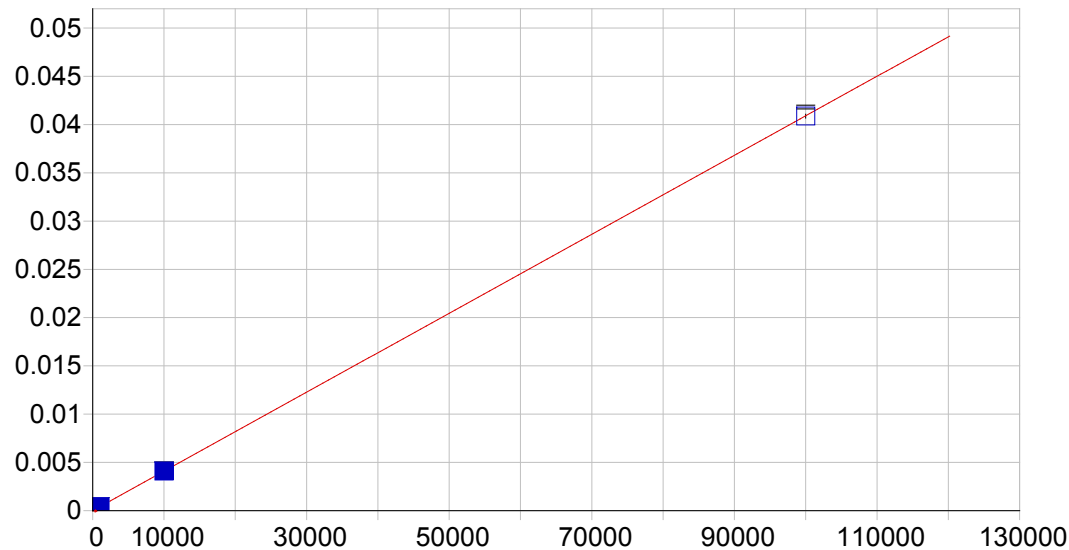


Mn 257.610 {131}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000394 Re-Slope: 1.000000
 A1 (Gain): 0.001094 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999656 Status: OK.
 Std Error of Est: 0.000248
 Predicted MDL: 0.081457
 Predicted MQL: 0.271523

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00365	-.004	.000	.00039	.000	1
CalStd5=10	10.000	11.365	1.36	13.6	.01283	.000	1
CalStd7=50	50.000	56.220	6.22	12.4	.06190	.000	1
CalStd6=20	20.000	24.975	4.97	24.9	.02772	.000	1
CalStd8=100	100.00	106.82	6.82	6.82	.11726	.000	1
CalStd4=5	5.0000	5.4783	.478	9.57	.00639	.000	1
CalStd9=100	1000.0	1065.3	65.3	6.53	1.1659	.004	1
CalStd10=10	10000.	9914.8	-85.2	-.852	10.848	.053	1

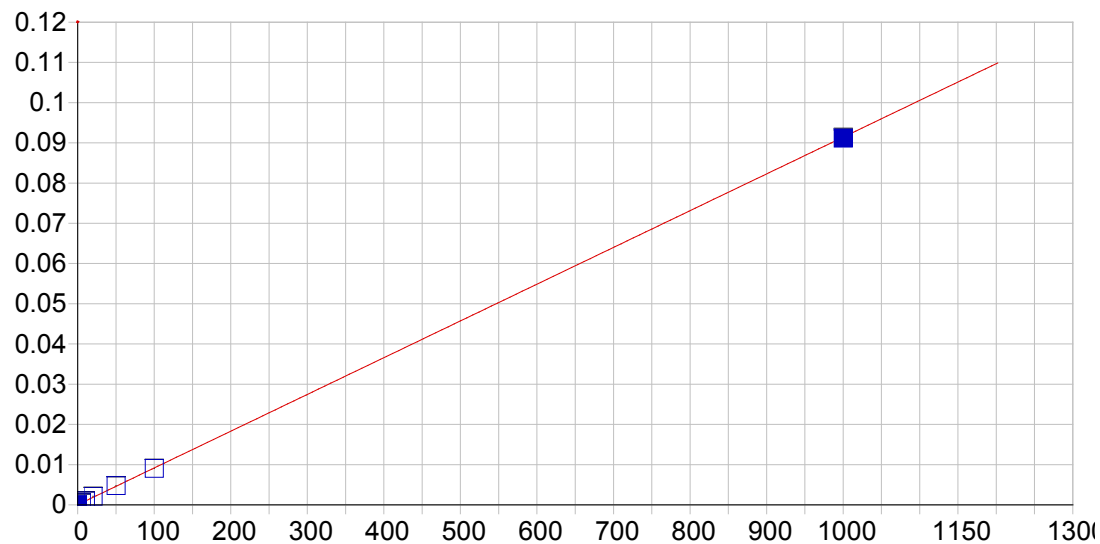


Mn 259.373 {130}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 1.154207
 Predicted MQL: 3.847357

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00102	-.001	.000	.00000	.000	1
CalStd10=10	10000.	9998.8	-1.17	-.012	.00410	.000	1
CalStd11=100	100000.	99921.	-78.6	-.079	.04087	.000	1
CalStd9=100	1000.0	1000.4	.424	.042	.00041	.000	1

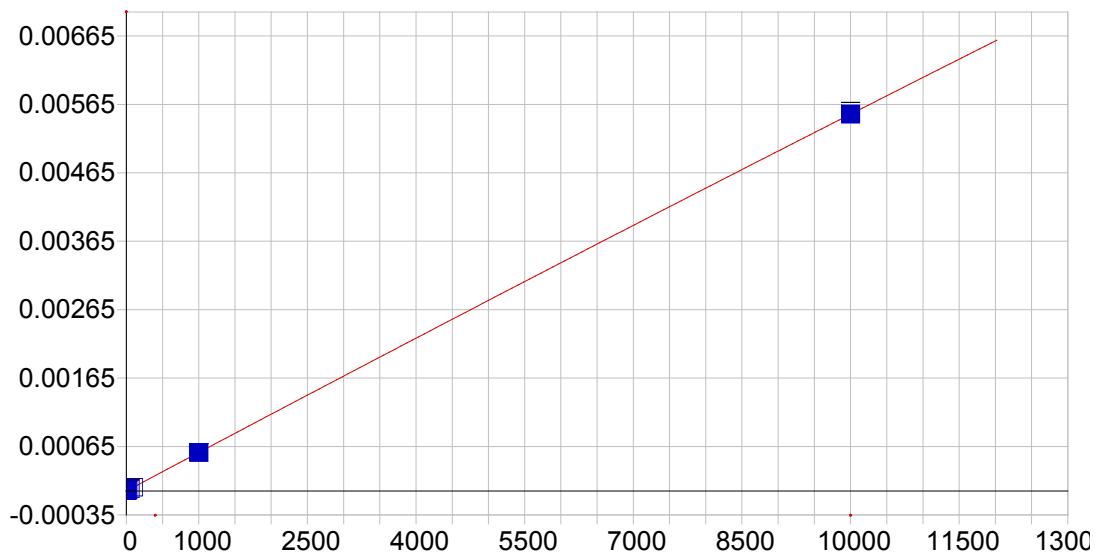


Mo 202.030 {466}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000033 Re-Slope: 1.000000
 A1 (Gain): 0.000091 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999831 Status: OK.
 Std Error of Est: 0.000005
 Predicted MDL: 0.322753
 Predicted MQL: 1.075843

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00078	-.001	.000	.00003	.000	1
CalStd7=50	50.000	51.734	1.73	3.47	.00476	.000	1
CalStd6=20	20.000	22.493	2.49	12.5	.00209	.000	1
CalStd5=10	10.000	10.173	.173	1.73	.00096	.000	1
CalStd8=100	100.00	98.684	-1.32	-1.32	.00905	.000	1
CalStd4=5	5.0000	4.9793	-.021	-.413	.00049	.000	1
CalStd9=100	1000.0	996.94	-3.06	-.306	.09114	.000	1

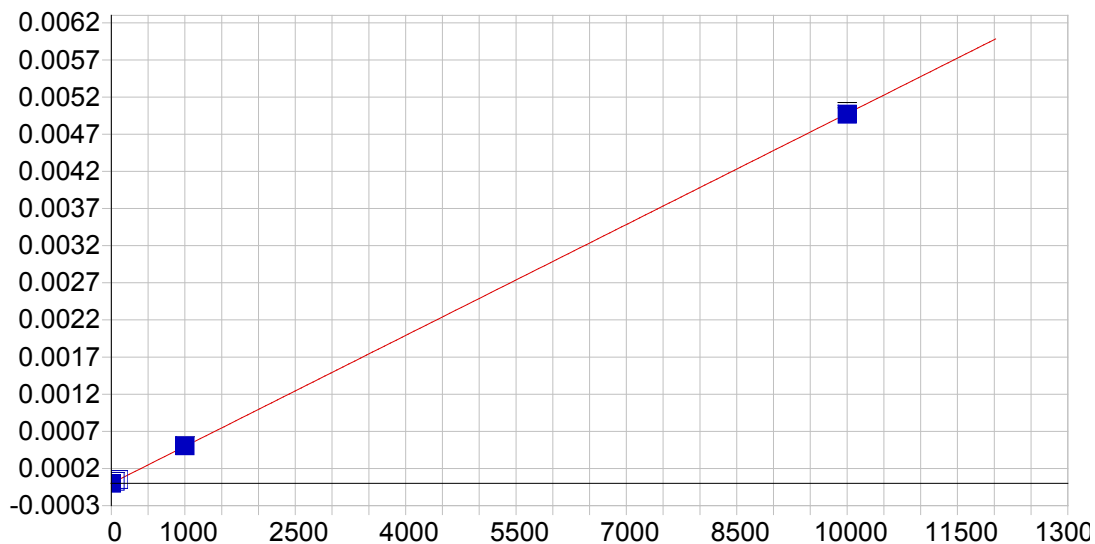


Mo 204.598 {464}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999978 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.634758
 Predicted MQL: 2.115859

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00129	-.001	.000	.00000	.000	1
CalStd7=50	50.000	51.198	1.20	2.40	.00003	.000	1
CalStd6=20	20.000	22.654	2.65	13.3	.00001	.000	1
CalStd5=10	10.000	10.302	.302	3.02	.00001	.000	1
CalStd8=100	100.00	98.502	-1.50	-1.50	.00006	.000	1
CalStd4=5	5.0000	5.4486	.449	8.97	.00000	.000	1
CalStd9=100	1000.0	996.53	-3.47	-.347	.00056	.000	1
CalStd10=10	10000.	10000.	.365	.004	.00551	.000	1

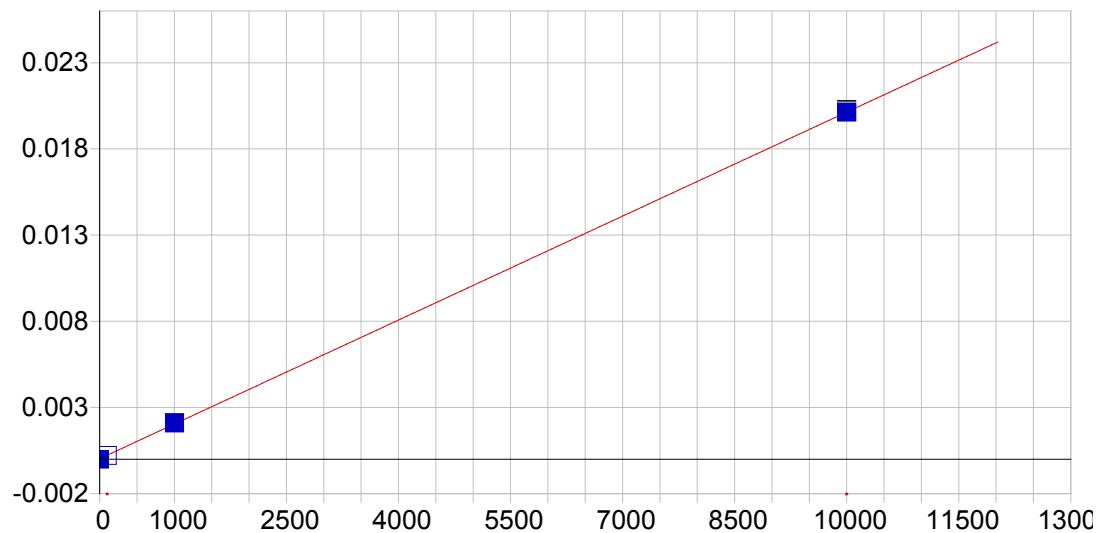


Mo 204.598 {465}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999985 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 0.797428
Predicted MQL: 2.658093

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00308	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	1014.7	14.7	1.47	.00050	.000	1
CalStd10=10	10000.	9982.6	-17.4	-.174	.00497	.000	1
CalStd7=50	50.000	52.145	2.15	4.29	.00003	.000	1
CalStd8=100	100.00	100.58	.576	.576	.00005	.000	1

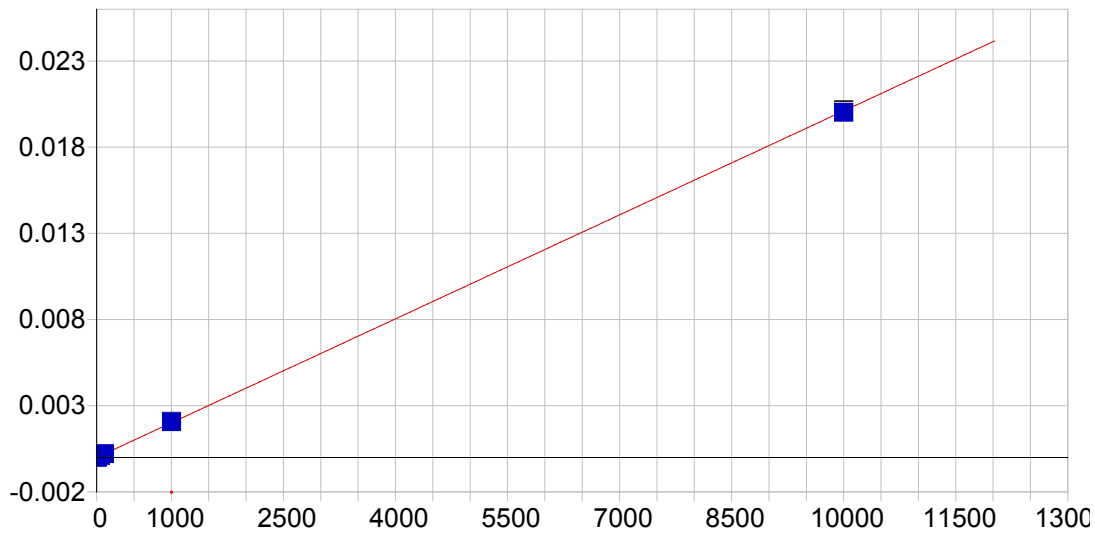


Ni 221.647 {452}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000027 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999993 Status: OK.
 Std Error of Est: 0.000044
 Predicted MDL: 0.381228
 Predicted MQL: 1.270761

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-13.412	-13.4	.000	.00000	.000	1
CalStd10=10	10000.	9997.5	-2.52	-.025	.02013	.000	1
CalStd8=100	100.00	89.750	-10.3	-10.3	.00021	.000	1
CalStd9=100	1000.0	1026.2	26.2	2.62	.00209	.000	1

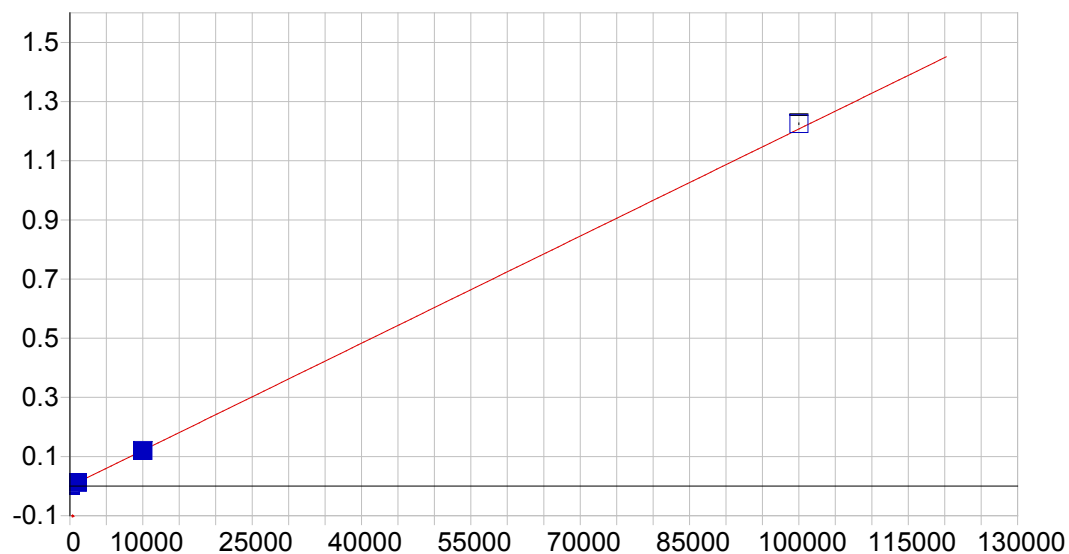


Ni 231.604 {445}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999919 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.378380
 Predicted MQL: 1.261267

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00057	-.001	.000	.00000	.000	1
CalStd7=50	50.000	54.170	4.17	8.34	.00011	.000	1
CalStd5=10	10.000	10.899	.899	8.99	.00002	.000	1
CalStd8=100	100.00	103.10	3.10	3.10	.00021	.000	1
CalStd4=5	5.0000	5.7030	.703	14.1	.00001	.000	1
CalStd9=100	1000.0	1031.3	31.3	3.13	.00207	.000	1
CalStd3=1	1.0000	1.2003	.200	20.0	.00000	.000	1
CalStd10=10	10000.	9959.7	-40.3	-.403	.02002	.000	1

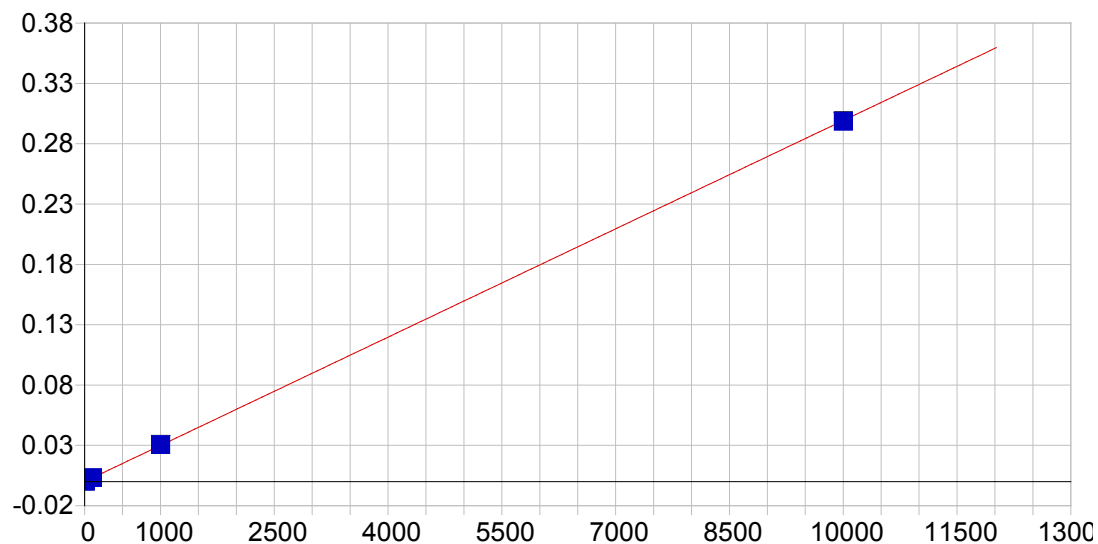


Pb 216.999 {455}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000021 Re-Slope: 1.000000
 A1 (Gain): 0.000012 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999936 Status: OK.
 Std Error of Est: 0.000208
 Predicted MDL: 4.906521
 Predicted MQL: 16.355072

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.47558	.476	.000	.00003	.000	1
CalStd9=100	1000.0	1004.0	3.97	.397	.01220	.000	1
CalStd10=10	10000.	9905.9	-94.1	-.941	.12023	.000	1
CalStd11=100	100000.	101490.	1490.	1.49	1.2253	.003	1
CalStd8=100	100.00	98.598	-1.40	-1.40	.00121	.000	1
CalStd5=10	10.000	7.9594	-2.04	-20.4	.00012	.000	1

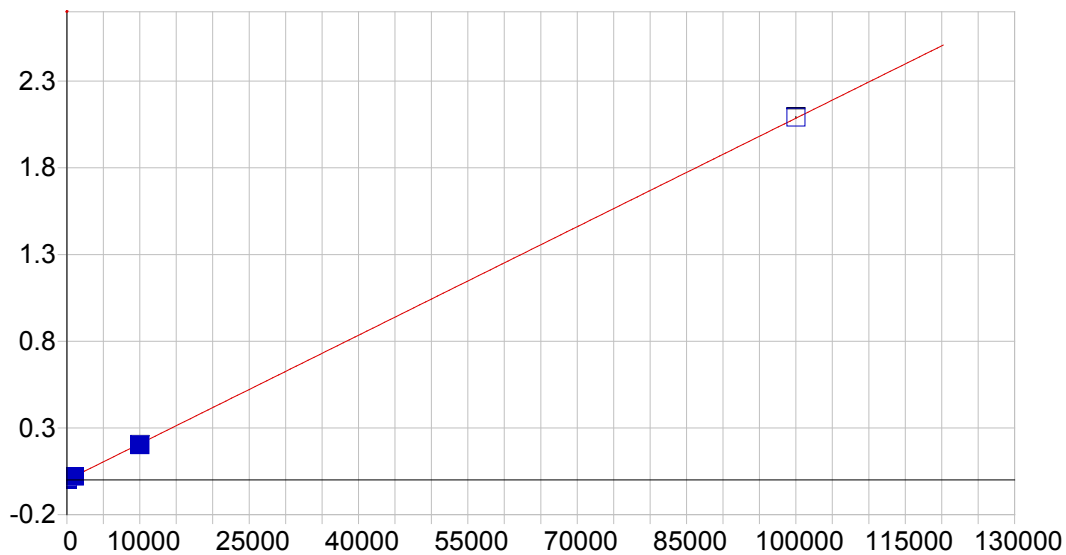


Pb 220.353 {453}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000015 Re-Slope: 1.000000
 A1 (Gain): 0.000030 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999971 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 2.054599
 Predicted MQL: 6.848662

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00020	.000	.000	.00001	.000	1
CalStd5=10	10.000	10.676	.676	6.76	.00033	.000	1
CalStd8=100	100.00	101.29	1.29	1.29	.00305	.000	1
CalStd4=5	5.0000	4.6984	-.302	-6.03	.00016	.000	1
CalStd9=100	1000.0	1022.6	22.6	2.26	.03061	.000	1
CalStd10=10	10000.	9975.8	-24.2	-.242	.29851	.000	1

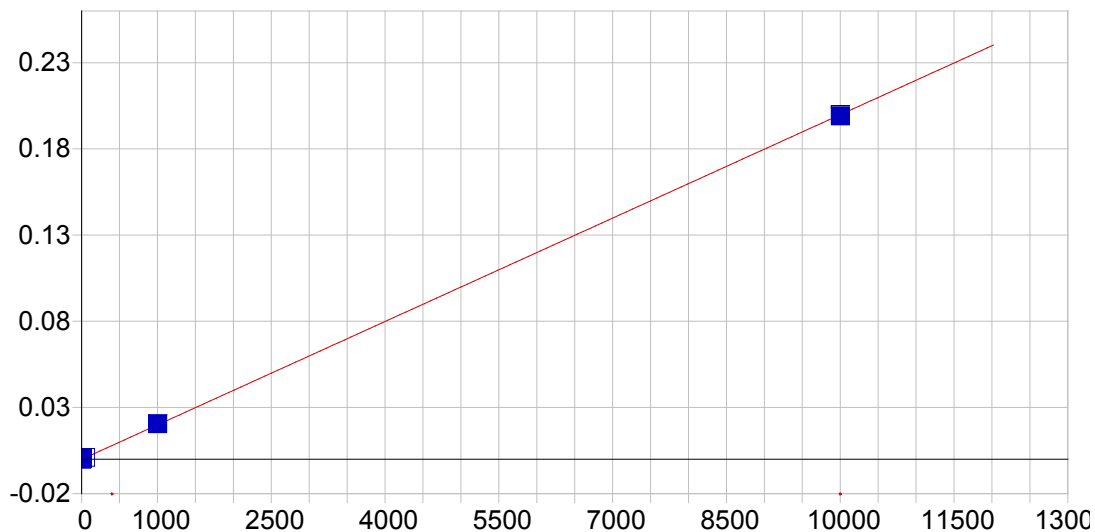


Pb 220.353 {153}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000044	Re-Slope: 1.000000
A1 (Gain):	0.000021	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999961	Status: OK.
Std Error of Est:	0.000025	
Predicted MDL:	4.576297	
Predicted MQL:	15.254325	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00205	-.002	.000	.00004	.000	1
CalStd9=100	1000.0	1007.0	7.03	.703	.02105	.000	1
CalStd10=10	10000.	9722.4	-278.	-2.78	.20285	.001	1
CalStd8=100	100.00	103.85	3.85	3.85	.00221	.000	1
CalStd11=100	100000.	100270.	267.	.267	2.0919	.004	1

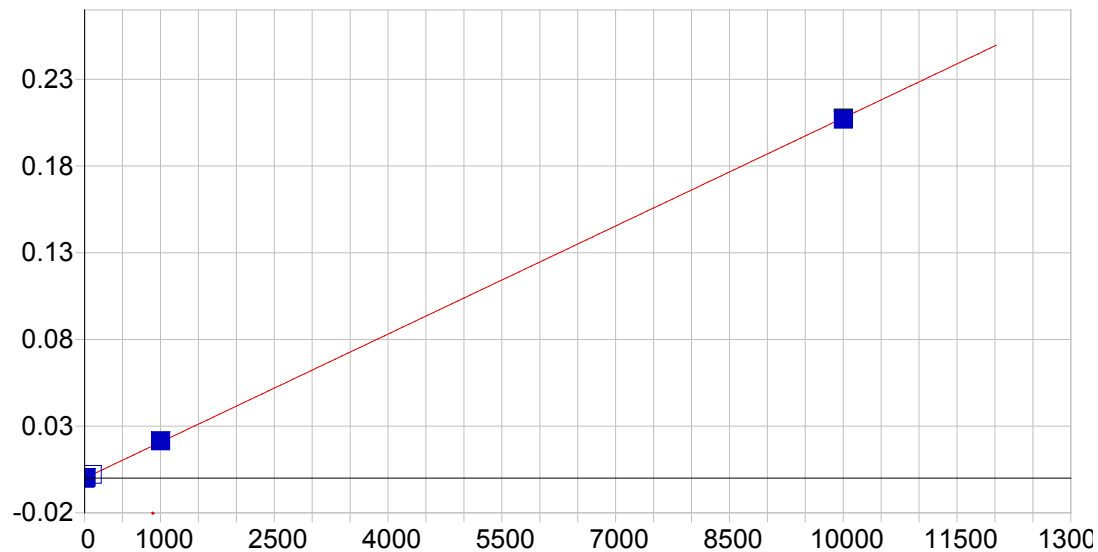


Sb 206.833 {463}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000105 Re-Slope: 1.000000
 A1 (Gain): 0.000020 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999898 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 1.882505
 Predicted MQL: 6.275017

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00414	-.004	.000	-.00010	.000	1
CalStd9=100	1000.0	1029.0	29.0	2.90	.02047	.000	1
CalStd5=10	10.000	13.065	3.07	30.7	.00016	.000	1
CalStd7=50	50.000	54.115	4.12	8.23	.00098	.000	1
CalStd10=10	10000.	9963.9	-36.1	-.361	.19912	.001	1

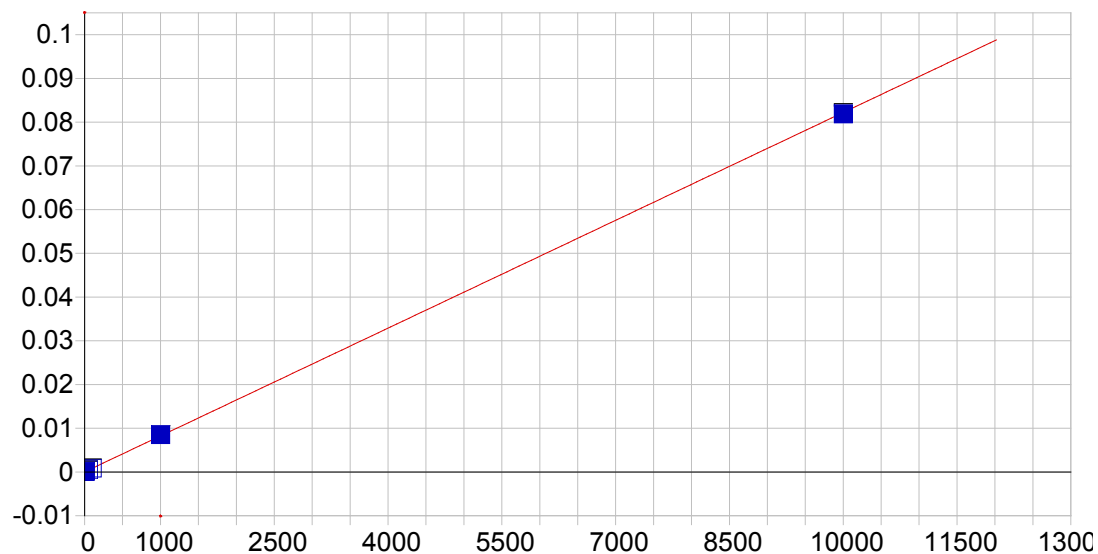


Sb 217.581 {455}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000018 Re-Slope: 1.000000
 A1 (Gain): 0.000021 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999903 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 2.067979
 Predicted MQL: 6.893264

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	.000	.000	-.00002	.000	1
CalStd9=100	1000.0	1034.9	34.9	3.49	.02148	.000	1
CalStd6=20	20.000	23.126	3.13	15.6	.00046	.000	1
CalStd5=10	10.000	10.495	.495	4.95	.00020	.000	1
CalStd8=100	100.00	102.39	2.39	2.39	.00211	.000	1
CalStd4=5	5.0000	3.9835	-1.02	-20.3	.00007	.000	1
CalStd10=10	10000.	9960.1	-39.9	-.399	.20690	.001	1

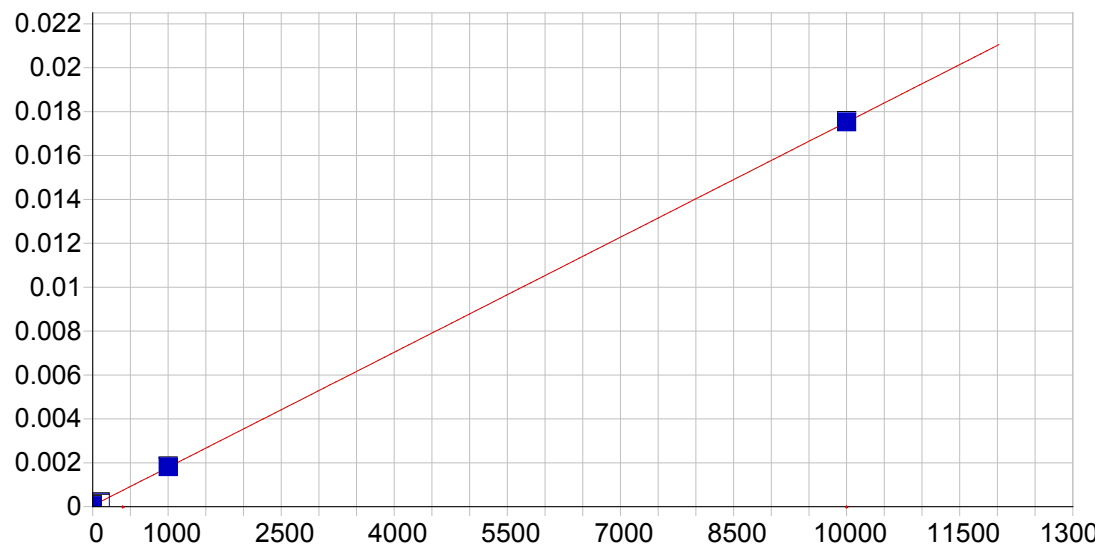


Se 196.090 {472}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000019 Re-Slope: 1.000000
 A1 (Gain): 0.000008 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999905 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 3.634772
 Predicted MQL: 12.115908

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00361	-.004	.000	.00002	.000	1
CalStd7=50	50.000	53.131	3.13	6.26	.00046	.000	1
CalStd9=100	1000.0	1032.9	32.9	3.29	.00851	.000	1
CalStd5=10	10.000	12.369	2.37	23.7	.00012	.000	1
CalStd8=100	100.00	103.26	3.26	3.26	.00087	.000	1
CalStd10=10	10000.	9958.4	-41.6	-.416	.08185	.000	1

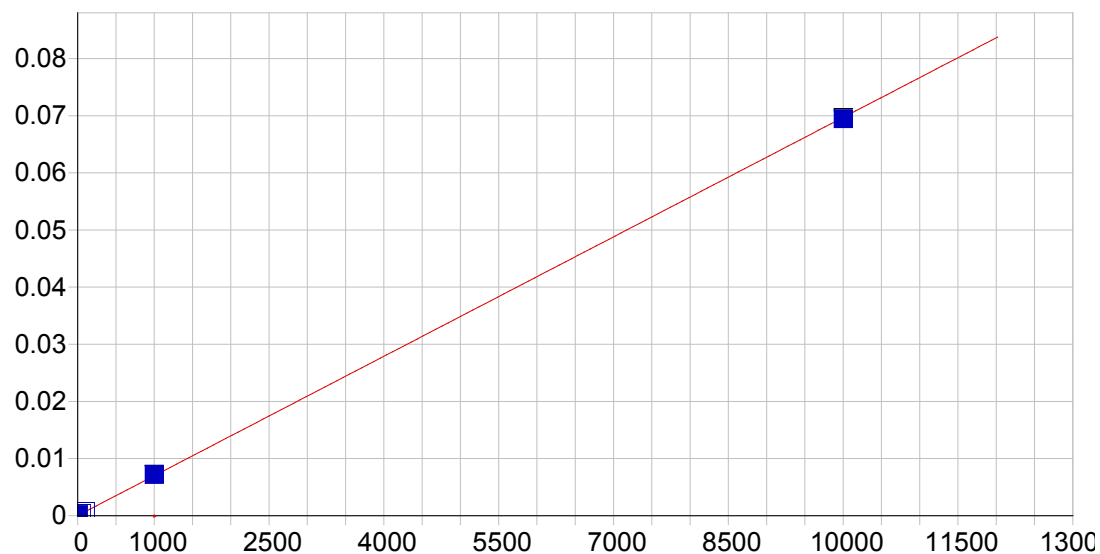


Se 206.279 {463}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000045 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999929 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 23.427432
 Predicted MQL: 78.091439

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01097	.011	.000	.00005	.000	1
CalStd9=100	1000.0	1010.7	10.7	1.07	.00181	.000	1
CalStd10=10	10000.	10001.	1.29	.013	.01755	.000	1
CalStd8=100	100.00	87.944	-12.1	-12.1	.00020	.000	1

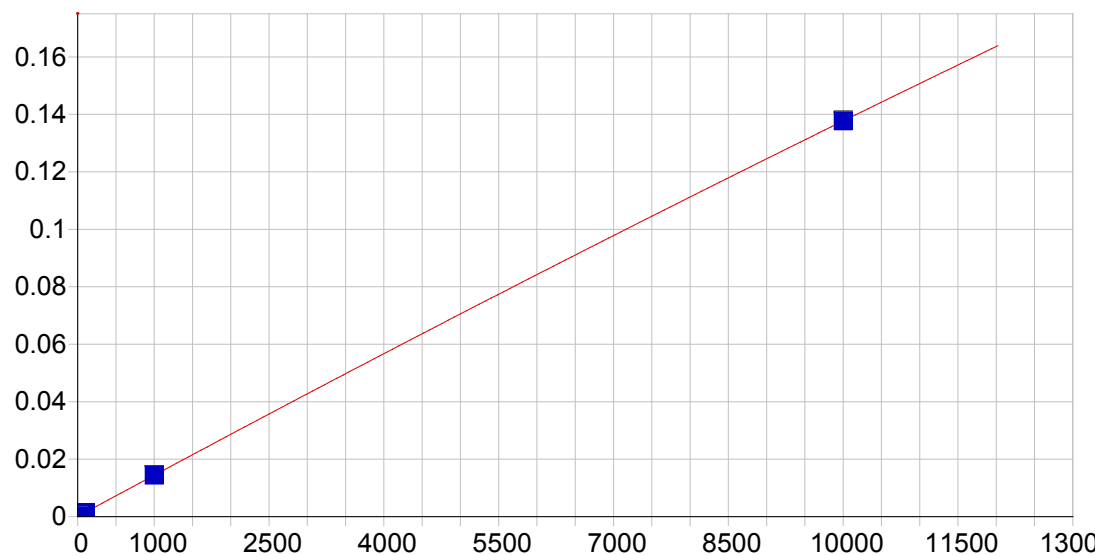


Se 196.090 {471}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000026 Re-Slope: 1.000000
 A1 (Gain): 0.000007 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999947 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 4.198687
 Predicted MQL: 13.995622

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00171	-.002	.000	.00003	.000	1
CalStd7=50	50.000	52.705	2.71	5.41	.00039	.000	1
CalStd9=100	1000.0	1029.0	29.0	2.90	.00719	.000	1
CalStd5=10	10.000	10.946	.946	9.46	.00010	.000	1
CalStd8=100	100.00	99.639	-.361	-.361	.00072	.000	1
CalStd10=10	10000.	9967.7	-32.3	-.323	.06946	.000	1

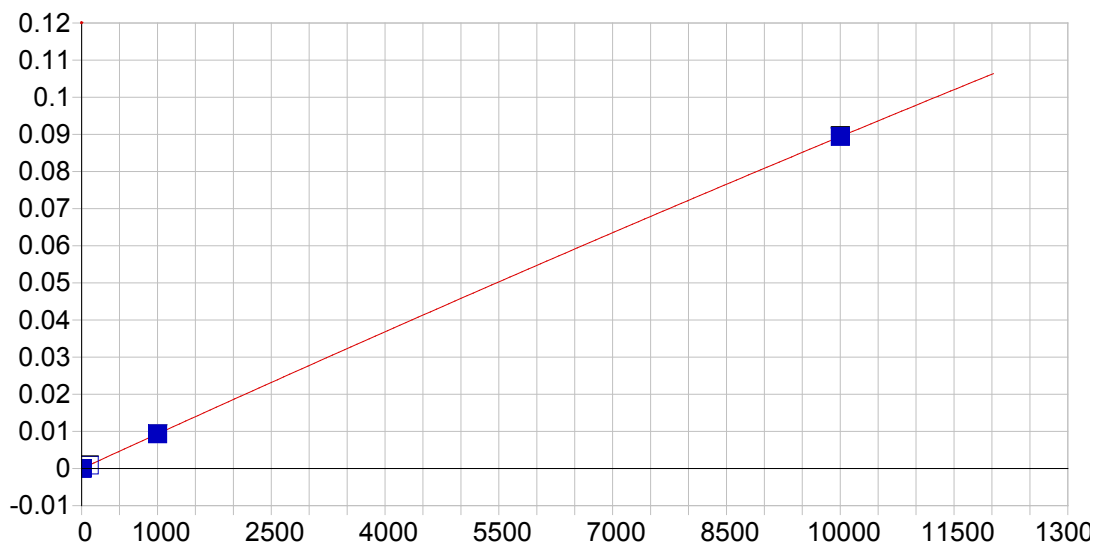


TI 190.856 {476}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000055 Re-Slope: 1.000000
 A1 (Gain): 0.000014 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 2.419059
 Predicted MQL: 8.063531

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00053	-.001	.000	.00006	.000	1
CalStd9=100	1000.0	1000.4	.445	.044	.01443	.000	1
CalStd8=100	100.00	98.962	-1.04	-1.04	.00148	.000	1
CalStd5=10	10.000	10.631	.631	6.31	.00021	.000	1
CalStd10=10	10000.	10000.0	-.038	.000	.13774	.000	1

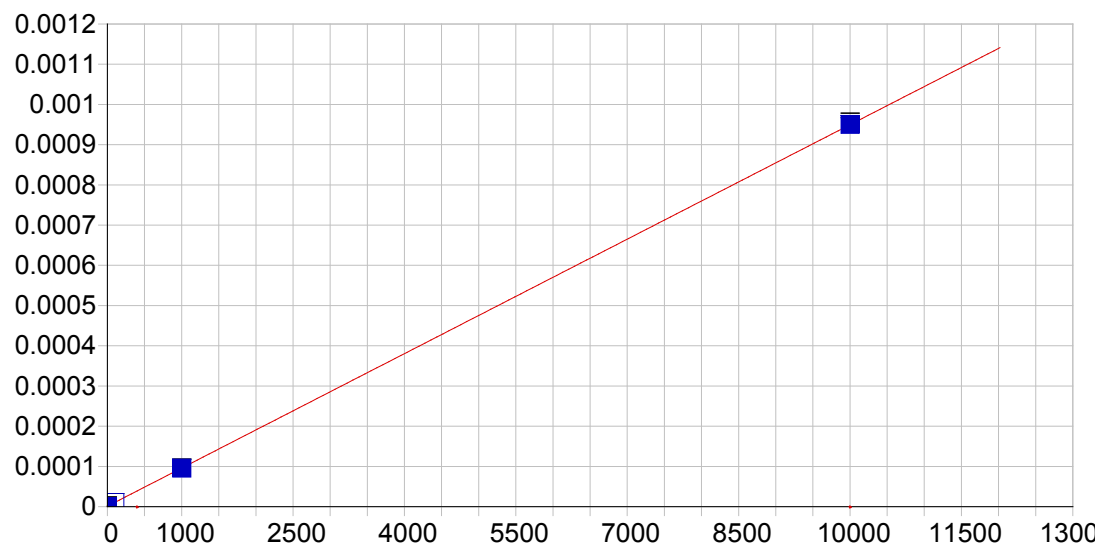


TI 190.856 {477}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset):	-0.000020	Re-Slope: 1.000000
A1 (Gain):	0.000009	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999998	Status: OK.
Std Error of Est:	0.000014	
Predicted MDL:	3.126069	
Predicted MQL:	10.420229	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.43806	.438	.000	-.00002	.000	1
CalStd9=100	1000.0	1000.9	.851	.085	.00933	.000	1
CalStd8=100	100.00	97.797	-2.20	-2.20	.00090	.000	1
CalStd5=10	10.000	8.2079	-1.79	-17.9	.00006	.000	1
CalStd10=10	10000.	9999.9	-.068	-.001	.08940	.000	1

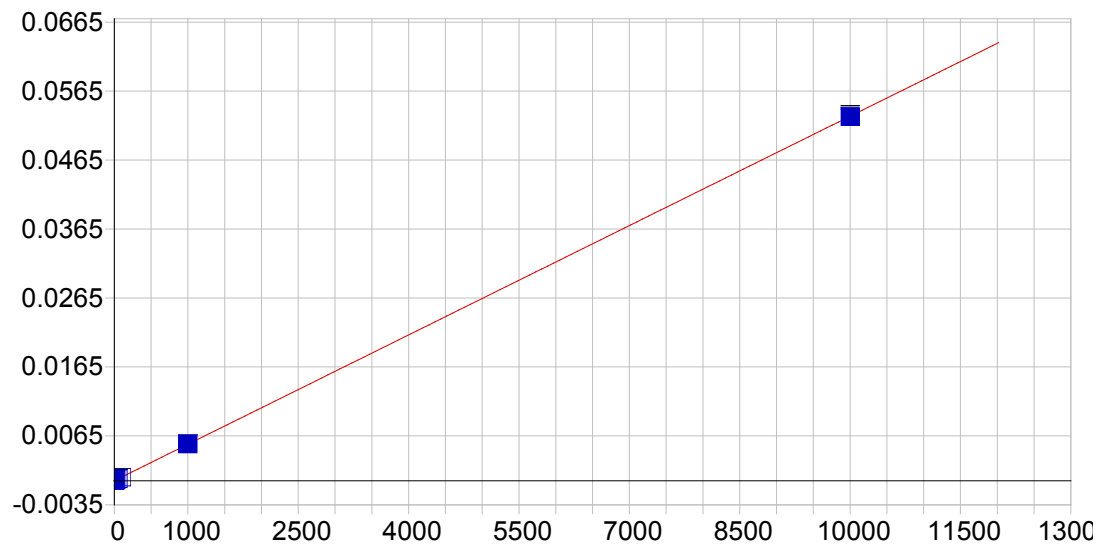


V 290.882 {116}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 6.464017
 Predicted MQL: 21.546725

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00220	.002	.000	.00000	.000	1
CalStd9=100	1000.0	995.90	-4.10	-.410	.00010	.000	1
CalStd10=10	10000.	10006.	5.95	.059	.00095	.000	1
CalStd8=100	100.00	98.156	-1.84	-1.84	.00001	.000	1

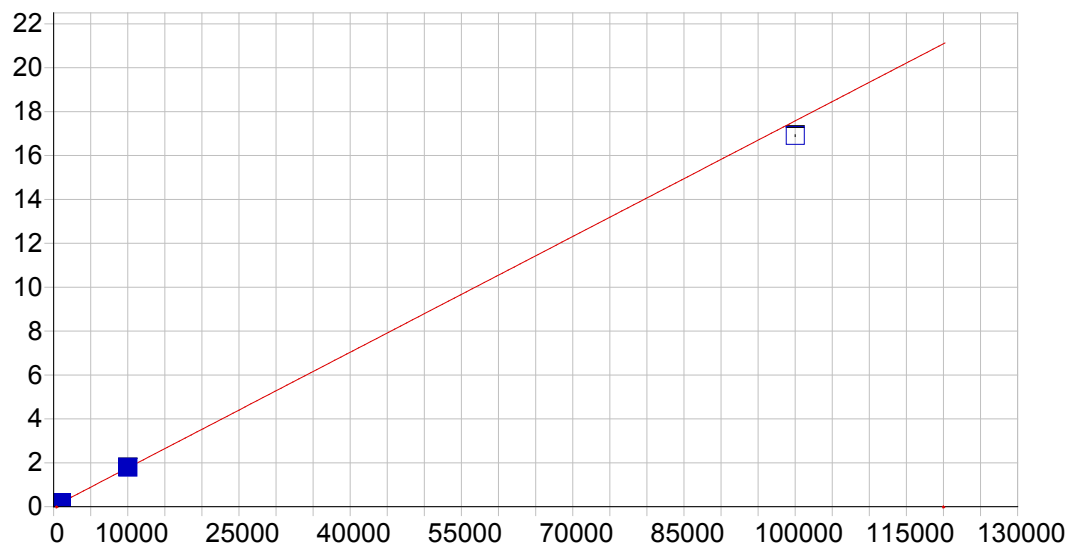


V 292.402 {115}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999965 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.506371
 Predicted MQL: 1.687903

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00300	-.003	.000	.00000	.000	1
CalStd7=50	50.000	52.299	2.30	4.60	.00028	.000	1
CalStd9=100	1000.0	1007.6	7.55	.755	.00533	.000	1
CalStd6=20	20.000	23.215	3.22	16.1	.00012	.000	1
CalStd5=10	10.000	10.902	.902	9.02	.00006	.000	1
CalStd8=100	100.00	99.708	-.292	-.292	.00053	.000	1
CalStd10=10	10000.	9986.3	-13.7	-.137	.05278	.000	1

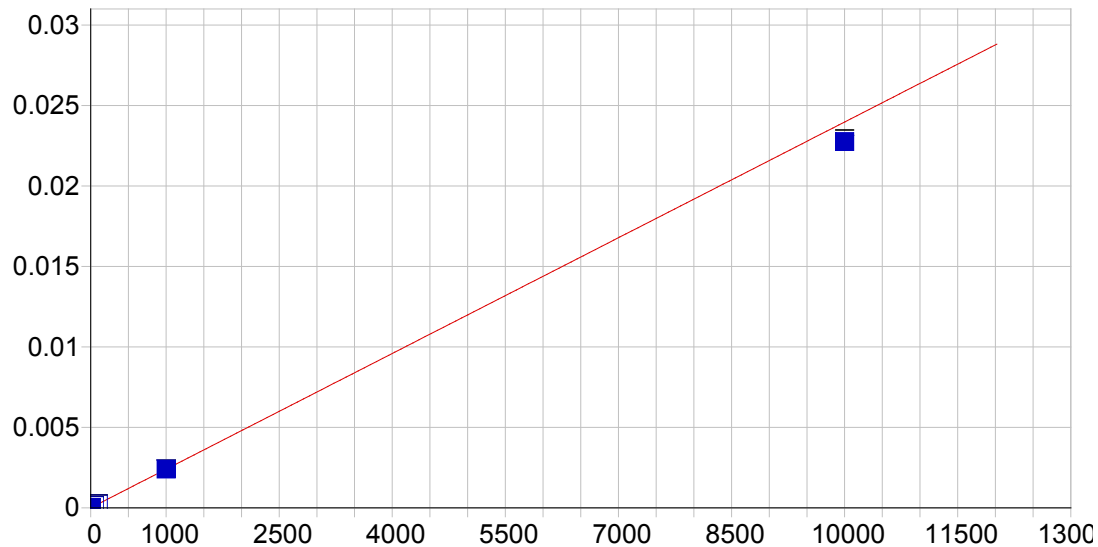


Zn 206.200 {463}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.009809 Re-Slope: 1.000000
 A1 (Gain): 0.000176 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999444 Status: OK.
 Std Error of Est: 0.008720
 Predicted MDL: 0.231893
 Predicted MQL: 0.772978

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10137.	137.	1.37	1.7908	.003	1
Blank	.00000	-50.259	-50.3	.000	.00098	.001	1
CalStd9=100	1000.0	1009.0	9.00	.900	.18709	.000	1
CalStd11=100	100000.	96181.	-3820.	-3.82	16.908	.039	1

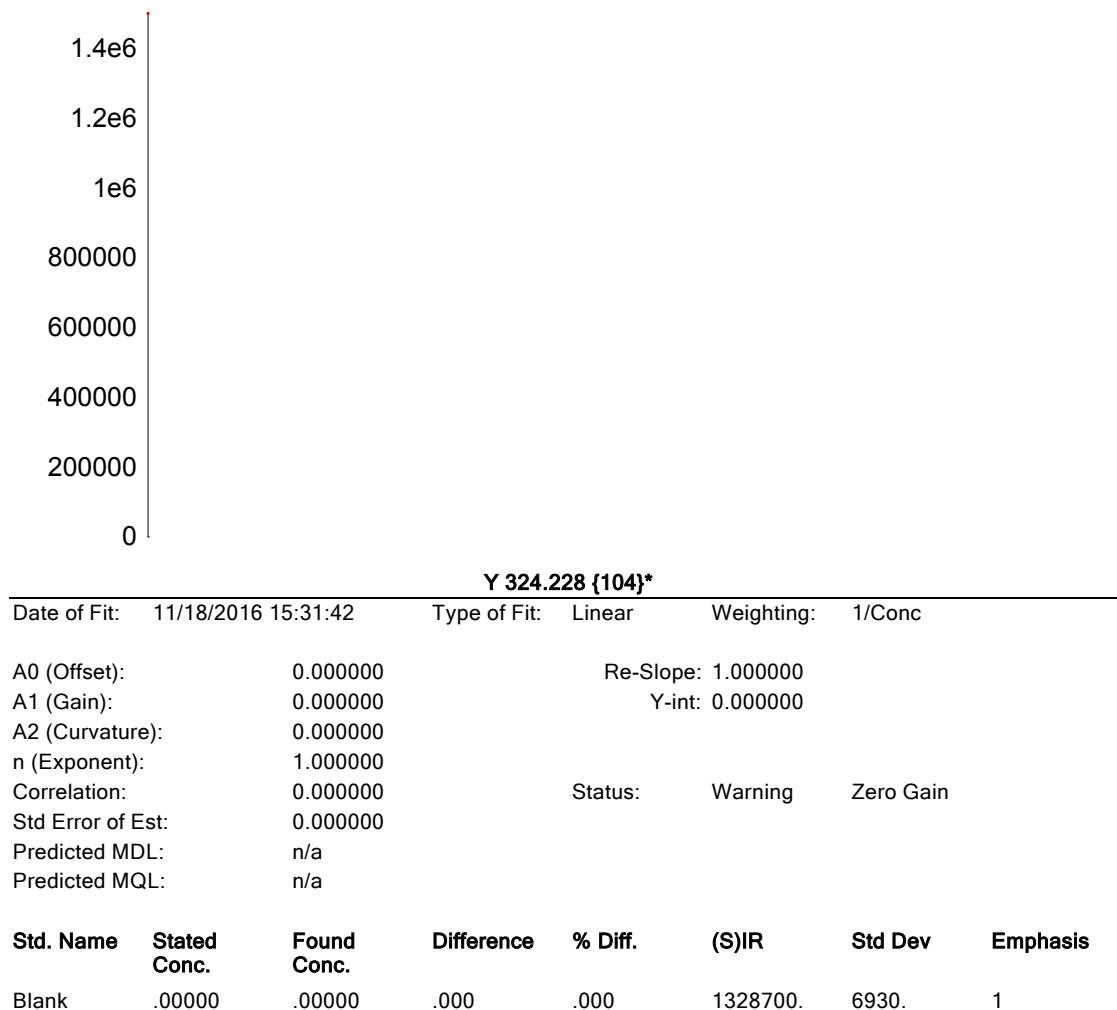


Zn 213.856 {458}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999653 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.169459
 Predicted MQL: 0.564865

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	4.2770	4.28	.000	.00001	.000	1
CalStd8=100	100.00	99.476	-.524	-.524	.00024	.000	1
CalStd7=50	50.000	52.351	2.35	4.70	.00013	.000	1
CalStd5=10	10.000	10.659	.659	6.59	.00003	.000	1
CalStd9=100	1000.0	1004.2	4.19	.419	.00241	.000	1
CalStd4=5	5.0000	4.8671	-.133	-2.66	.00001	.000	1
CalStd10=10	10000.	9488.1	-512.	-5.12	.02275	.000	1



60000
55000
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

Y 371.030 { 91}* <div></div>					
Date of Fit:	11/18/2016 15:31:42	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope: 1.000000			
A1 (Gain):	0.000000	Y-int: 0.000000			
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	53110.	291.	1

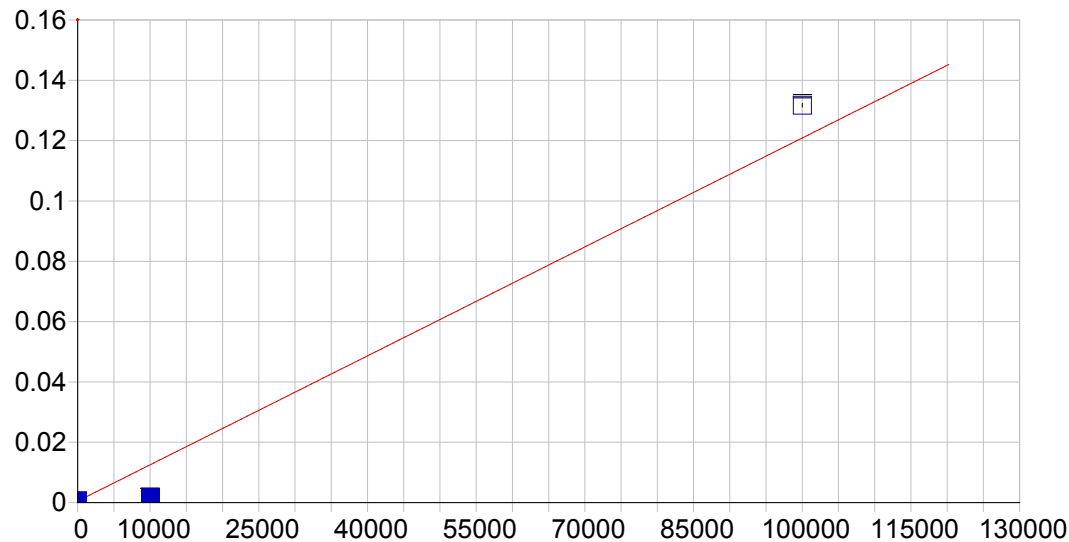
18000
16000
14000
12000
10000
8000
6000
4000
2000
0

Y 224.306 {451}*

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.000000 Status: Warning Zero Gain
Std Error of Est: 0.000000
Predicted MDL: n/a
Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	16811.	18.4	1

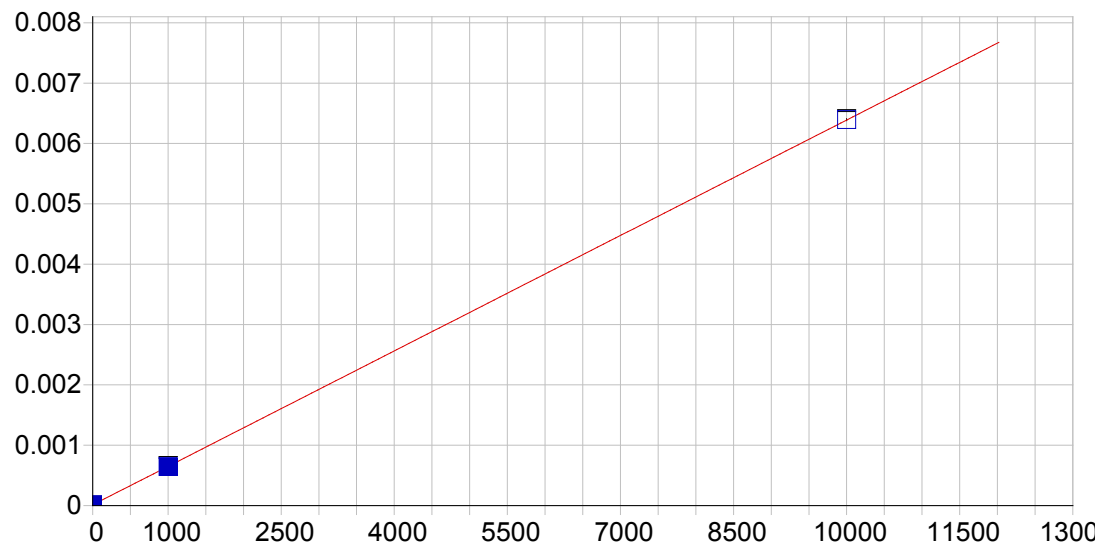


Na 588.995 { 57}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000497	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.961887	Status: OK.
Std Error of Est:	0.000621	
Predicted MDL:	4.179492	
Predicted MQL:	13.931638	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0864	8.09	.000	.00051	.000	1
CalStd9=100	10000.	1015.1	-8980.	-89.8	.00172	.000	1
CalStd12=100	100000.	108980.	8980.	8.98	.13170	.001	1

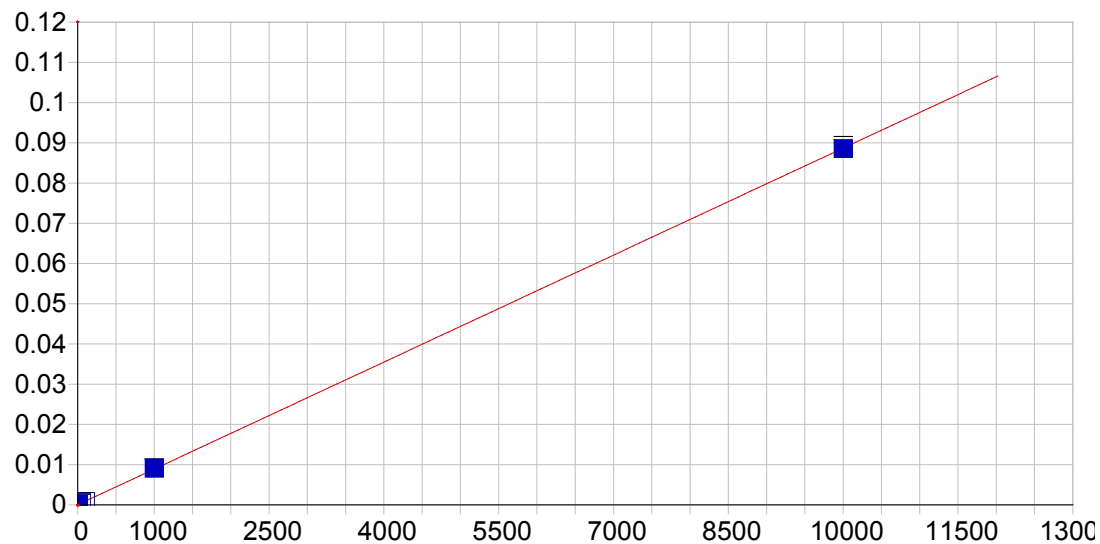


Si 251.611 {134}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000012 Re-Slope: 1.000000
A1 (Gain): 0.000001 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999996 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 17.585542
Predicted MQL: 58.618475

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00778	.008	.000	.00001	.000	1
CalStd9=100	1000.0	991.35	-8.65	-.865	.00064	.000	1
CalStd12=100	10000.	10009.	8.64	.086	.00639	.000	1

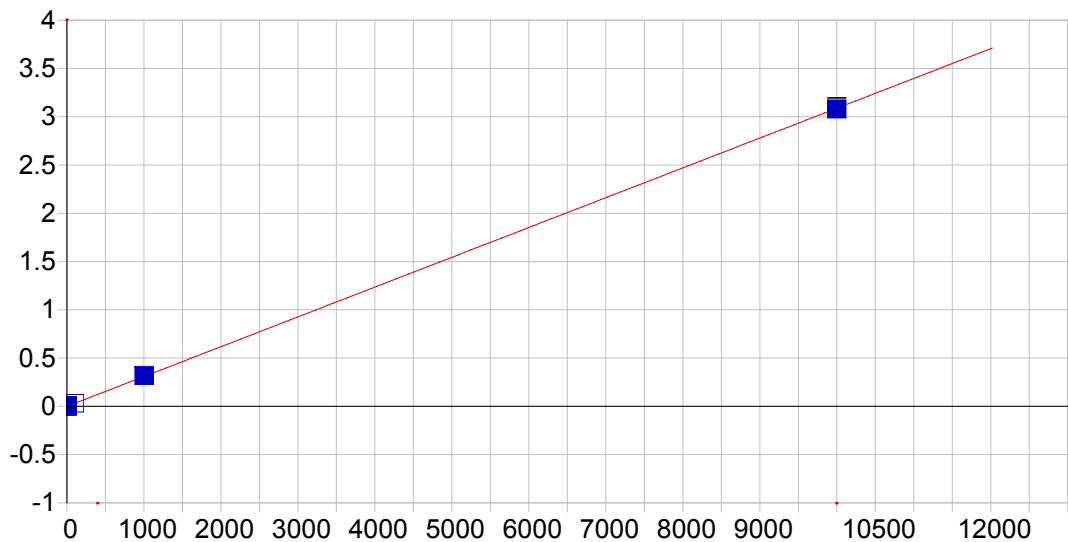


Ti 334.941 {101}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000022 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999927 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 2.062725
 Predicted MQL: 6.875750

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00292	.003	.000	.00002	.000	1
CalStd5=10	10.000	8.1609	-1.84	-18.4	.00009	.000	1
CalStd8=100	100.00	99.183	-.817	-.817	.00090	.000	1
CalStd9=100	1000.0	1018.9	18.9	1.89	.00906	.000	1
CalStd10=10	10000.	9985.2	-14.8	-.148	.08857	.001	1
CalStd7=50	50.000	50.719	.719	1.44	.00047	.000	1
CalStd4=5	5.0000	2.8845	-2.12	-42.3	.00005	.000	1

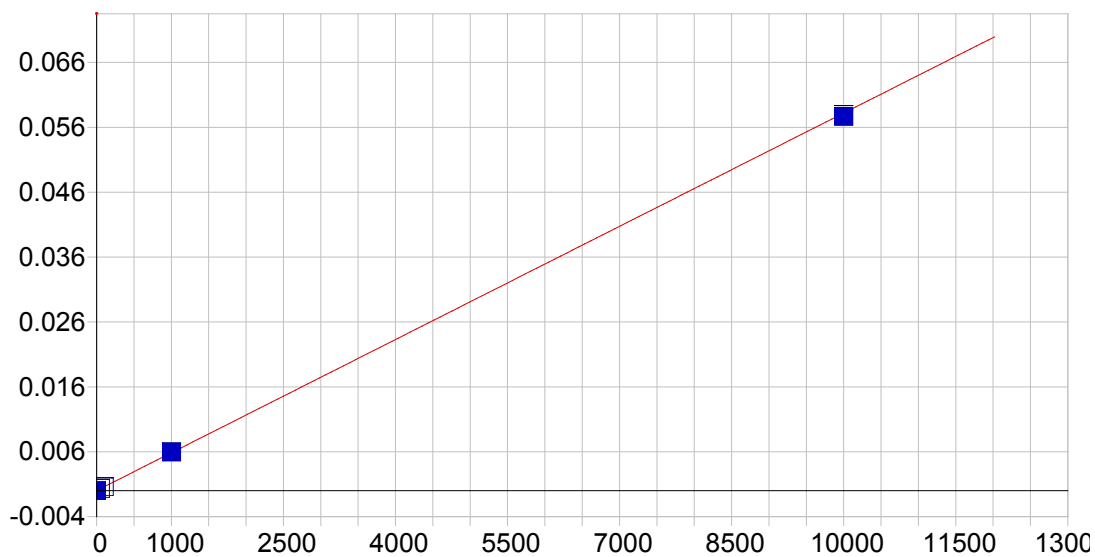


Sr 407.771 { 83}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000050 Re-Slope: 1.000000
A1 (Gain): 0.000309 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999962 Status: OK.
Std Error of Est: 0.000011
Predicted MDL: 0.109326
Predicted MQL: 0.364419

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00014	.000	.000	-.00005	.000	1
CalStd3=1	1.0000	.79272	-.207	-20.7	.00019	.000	1
CalStd4=5	5.0000	4.9636	-.036	-.729	.00148	.000	1
CalStd5=10	10.000	10.292	.292	2.92	.00313	.000	1
CalStd8=100	100.00	101.99	1.99	1.99	.03144	.000	1
CalStd9=100	1000.0	1026.1	26.1	2.61	.31682	.002	1
CalStd10=10	10000.	9971.9	-28.1	-.281	3.0793	.020	1

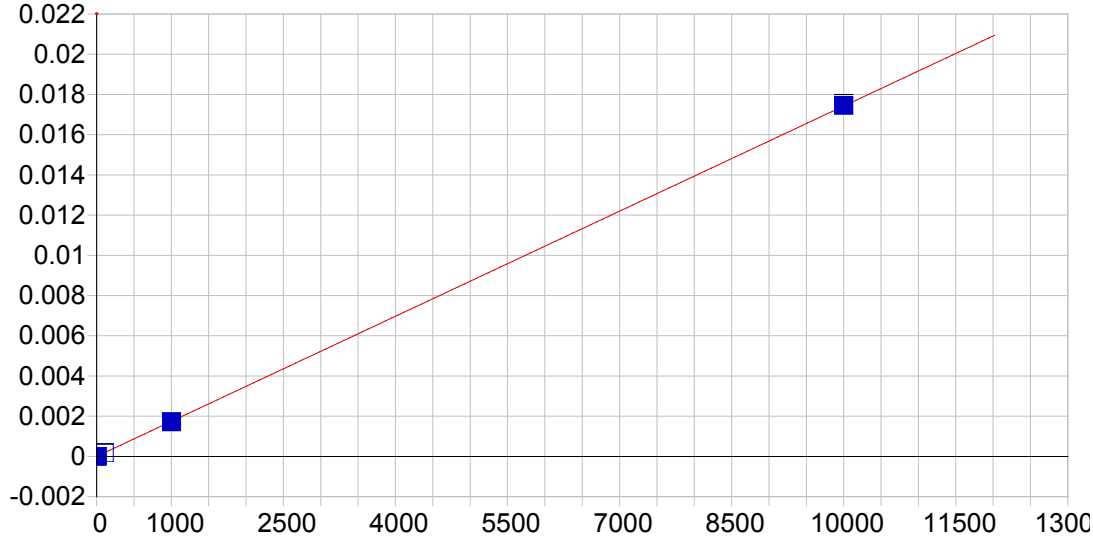


Sn 189.989 {478}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000023	Re-Slope: 1.000000
A1 (Gain):	0.000006	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999908	Status: OK.
Std Error of Est:	0.000049	
Predicted MDL:	3.578409	
Predicted MQL:	11.928030	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.2253	-2.23	.000	.00001	.000	1
CalStd10=10	10000.	9909.2	-90.8	-.908	.05767	.000	1
CalStd9=100	1000.0	1017.4	17.4	1.74	.00594	.000	1
CalStd8=100	100.00	98.478	-1.52	-1.52	.00060	.000	1
CalStd7=50	50.000	50.202	.202	.404	.00032	.000	1

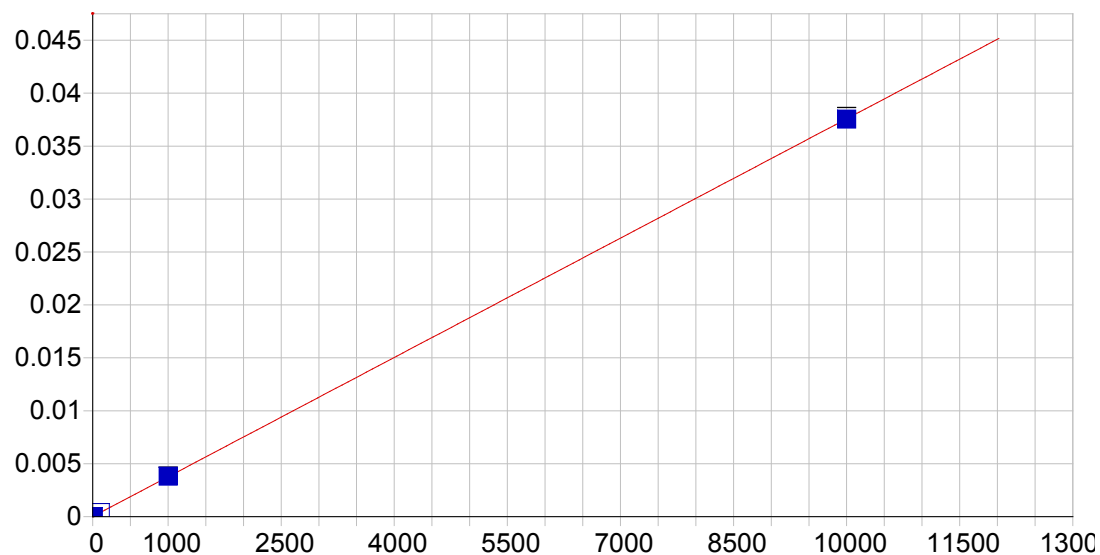


B 249.678 {135}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000002 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999980 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 1.182003
Predicted MQL: 3.940010

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00120	.001	.000	.00000	.000	1
CalStd8=100	100.00	99.462	-.538	-.538	.00017	.000	1
CalStd5=10	10.000	9.0087	-.991	-9.91	.00002	.000	1
CalStd9=100	1000.0	982.66	-17.3	-1.73	.00171	.000	1
CalStd10=10	10000.	10019.	18.9	.189	.01745	.000	1

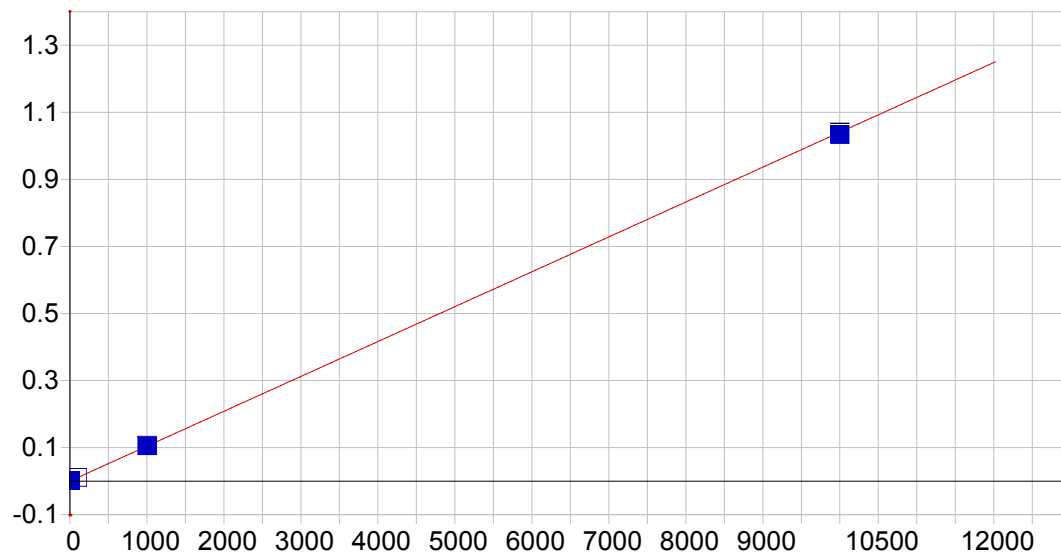


B 249.773 {135}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000005	Re-Slope: 1.000000
A1 (Gain):	0.000004	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999993	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.525442	
Predicted MQL:	1.751472	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00019	.000	.000	.00001	.000	1
CalStd8=100	100.00	99.219	-.781	-.781	.00038	.000	1
CalStd5=10	10.000	9.7811	-.219	-2.19	.00004	.000	1
CalStd9=100	1000.0	1011.9	11.9	1.19	.00381	.000	1
CalStd10=10	10000.	9989.1	-10.9	-.109	.03756	.000	1

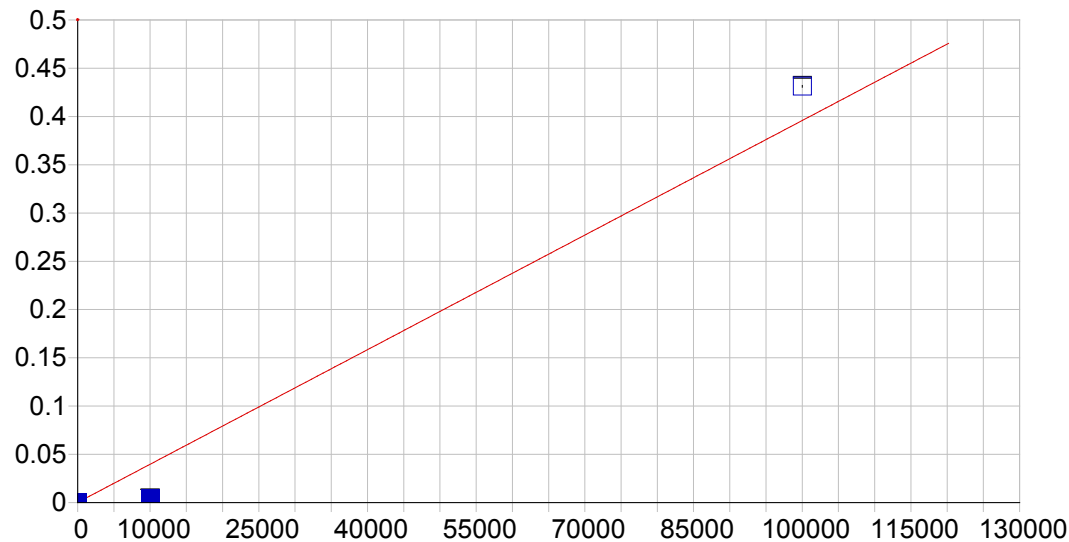


Li 670.784 { 50}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000188	Re-Slope: 1.000000
A1 (Gain):	0.000104	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999960	Status: OK.
Std Error of Est:	0.000130	
Predicted MDL:	1.052913	
Predicted MQL:	3.509712	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.85296	-.853	.000	.00010	.000	1
CalStd5=10	10.000	10.197	.197	1.97	.00125	.000	1
CalStd8=100	100.00	100.38	.378	.378	.01063	.000	1
CalStd9=100	1000.0	1010.6	10.6	1.06	.10532	.001	1
CalStd10=10	10000.	9934.0	-66.0	-.660	1.0337	.006	1

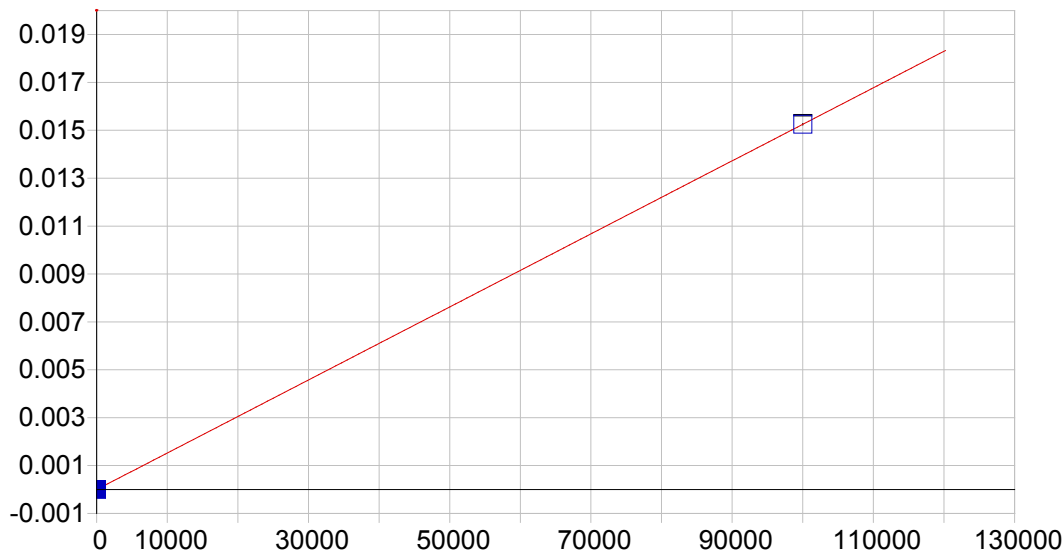


K 766.490 { 44 }

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000152	Re-Slope: 1.000000
A1 (Gain):	0.000004	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.962173	Status: OK.
Std Error of Est:	0.002034	
Predicted MDL:	29.156521	
Predicted MQL:	97.188404	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0542	8.05	.000	.00018	.000	1
CalStd9=100	10000.	1051.0	-8950.	-89.5	.00431	.000	1
CalStd12=100	100000.	108950.	8950.	8.95	.43127	.001	1

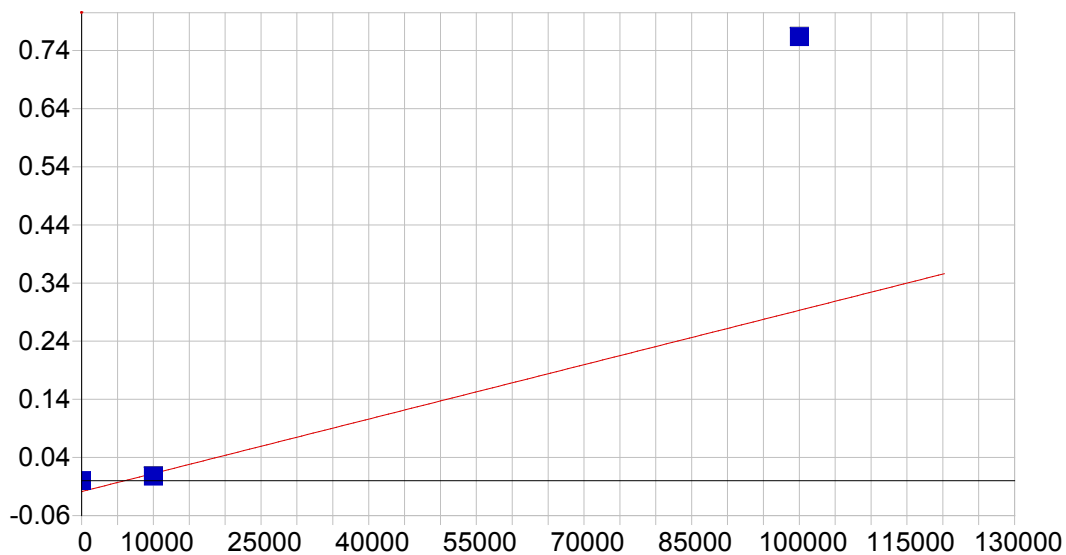


P 213.618 {457}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	3.517083	
Predicted MQL:	11.723609	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100 100000.	100000.	100000.	.000	.000	.01525	.000	1

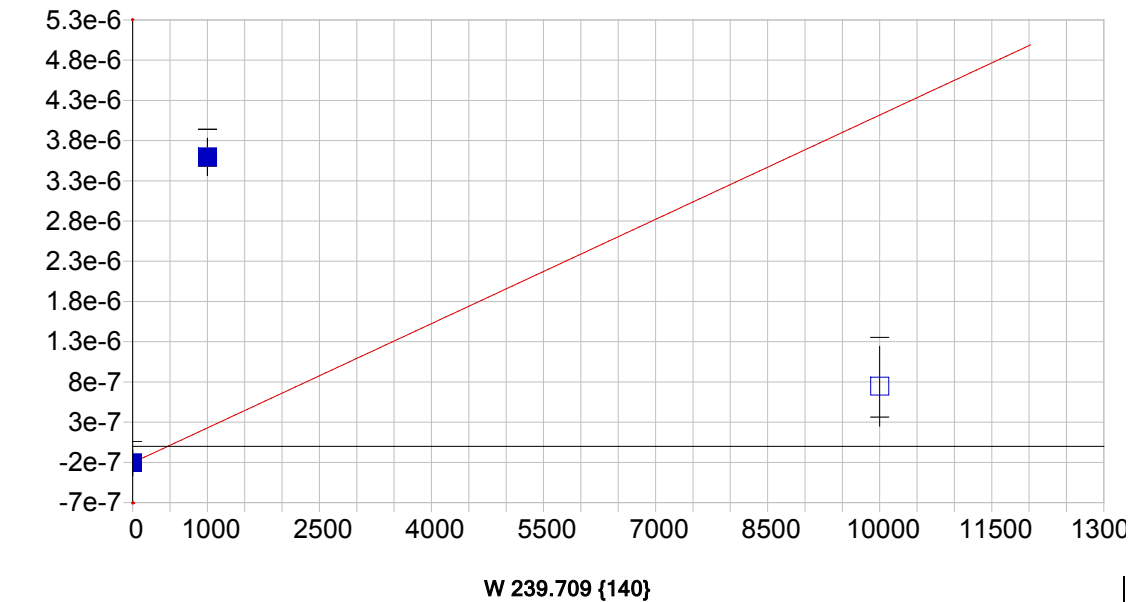


S 182.034 {485}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	-0.018715	Re-Slope: 1.000000
A1 (Gain):	0.000003	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.667540	Status: OK.
Std Error of Est:	0.028475	
Predicted MDL:	8.676635	
Predicted MQL:	28.922117	

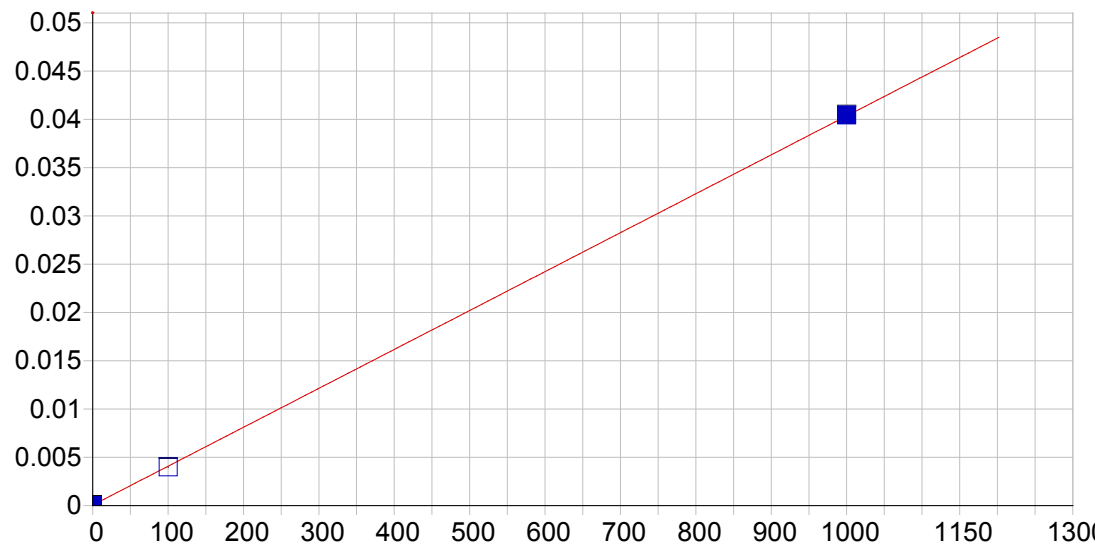
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	6013.9	6010.	.000	.00004	.000	1
CalStd12-100 100000.		250920.	151000.	151.	.76368	.001	1
CalStd9=100 10000.		8445.3	-1550.	-15.5	.00762	.000	1



Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.375748	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1137.316660	
Predicted MQL:	3791.055533	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.0149	-7.01	.000	.00000	.000	1
CalStd9=100	1000.0	8795.0	7790.	779.	.00000	.000	1
CalStd12=100	10000.	2199.9	-7800.	-78.0	.00000	.000	1

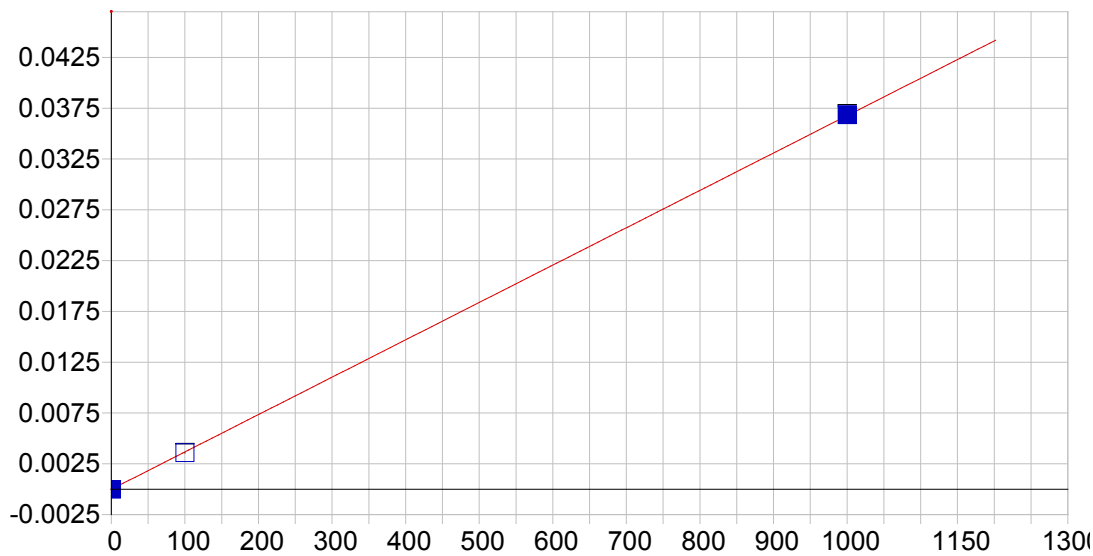


Hg 184.950 (482)

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000049	Re-Slope: 1.000000
A1 (Gain):	0.000040	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999974	Status: OK.
Std Error of Est:	0.000005	
Predicted MDL:	0.747923	
Predicted MQL:	2.493077	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00206	.002	.000	.00005	.000	1
CalStd8=100	100.00	97.709	-2.29	-2.29	.00399	.000	1
CalStd9=100	1000.0	1002.3	2.29	.229	.04044	.000	1



Hg 194.227 {473}

Date of Fit: 11/18/2016 15:31:42 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000009	Re-Slope: 1.000000
A1 (Gain):	0.000037	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999977	Status: OK.
Std Error of Est:	0.000005	
Predicted MDL:	0.774708	
Predicted MQL:	2.582361	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00194	.002	.000	-.00001	.000	1
CalStd8=100	100.00	97.843	-2.16	-2.16	.00359	.000	1
CalStd9=100	1000.0	1002.2	2.16	.216	.03685	.000	1

Sample Name: Blank Acquired: 11/15/2016 12:11:55 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.018	.000	.000	.004	.000	.000	.000
Stddev	.00	.000	.00	.000	.000	.000	.00	.000	.005	.00	.00	.00
%RSD	33.3	211.	13.7	84.8	26.5	.836	2.41	11.9	109.	186.	26.5	283.

Elem	Cr2055	Cr2677	Cu2247	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.00	.00	.00	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	67.8	223.	25.3	39.3	3.95	57.4	126.	223.	3.53	25.6	32.1	77.4

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.000	.00	.000	.000	.00	.00	.000	.000	.00	.000	.000
%RSD	411.	241.	70.8	113.	274.	5.88	158.	198.	58.7	65.9	138.	64.4

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1328700.	53110.	16811.
Stddev	6931.	291.	18.
%RSD	.52161	.54788	.10933

Sample Name: CalStd1=0.25 Acquired: 11/15/2016 12:18:51 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	.000
Stddev	.00
%RSD	1.09

Int. Std.	Y_3242
Units	Cts/S
Avg	1325400.
Stddev	2263.
%RSD	.17073

Sample Name: CalStd2=0.5 Acquired: 11/15/2016 12:25:56 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Be3130	Cd2265
Units	Cts/S	Cts/S
Avg	.000	.000
Stddev	.00	.000
%RSD	9.59	21.2

Int. Std.	Y_3242	Y_2243
Units	Cts/S	Cts/S
Avg	1323200.	16789.
Stddev	2809.	24.
%RSD	.21227	.14308

Sample Name: CalStd3=1 Acquired: 11/15/2016 12:33:03 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cu2247	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.00	.000
%RSD	131.	10.4	9.34	18.7	34.9	21.5	163.	90.2

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1318700.	53230.	16682.
Stddev	1334.	73.	47.
%RSD	.10118	.13641	.28021

Sample Name: CalStd4=5 Acquired: 11/15/2016 12:40:09 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	As1890	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.002	.001	.001	.000	.000	.006	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	98.8	1.60	.697	1.42	3.54	2.21	10.4	11.6	1.39	7.06	9.84	1.47

Elem	Pb2203	Sb2175	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000
Stddev	.000	.000	.000
%RSD	26.9	27.0	1.06

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1321000.	53049.	16663.
Stddev	2318.	136.	9.
%RSD	.17549	.25594	.05551

Sample Name: CalStd5=10 Acquired: 11/15/2016 12:47:22 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.001	.001	.003	.002	.002	.000	.001	.013	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.04	153.	.649	.329	1.66	2.45	1.89	1.52	6.56	.530	1.89	5.99

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.725	38.8	10.5	16.6	8.48	9.29	46.8	2.85	2.15

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1310900.	53367.	16572.
Stddev	5463.	40.	23.
%RSD	.41672	.07449	.13837

Sample Name: CalStd6=20 Acquired: 11/15/2016 12:54:26 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2247	Cu3273	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.003	.002	.000	.028	.002	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.684	1.16	28.2	.849	1.55	.991	4.15	2.03

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	131500.	53889.	16537.
Stddev	5796.	173.	54.
%RSD	.44074	.32136	.32365

Sample Name: CalStd7=50 Acquired: 11/15/2016 13:01:27 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1937	Ba2335	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Cu3273	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.006	.016	.012	.008	.000	.004	.000	.062	.005	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.11	.726	.330	.058	1.19	1.63	.318	8.60	.308	.835	.362	.557

Elem	Sb2068	Se1960	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.000	.000	.000
Stddev	.000	.000	.000	.000
%RSD	.625	3.62	.878	.546

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1316500.	54157.	16391.
Stddev	4027.	85.	17.
%RSD	.30588	.15738	.10284

Sample Name: CalStd8=100 Acquired: 11/15/2016 13:08:22 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.011	.032	.007	.025	.031	.023	.000	.016	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.522	3.62	1.88	.523	.277	.254	.493	.356	.253	.218	.241	.724

Elem	Cu2247	Cu3273	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.007	.000	.005	.117	.009	.000	.000	.000	.001	.003	.002	.001
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.813	3.57	.659	.214	.349	.355	.360	.387	4.22	.941	2.50	2.61

Elem	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.001	.000
Stddev	.000	.000	.000	.000
%RSD	24.8	3.75	.476	.315

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1314800.	54196.	16346.
Stddev	1675.	130.	36.
%RSD	.12739	.23938	.21780

Sample Name: CalStd9=1000 Acquired: 11/15/2016 13:15:16 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.009	.002	.113	.164	.073	.001	.223	.314	.229	.002	.160
Stddev	.000	.000	.000	.000	.001	.000	.000	.002	.000	.000	.000	.000
%RSD	1.63	.309	1.48	.107	.634	.347	2.13	.691	.116	.146	.352	.182

Elem	Cr2677	Cu2247	Cu3273	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.070	.003	.001	.000	.002	.000	.044	1.17	.000	.091	.001
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.00	.000	.000	.000
%RSD	.215	.352	1.07	.264	1.52	.677	7.27	.299	.303	1.40	.234	.261

Elem	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.002	.002	.012	.031	.020	.021	.009	.002	.009	.005	.002
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.462	.497	.291	.130	.464	.349	.582	1.79	.635	.453	.369

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1311700.	54307.	16279.
Stddev	4681.	102.	34.
%RSD	.35684	.18751	.20797

Sample Name: CalStd10=10000 Acquired: 11/15/2016 13:21:40 Type: Cal
Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Cu3273
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.040	.089	.017	1.45	.005	2.15	2.21	.023	1.54	.043	*****	.033
Stddev	.000	.000	.000	.01	.000	.01	.01	.000	.00	.000	-----	.000
%RSD	.924	.183	.406	.580	.921	.633	.248	.648	.122	.732	-----	.645

Elem	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.005	.000	.015	.001	.396	10.8	.004	.006	.020	.020	.120	.299
Stddev	.000	.000	.000	.000	.003	.1	.000	.000	.000	.000	.000	.000
%RSD	.679	.787	.951	1.02	.824	.490	.395	.720	.629	.639	.167	.101

Elem	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.199	.207	.082	.018	.089	.053	.023
Stddev	.001	.001	.000	.000	.000	.000	.000
%RSD	.314	.290	.286	.230	.187	.530	.720

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1278600.	54092.	15995.
Stddev	10196.	97.	36.
%RSD	.79749	.17852	.22762

Sample Name: CalStd11-100k Acquired: 11/15/2016 13:28:04 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2055	Cu3273	Mn2593	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14.2	.351	.041	1.23
Stddev	.0	.002	.000	.00
%RSD	.089	.649	.481	.220

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1290300.	54314.	15880.
Stddev	3781.	224.	7.
%RSD	.29300	.41301	.04326

Sample Name: CalStd12-100000 Acquired: 11/15/2016 13:35:09 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.400	.047	.003	.148	.007
Stddev	.002	.000	.000	.001	.000
%RSD	.480	.609	.958	.647	.521

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1238600.	53916.	15336.
Stddev	3694.	160.	31.
%RSD	.29819	.29681	.20014

Sample Name: CalStd13=500000 Acquired: 11/15/2016 13:42:22 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.97	.224	.190	.016	.659	.036
Stddev	.01	.001	.001	.000	.005	.000
%RSD	.573	.647	.584	.797	.734	.533

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1169500.	51734.	14219.
Stddev	1795.	53.	6.
%RSD	.15344	.10274	.04379

Sample Name: CalStd14-1000k Acquired: 11/15/2016 13:49:40 Type: Cal
 Method: DOD Calibration Updated 060614(v1730) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.92	.422	.310	.029	1.22	.071
Stddev	.03	.003	.001	.000	.01	.000
%RSD	.778	.701	.476	.756	.516	.608

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1099700.	49955.	13248.
Stddev	1562.	57.	6.
%RSD	.14201	.11393	.04774

Sample Name: icv Acquired: 11/15/2016 14:03:52 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388	Cr2677	Cu2247	Fe2343
Avg	49.1	12100.	2120.	2060.	48.4	10800.	50.0	536.	511.	203.	254.	5110.
Stddev	.3	81.	19.	13.	.1	106.	.1	1.	2.	1.	1.	19.
%RSD	.687	.668	.906	.633	.252	.981	.239	.229	.317	.602	.257	.364

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068
Avg	5120.	5180.	10500.	547.	502.	533.	536.	511.	519.	480.	522.	525.
Stddev	28.	33.	97.	1.	6.	1.	2.	.	1.	4.	2.	2.
%RSD	.546	.634	.927	.211	1.13	.170	.410	.039	.191	.735	.415	.390

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Sb2175	Se2062	Tl1908	V_2924	Zn2138
Avg	533.	2060.	2060.	513.	514.
Stddev	2.	7.	5.	2.	2.
%RSD	.424	.326	.266	.343	.306

Check ? Value Range	None	None	None	None	None
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Sample Name: icv Acquired: 11/15/2016 14:03:52 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1296300.	53827.	15980.
Stddev	1504.	173.	30.
%RSD	.11606	.32148	.19035

Sample Name: ICVLL Acquired: 11/15/2016 14:10:39 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	F 39.2	1200.	63.7	30.7	12.9	1630.	16.1	32.3	30.3	30.9	936.	940.
Stddev	.6	7.	4.1	.1	.1	22.	.2	.3	.8	.5	10.	9.
%RSD	1.58	.542	6.46	.425	.456	1.37	1.07	1.04	2.62	1.70	1.08	.952

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.0											
Range	-30.0%											

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	1580.	33.8	30.7	32.0	31.9	63.5	68.2	56.6	31.7	31.1
Stddev	97.	.0	.4	.4	1.0	2.5	2.2	1.2	.4	.3
%RSD	6.12	.115	1.19	1.14	3.02	3.98	3.21	2.14	1.39	1.03

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1301400.	53634.	15969.
Stddev	3057.	55.	17.
%RSD	.23493	.10283	.10432

Sample Name: icb Acquired: 11/15/2016 14:24:45 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	-263	-63.8	-1.85	-.562	-.162	-11.2	.023	.191	-.904	-.380	3.20	-13.7
Stddev	.513	3.3	2.94	.084	.019	.3	.129	.106	.095	.184	6.66	6.6
%RSD	195.	5.10	159.	14.9	11.9	2.25	559.	55.7	10.5	48.4	209.	47.7

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	1.35	-.055	.057	.361	-.614	-.312	1.45	-1.32	-.111	-.402
Stddev	.03	.053	.107	.145	2.23	1.04	6.02	1.57	.275	.116
%RSD	2.04	95.5	188.	40.3	363.	333.	415.	119.	249.	28.9

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1303200.	53784.	16009.
Stddev	3843.	99.	10.
%RSD	.29489	.18364	.05949

Sample Name: icsa Acquired: 11/15/2016 14:38:51 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395
Avg	-.209	510000.	.011	.000	-.202	503000.	.006	-.272	.029	-.065	461000.
Stddev	.925	4610.	9.51	.26	.029	4270.	.482	.201	.227	2.17	4150.
%RSD	443.	.904	83400.	16e6	14.2	.849	7420.	73.9	791.	3360.	.899

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	445000.	505000.	.000	.000	-.269	.050	-.737	.000	.120	.025	.943
Stddev	2930.	5350.	.142	.840	.496	2.96	3.88	5.16	2.31	.384	.351
%RSD	.660	1.06	312000.	9770000.	185.	5960.	527.	2060000.	1930.	1540.	37.2

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1157200.	50828.	14097.
Stddev	2957.	111.	7.
%RSD	.25549	.21833	.04819

Sample Name: icsab Acquired: 11/15/2016 14:46:13 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388
Avg	551.	517000.	532.	527.	500.	456.	499.	509000.	472.	502.	448.
Stddev	3.	3230.	16.	26.	1.	3.	2.	3020.	2.	1.	3.
%RSD	.489	.623	2.98	4.84	.119	.609	.450	.592	.390	.215	.770

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Cr2055	Cr2677	Cu2247	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216
Avg	538.	488.	477.	469000.	454000.	512000.	529.	538.	507.	512.	477.
Stddev	1.	3.	1.	3000.	1830.	2610.	1.	11.	1.	3.	3.
%RSD	.156	.561	.193	.640	.403	.510	.162	1.98	.252	.536	.565

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Ni2316	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	471.	469.	551.	555.	522.	448.	510.	507.
Stddev	2.	3.	3.	2.	9.	3.	2.	3.
%RSD	.424	.673	.551	.367	1.64	.626	.379	.606

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: icsab Acquired: 11/15/2016 14:46:13 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1160800.	50847.	14085.
Stddev	5752.	251.	26.
%RSD	.49551	.49433	.18643

Sample Name: ICVLL ag Acquired: 11/15/2016 14:54:02 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.16	-1.19	-8.81	-.501	-.205	-8.88	-.045	.238	-.647	-.062	404.	387.
Stddev	.80	61.1	3.14	.205	.009	3.73	.072	.166	.439	.339	436.	440.
%RSD	8.68	5130.	357.	40.9	4.31	42.0	160.	69.9	67.8	551.	108.	114.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	7.15	-.142	.001	.399	-.373	.738	.383	-1.06	.122	-.085
Stddev	4.24	.090	.127	.196	1.31	.698	1.80	1.38	.334	.077
%RSD	59.2	63.8	22200.	49.1	352.	94.5	470.	130.	274.	90.8

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1297200.	53411.	15946.
Stddev	3220.	385.	34.
%RSD	.24821	.72013	.21347

Sample Name: ccv1 Acquired: 11/15/2016 19:07:47 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu3273	Fe2343	Fe2395
Avg	483.	4680.	4720.	4820.	459.	4780.	469.	4650.	4970.	4720.	4630.	4540.
Stddev	3.	44.	23.	38.	2.	36.	.	22.	1.	35.	19.	53.
%RSD	.647	.943	.485	.790	.415	.752	.083	.462	.013	.737	.419	1.18

Check ? None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908
Avg	4780.	4650.	4780.	4570.	4640.	4660.	4670.	4840.	4740.	4790.	4840.	4630.
Stddev	20.	188.	21.	55.	4.	12.	16.	10.	10.	11.	45.	16.
%RSD	.428	4.04	.431	1.19	.091	.249	.334	.212	.216	.219	.937	.344

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2138
Avg	4670.	4520.
Stddev	20.	10.
%RSD	.429	.213

Check ? Chk Pass Chk Pass
Value
Range

Sample Name: ccv1 Acquired: 11/15/2016 19:07:47 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1314400.	53532.	16215.
Stddev	5275.	210.	43.
%RSD	.40131	.39208	.26322

Sample Name: ccv2 Acquired: 11/15/2016 19:13:58 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Avg	52.1	431.	497.	481.	478.	499.	49.5	482.	50.8	487.	485.	519.
Stddev	.6	11.	5.	10.	1.	1.	.2	3.	.3	1.	2.	1.
%RSD	1.21	2.62	.995	2.15	.207	.128	.309	.606	.644	.222	.506	.097

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2395	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Avg	470.	481.	463.	487.	470.	508.	472.	481.	476.	477.	491.	502.
Stddev	2.	1.	16.	4.	2.	1.	4.	1.	1.	1.	1.	6.
%RSD	.419	.294	3.51	.840	.371	.124	.908	.291	.254	.284	.259	1.10

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Avg	496.	497.	492.	490.	478.	476.	483.	475.
Stddev	2.	3.	1.	1.	14.	6.	3.	1.
%RSD	.433	.643	.236	.162	2.92	1.17	.599	.157

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ccv2 Acquired: 11/15/2016 19:13:58 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1322000.	53446.	16299.
Stddev	1142.	47.	20.
%RSD	.08637	.08804	.12340

Sample Name: ccb Acquired: 11/15/2016 19:20:35 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	-666	-64.2	1.03	-449	-006	-15.3	-078	.299	-.745	.158	7.49	-13.4
Stddev	.267	7.3	2.23	.185	.005	.7	.118	.146	.485	.511	4.90	6.3
%RSD	40.1	11.4	216.	41.3	94.9	4.26	151.	48.6	65.1	324.	65.3	46.7

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	-.464	-.089	.686	.079	-.509	.938	1.56	-.238	.134	-.701
Stddev	.026	.033	.122	.504	1.99	1.84	1.41	2.17	.429	.141
%RSD	5.57	36.9	17.7	636.	392.	196.	90.3	911.	320.	20.1

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1328500.	53338.	16344.
Stddev	4194.	134.	32.
%RSD	.31565	.25077	.19809

Sample Name: lcsW60178 Acquired: 11/15/2016 19:48:51 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	20.3	775.	885.	857.	796.	855.	19.2	198000.	19.3	202.	77.0
Stddev	.7	2.	4.	2.	1.	6.	.1	1050.	.2	.	.8
%RSD	3.44	.214	.401	.285	.080	.651	.288	.532	.810	.067	1.05

Elem	Cu2247	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	98.5	413.	410.	96400.	211.	-.095	190.	199.	202.	211.	832.
Stddev	1.8	20.	6.	691.	1.	.318	1.	1.	2.	3.	5.
%RSD	1.85	4.72	1.35	.716	.463	334.	.359	.285	.891	1.35	.656

Elem	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	841.	750.	207.	204.
Stddev	26.	4.	2.	1.
%RSD	3.06	.495	.781	.401

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1251700.	51584.	15421.
Stddev	3470.	145.	5.
%RSD	.27725	.28121	.03293

Sample Name: mbw60178 Acquired: 11/15/2016 19:56:03 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-.453	-65.4	-1.58	-.363	.044	17.2	-.057	.258	-.924	.129	2.63	-4.60
Stddev	.697	9.3	3.15	.064	.017	42.4	.071	.187	.334	.412	8.05	6.40
%RSD	154.	14.2	200.	17.7	38.3	247.	125.	72.4	36.2	319.	306.	139.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-.179	-.043	-.002	-.111	.571	.816	.937	-.179	.131	-.268
Stddev	.076	.061	.096	.267	1.94	.976	2.04	3.08	.273	.071
%RSD	42.7	141.	4350.	240.	339.	120.	218.	1720.	209.	26.7

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1333100.	53263.	16620.
Stddev	3416.	87.	43.
%RSD	.25627	.16256	.25906

Sample Name: 804577 Acquired: 11/15/2016 20:03:09 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-783	-18.9	1.33	36.7	.012	32800.	.097	.651	.816	22.1	1910.	2050.
Stddev	1.28	5.0	3.31	.2	.018	245.	.151	.133	.419	.5	19.	29.
%RSD	163.	26.7	248.	.528	156.	.746	156.	20.4	51.3	2.31	1.01	1.42

Elem	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9300.	758.	716.	104.	1.74	21.0	.701	2.46	-.976	1.23	37.0
Stddev	83.	3.	4.	.	.26	1.6	2.48	2.17	1.71	.35	.1
%RSD	.894	.371	.536	.293	14.9	7.78	354.	88.2	175.	28.2	.374

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1301800.	52225.	16291.
Stddev	4006.	47.	56.
%RSD	.30769	.09079	.34655

Sample Name: I804577 Acquired: 11/15/2016 20:10:37 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-.259	-71.7	4.75	6.60	.058	8630.	.102	.324	-.261	3.74	493.	517.
Stddev	.537	1.8	2.67	.61	.019	317.	.129	.160	.375	.37	14.	20.
%RSD	207.	2.46	56.3	9.24	32.6	3.68	127.	49.5	144.	9.93	2.94	3.93

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	2460.	171.	18.7	.379	1.72	-.744	-.759	-1.42	.719	6.73
Stddev	57.	9.	1.3	.237	.59	.463	.251	1.76	.193	.32
%RSD	2.33	5.08	6.94	62.5	34.4	62.3	33.1	124.	26.9	4.73

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1334100.	52678.	16835.
Stddev	6609.	98.	18.
%RSD	.49538	.18541	.10987

Sample Name: dup804577 Acquired: 11/15/2016 20:17:49 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-426	-22.7	2.65	38.7	.044	33000.	.104	.637	1.03	19.6	1890.	2050.
Stddev	.747	7.5	2.38	.2	.006	200.	.109	.130	.44	.4	13.	18.
%RSD	175.	32.9	89.7	.613	14.5	.605	105.	20.4	43.0	1.82	.671	.893

Elem	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9260.	762.	721.	103.	2.63	20.3	2.99	-.002	-.789	1.46	38.2
Stddev	116.	2.	4.	.	.28	2.0	1.58	3.20	.722	.42	.2
%RSD	1.26	.232	.614	.423	10.8	9.82	52.8	188000.	91.6	28.8	.448

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1299500.	51973.	16311.
Stddev	2745.	67.	43.
%RSD	.21121	.12858	.26669

Sample Name: msw804577 Acquired: 11/15/2016 20:25:17 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	21.0	841.	916.	887.	858.	927.	20.0	238000.	20.0	204.	81.2
Stddev	1.0	9.	6.	14.	3.	5.	.1	1230.	.1	1.	.9
%RSD	4.87	1.02	.651	1.62	.316	.553	.338	.518	.613	.286	1.07

Elem	Cu2247	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	119.	2340.	2510.	109000.	973.	848.	105.	199.	207.	229.	215.
Stddev	1.	13.	10.	657.	3.	5.	1.	.	1.	3.	2.
%RSD	.568	.566	.386	.603	.284	.606	.789	.180	.552	1.47	.876

Elem	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	763.	815.	750.	216.	249.
Stddev	5.	18.	4.	1.	1.
%RSD	.720	2.23	.481	.560	.314

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1239900.	50372.	15407.
Stddev	3511.	93.	16.
%RSD	.28315	.18508	.10345

Sample Name: msdw804577 Acquired: 11/15/2016 20:32:24 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	21.0	830.	889.	841.	830.	894.	19.2	230000.	19.4	198.	78.3
Stddev	.8	13.	11.	20.	3.	6.	.0	1480.	.1	.	.7
%RSD	3.67	1.59	1.21	2.43	.315	.617	.136	.644	.660	.190	.917

Elem	Cu2247	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	115.	2260.	2400.	106000.	939.	816.	102.	192.	201.	225.	208.
Stddev	1.	28.	25.	665.	2.	7.	.	1.	1.	1.	2.
%RSD	.546	1.24	1.02	.629	.242	.898	.279	.505	.337	.558	1.01

Elem	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	720.	742.	726.	207.	241.
Stddev	6.	16.	5.	1.	1.
%RSD	.782	2.14	.663	.252	.543

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1246600.	50517.	15477.
Stddev	5375.	146.	60.
%RSD	.43120	.28950	.38857

Sample Name: ccv1 Acquired: 11/15/2016 20:39:33 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu3273	Fe2599	Mg2790
Avg	497.	4720.	4650.	4870.	467.	4930.	471.	4800.	5050.	4660.	4950.	4820.
Stddev	1.	28.	31.	39.	1.	15.	.	7.	5.	27.	37.	64.
%RSD	.300	.601	.671	.802	.192	.296	.090	.135	.101	.576	.737	1.33

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2138
Avg	4650.	4560.	4640.	4710.	4790.	5010.	4780.	4670.	4920.	F 4450.	4760.	4650.
Stddev	3.	52.	6.	4.	6.	9.	8.	11.	22.	16.	7.	2.
%RSD	.064	1.15	.130	.092	.120	.170	.166	.233	.448	.350	.153	.050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value										5000.		
Range										-10.4%		

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1315400.	51913.	16725.
Stddev	1065.	116.	21.
%RSD	.08099	.22402	.12841

Sample Name: ccv2 Acquired: 11/15/2016 20:45:44 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Avg	52.9	433.	504.	477.	479.	509.	50.0	486.	50.7	476.	497.	526.
Stddev	.8	10.	1.	6.	1.	2.	.3	1.	.3	1.	3.	1.
%RSD	1.50	2.22	.165	1.29	.201	.322	.586	.230	.526	.236	.599	.192

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2395	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Avg	474.	475.	468.	506.	468.	494.	465.	481.	477.	484.	499.	521.
Stddev	2.	1.	15.	7.	2.	1.	4.	1.	2.	3.	3.	5.
%RSD	.505	.176	3.22	1.36	.396	.233	.934	.154	.521	.609	.614	.910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Avg	497.	484.	476.	476.	514.	457.	488.	484.
Stddev	1.	3.	2.	4.	21.	4.	2.	3.
%RSD	.231	.547	.383	.768	4.14	.928	.325	.568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ccv2 Acquired: 11/15/2016 20:45:44 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1333000.	51703.	16789.
Stddev	6461.	66.	24.
%RSD	.48467	.12698	.14354

Sample Name: ccb Acquired: 11/15/2016 20:52:22 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	-.070	-68.8	-.055	-.368	.145	-14.5	-.058	.213	-.698	.217	-2.51	-11.2
Stddev	.432	6.1	2.54	.111	.019	.9	.098	.105	.145	.439	5.38	7.9
%RSD	616.	8.86	4610.	30.2	12.9	6.41	168.	49.0	20.8	202.	215.	71.1

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	-.403	-.077	.618	.160	-.934	-.127	.593	-1.54	.505	-.666
Stddev	.026	.061	.235	.452	1.83	1.31	1.77	1.95	.302	.073
%RSD	6.42	79.5	38.0	284.	196.	1030.	299.	126.	59.9	11.0

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1337500.	52023.	16923.
Stddev	4734.	115.	16.
%RSD	.35396	.22106	.09738

Sample Name: pds804577 Acquired: 11/15/2016 20:59:29 Type: Unk
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	100.	104000.	4020.	4150.	94.6	133000.	91.1	986.	421.	378.	490.
Stddev	1.	650.	17.	23.	.6	962.	.4	5.	1.	1.	1.
%RSD	.912	.627	.409	.555	.606	.722	.391	.508	.178	.382	.183

Elem	Fe2343	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	40900.	41600.	44900.	109000.	1660.	1600.	2110.	2100.	961.	972.	872.
Stddev	232.	409.	330.	723.	4.	17.	5.	12.	5.	5.	7.
%RSD	.566	.983	.734	.666	.261	1.06	.226	.577	.545	.546	.803

Elem	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	994.	1010.	4160.	3530.	1000.	1030.
Stddev	4.	6.	27.	16.	4.	5.
%RSD	.451	.644	.652	.446	.414	.481

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1267100.	51242.	15996.
Stddev	5210.	178.	36.
%RSD	.41117	.34768	.22572

Sample Name: ccv1 Acquired: 11/15/2016 22:10:33 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu3273	Fe2343	Fe2599
Avg	500.	4740.	4620.	4870.	465.	4890.	469.	4810.	5060.	4610.	4730.	4960.
Stddev	5.	49.	20.	42.	3.	30.	1.	28.	2.	38.	28.	43.
%RSD	.984	1.04	.426	.855	.685	.607	.133	.582	.042	.832	.592	.856

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Avg	4720.	4580.	4520.	4630.	4680.	4770.	5080.	4780.	4620.	4950.	F 4380.	4760.
Stddev	62.	7.	70.	8.	31.	28.	5.	7.	12.	26.	13.	27.
%RSD	1.32	.156	1.55	.176	.664	.592	.090	.151	.260	.514	.293	.568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value											5000.	
Range											-10.4%	

Elem	Zn2138
Avg	4650.
Stddev	27.
%RSD	.582

Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 11/15/2016 22:10:33 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1326800.	51890.	16946.
Stddev	8220.	140.	19.
%RSD	.61954	.26995	.11032

Sample Name: ccv2 Acquired: 11/15/2016 22:16:43 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Avg	53.6	433.	504.	464.	479.	510.	49.9	487.	50.6	468.	497.	527.
Stddev	.8	4.	8.	6.	.	2.	.1	1.	.2	.	.	1.
%RSD	1.51	1.02	1.66	1.33	.055	.358	.140	.126	.434	.068	.038	.120

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2395	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Avg	471.	470.	466.	511.	465.	487.	468.	480.	475.	485.	500.	529.
Stddev	1.	2.	1.	9.	1.	1.	4.	1.	2.	2.	1.	5.
%RSD	.207	.389	.318	1.84	.157	.228	.857	.307	.472	.473	.285	.919

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Avg	500.	477.	466.	463.	486.	F 445.	489.	486.
Stddev	3.	1.	1.	4.	25.	2.	2.	2.
%RSD	.697	.203	.162	.804	5.15	.453	.361	.372

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						500.		
Range						-10.4%		

Sample Name: ccv2 Acquired: 11/15/2016 22:16:43 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1343300.	51985.	17077.
Stddev	4788.	181.	36.
%RSD	.35641	.34872	.21370

Sample Name: ccb Acquired: 11/15/2016 22:23:21 Type: QC
Method: DOD Calibration Updated 060614(v1730) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	.030	-64.5	-.606	-.273	.175	-14.9	-.035	.302	-.713	.483	3.66	-14.9
Stddev	.549	8.5	1.43	.099	.022	.8	.160	.078	.192	.218	7.02	6.1
%RSD	1820.	13.2	236.	36.3	12.5	5.40	458.	25.7	27.0	45.2	192.	41.1

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	-.496	-.097	.643	.199	.128	.193	-.022	-2.45	.115	-.695
Stddev	.038	.065	.208	.193	1.21	2.20	2.71	2.88	.313	.146
%RSD	7.62	67.2	32.3	96.9	948.	1140.	12300.	118.	273.	20.9

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

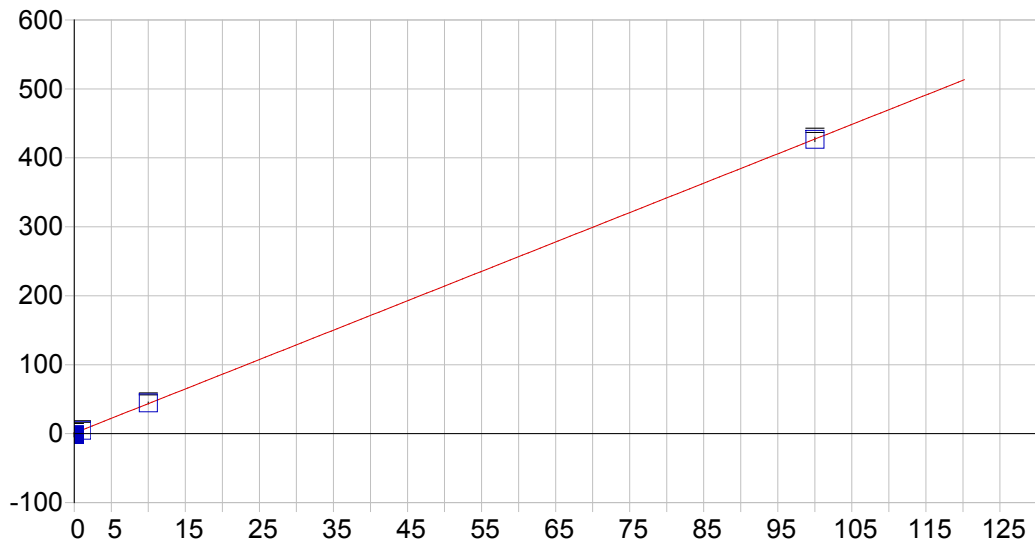
Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1348900.	51915.	17128.
Stddev	7230.	114.	11.
%RSD	.53603	.22021	.06660

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Res Slope
Ag 328.068 {103}	11/30/2016 09:23:55	11/28/2016 14:07:48	Linear	1/Var	0.000001	0.000007	0.000000	1.000000	0.999921	0.000002	0.570194	1.900648	OK	1.000000
Al 309.271 {109}	11/30/2016 09:23:55	11/28/2016 14:36:17	Curvilinear	None	0.000303	0.000001	0.000000	1.000000	1.000000	0.000023	28.202146	94.007154	OK	1.000000
Al 396.152 {85}	11/30/2016 09:23:55	11/28/2016 14:55:14	Curvilinear	1/Conc	-0.000024	0.000005	0.000000	1.000000	0.999973	0.000063	8.276859	27.589530	OK	1.000000
Al 167.079 {502}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Var	0.000172	0.000021	0.000000	1.000000	0.999496	0.000040	1.131682	3.772272	OK	1.000000
As 193.759 {474}	11/30/2016 09:23:55	11/28/2016 14:21:03	Linear	1/Var	0.234881	0.181599	0.000000	1.000000	0.999783	0.808977	3.046835	10.156116	OK	1.000000
As 189.042 {479}	11/30/2016 09:23:55	11/28/2016 14:21:03	Linear	None	0.893085	0.033846	0.000000	1.000000	0.999988	0.839436	10.711854	35.706179	OK	1.000000
Ba 233.527 {445}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	0.999959	2.041787	0.000000	1.000000	0.999242	0.099933	0.187807	0.626023	OK	1.000000
Ba 455.403 {74}	11/30/2016 09:23:55	11/28/2016 14:21:03	Linear	None	40.225666	5.614757	0.000000	1.000000	0.999995	60.711262	0.338823	1.129412	OK	1.000000
Ba 493.409 {68}	11/30/2016 09:23:55	11/28/2016 14:21:03	Linear	1/Var	902.252803	10.071110	0.000000	1.000000	0.999873	25.447122	0.520961	1.736538	OK	1.000000
Be 313.042 {108}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	0.000047	0.000124	0.000000	1.000000	0.999941	0.000001	0.028569	0.095231	OK	1.000000
Be 234.861 {144}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999995	0.000000	2.549251	8.497503	OK	1.000000
Ca 315.887 {107}	11/30/2016 09:23:55	11/28/2016 14:55:15	Linear	1/Var	0.000033	0.000000	0.000000	1.000000	0.999571	0.000065	24.734789	82.449298	OK	1.000000
Ca 317.933 {106}	11/30/2016 09:23:55	11/28/2016 14:55:15	Curvilinear	1/Conc	0.003335	0.000001	0.000000	1.000000	0.999960	0.000019	9.037010	30.123367	OK	1.000000
Ca 393.366 {86}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	0.000168	0.000040	0.000000	1.000000	0.999952	0.000007	0.048012	0.160039	OK	1.000000
Ca 396.847 {85}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.001180	0.000266	0.000000	1.000000	0.999904	0.000173	0.105009	0.350031	OK	1.000000
Cd 226.502 {449}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	-0.480622	5.430183	0.000000	1.000000	0.999880	0.074090	0.123442	0.411475	OK	1.000000
Cd 228.802 {447}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	1.623920	6.786076	0.000000	1.000000	0.999973	0.045757	0.124860	0.416201	OK	1.000000
Co 228.616 {447}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.538078	3.571348	0.000000	1.000000	0.999830	0.253659	0.209937	0.699790	OK	1.000000
Co 238.892 {141}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Var	0.000001	0.000006	0.000000	1.000000	0.999717	0.000010	0.519558	1.731861	OK	1.000000
Cr 205.560 {464}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	1/Var	0.000152	0.000258	0.000000	1.000000	0.998733	0.000837	0.180547	0.601824	OK	1.000000
Cr 267.716 {126}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.607197	5.569447	0.000000	1.000000	0.999828	0.945606	0.469314	1.564379	OK	1.000000
Cu 224.700 {450}	11/30/2016 09:23:55	11/28/2016 14:21:04	Curvilinear	1/Conc	-1.238681	1.338114	-0.000011	1.000000	0.999866	0.085872	0.460691	1.535636	OK	1.000000
Cu 324.754 {104}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	None	-0.000513	0.000005	0.000000	1.000000	0.999982	0.001511	3.645222	12.150739	OK	1.000000
Cu 327.396 {103}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	1/Conc	-0.000028	0.000003	0.000000	1.000000	0.999790	0.000004	6.632693	22.108976	OK	1.000000
Fe 234.349 {144}	11/30/2016 09:23:55	11/28/2016 14:55:15	Curvilinear	1/Var	0.000025	0.000001	0.000000	1.000000	0.998670	0.000008	1.215026	4.050085	OK	1.000000
Fe 239.562 {140}	11/30/2016 09:23:55	11/28/2016 14:55:15	Curvilinear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999977	0.000000	16.139213	53.797376	OK	1.000000
Fe 259.940 {129}	11/30/2016 09:23:55	11/28/2016 14:55:15	Linear	1/Var	3.817223	0.060222	0.000000	1.000000	0.992153	23.297510	8.997975	29.993251	OK	1.000000
Mg 202.582 {466}	11/30/2016 09:23:55	11/28/2016 14:55:15	Curvilinear	1/Conc	-0.922062	0.209927	-0.000000	1.000000	0.999381	10.400559	2.467528	8.225094	OK	1.000000
Mg 279.079 {121}	11/30/2016 09:23:55	11/28/2016 14:55:15	Full Fit	1/Var	0.000002	0.000000	0.000000	1.030000	0.999986	0.000006	136.814900	456.049667	OK	1.000000
Mg 280.270 {120}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Var	0.000215	0.000088	0.000000	1.000000	0.997678	0.000032	0.023954	0.079847	OK	1.000000
Mn 257.610 {131}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.000005	0.000028	0.000000	1.000000	0.999561	0.000007	0.073168	0.243894	OK	1.000000
Mn 259.373 {130}	11/30/2016 09:23:55	11/28/2016 14:28:34	Curvilinear	1/Var	0.000001	0.000000	0.000000	1.000000	0.999999	0.000000	1.754390	5.847966	OK	1.000000
Mo 202.030 {466}	11/30/2016 09:23:55	11/28/2016 14:14:30	Linear	1/Conc	0.645876	1.685303	0.000000	1.000000	0.999262	0.186336	0.261041	0.870137	OK	1.000000
Mo 204.598 {464}	11/30/2016 09:23:55	11/28/2016 14:21:04	Curvilinear	1/Conc	0.000001	0.000001	-0.000000	1.000000	0.999937	0.000000	0.536187	1.787289	OK	1.000000
Mo 204.598 {465}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.000000	0.000001	0.000000	1.000000	0.999989	0.000000	0.856925	2.856417	OK	1.000000
Ni 221.647 {452}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	None	48.588885	1.909642	0.000000	1.000000	0.999980	70.872865	0.462761	1.542537	OK	1.000000
Ni 231.604 {445}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Var	0.306744	2.016945	0.000000	1.000000	0.998749	5.261621	0.435381	1.451270	OK	1.000000
Pb 216.999 {455}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	1/Var	0.505105	0.264010	0.000000	1.000000	0.999574	2.465546	2.691787	8.972624	OK	1.000000
Pb 220.353 {453}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.320203	0.548922	0.000000	1.000000	0.999879	0.082216	1.645426	5.484752	OK	1.000000
Pb 220.353 {153}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	1/Conc	0.000062	0.000025	0.000000	1.000000	0.999841	0.000062	4.548785	15.162618	OK	1.000000
Sb 206.833 {463}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.000118	0.000028	0.000000	1.000000	0.999978	0.000003	1.936617	6.455389	OK	1.000000
Sb 217.581 {455}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.000018	0.000033	0.000000	1.000000	0.999818	0.000006	1.845909	6.153032	OK	1.000000
Se 196.090 {472}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.259168	0.133470	0.000000	1.000000	0.999820	0.032717	3.363538	11.211792	OK	1.000000
Se 206.279 {463}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.000001	0.000004	0.000000	1.000000	0.999978	0.000001	16.282272	54.274241	OK	1.000000
Se 196.090 {471}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-1.104292	0.070185	0.000000	1.000000	0.999875	0.014363	6.214528	20.715093	OK	1.000000
Tl 190.856 {476}	11/30/2016 09:23:55	11/28/2016 14:21:04	Curvilinear	1/Conc	0.000038	0.000022	-0.000000	1.000000	0.999971	0.000003	2.410864	8.036213	OK	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Res Slope
Tl 190.856 {477}	11/30/2016 09:23:55	11/28/2016 14:21:04	Curvilinear	1/Var	-0.632201	0.164092	-0.000001	1.000000	0.999971	0.516161	2.739831	9.132770	OK.	1.000000
V 290.882 {116}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999994	0.000000	7.637872	25.459572	OK.	1.000000
V 292.402 {115}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.000010	0.000012	0.000000	1.000000	0.999927	0.000002	0.393646	1.312153	OK.	1.000000
Zn 206.200 {463}	11/30/2016 09:23:55	11/28/2016 14:28:34	Linear	1/Var	1.013035	2.090203	0.000000	1.000000	0.998721	3.535051	0.289711	0.965703	OK.	1.000000
Zn 213.856 {458}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Var	5.443611	3.277032	0.000000	1.000000	0.998144	8.743595	0.145797	0.485991	OK.	1.000000
Y 324.228 {104}*	11/30/2016 09:23:55	11/28/2016 13:10:24	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 {91}*	11/30/2016 09:23:55	11/28/2016 13:10:24	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 224.306 {451}*	11/30/2016 09:23:55	11/28/2016 13:10:25	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 588.995 {57}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Conc	0.000736	0.000003	0.000000	1.000000	0.961989	0.001749	2.530889	8.436295	OK.	1.000000
Si 251.611 {134}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Conc	0.000011	0.000001	0.000000	1.000000	1.000000	0.000000	20.605896	68.686319	OK.	1.000000
Ti 334.941 {101}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	0.000007	0.000011	0.000000	1.000000	0.999926	0.000001	1.618506	5.395019	OK.	1.000000
Sr 407.771 {83}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	1/Conc	-0.000009	0.000380	0.000000	1.000000	0.999880	0.000023	0.082542	0.275139	OK.	1.000000
Sn 189.989 {478}	11/30/2016 09:23:55	11/28/2016 14:21:04	Linear	None	0.000100	0.000015	0.000000	1.000000	0.999999	0.000141	2.104754	7.015847	OK.	1.000000
B 249.678 {135}	11/30/2016 09:23:55	11/28/2016 14:21:05	Linear	1/Conc	0.000003	0.000005	0.000000	1.000000	0.999967	0.000001	0.802878	2.676260	OK.	1.000000
B 249.773 {135}	11/30/2016 09:23:55	11/28/2016 14:21:05	Linear	1/Conc	0.000007	0.000007	0.000000	1.000000	0.999990	0.000000	0.507391	1.691304	OK.	1.000000
Li 670.784 {50}	11/30/2016 09:23:55	11/28/2016 14:21:05	Linear	1/Var	0.000157	0.000188	0.000000	1.000000	0.999620	0.000394	0.598672	1.995572	OK.	1.000000
K 766.490 {44}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Conc	-0.000019	0.000006	0.000000	1.000000	0.962587	0.002897	20.786703	69.289009	OK.	1.000000
P 213.618 {457}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Conc	-0.000003	0.000000	0.000000	1.000000	1.000000	0.000000	3.251078	10.836928	OK.	1.000000
S 182.034 {485}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Var	-0.000151	0.000002	0.000000	1.000000	0.570240	0.010506	19.546801	65.156002	OK.	1.000000
W 239.709 {140}	11/30/2016 09:23:55	11/28/2016 14:36:17	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.368961	0.000001	783.207254	2610.69084	OK.	1.000000
Hg 184.950 {482}	11/30/2016 09:23:55	11/28/2016 14:14:31	Linear	1/Conc	0.000039	0.000068	0.000000	1.000000	0.999987	0.000006	0.672970	2.243235	OK.	1.000000
Hg 194.227 {473}	11/30/2016 09:23:55	11/28/2016 14:14:31	Linear	1/Conc	-0.000005	0.000065	0.000000	1.000000	0.999989	0.000006	0.651034	2.170112	OK.	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 233.527 {445}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 205.560 {464}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {140}	0.000000	1	0
Fe 259.940 {129}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mo 202.030 {466}	0.000000	1	0
Mo 204.598 {464}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Se 196.090 {471}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0

Element, Wavelength and Order	Slope Y-int	QC Norm	
		Slope factor	Offset
Tl 190.856 {477}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 324.228 {104}* Y 371.030 { 91}* Y 224.306 {451}* Na 588.995 { 57} Si 251.611 {134} Ti 334.941 {101} Sr 407.771 { 83} Sn 189.989 {478} B 249.678 {135} B 249.773 {135} Li 670.784 { 50} K 766.490 { 44} P 213.618 {457} S 182.034 {485} W 239.709 {140} Hg 184.950 {482} Hg 194.227 {473}	0.000000	1	0

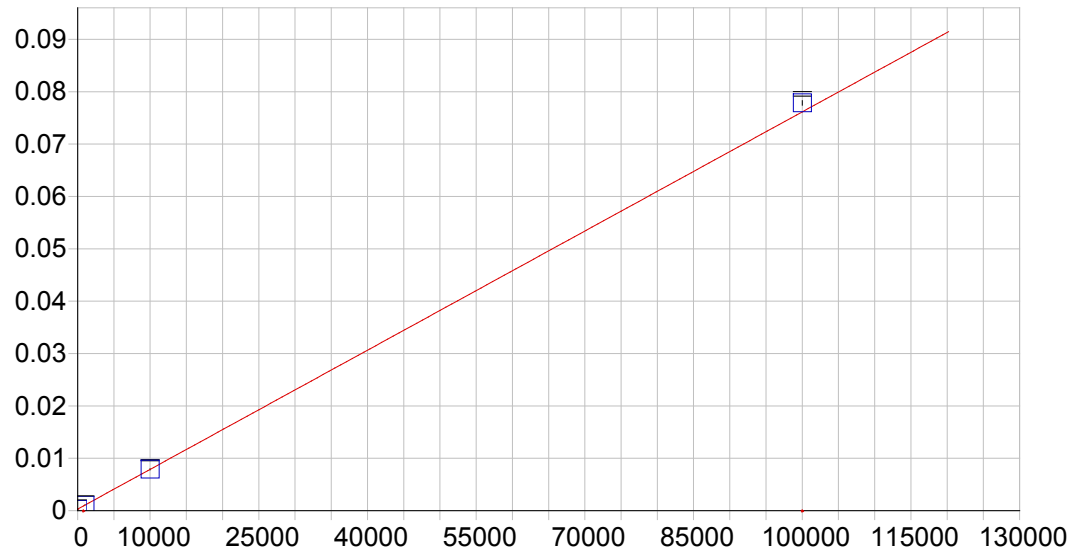


Ag 328.068 {103}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.893893 Re-Slope: 1.000000
 A1 (Gain): 4.262991 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999958 Status: OK.
 Std Error of Est: 1.495408
 Predicted MDL: 0.580548
 Predicted MQL: 1.935159

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.58501	-.585	.000	-1.6000	2.84	1
CalStd5=10	10.000	10.216	.216	2.16	44.445	1.35	1
CalStd8=100	100.00	99.888	-.112	-.112	426.72	3.11	1
CalStd3=1	1.0000	.91159	-.088	-8.84	4.7800	1.58	1

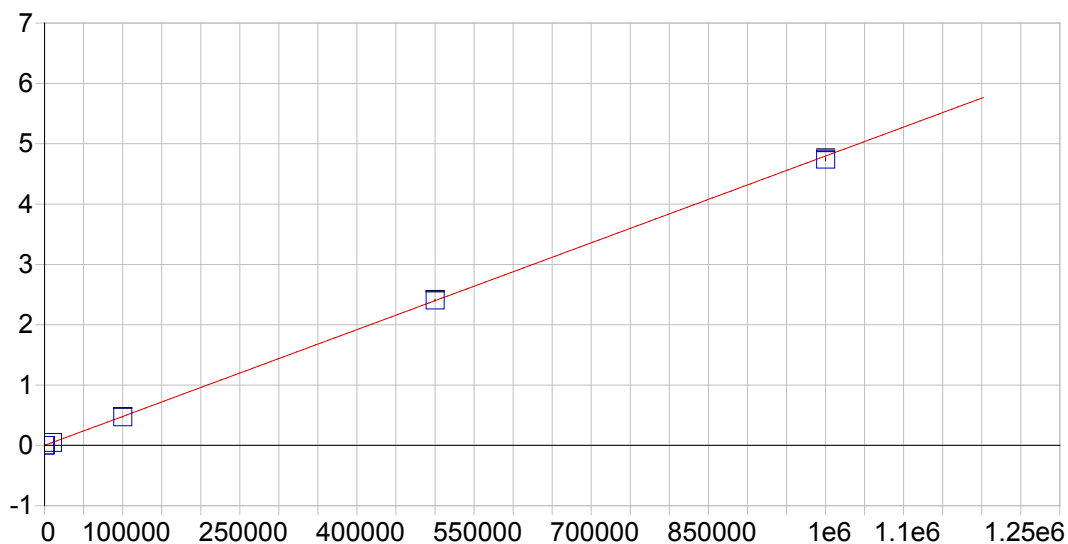


AI 309.271 {109}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: None

A0 (Offset): 0.000303 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000023
 Predicted MDL: 28.202146
 Predicted MQL: 94.007154

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-20.473	-20.5	.000	.00029	.000	1
CalStd10=10	10000.	10020.	20.1	.201	.00790	.000	1
CalStd9=100	1000.0	1023.2	23.2	2.32	.00108	.000	1
CalStd12=100	100000.	102260.	2260.	2.26	.07787	.000	1

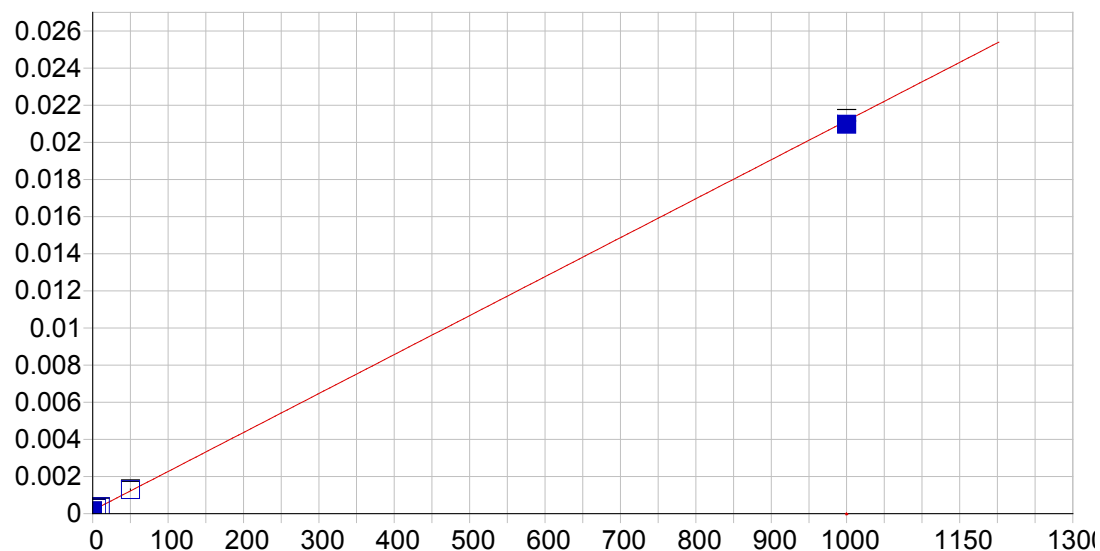


AI 396.152 { 85}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000024 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999973 Status: OK.
 Std Error of Est: 0.000063
 Predicted MDL: 8.276859
 Predicted MQL: 27.589530

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04066	.041	.000	-.00002	.000	1
CalStd14-100 1000000.		988300.	-11700.	-1.17	4.7405	.022	1
CalStd13=50 500000.		501630.	1630.	.326	2.4061	.011	1
CalStd10=10 10000.		9626.8	-373.	-3.73	.04615	.001	1
CalStd12-100 100000.		98028.	-1970.	-1.97	.47019	.003	1
CalStd9=100 1000.0		1009.0	8.95	.895	.00482	.000	1

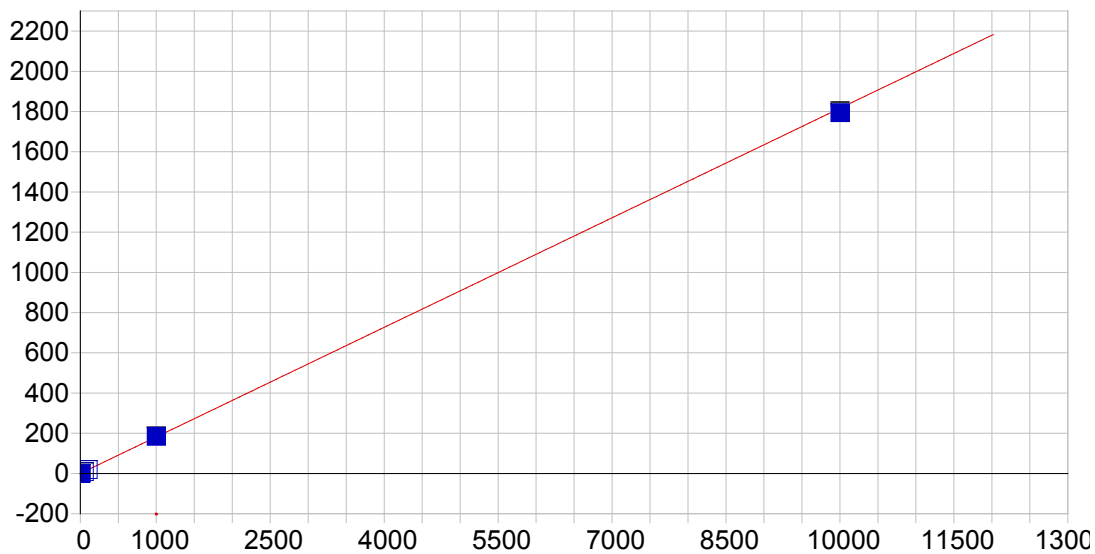


AI 167.079 {502}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000172 Re-Slope: 1.000000
A1 (Gain): 0.000021 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999496 Status: OK.
Std Error of Est: 0.000040
Predicted MDL: 1.131682
Predicted MQL: 3.772272

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.1283	-1.13	.000	.00015	.000	1
CalStd9=100	1000.0	990.74	-9.26	-.926	.02098	.000	1
CalStd5=10	10.000	9.4979	-.502	-5.02	.00037	.000	1
CalStd4=5	5.0000	6.2603	1.26	25.2	.00030	.000	1
CalStd7=50	50.000	53.147	3.15	6.29	.00129	.000	1

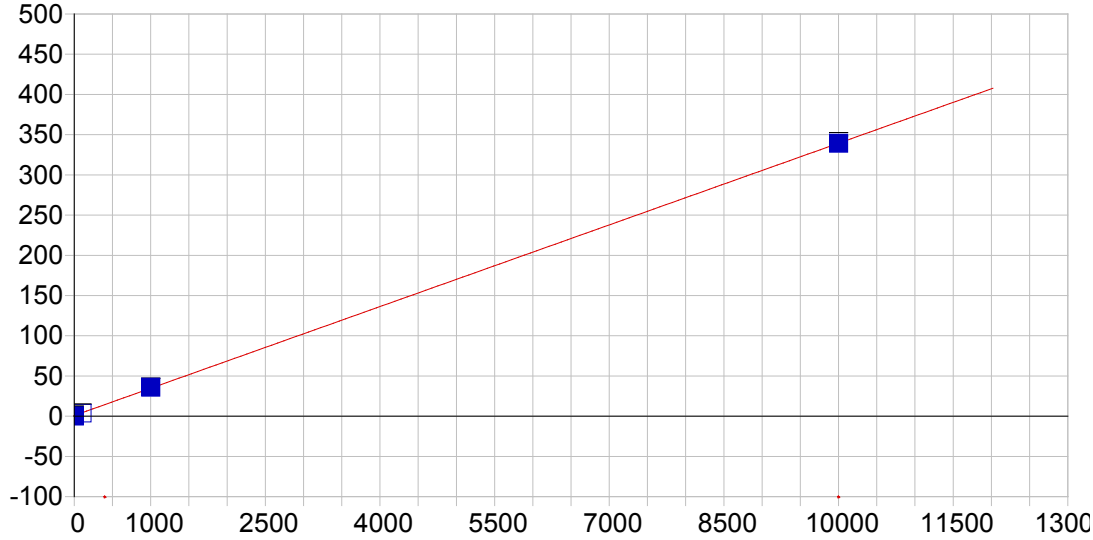


As 193.759 {474}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.234881 Re-Slope: 1.000000
 A1 (Gain): 0.181599 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999783 Status: OK.
 Std Error of Est: 0.808977
 Predicted MDL: 3.046835
 Predicted MQL: 10.156116

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.0625	-6.06	.000	-.86606	.555	1
CalStd9=100	1000.0	1014.4	14.4	1.44	184.58	.950	1
CalStd7=50	50.000	43.943	-6.06	-12.1	8.2149	.346	1
CalStd5=10	10.000	4.5862	-5.41	-54.1	1.0677	.430	1
CalStd8=100	100.00	101.20	1.20	1.20	18.613	.118	1
CalStd10=10	10000.	9877.3	-123.	-1.23	1795.2	7.51	1

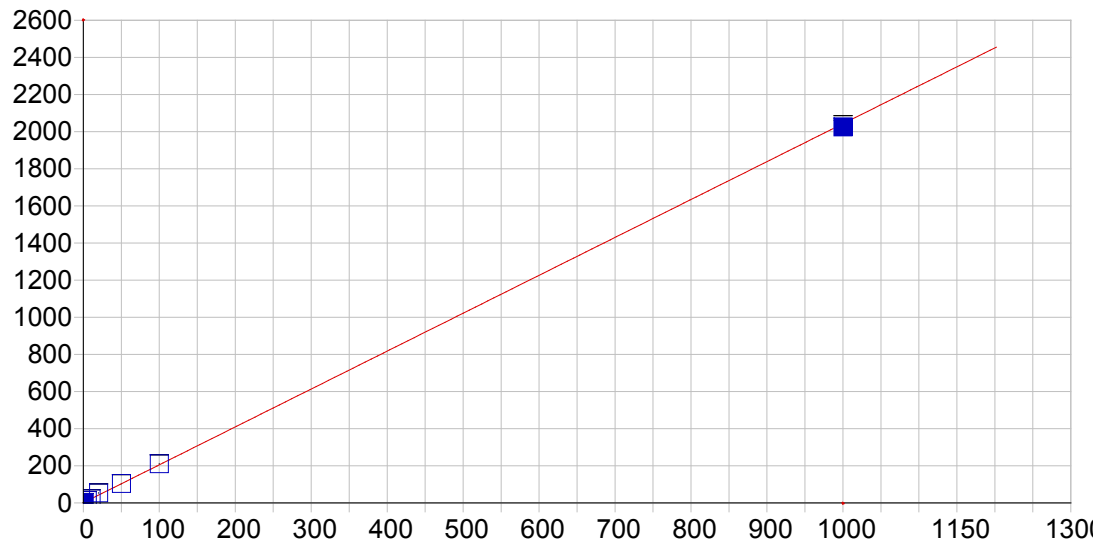


As 189.042 {479}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: None

A0 (Offset): 0.893085 Re-Slope: 1.000000
A1 (Gain): 0.033846 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999988 Status: OK.
Std Error of Est: 0.839436
Predicted MDL: 10.711854
Predicted MQL: 35.706179

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-22.545	-22.5	.000	.13002	.402	1
CalStd9=100	1000.0	1033.0	33.0	3.30	35.860	.273	1
CalStd10=10	10000.	9996.8	-3.17	-.032	339.28	2.02	1
CalStd8=100	100.00	86.098	-13.9	-13.9	3.8072	.223	1
CalStd4=5	5.0000	11.594	6.59	132.	1.2855	.219	1

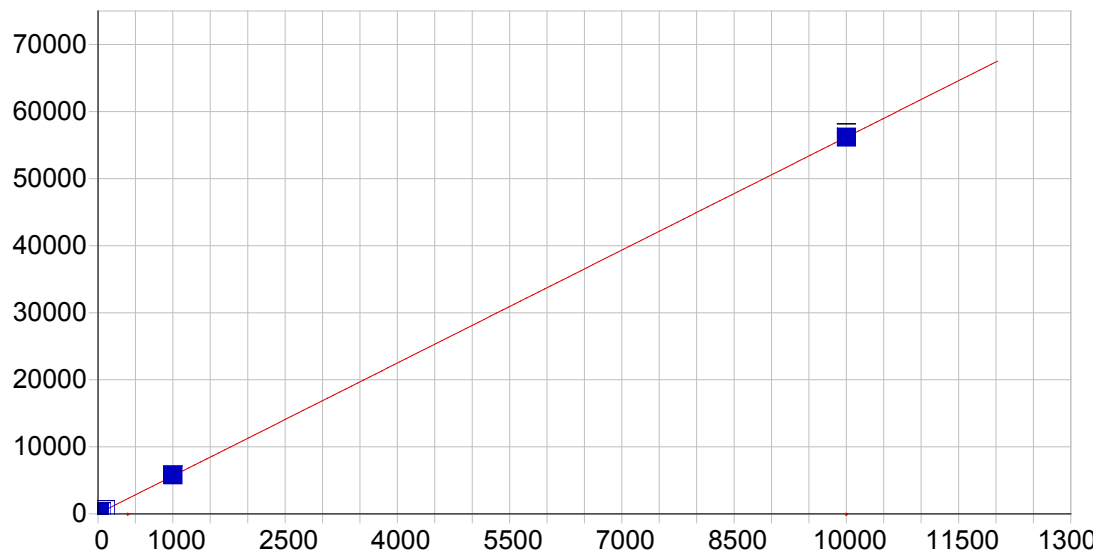


Ba 233.527 {445}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.999959 Re-Slope: 1.000000
 A1 (Gain): 2.041787 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999242 Status: OK.
 Std Error of Est: 0.099933
 Predicted MDL: 0.187807
 Predicted MQL: 0.626023

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00028	.000	.000	.99938	.343	1
CalStd7=50	50.000	50.259	.259	.519	103.62	.375	1
CalStd5=10	10.000	10.190	.190	1.90	21.805	.170	1
CalStd6=20	20.000	25.668	5.67	28.3	53.408	.335	1
CalStd8=100	100.00	102.51	2.51	2.51	210.31	1.10	1
CalStd4=5	5.0000	5.3949	.395	7.90	12.015	.289	1
CalStd9=100	1000.0	991.10	-8.90	-.890	2024.6	12.7	1
CalStd3=1	1.0000	.88032	-.120	-12.0	2.7974	.380	1

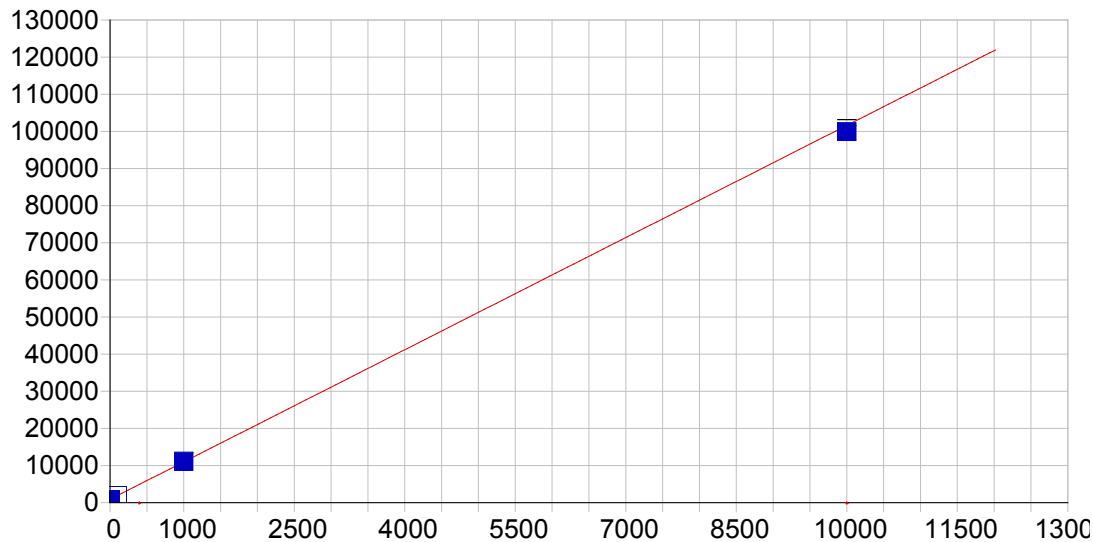


Ba 455.403 { 74 }

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: None

A0 (Offset): 40.225666 Re-Slope: 1.000000
 A1 (Gain): 5.614757 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 60.711262
 Predicted MDL: 0.338823
 Predicted MQL: 1.129412

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.3553	-6.36	.000	4.5425	1.34	1
CalStd7=50	50.000	46.671	-3.33	-6.66	302.27	3.87	1
CalStd5=10	10.000	4.6001	-5.40	-54.0	66.054	1.38	1
CalStd6=20	20.000	20.734	.734	3.67	156.64	1.91	1
CalStd8=100	100.00	102.45	2.45	2.45	615.45	7.16	1
CalStd4=5	5.0000	-.30843	-5.31	-106.	38.494	.508	1
CalStd9=100	1000.0	1025.7	25.7	2.57	5799.6	40.6	1
CalStd3=1	1.0000	-4.9323	-5.93	-593.	12.532	1.52	1
CalStd10=10	10000.	9997.4	-2.57	-.026	56176.	642.	1

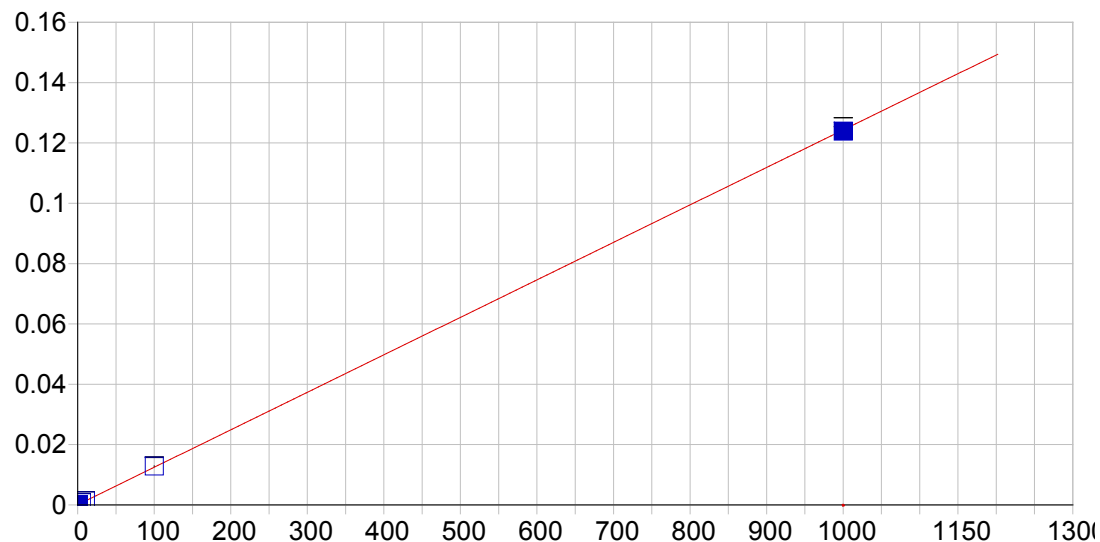


Ba 493.409 { 68}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 902.252803 Re-Slope: 1.000000
 A1 (Gain): 10.071110 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999873 Status: OK.
 Std Error of Est: 25.447122
 Predicted MDL: 0.520961
 Predicted MQL: 1.736538

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-68419	-.684	.000	895.36	6.72	1
CalStd9=100	1000.0	1006.2	6.17	.617	11037.	76.4	1
CalStd8=100	100.00	102.26	2.26	2.26	1932.1	12.6	1
CalStd10=10	10000.	9830.7	-169.	-1.69	99926.	825.	1

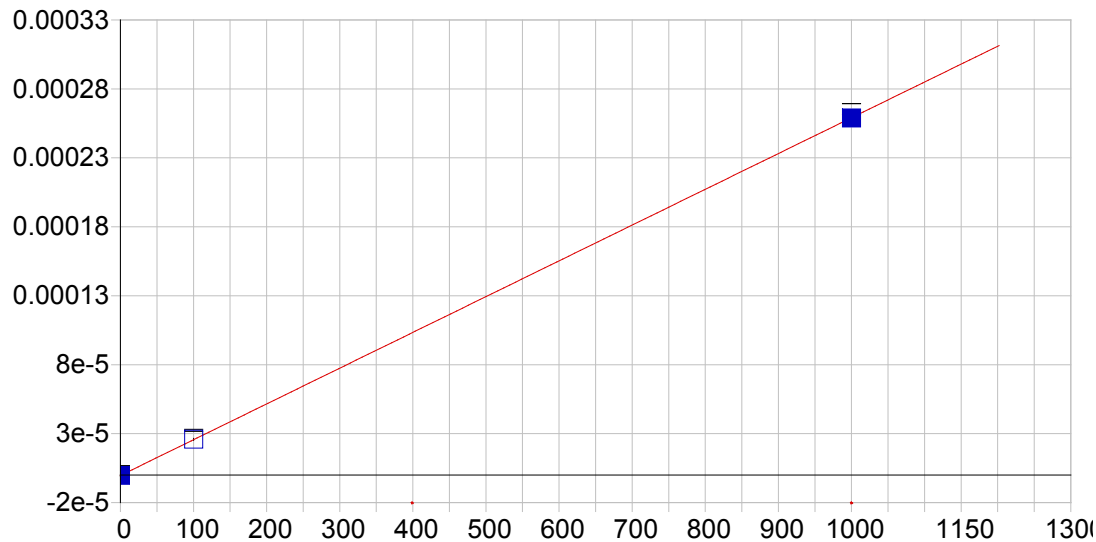


Be 313.042 {108}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000047 Re-Slope: 1.000000
 A1 (Gain): 0.000124 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999941 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.028569
 Predicted MQL: 0.095231

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00005	.000	.000	.00005	.000	1
CalStd5=10	10.000	10.436	.436	4.36	.00134	.000	1
CalStd8=100	100.00	102.72	2.72	2.72	.01281	.000	1
CalStd2=0.5	.50000	.50204	.002	.407	.00011	.000	1
CalStd4=5	5.0000	5.3277	.328	6.55	.00071	.000	1
CalStd1=0.25	.25000	.25363	.004	1.45	.00008	.000	1
CalStd9=100	1000.0	996.44	-3.56	-.356	.12387	.001	1
CalStd3=1	1.0000	1.0632	.063	6.32	.00018	.000	1

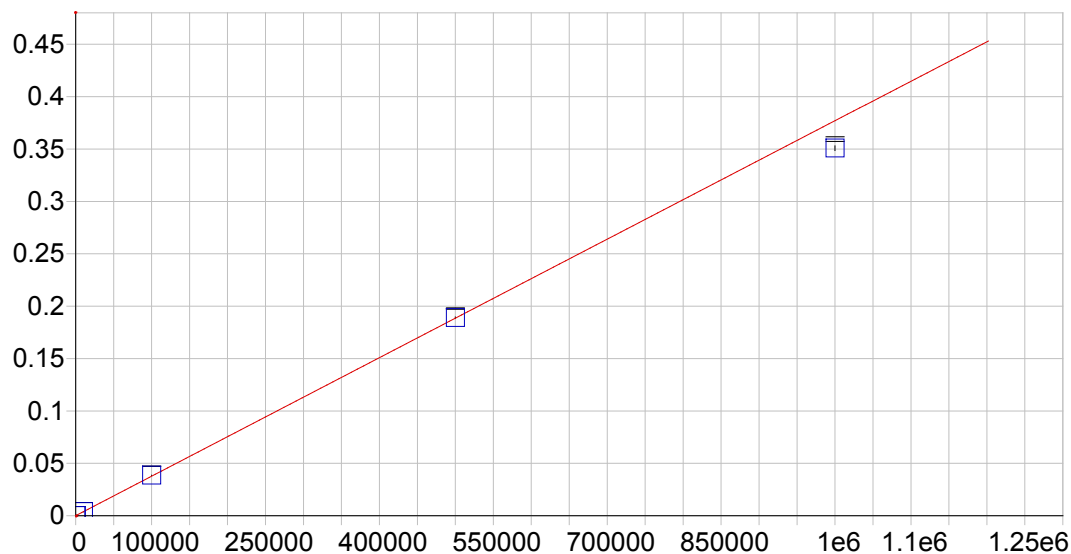


Be 234.861 {144}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999995	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.549251	
Predicted MQL:	8.497503	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00086	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	999.04	-.959	-.096	.00026	.000	1
CalStd8=100	100.00	100.96	.959	.959	.00003	.000	1

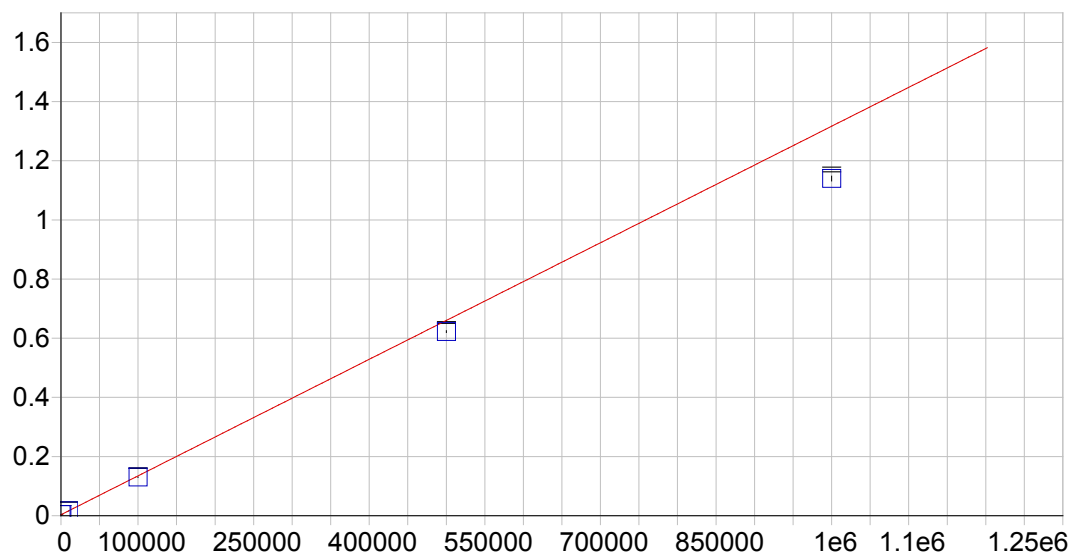


Ca 315.887 {107}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000033 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999571 Status: OK.
 Std Error of Est: 0.000065
 Predicted MDL: 24.734789
 Predicted MQL: 82.449298

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-13.645	-13.6	.000	.00003	.000	1
CalStd10=10	10000.	9881.2	-119.	-1.19	.00376	.000	1
CalStd13=50	500000.	501550.	1550.	.310	.18911	.001	1
CalStd14=100	1000000.	930530.	-69500.	-6.95	.35083	.002	1
CalStd9=100	1000.0	1005.7	5.70	.570	.00041	.000	1
CalStd12=100	100000.	102220.	2220.	2.22	.03857	.000	1

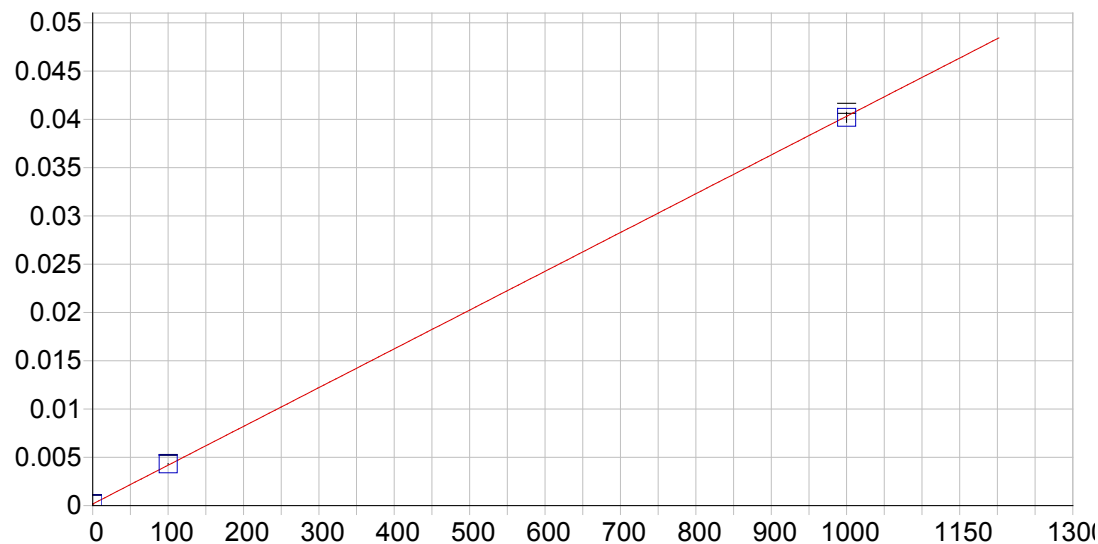


Ca 317.933 {106}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.003335 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999960 Status: OK.
 Std Error of Est: 0.000019
 Predicted MDL: 9.037010
 Predicted MQL: 30.123367

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06760	.068	.000	.00333	.000	1
CalStd10=10	10000.	9641.7	-358.	-3.58	.01600	.000	1
CalStd13=50	500000.	471370.	-28600.	-5.73	.62236	.003	1
CalStd14=100	1000000.	865210.	-135000.	-13.5	1.1396	.008	1
CalStd9=100	1000.0	981.00	-19.0	-1.90	.00462	.000	1
CalStd12=100	100000.	96546.	-3450.	-3.45	.13012	.001	1

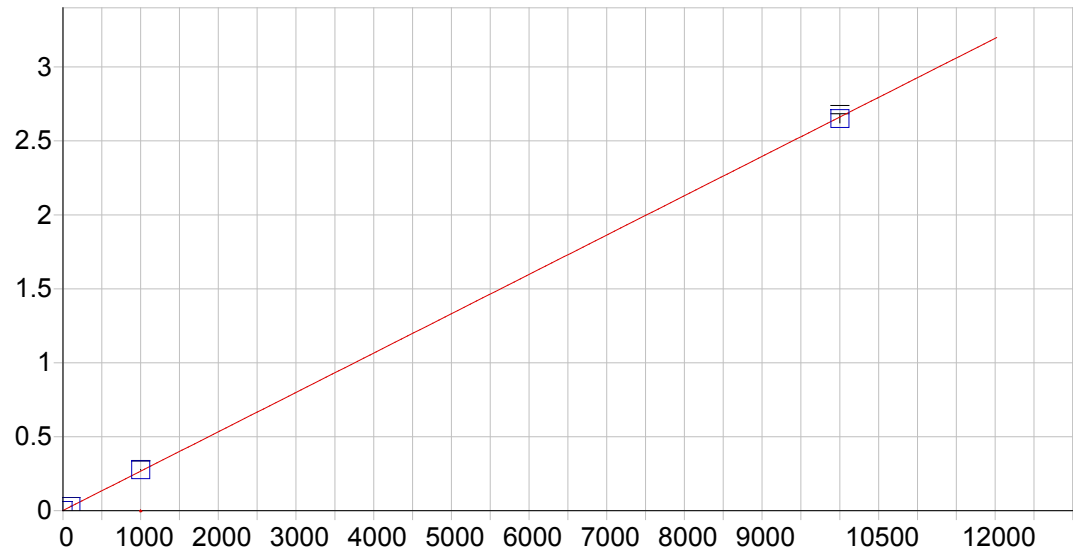


Ca 393.366 { 86}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000168	Re-Slope: 1.000000
A1 (Gain):	0.000040	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999952	Status: OK.
Std Error of Est:	0.000007	
Predicted MDL:	0.048012	
Predicted MQL:	0.160039	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00279	-.003	.000	.00017	.000	1
CalStd9=100	1000.0	996.90	-3.10	-.310	.04020	.001	1
CalStd8=100	100.00	103.10	3.10	3.10	.00431	.000	1

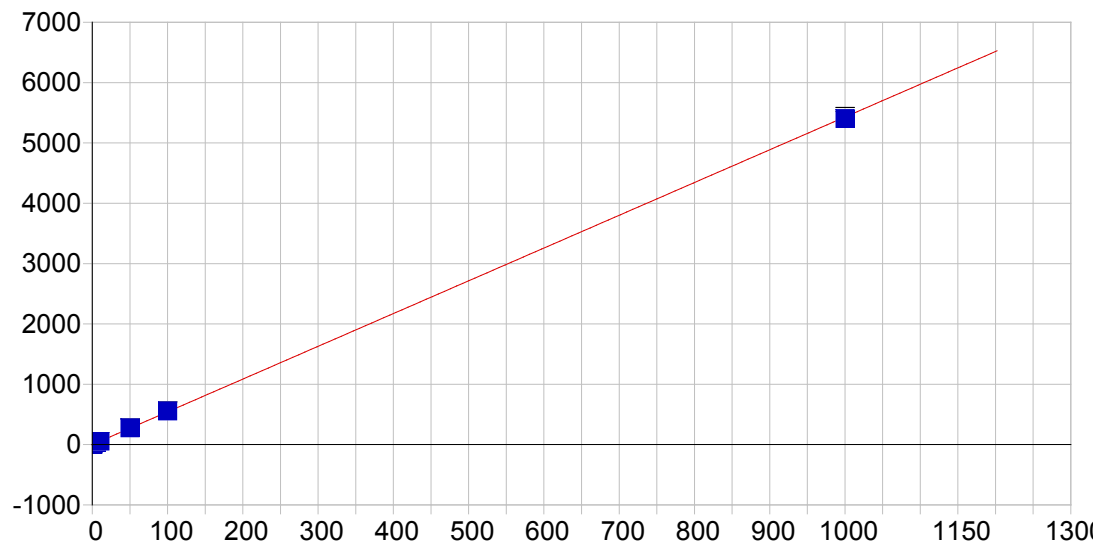


Ca 396.847 { 85}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.001180 Re-Slope: 1.000000
 A1 (Gain): 0.000266 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999904 Status: OK.
 Std Error of Est: 0.000173
 Predicted MDL: 0.105009
 Predicted MQL: 0.350031

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01212	-.012	.000	.00118	.000	1
CalStd10=10	10000.	9957.7	-42.3	-.423	2.6501	.028	1
CalStd8=100	100.00	109.23	9.23	9.23	.03024	.000	1
CalStd9=100	1000.0	1033.1	33.1	3.31	.27600	.002	1

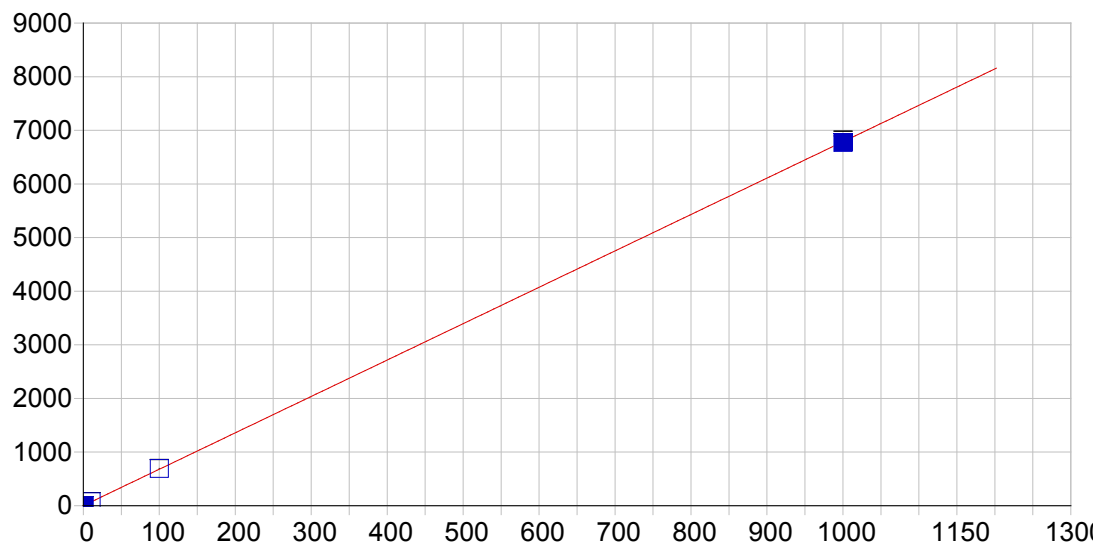


Cd 226.502 {449}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.480622 Re-Slope: 1.000000
 A1 (Gain): 5.430183 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999880 Status: OK.
 Std Error of Est: 0.074090
 Predicted MDL: 0.123442
 Predicted MQL: 0.411475

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00032	.000	.000	-.48237	.331	1
CalStd7=50	50.000	50.974	.974	1.95	276.32	1.25	1
CalStd3=1	1.0000	1.0306	.031	3.06	5.1158	.571	1
CalStd2=0.5	.50000	.70711	.207	41.4	3.3591	.674	1
CalStd4=5	5.0000	5.5036	.504	10.1	29.405	.503	1
CalStd8=100	100.00	102.59	2.59	2.59	556.60	1.24	1
CalStd5=10	10.000	10.568	.568	5.68	56.907	.809	1
CalStd9=100	1000.0	995.13	-4.87	-.487	5404.2	34.0	1

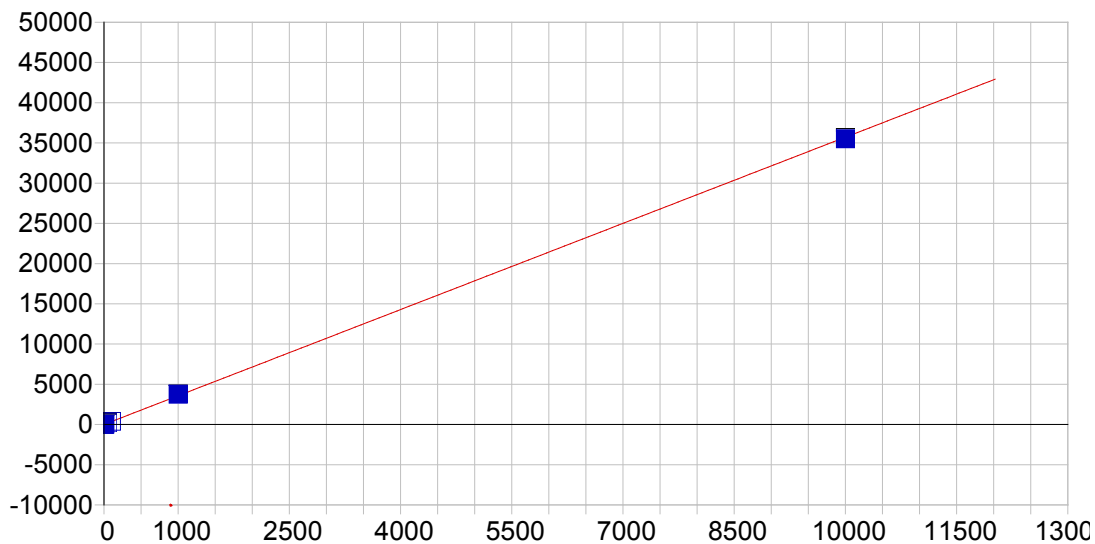


Cd 228.802 {447}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 1.623920 Re-Slope: 1.000000
 A1 (Gain): 6.786076 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999973 Status: OK.
 Std Error of Est: 0.045757
 Predicted MDL: 0.124860
 Predicted MQL: 0.416201

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	.000	.000	1.6237	.547	1
CalStd9=100	1000.0	997.69	-2.31	-.231	6772.0	43.7	1
CalStd8=100	100.00	101.83	1.83	1.83	692.66	3.14	1
CalStd2=0.5	.50000	.49089	-.009	-1.82	4.9552	.553	1
CalStd3=1	1.0000	1.0345	.035	3.45	8.6444	.739	1
CalStd5=10	10.000	10.452	.452	4.52	72.555	.609	1

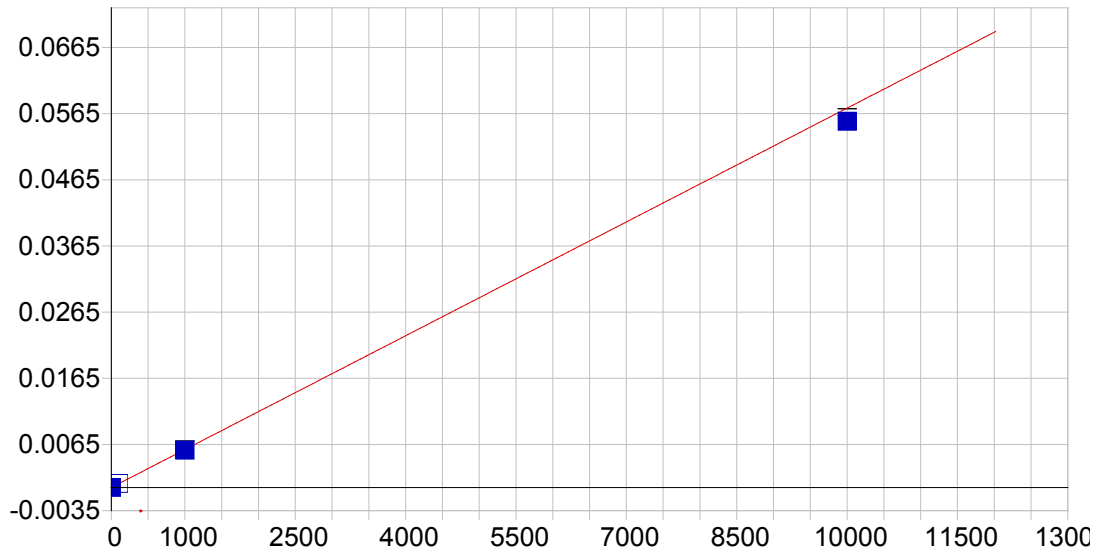


Co 228.616 {447}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.538078 Re-Slope: 1.000000
 A1 (Gain): 3.571348 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999830 Status: OK.
 Std Error of Est: 0.253659
 Predicted MDL: 0.209937
 Predicted MQL: 0.699790

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00056	-.001	.000	-.54008	.339	1
CalStd7=50	50.000	53.196	3.20	6.39	189.44	1.79	1
CalStd5=10	10.000	10.993	.993	9.93	38.723	.321	1
CalStd4=5	5.0000	5.6110	.611	12.2	19.501	.596	1
CalStd8=100	100.00	108.99	8.99	8.99	388.70	2.02	1
CalStd9=100	1000.0	1047.0	47.0	4.70	3738.7	28.7	1
CalStd3=1	1.0000	1.1430	.143	14.3	3.5438	.277	1
CalStd10=10	10000.	9939.1	-60.9	-.609	35495.	144.	1

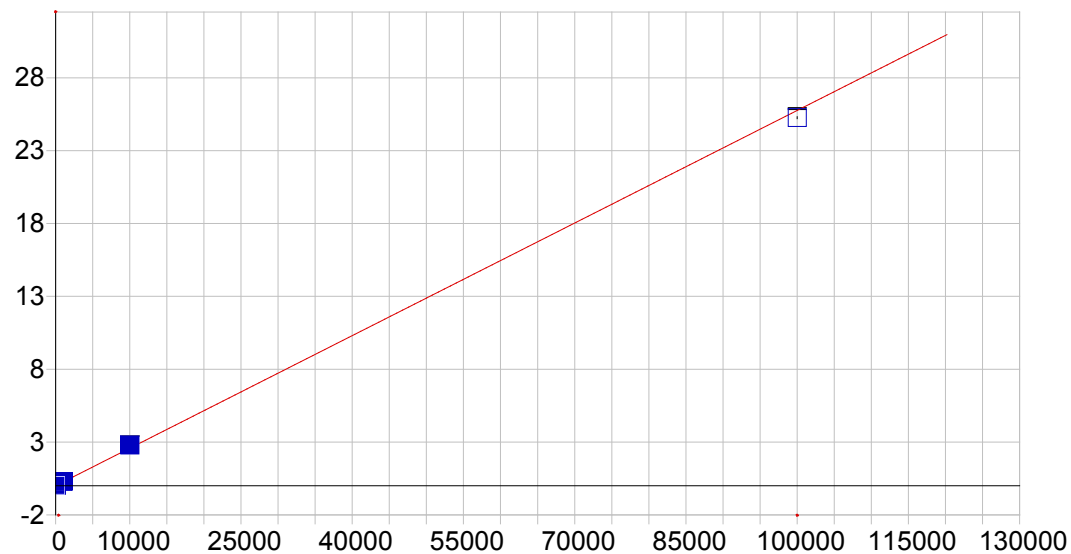


Co 238.892 {141}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
A1 (Gain): 0.000006 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999717 Status: OK.
Std Error of Est: 0.000010
Predicted MDL: 0.519558
Predicted MQL: 1.731861

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.33862	-.339	.000	.00000	.000	1
CalStd9=100	1000.0	982.97	-17.0	-1.70	.00564	.000	1
CalStd10=10	10000.	9651.0	-349.	-3.49	.05534	.001	1
CalStd8=100	100.00	101.59	1.59	1.59	.00058	.000	1

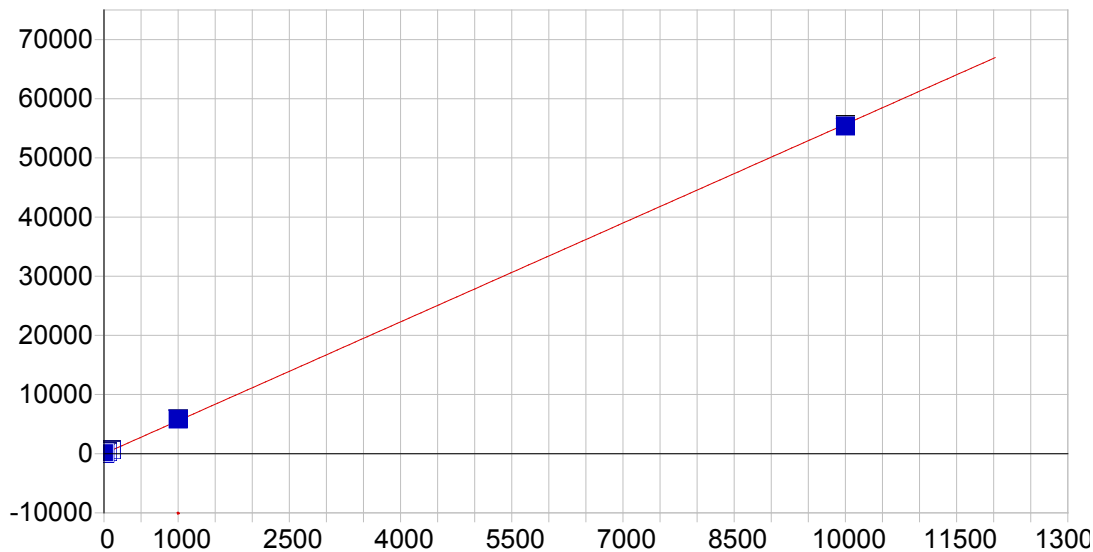


Cr 205.560 {464}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000152 Re-Slope: 1.000000
 A1 (Gain): 0.000258 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998733 Status: OK.
 Std Error of Est: 0.000837
 Predicted MDL: 0.180547
 Predicted MQL: 0.601824

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.94449	-.944	.000	-.00009	.000	1
CalStd5=10	10.000	11.469	1.47	14.7	.00311	.000	1
CalStd7=50	50.000	56.223	6.22	12.4	.01464	.000	1
CalStd9=100	1000.0	1128.6	129.	12.9	.29089	.004	1
CalStd8=100	100.00	116.95	16.9	16.9	.03028	.000	1
CalStd4=5	5.0000	27.719	22.7	454.	.00729	.000	0
CalStd11=100	100000.	98051.	-1950.	-1.95	25.260	.068	1
CalStd10=10	10000.	10837.	837.	8.37	2.7919	.022	1

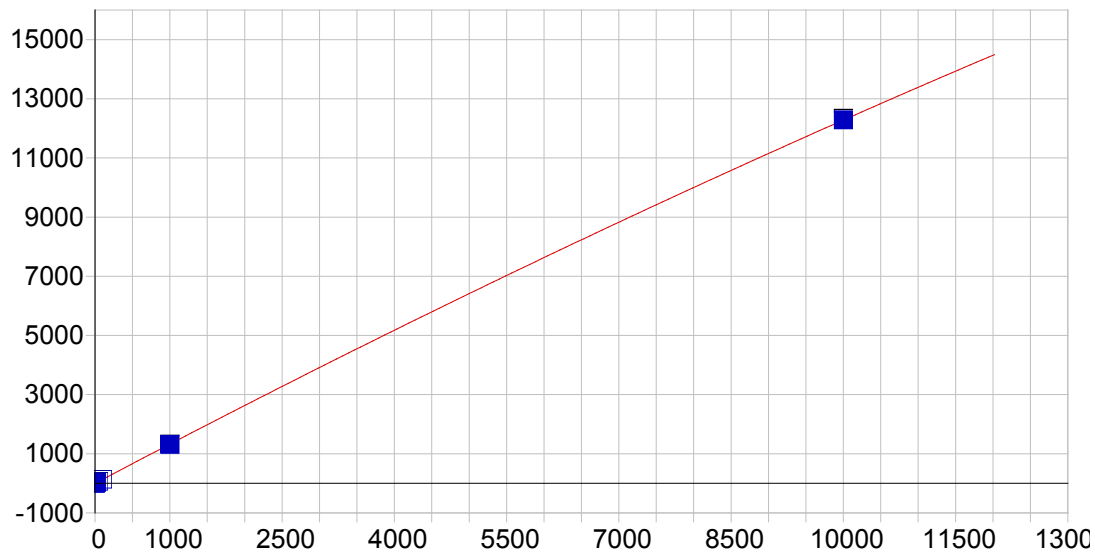


Cr 267.716 {126}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.607197 Re-Slope: 1.000000
 A1 (Gain): 5.569447 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999828 Status: OK.
 Std Error of Est: 0.945606
 Predicted MDL: 0.469314
 Predicted MQL: 1.564379

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00179	-.002	.000	-.61719	1.15	1
CalStd5=10	10.000	11.557	1.56	15.6	63.761	2.23	1
CalStd7=50	50.000	53.784	3.78	7.57	298.94	2.17	1
CalStd9=100	1000.0	1046.9	46.9	4.69	5829.9	28.0	1
CalStd8=100	100.00	108.66	8.66	8.66	604.55	5.54	1
CalStd4=5	5.0000	26.743	21.7	435.	148.34	1.52	0
CalStd10=10	10000.	9939.1	-60.9	-.609	55355.	229.	1

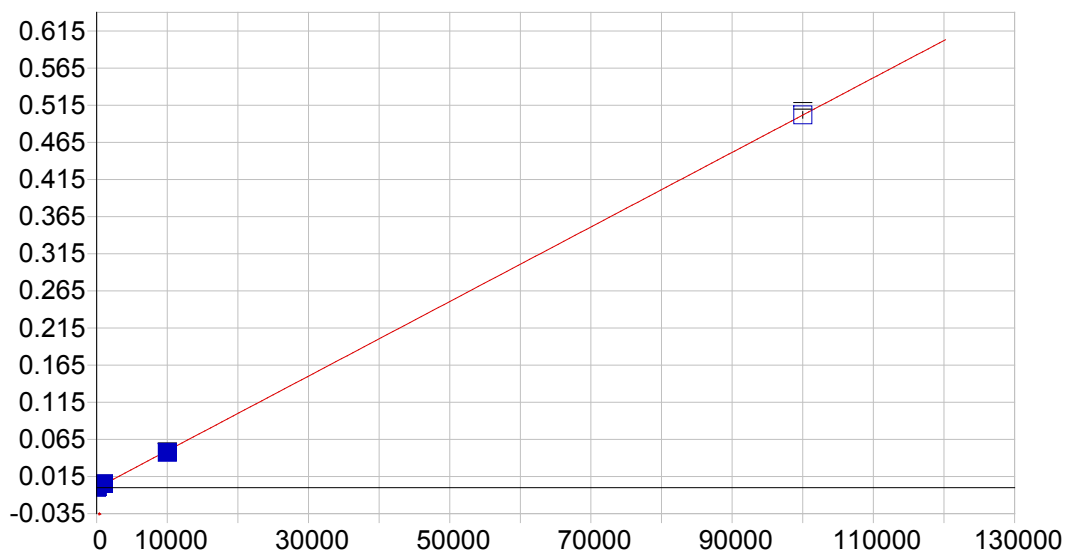


Cu 224.700 {450}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -1.238681 Re-Slope: 1.000000
 A1 (Gain): 1.338114 Y-int: 0.000000
 A2 (Curvature): -0.000011
 n (Exponent): 1.000000
 Correlation: 0.999866 Status: OK.
 Std Error of Est: 0.085872
 Predicted MDL: 0.460691
 Predicted MQL: 1.535636

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00093	-.001	.000	-1.2399	.517	1
CalStd9=100	1000.0	986.80	-13.2	-1.32	1309.2	7.09	1
CalStd7=50	50.000	50.776	.776	1.55	66.677	.298	1
CalStd8=100	100.00	102.96	2.96	2.96	136.41	.644	1
CalStd5=10	10.000	11.361	1.36	13.6	13.962	.551	1
CalStd10=10	10000.	10001.	1.50	.015	12289.	48.8	1
CalStd6=20	20.000	26.200	6.20	31.0	33.812	.641	1
CalStd3=1	1.0000	1.4503	.450	45.0	.70190	.530	1

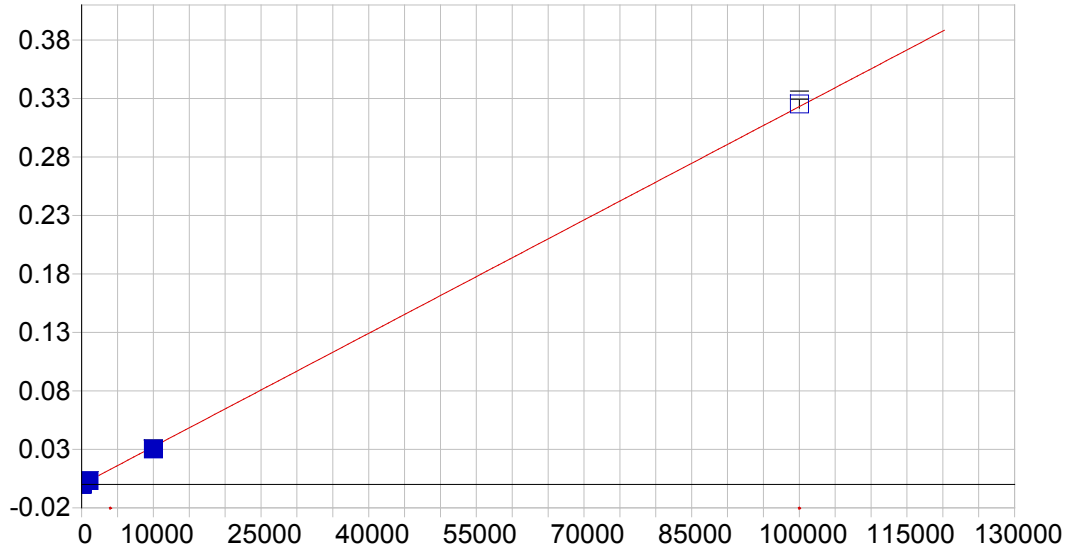


Cu 324.754 {104}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000513 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999982 Status: OK.
 Std Error of Est: 0.001511
 Predicted MDL: 3.645222
 Predicted MQL: 12.150739

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	147.23	147.	.000	.00023	.000	1
CalStd9=100	1000.0	1115.4	115.	11.5	.00509	.000	1
CalStd8=100	100.00	252.50	152.	152.	.00076	.000	1
CalStd10=10	10000.	9540.2	-460.	-4.60	.04740	.001	1
CalStd11=100	100000.	100040.	44.7	.045	.50191	.004	1

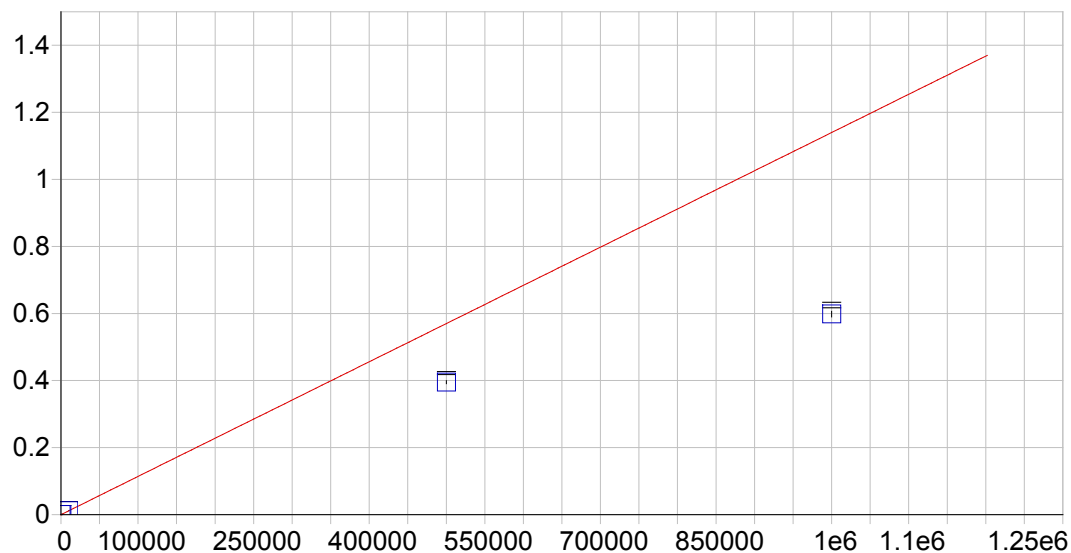


Cu 327.396 {103}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000028 Re-Slope: 1.000000
A1 (Gain): 0.000003 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999790 Status: OK.
Std Error of Est: 0.000004
Predicted MDL: 6.632693
Predicted MQL: 22.108976

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00342	-.003	.000	-.00003	.000	1
CalStd6=20	20.000	24.666	4.67	23.3	.00005	.000	1
CalStd7=50	50.000	49.609	-.391	-.781	.00013	.000	1
CalStd8=100	100.00	102.91	2.91	2.91	.00030	.000	1
CalStd9=100	1000.0	973.41	-26.6	-2.66	.00312	.000	1
CalStd10=10	10000.	9363.4	-637.	-6.37	.03023	.000	1
CalStd11=100	100000.	100660.	656.	.656	.32520	.004	1

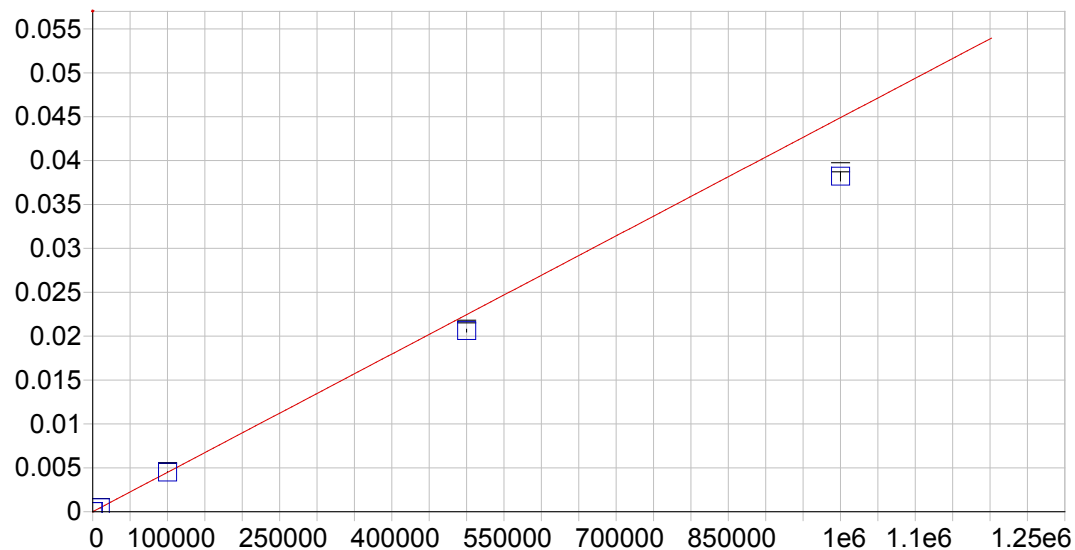


Fe 234.349 {144}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset):	0.000025	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.998670	Status: OK.
Std Error of Est:	0.000008	
Predicted MDL:	1.215026	
Predicted MQL:	4.050085	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05822	-.058	.000	.00002	.000	1
CalStd10=10	10000.	10194.	194.	1.94	.01164	.000	1
CalStd13=50	500000.	346550.	-153000.	-30.7	.39501	.005	1
CalStd14=100	1000000.	524870.	-475000.	-47.5	.59826	.008	1
CalStd9=100	1000.0	1036.9	36.9	3.69	.00121	.000	1

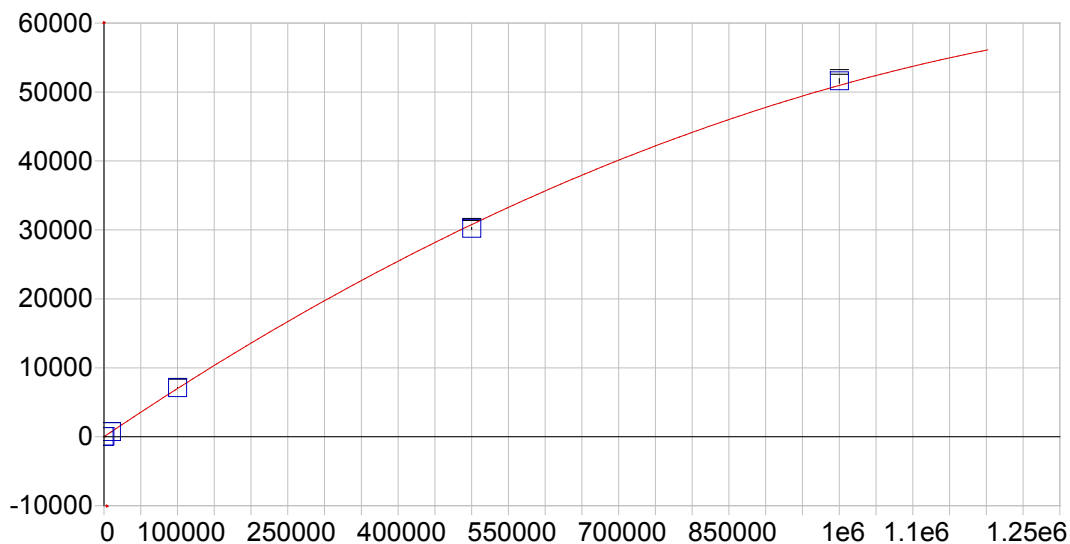


Fe 239.562 {140}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999977 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 16.139213
 Predicted MQL: 53.797376

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01676	.017	.000	.00000	.000	1
CalStd10=10	10000.	9778.9	-221.	-2.21	.00044	.000	1
CalStd13=50	500000.	459510.	-40500.	-8.10	.02063	.000	1
CalStd14=100	1000000.	851010.	-149000.	-14.9	.03820	.001	1
CalStd9=100	1000.0	989.66	-10.3	-1.03	.00005	.000	1
CalStd12=100	100000.	100360.	358.	.358	.00451	.000	1

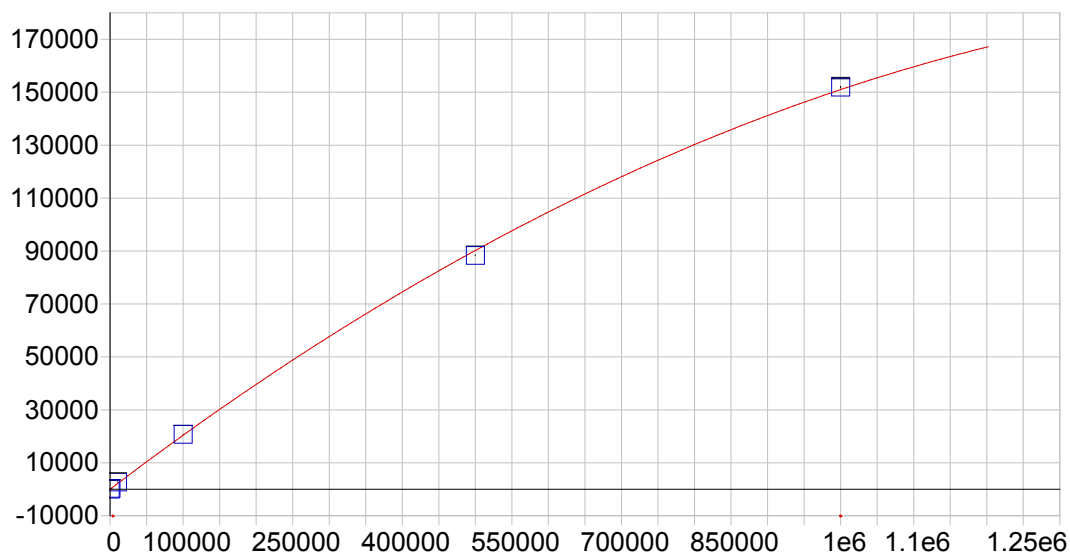


Fe 259.940 {129}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.770437 Re-Slope: 1.000000
 A1 (Gain): 0.072117 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999868 Status: OK.
 Std Error of Est: 3.494396
 Predicted MDL: 7.513812
 Predicted MQL: 25.046041

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.9861	-6.99	.000	.26662	.566	1
CalStd10=10	10000.	10072.	71.7	.717	724.96	9.56	1
CalStd13=50	500000.	488890.	-11100.	-2.22	30201.	155.	1
CalStd14=100	1000000.	1021900.	21900.	2.19	51601.	342.	1
CalStd9=100	1000.0	1023.2	23.2	2.32	74.540	1.06	1
CalStd12=100	100000.	101370.	1370.	1.37	7093.8	46.4	1

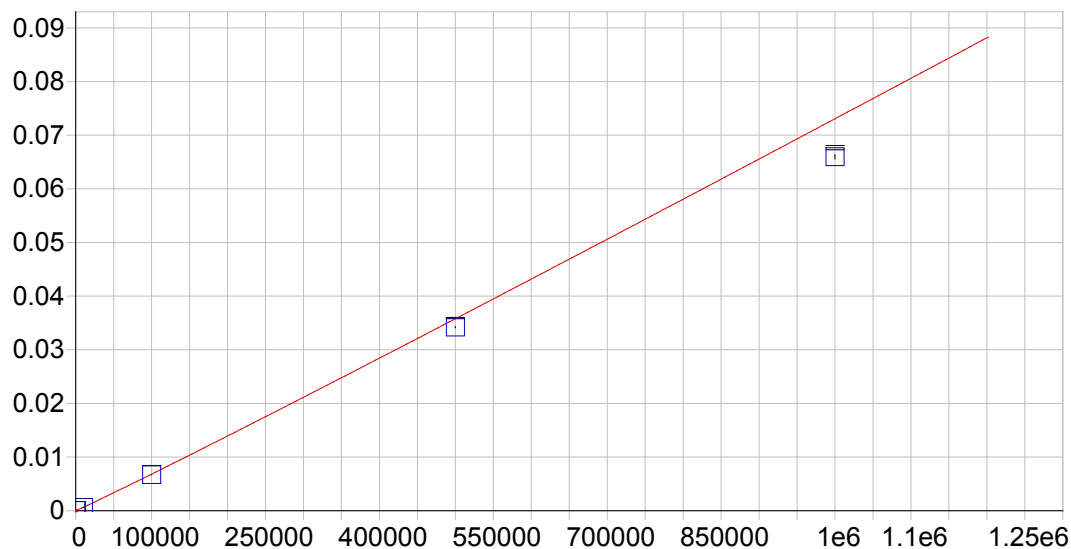


Mg 202.582 {466}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.922062 Re-Slope: 1.000000
 A1 (Gain): 0.209927 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999381 Status: OK.
 Std Error of Est: 10.400559
 Predicted MDL: 2.467528
 Predicted MQL: 8.225094

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-66486	-.665	.000	-1.0616	.383	1
CalStd13=50	500000.	487450.	-12500.	-2.51	88325.	79.3	1
CalStd10=10	10000.	13006.	3010.	30.1	2719.5	14.1	1
CalStd14=100	1000000.	1010000.	10000.	1.00	151910.	249.	1
CalStd12=100	100000.	101430.	1430.	1.43	20685.	27.2	1
CalStd9=100	1000.0	1366.7	367.	36.7	285.88	1.38	1

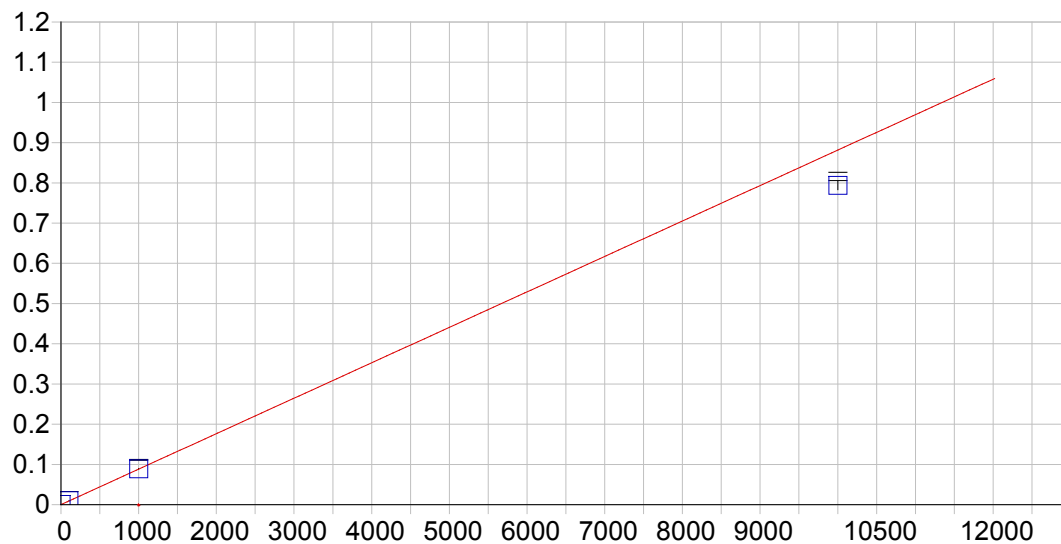


Mg 279.079 {121}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Full Fit Weighting: 1/Var

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.030000
 Correlation: 0.999986 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 136.814900
 Predicted MQL: 456.049667

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd13=50	500000.	478720.	-21300.	-4.26	.03422	.000	1
CalStd10=10	10000.	10151.	151.	1.51	.00065	.000	1
CalStd14=100	1000000.	905640.	-94400.	-9.44	.06598	.000	1
CalStd12=100	100000.	98556.	-1440.	-1.44	.00672	.000	1
CalStd9=100	1000.0	994.71	-5.29	-.529	.00006	.000	1

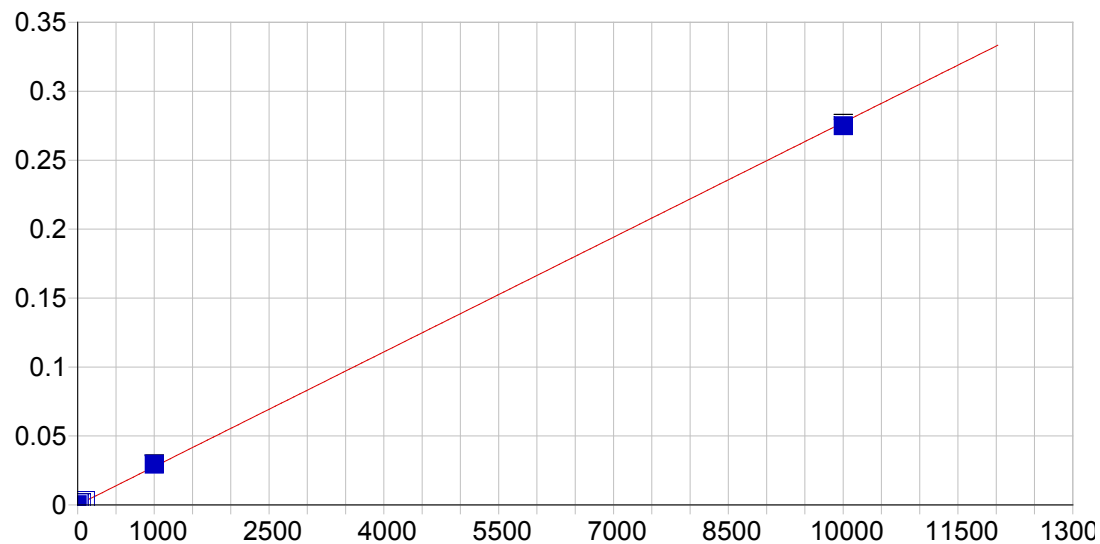


Mg 280.270 {120}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000215 Re-Slope: 1.000000
 A1 (Gain): 0.000088 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.997678 Status: OK.
 Std Error of Est: 0.000032
 Predicted MDL: 0.023954
 Predicted MQL: 0.079847

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00381	-.004	.000	.00022	.000	1
CalStd9=100	1000.0	1006.3	6.26	.626	.08890	.001	1
CalStd10=10	10000.	9000.4	-1000.	-10.00	.79345	.010	1
CalStd8=100	100.00	106.11	6.11	6.11	.00957	.000	1

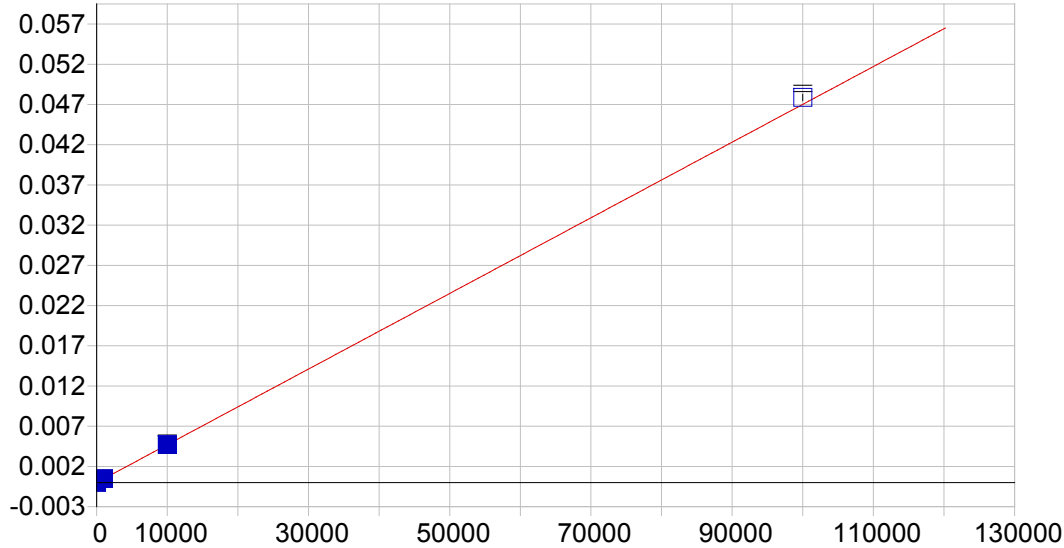


Mn 257.610 {131}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000028 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999561 Status: OK.
 Std Error of Est: 0.000007
 Predicted MDL: 0.073168
 Predicted MQL: 0.243894

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00428	-.004	.000	.00001	.000	1
CalStd5=10	10.000	11.857	1.86	18.6	.00033	.000	1
CalStd7=50	50.000	55.677	5.68	11.4	.00155	.000	1
CalStd6=20	20.000	27.971	7.97	39.9	.00078	.000	1
CalStd8=100	100.00	110.50	10.5	10.5	.00307	.000	1
CalStd4=5	5.0000	27.399	22.4	448.	.00077	.000	0
CalStd9=100	1000.0	1061.5	61.5	6.15	.02945	.000	1
CalStd10=10	10000.	9912.5	-87.5	-.875	.27494	.002	1

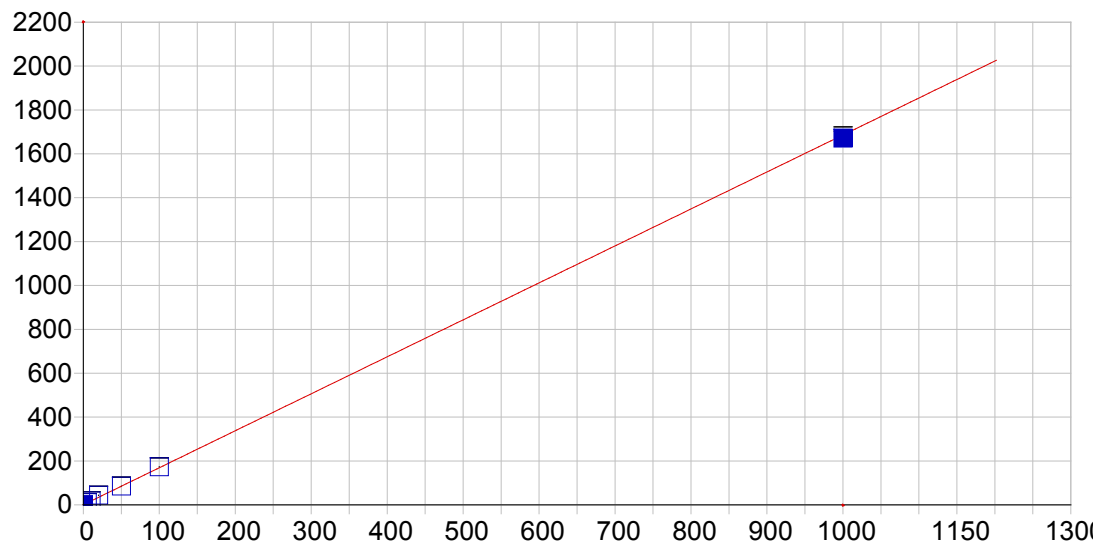


Mn 259.373 {130}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999999 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 1.754390
Predicted MQL: 5.847966

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02423	-.024	.000	.00000	.000	1
CalStd10=10	10000.	10008.	8.25	.082	.00471	.000	1
CalStd11=100	100000.	101810.	1810.	1.81	.04787	.000	1
CalStd9=100	1000.0	1002.8	2.80	.280	.00047	.000	1

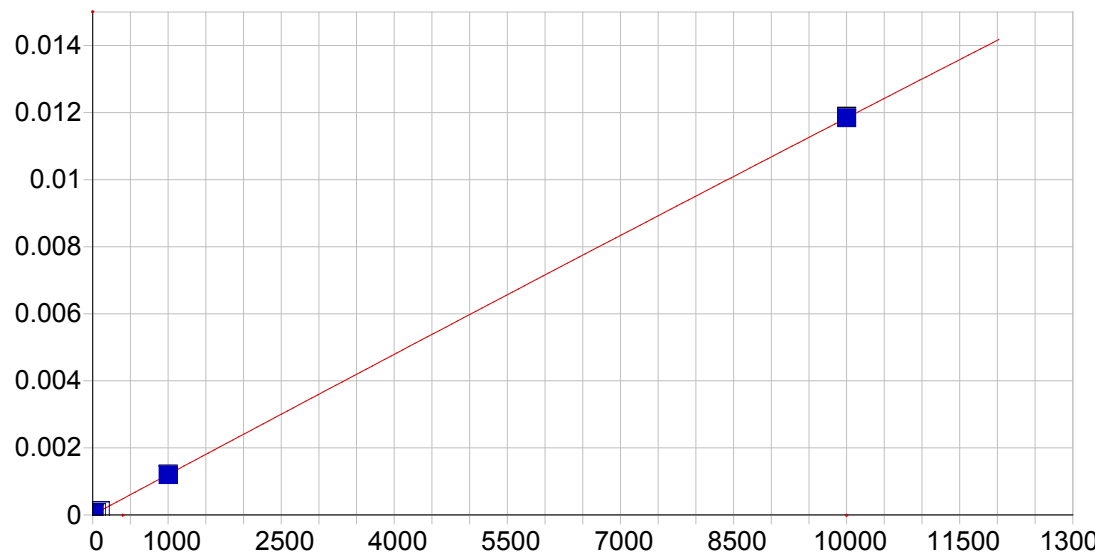


Mo 202.030 {466}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.645876	Re-Slope: 1.000000
A1 (Gain):	1.685303	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999262	Status: OK.
Std Error of Est:	0.186336	
Predicted MDL:	0.261041	
Predicted MQL:	0.870137	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00193	-.002	.000	.64263	.242	1
CalStd7=50	50.000	50.147	.147	.293	85.158	.709	1
CalStd6=20	20.000	25.636	5.64	28.2	43.851	.719	1
CalStd5=10	10.000	10.084	.084	.839	17.640	.180	1
CalStd8=100	100.00	102.35	2.35	2.35	173.14	.831	1
CalStd4=5	5.0000	5.3887	.389	7.77	9.7275	.261	1
CalStd9=100	1000.0	991.39	-8.61	-.861	1671.4	9.74	1

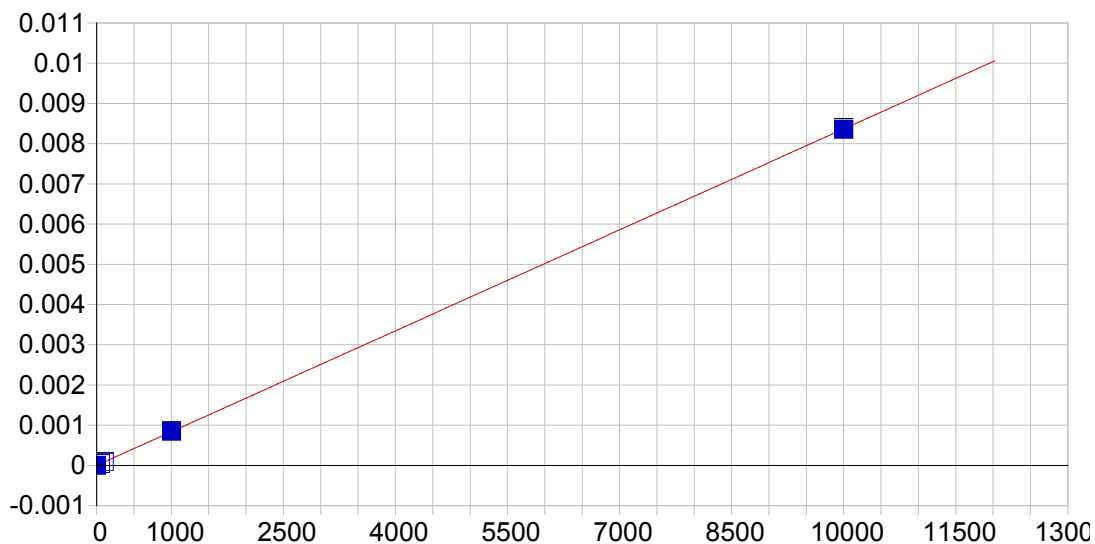


Mo 204.598 {464}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999937 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.536187
 Predicted MQL: 1.787289

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00126	-.001	.000	.00000	.000	1
CalStd7=50	50.000	49.752	-.248	-.496	.00006	.000	1
CalStd6=20	20.000	25.100	5.10	25.5	.00003	.000	1
CalStd5=10	10.000	10.093	.093	.932	.00001	.000	1
CalStd8=100	100.00	101.08	1.08	1.08	.00012	.000	1
CalStd4=5	5.0000	4.9412	-.059	-1.18	.00001	.000	1
CalStd9=100	1000.0	993.37	-6.63	-.663	.00120	.000	1
CalStd10=10	10000.	10001.	.665	.007	.01184	.000	1

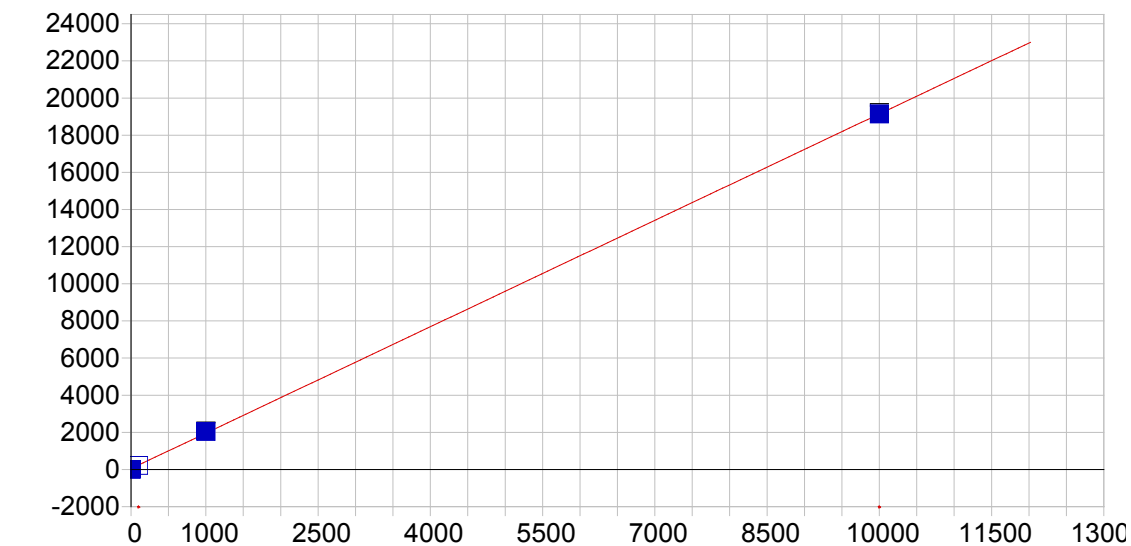


Mo 204.598 {465}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999989	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.856925	
Predicted MQL:	2.856417	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00319	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	1009.6	9.60	.960	.00084	.000	1
CalStd10=10	10000.	9986.0	-14.0	-.140	.00836	.000	1
CalStd7=50	50.000	51.127	1.13	2.25	.00004	.000	1
CalStd8=100	100.00	103.30	3.30	3.30	.00009	.000	1

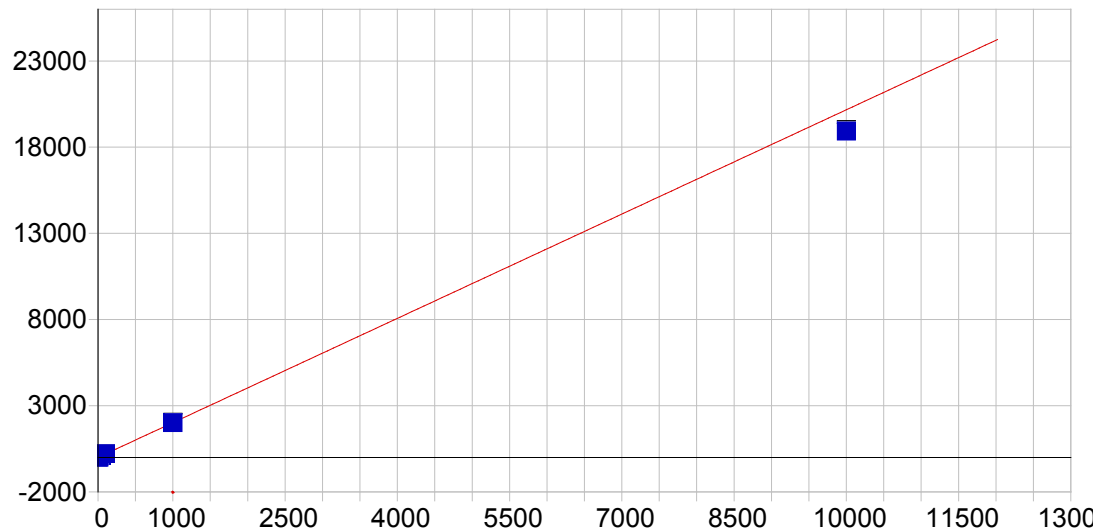


Ni 221.647 {452}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: None

A0 (Offset): 48.588885 Re-Slope: 1.000000
 A1 (Gain): 1.909642 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999980 Status: OK.
 Std Error of Est: 70.872865
 Predicted MDL: 0.462761
 Predicted MQL: 1.542537

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-25.463	-25.5	.000	-.03679	.491	1
CalStd10=10	10000.	9995.8	-4.22	-.042	19137.	62.2	1
CalStd8=100	100.00	86.133	-13.9	-13.9	213.07	.948	1
CalStd9=100	1000.0	1043.5	43.5	4.35	2041.3	14.8	1

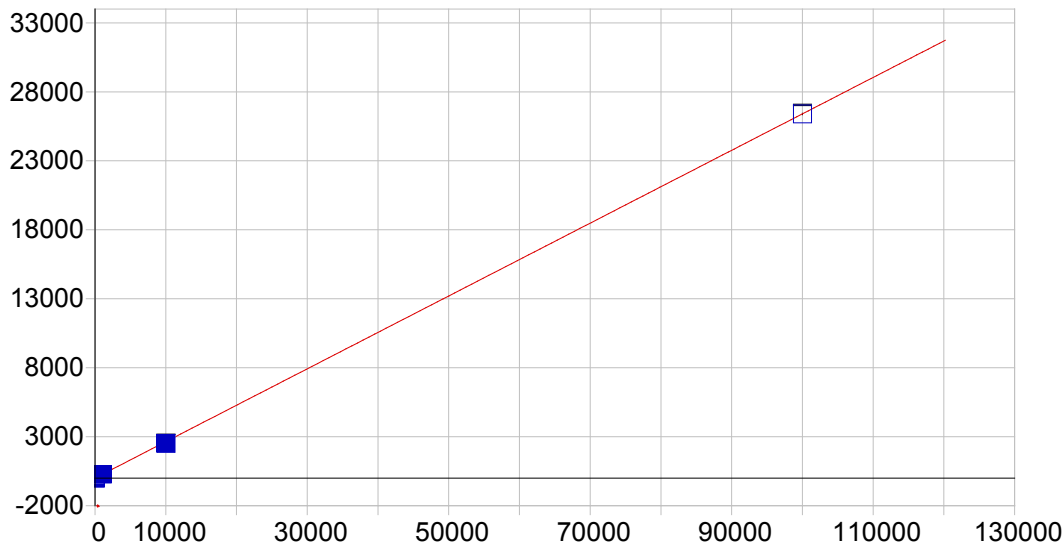


Ni 231.604 {445}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.306744 Re-Slope: 1.000000
 A1 (Gain): 2.016945 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998749 Status: OK.
 Std Error of Est: 5.261621
 Predicted MDL: 0.435381
 Predicted MQL: 1.451270

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.94056	-.941	.000	-1.5903	.408	1
CalStd7=50	50.000	50.427	.427	.854	102.02	.896	1
CalStd5=10	10.000	9.5926	-.407	-4.07	19.655	.398	1
CalStd8=100	100.00	103.72	3.72	3.72	209.50	.597	1
CalStd4=5	5.0000	4.8038	-.196	-3.92	9.9958	.576	1
CalStd9=100	1000.0	997.78	-2.22	-.222	2012.7	15.7	1
CalStd3=1	1.0000	.11470	-.885	-88.5	.53808	.662	1
CalStd10=10	10000.	9383.6	-616.	-6.16	18926.	77.4	1

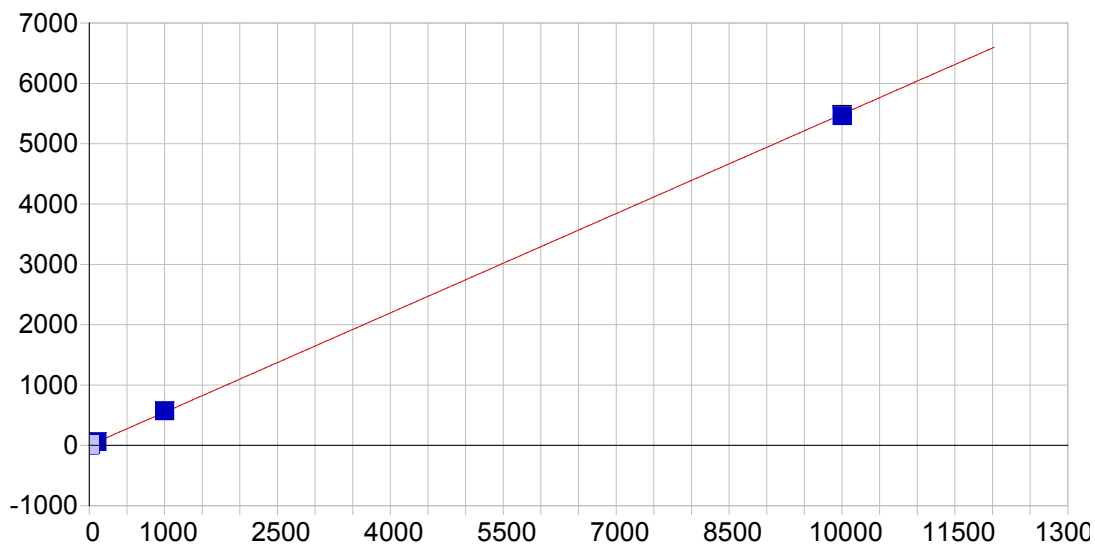


Pb 216.999 {455}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.505105 Re-Slope: 1.000000
 A1 (Gain): 0.264010 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999574 Status: OK.
 Std Error of Est: 2.465546
 Predicted MDL: 2.691787
 Predicted MQL: 8.972624

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0107	-1.01	.000	.23828	.510	1
CalStd9=100	1000.0	1077.3	77.3	7.73	286.26	1.58	1
CalStd10=10	10000.	9491.2	-509.	-5.09	2519.7	12.3	1
CalStd11=100	100000.	99967.	-32.9	-.033	26393.	50.9	1
CalStd8=100	100.00	101.85	1.85	1.85	27.393	.207	1
CalStd5=10	10.000	8.5470	-1.45	-14.5	2.7616	.147	1

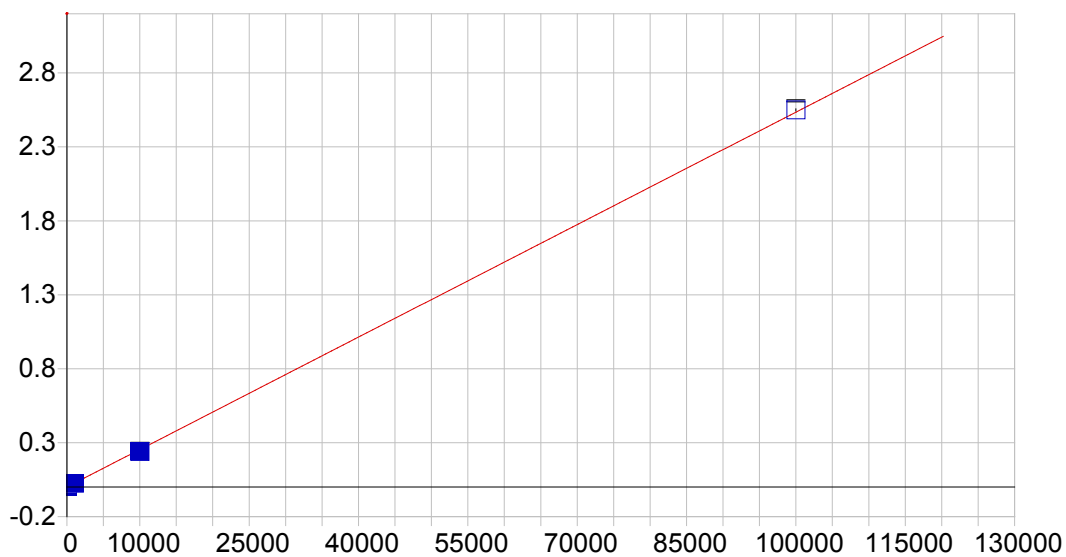


Pb 220.353 {453}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.320203 Re-Slope: 1.000000
 A1 (Gain): 0.548922 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999879 Status: OK.
 Std Error of Est: 0.082216
 Predicted MDL: 1.645426
 Predicted MQL: 5.484752

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00128	-.001	.000	.31950	.557	1
CalStd5=10	10.000	11.410	1.41	14.1	6.5832	.647	1
CalStd8=100	100.00	107.89	7.89	7.89	59.541	1.07	1
CalStd4=5	5.0000	26.369	21.4	427.	14.795	.826	0
CalStd9=100	1000.0	1040.3	40.3	4.03	571.37	4.52	1
CalStd10=10	10000.	9950.4	-49.6	-.496	5462.2	22.8	1

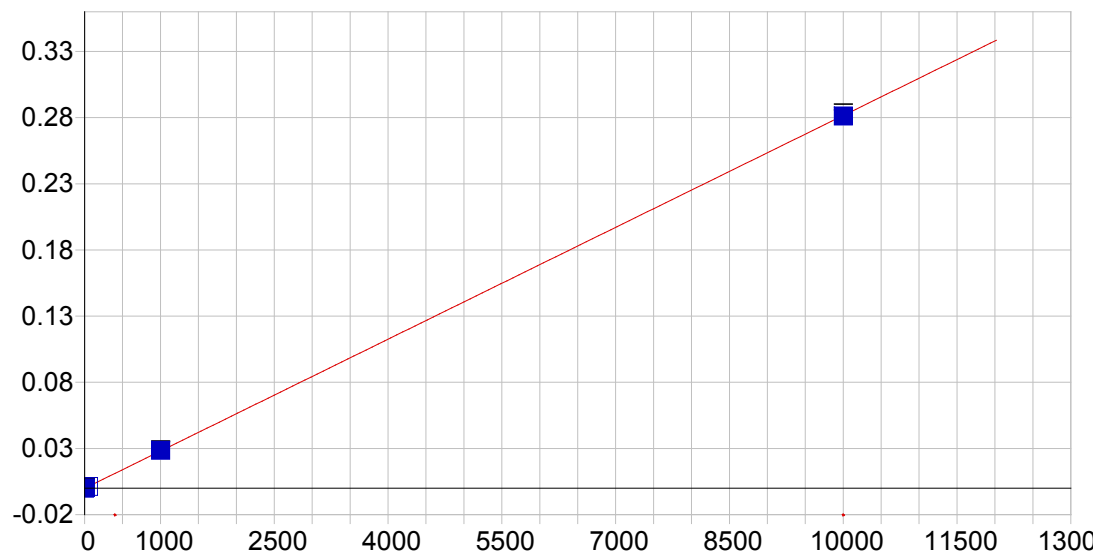


Pb 220.353 {153}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000062	Re-Slope: 1.000000
A1 (Gain):	0.000025	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999841	Status: OK.
Std Error of Est:	0.000062	
Predicted MDL:	4.548785	
Predicted MQL:	15.162618	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00308	.003	.000	.00006	.000	1
CalStd9=100	1000.0	973.36	-26.6	-2.66	.02473	.000	1
CalStd10=10	10000.	9441.9	-558.	-5.58	.23935	.002	1
CalStd8=100	100.00	104.58	4.58	4.58	.00271	.000	1
CalStd11=100	100000.	100580.	580.	.580	2.5496	.007	1

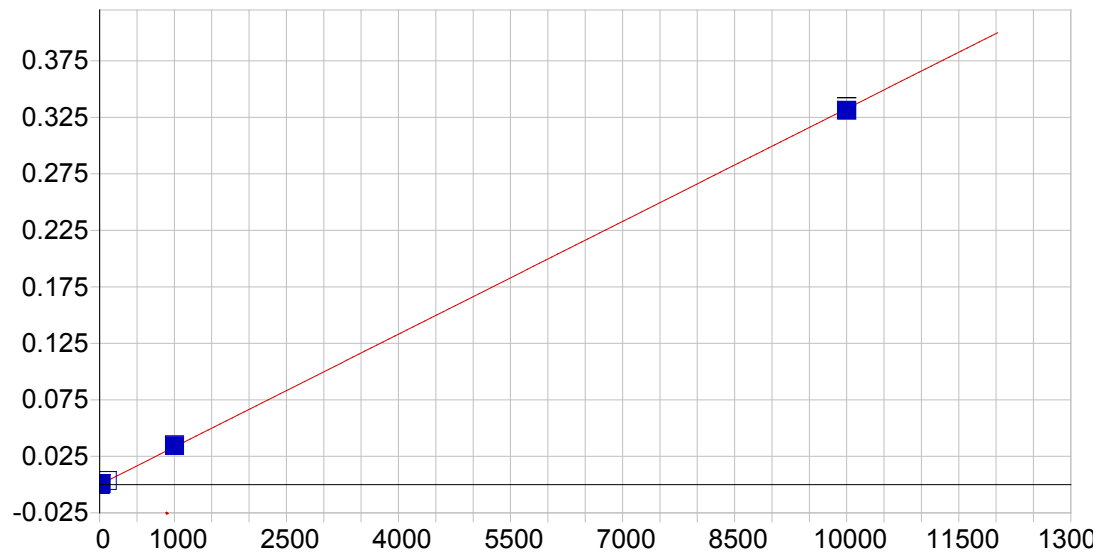


Sb 206.833 {463}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000118	Re-Slope: 1.000000
A1 (Gain):	0.000028	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999978	Status: OK.
Std Error of Est:	0.000003	
Predicted MDL:	1.936617	
Predicted MQL:	6.455389	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00079	.001	.000	-.00012	.000	1
CalStd9=100	1000.0	1018.2	18.2	1.82	.02857	.000	1
CalStd5=10	10.000	9.5307	-.469	-4.69	.00015	.000	1
CalStd7=50	50.000	47.550	-2.45	-4.90	.00122	.000	1
CalStd10=10	10000.	9984.7	-15.3	-.153	.28118	.002	1

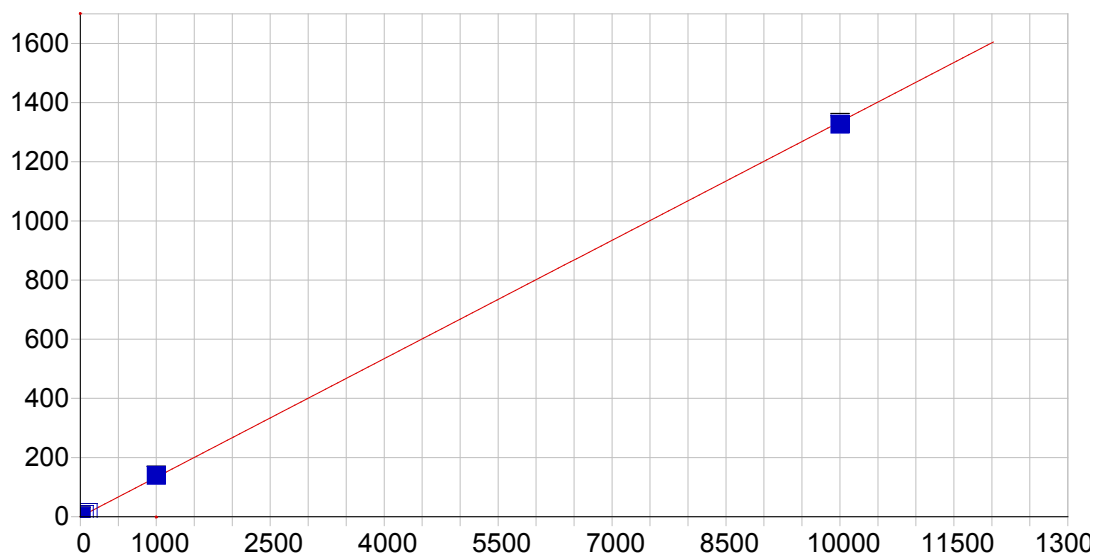


Sb 217.581 {455}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000018	Re-Slope: 1.000000
A1 (Gain):	0.000033	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999818	Status: OK.
Std Error of Est:	0.000006	
Predicted MDL:	1.845909	
Predicted MQL:	6.153032	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00175	-.002	.000	-.00002	.000	1
CalStd9=100	1000.0	1034.2	34.2	3.42	.03438	.001	1
CalStd6=20	20.000	26.367	6.37	31.8	.00086	.000	1
CalStd5=10	10.000	8.8855	-1.11	-11.1	.00028	.000	1
CalStd8=100	100.00	107.11	7.11	7.11	.00355	.000	1
CalStd4=5	5.0000	5.2164	.216	4.33	.00016	.000	1
CalStd10=10	10000.	9953.2	-46.8	-.468	.33102	.003	1

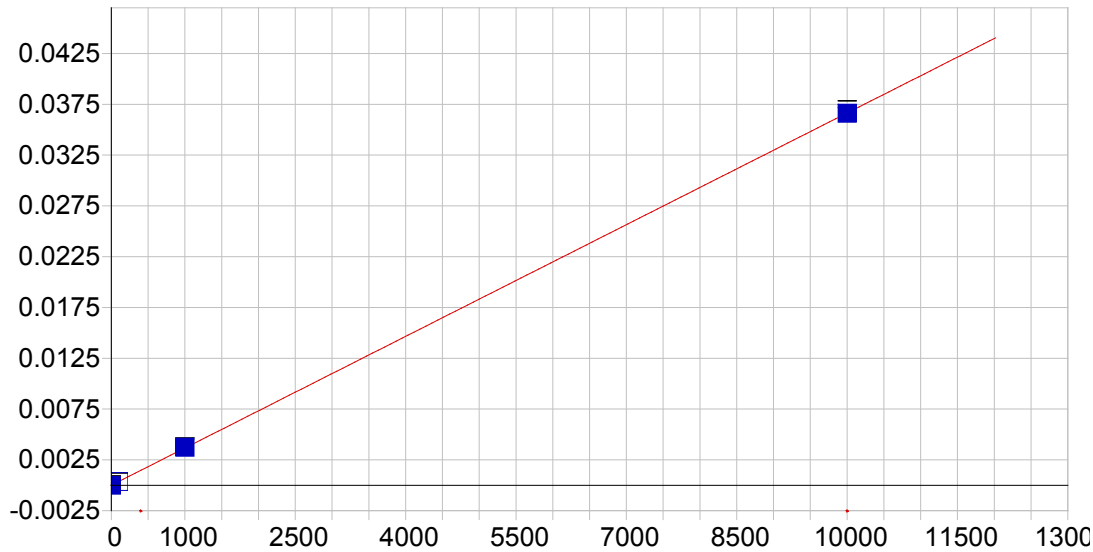


Se 196.090 {472}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.259168 Re-Slope: 1.000000
 A1 (Gain): 0.133470 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999820 Status: OK.
 Std Error of Est: 0.032717
 Predicted MDL: 3.363538
 Predicted MQL: 11.211792

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00434	-.004	.000	.25859	.246	1
CalStd7=50	50.000	54.104	4.10	8.21	7.4805	.442	1
CalStd9=100	1000.0	1044.8	44.8	4.48	139.68	.569	1
CalStd5=10	10.000	12.233	2.23	22.3	1.8920	.477	1
CalStd8=100	100.00	108.97	8.97	8.97	14.803	.109	1
CalStd10=10	10000.	9939.9	-60.1	-.601	1326.6	5.89	1

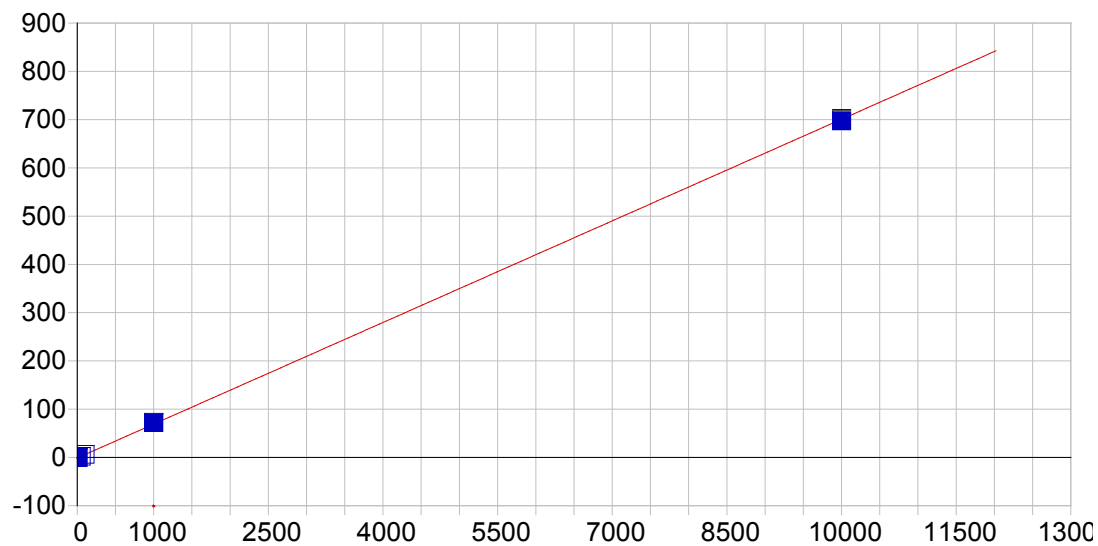


Se 206.279 {463}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999978 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 16.282272
 Predicted MQL: 54.274241

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00308	.003	.000	.00000	.000	1
CalStd9=100	1000.0	1016.5	16.5	1.65	.00373	.000	1
CalStd10=10	10000.	9988.1	-11.9	-.119	.03665	.000	1
CalStd8=100	100.00	95.388	-4.61	-4.61	.00035	.000	1

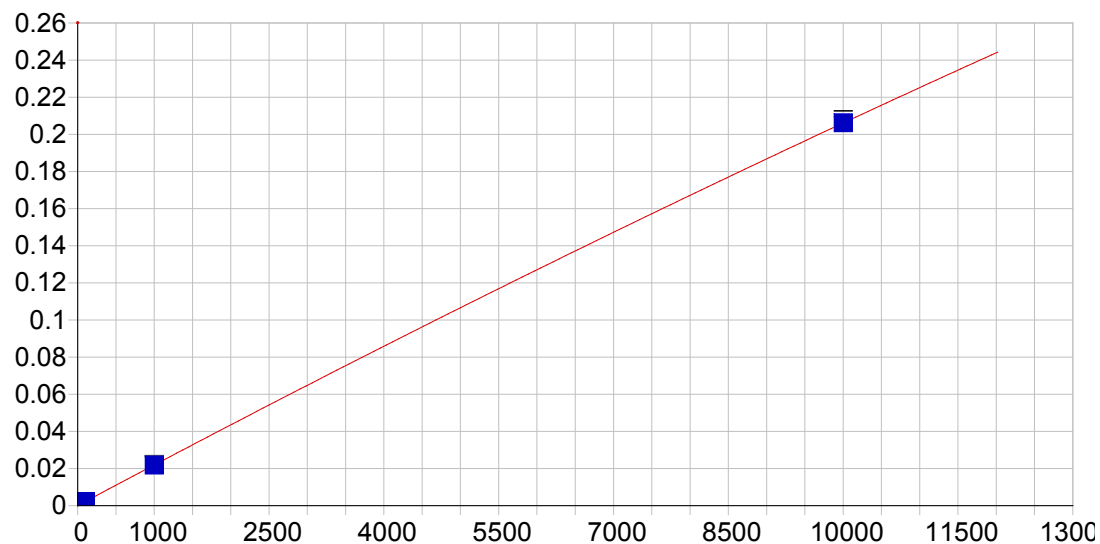


Se 196.090 {471}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -1.104292 Re-Slope: 1.000000
 A1 (Gain): 0.070185 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999875 Status: OK.
 Std Error of Est: 0.014363
 Predicted MDL: 6.214528
 Predicted MQL: 20.715093

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00085	-.001	.000	-1.1044	.412	1
CalStd7=50	50.000	51.399	1.40	2.80	2.5032	.193	1
CalStd9=100	1000.0	1042.8	42.8	4.28	72.071	.254	1
CalStd5=10	10.000	9.3989	-.601	-6.01	-.44463	.461	1
CalStd8=100	100.00	107.91	7.91	7.91	6.4697	.493	1
CalStd10=10	10000.	9948.5	-51.5	-.515	697.02	4.19	1

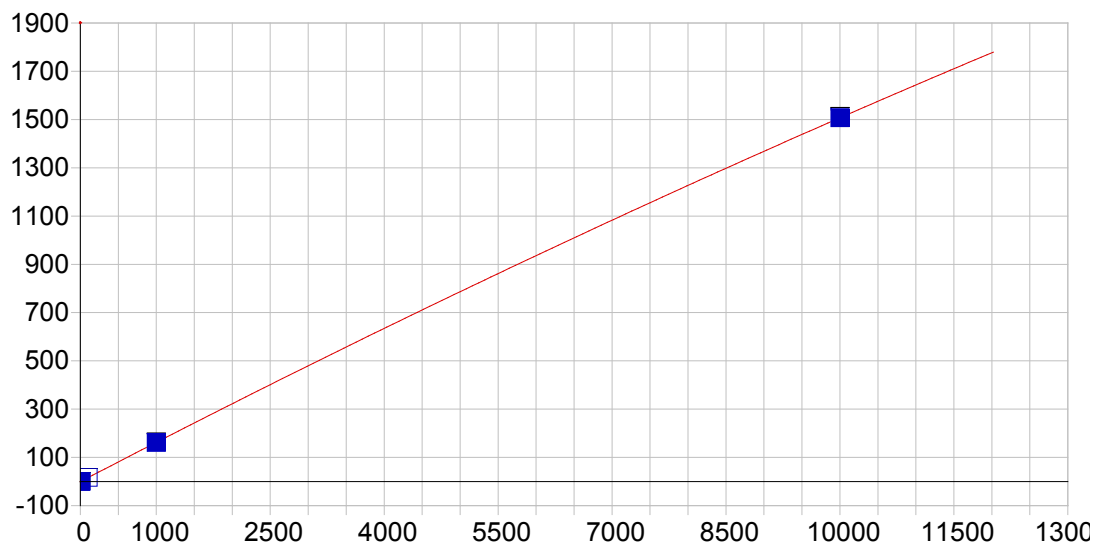


TI 190.856 {476}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000038	Re-Slope: 1.000000
A1 (Gain):	0.000022	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999971	Status: OK.
Std Error of Est:	0.000003	
Predicted MDL:	2.410864	
Predicted MQL:	8.036213	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00217	-.002	.000	.00004	.000	1
CalStd9=100	1000.0	992.97	-7.03	-.703	.02177	.000	1
CalStd8=100	100.00	104.51	4.51	4.51	.00234	.000	1
CalStd5=10	10.000	11.791	1.79	17.9	.00030	.000	1
CalStd10=10	10000.	10001.	.742	.007	.20622	.002	1

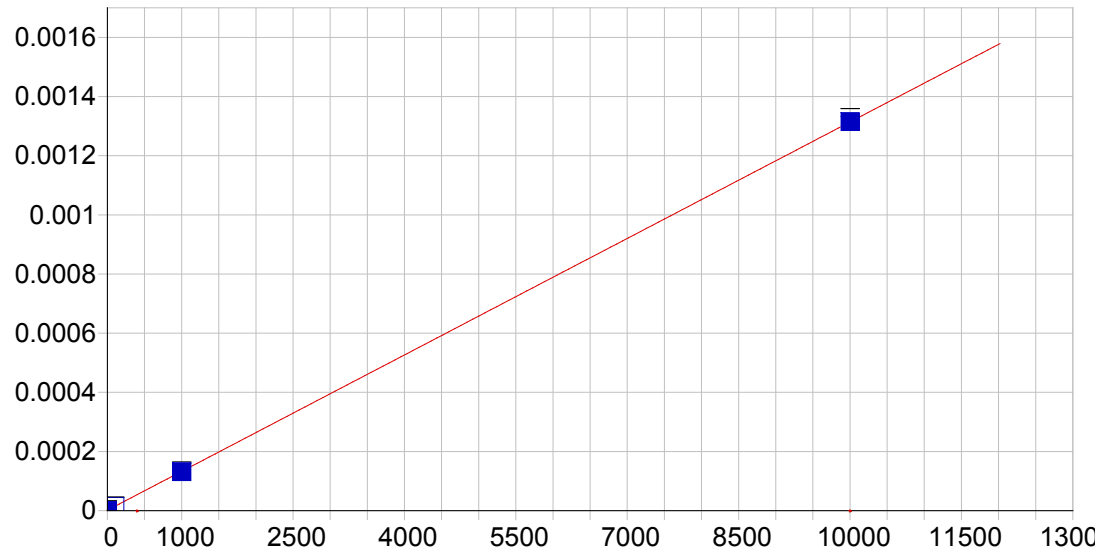


TI 190.856 {477}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): -0.632201 Re-Slope: 1.000000
 A1 (Gain): 0.164092 Y-int: 0.000000
 A2 (Curvature): -0.000001
 n (Exponent): 1.000000
 Correlation: 0.999971 Status: OK.
 Std Error of Est: 0.516161
 Predicted MDL: 2.739831
 Predicted MQL: 9.132770

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.2141	1.21	.000	-.43297	.301	1
CalStd9=100	1000.0	996.18	-3.82	-.382	161.51	1.06	1
CalStd8=100	100.00	105.56	5.56	5.56	16.675	.400	1
CalStd5=10	10.000	9.0710	-.929	-9.29	.85617	.144	1
CalStd10=10	10000.	10001.	.828	.008	1507.3	4.82	1

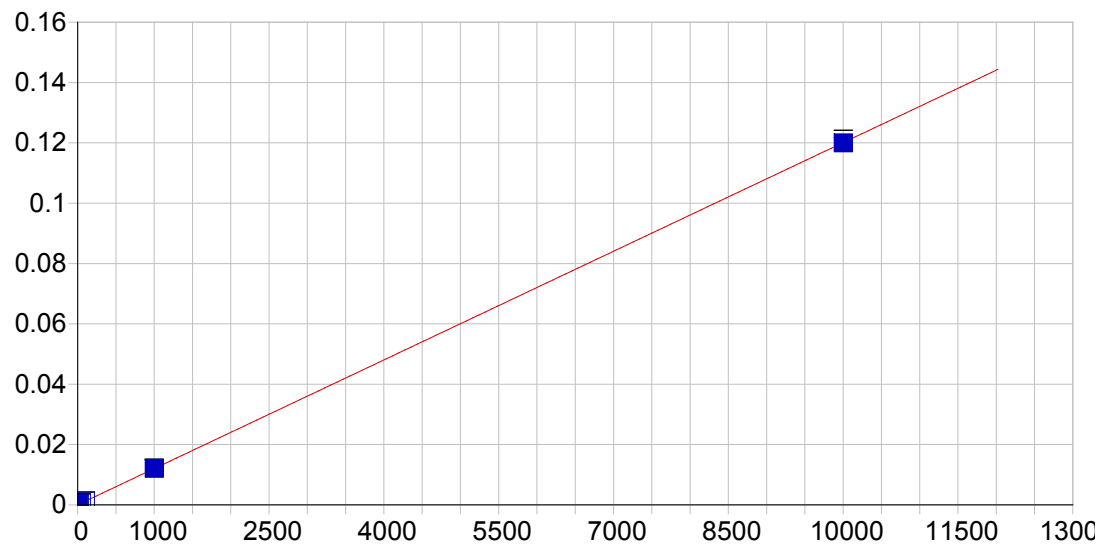


V 290.882 {116}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999994 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 7.637872
 Predicted MQL: 25.459572

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00079	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	990.24	-9.76	-.976	.00013	.000	1
CalStd10=10	10000.	10008.	8.07	.081	.00132	.000	1
CalStd8=100	100.00	101.69	1.69	1.69	.00001	.000	1

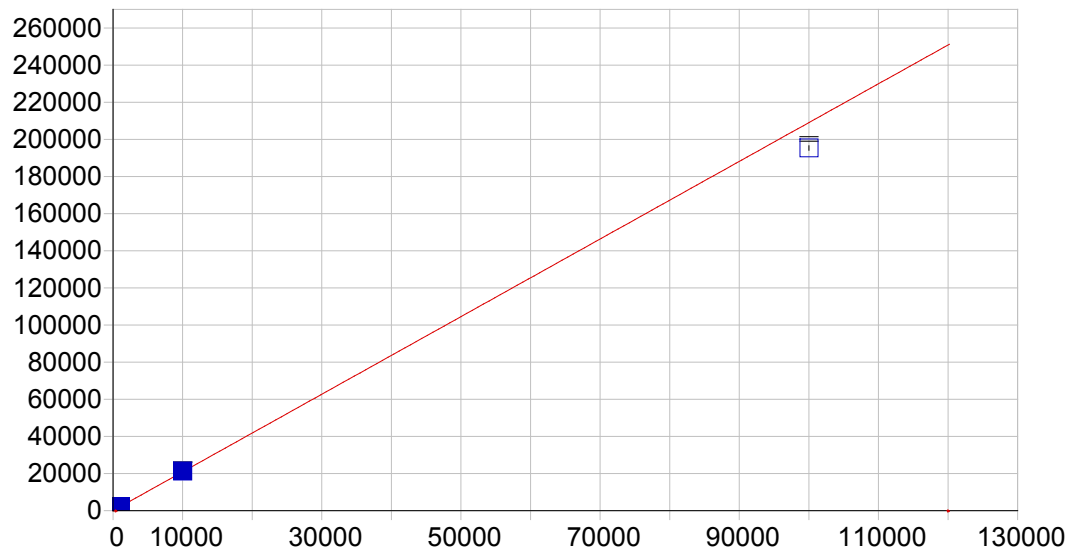


V 292.402 {115}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000010 Re-Slope: 1.000000
 A1 (Gain): 0.000012 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999927 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.393646
 Predicted MQL: 1.312153

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00351	-.004	.000	.00001	.000	1
CalStd7=50	50.000	51.314	1.31	2.63	.00063	.000	1
CalStd9=100	1000.0	1000.3	.302	.030	.01202	.000	1
CalStd6=20	20.000	25.488	5.49	27.4	.00032	.000	1
CalStd5=10	10.000	10.236	.236	2.36	.00013	.000	1
CalStd8=100	100.00	102.75	2.75	2.75	.00124	.000	1
CalStd10=10	10000.	9989.9	-10.1	-.101	.11995	.001	1

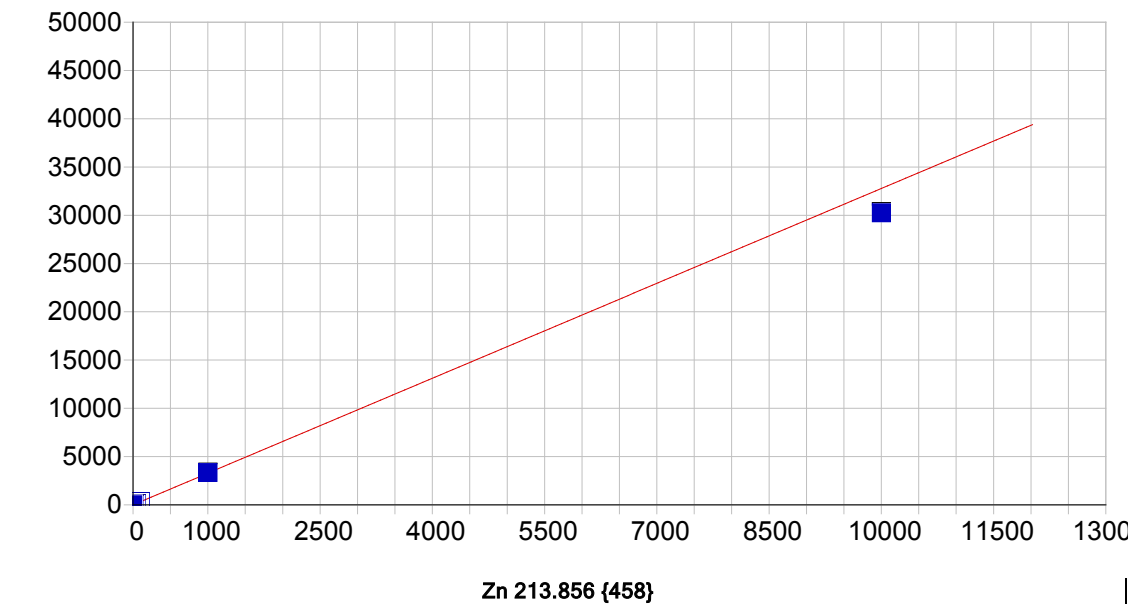


Zn 206.200 {463}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 1.013035 Re-Slope: 1.000000
 A1 (Gain): 2.090203 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998721 Status: OK.
 Std Error of Est: 3.535051
 Predicted MDL: 0.289711
 Predicted MQL: 0.965703

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10179.	179.	1.79	21277.	94.3	1
Blank	.00000	-.00700	-.007	.000	.99840	.163	1
CalStd9=100	1000.0	1084.2	84.2	8.42	2267.3	18.4	1
CalStd11=100	100000.	93449.	-6550.	-6.55	195330.	1210.	1



Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 5.443611 Re-Slope: 1.000000
 A1 (Gain): 3.277032 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998144 Status: OK.
 Std Error of Est: 8.743595
 Predicted MDL: 0.145797
 Predicted MQL: 0.485991

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.97703	-.977	.000	2.2418	.363	1
CalStd8=100	100.00	104.30	4.30	4.30	347.25	1.07	1
CalStd7=50	50.000	51.712	1.71	3.42	174.91	.841	1
CalStd5=10	10.000	10.258	.258	2.58	39.059	.446	1
CalStd9=100	1000.0	1017.7	17.7	1.77	3341.2	21.2	1
CalStd4=5	5.0000	26.964	22.0	439.	93.807	.674	0
CalStd10=10	10000.	9225.9	-774.	-7.74	30245.	119.	1

700000
650000
600000
550000
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0

Y 324.228 {104}*					
Date of Fit:	11/30/2016 10:19:47	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope: 1.000000			
A1 (Gain):	0.000000	Y-int: 0.000000			
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	650160.	2790.	1

50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

Y 371.030 { 91}*

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.000000 Status: Warning Zero Gain
Std Error of Est: 0.000000
Predicted MDL: n/a
Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	44277.	214.	1

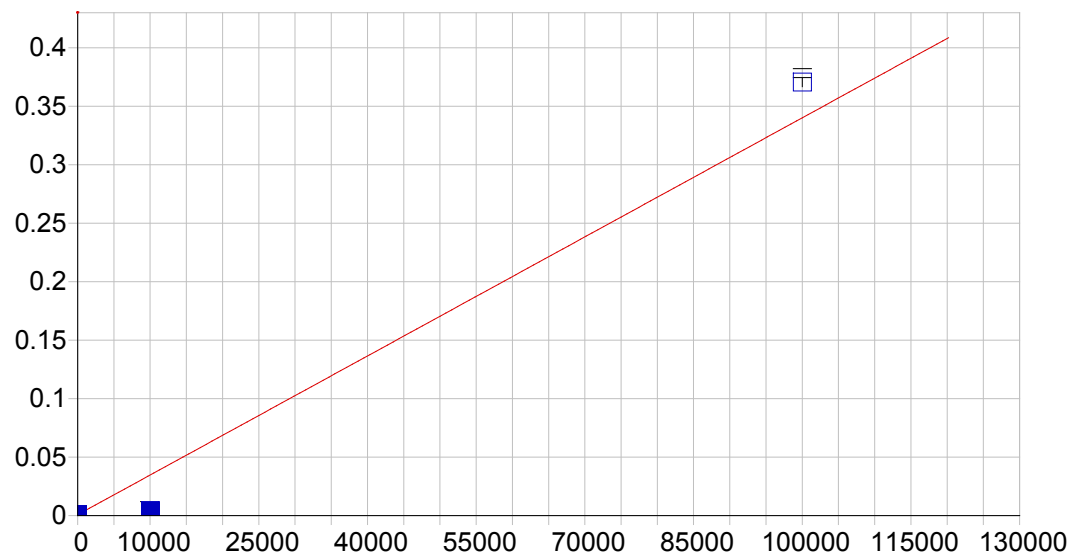
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0

Y 224.306 {451}*

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.000000 Status: Warning Zero Gain
 Std Error of Est: 0.000000
 Predicted MDL: n/a
 Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	10188.	41.4	1

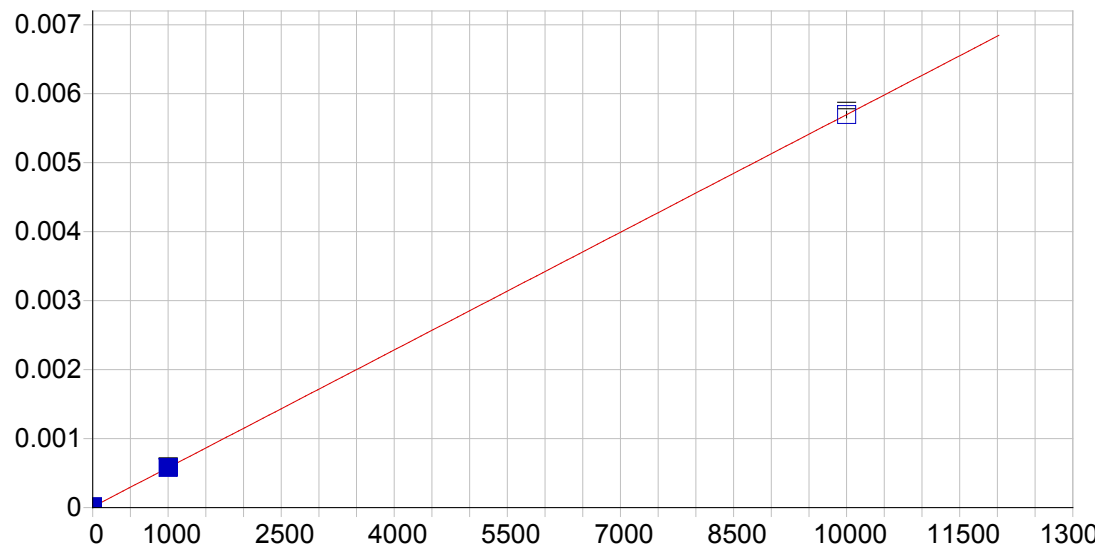


Na 588.995 { 57}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000736 Re-Slope: 1.000000
A1 (Gain): 0.000003 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.961989 Status: OK.
Std Error of Est: 0.001749
Predicted MDL: 2.530889
Predicted MQL: 8.436295

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0749	8.07	.000	.00076	.000	1
CalStd9=100	10000.	1027.9	-8970.	-89.7	.00422	.000	1
CalStd12=100	100000.	108970.	8970.	8.97	.37058	.004	1

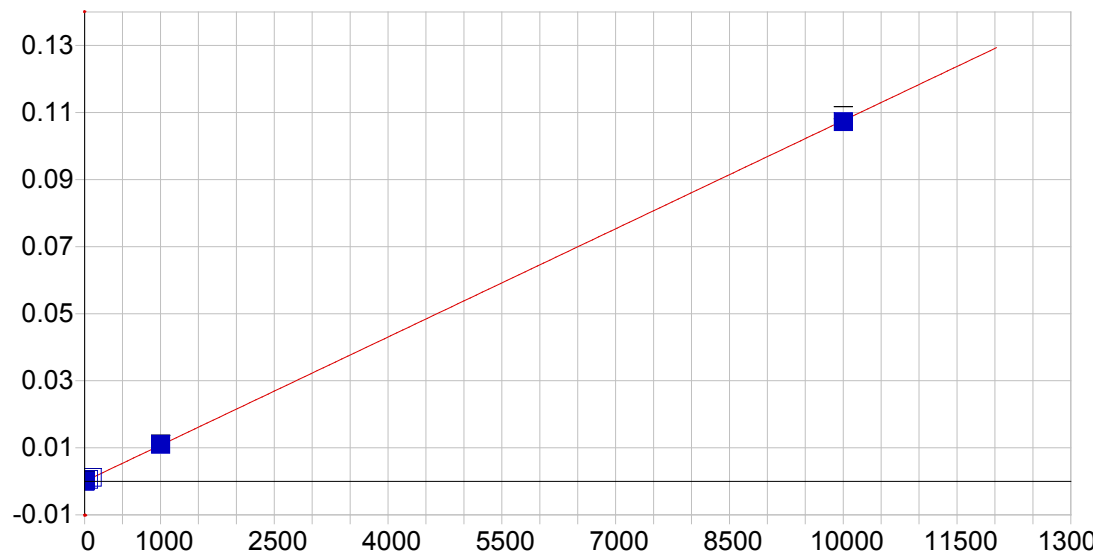


Si 251.611 {134}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000011 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 20.605896
 Predicted MQL: 68.686319

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00014	.000	.000	.00001	.000	1
CalStd9=100	1000.0	999.85	-.153	-.015	.00058	.000	1
CalStd12=100	10000.	10000.	.153	.002	.00570	.000	1

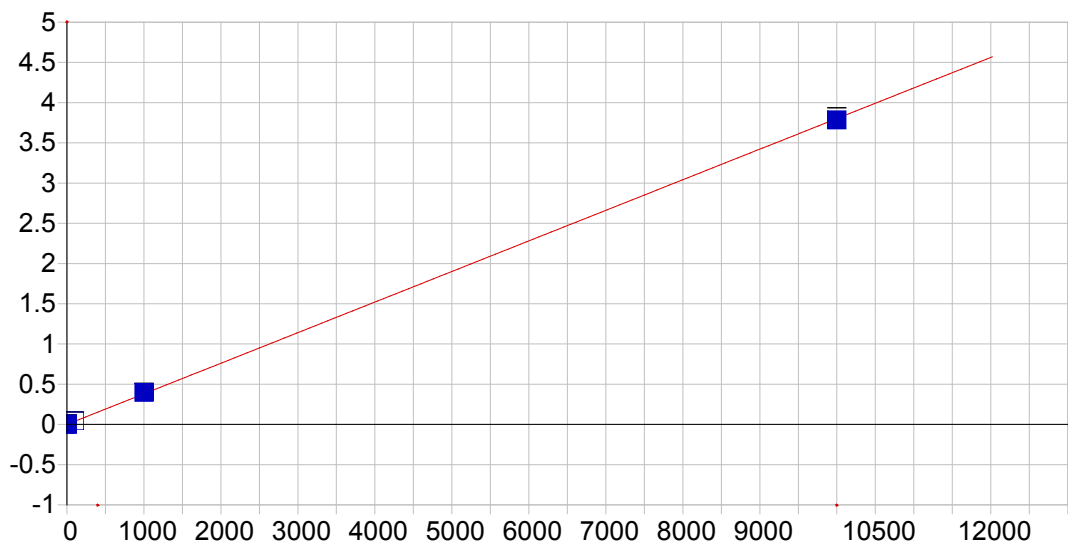


Ti 334.941 {101}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.618506		
Predicted MQL:	5.395019		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00068	-.001	.000	.00001	.000	1
CalStd5=10	10.000	11.659	1.66	16.6	.00013	.000	1
CalStd8=100	100.00	106.46	6.46	6.46	.00115	.000	1
CalStd9=100	1000.0	1023.2	23.2	2.32	.01102	.000	1
CalStd10=10	10000.	9966.8	-33.2	-.332	.10726	.002	1
CalStd7=50	50.000	52.790	2.79	5.58	.00057	.000	1
CalStd4=5	5.0000	4.1446	-.855	-17.1	.00005	.000	1

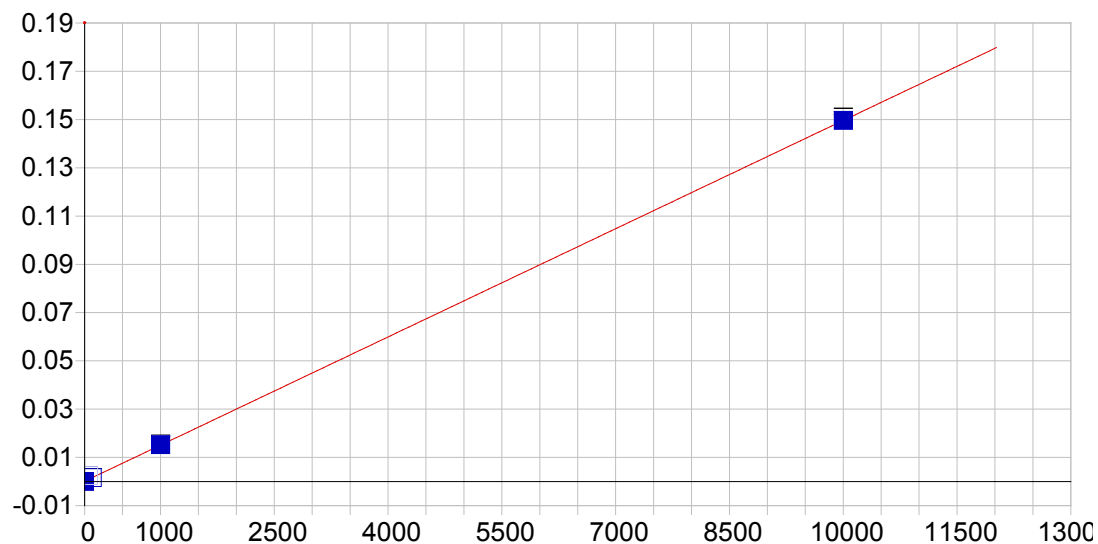


Sr 407.771 { 83}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000009	Re-Slope: 1.000000
A1 (Gain):	0.000380	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999880	Status: OK.
Std Error of Est:	0.000023	
Predicted MDL:	0.082542	
Predicted MQL:	0.275139	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00025	.000	.000	-.00001	.000	1
CalStd3=1	1.0000	1.0390	.039	3.90	.00039	.000	1
CalStd4=5	5.0000	5.2385	.239	4.77	.00198	.000	1
CalStd5=10	10.000	10.415	.415	4.15	.00395	.000	1
CalStd8=100	100.00	108.33	8.33	8.33	.04118	.000	1
CalStd9=100	1000.0	1041.1	41.1	4.11	.39585	.002	1
CalStd10=10	10000.	9949.8	-50.2	-.502	3.7831	.040	1

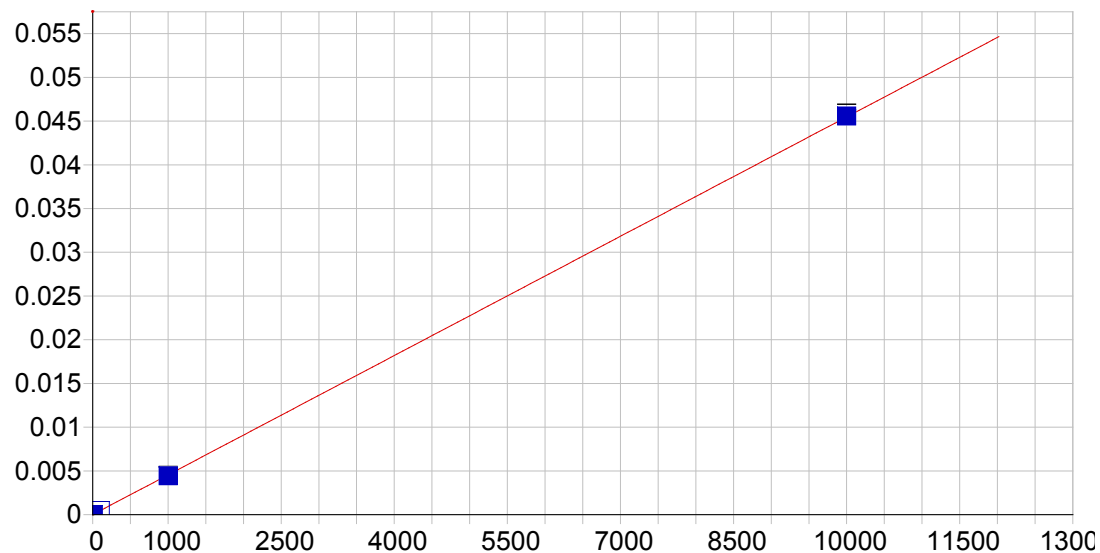


Sn 189.989 {478}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000100 Re-Slope: 1.000000
 A1 (Gain): 0.000015 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000141
 Predicted MDL: 2.104754
 Predicted MQL: 7.015847

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-8.2721	-8.27	.000	-.00002	.000	1
CalStd10=10	10000.	9999.0	-1.02	-.010	.14959	.001	1
CalStd9=100	1000.0	1010.3	10.3	1.03	.01521	.000	1
CalStd8=100	100.00	98.954	-1.05	-1.05	.00158	.000	1
CalStd7=50	50.000	153.45	103.	207.	.00239	.000	0

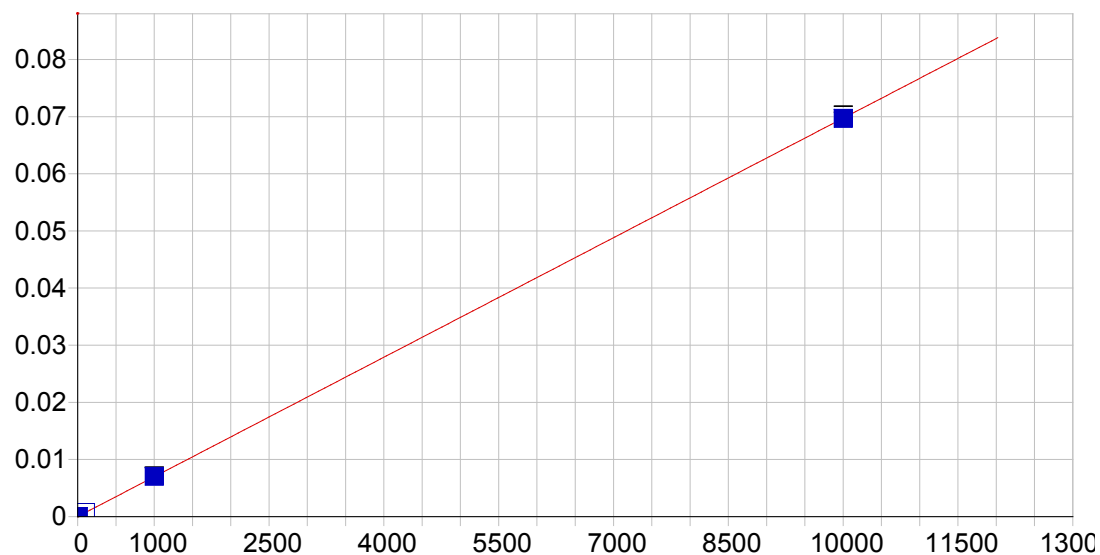


B 249.678 {135}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999967 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.802878
 Predicted MQL: 2.676260

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00003	.000	.000	.00000	.000	1
CalStd8=100	100.00	102.33	2.33	2.33	.00047	.000	1
CalStd5=10	10.000	9.9639	-.036	-.361	.00005	.000	1
CalStd9=100	1000.0	975.02	-25.0	-2.50	.00444	.000	1
CalStd10=10	10000.	10023.	22.7	.227	.04557	.000	1

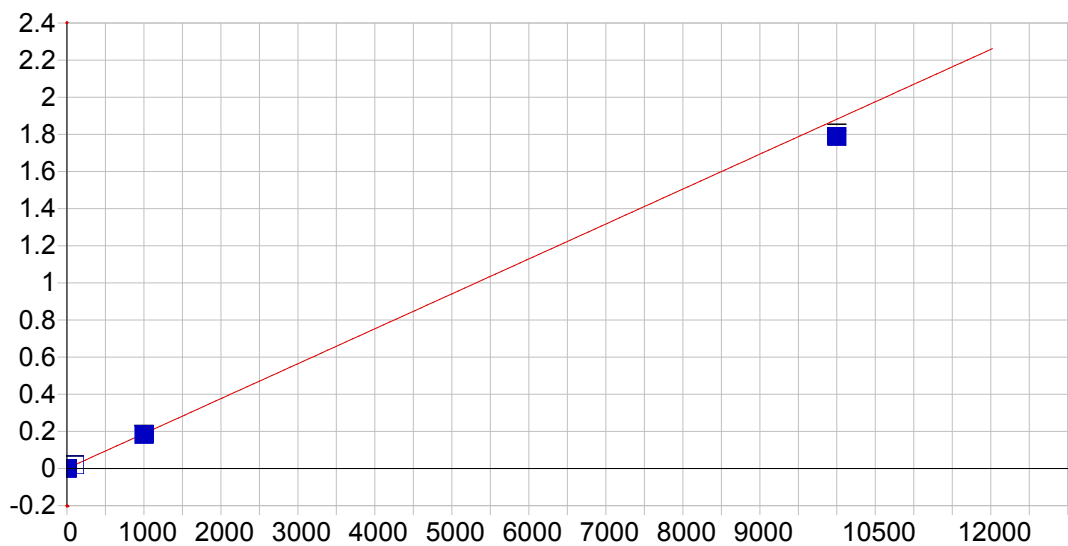


B 249.773 {135}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000007	Re-Slope: 1.000000
A1 (Gain):	0.000007	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999990	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.507391	
Predicted MQL:	1.691304	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00076	-.001	.000	.00001	.000	1
CalStd8=100	100.00	103.99	3.99	3.99	.00073	.000	1
CalStd5=10	10.000	10.309	.309	3.09	.00008	.000	1
CalStd9=100	1000.0	1006.2	6.24	.624	.00703	.000	1
CalStd10=10	10000.	9989.5	-10.5	-.105	.06977	.001	1

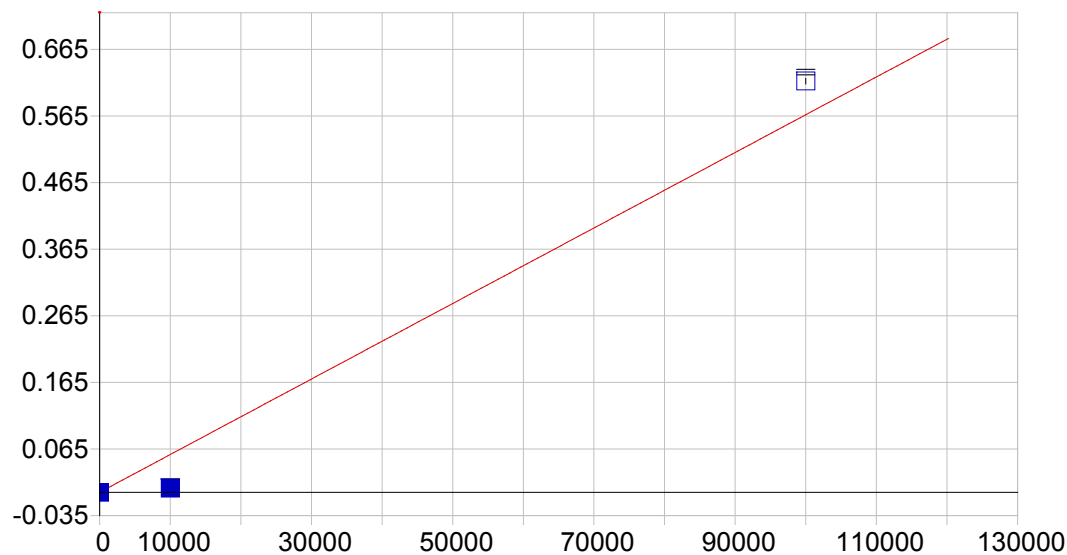


Li 670.784 { 50}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000157	Re-Slope: 1.000000
A1 (Gain):	0.000188	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999620	Status: OK.
Std Error of Est:	0.000394	
Predicted MDL:	0.598672	
Predicted MQL:	1.995572	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.80546	-.805	.000	.00001	.000	1
CalStd5=10	10.000	9.2954	-.705	-7.05	.00191	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.01917	.000	1
CalStd9=100	1000.0	969.28	-30.7	-3.07	.18253	.001	1
CalStd10=10	10000.	9503.6	-496.	-4.96	1.7883	.018	1

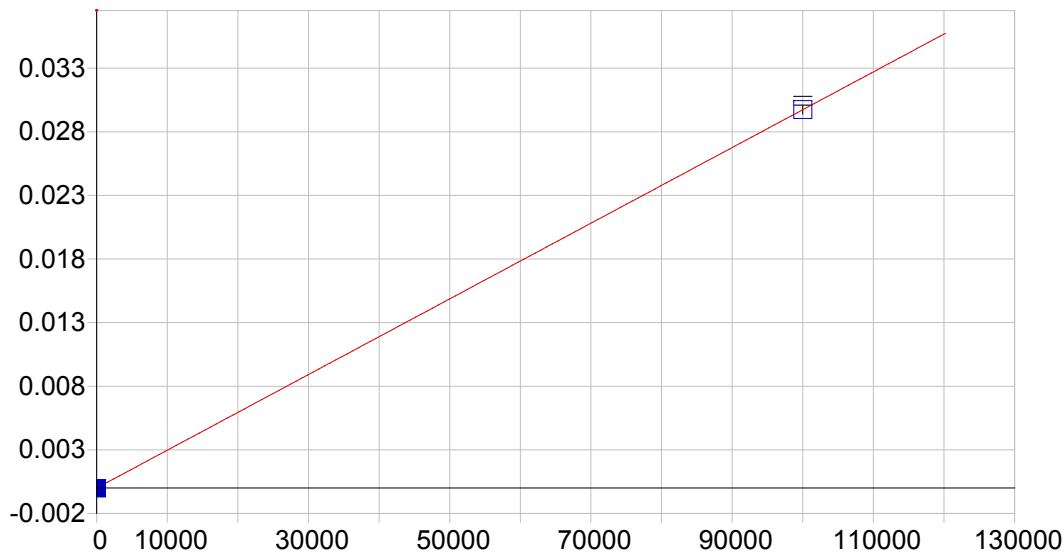


K 766.490 { 44 }

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000019 Re-Slope: 1.000000
 A1 (Gain): 0.000006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.962587 Status: OK.
 Std Error of Est: 0.002897
 Predicted MDL: 20.786703
 Predicted MQL: 69.289009

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0075	8.01	.000	.00003	.000	1
CalStd9=100	10000.	1102.9	-8900.	-89.0	.00623	.000	1
CalStd12=100	100000.	108900.	8900.	8.90	.61727	.004	1

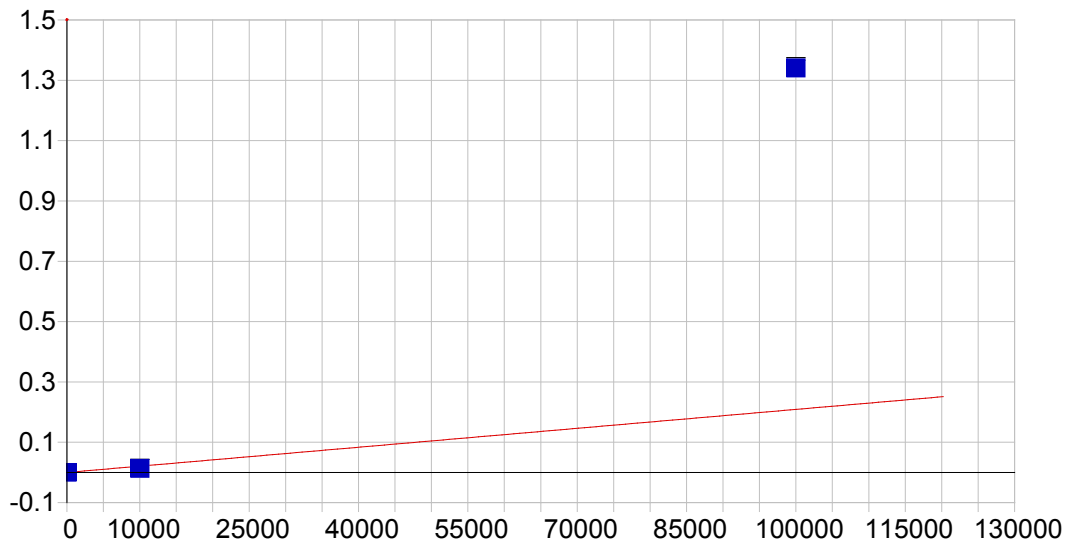


P 213.618 {457}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000003	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	3.251078	
Predicted MQL:	10.836928	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100 100000.	100000.	100000.	.000	.000	.02973	.000	1

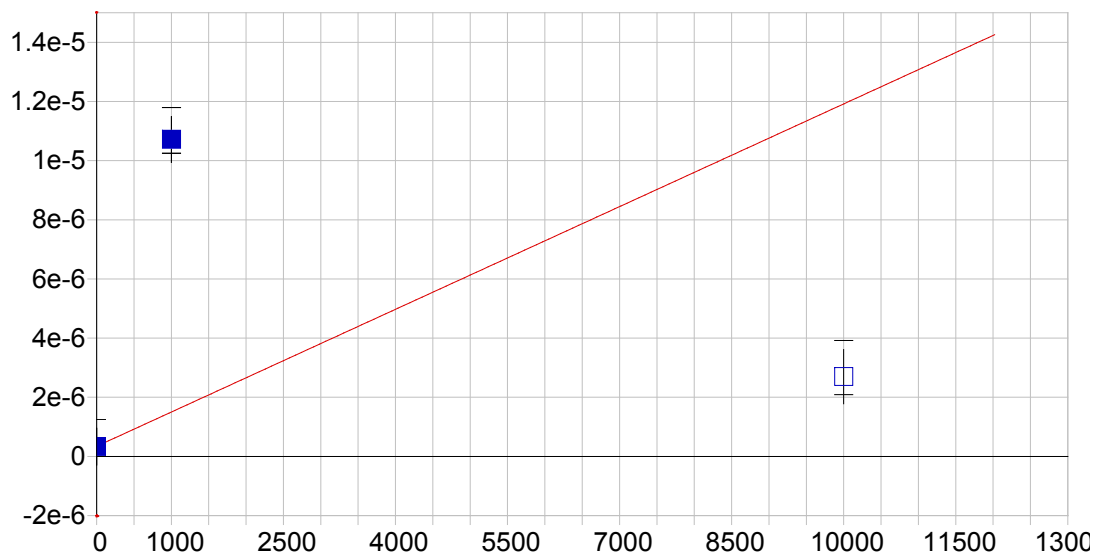


S 182.034 {485}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	-0.000151	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.570240	Status: OK.
Std Error of Est:	0.010506	
Predicted MDL:	19.546801	
Predicted MQL:	65.156002	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	136.15	136.	.000	.00013	.000	1
CalStd12-100 100000.		641160.	541000.	541.	1.3404	.004	1
CalStd9=100 10000.		6316.5	-3680.	-36.8	.01306	.000	1

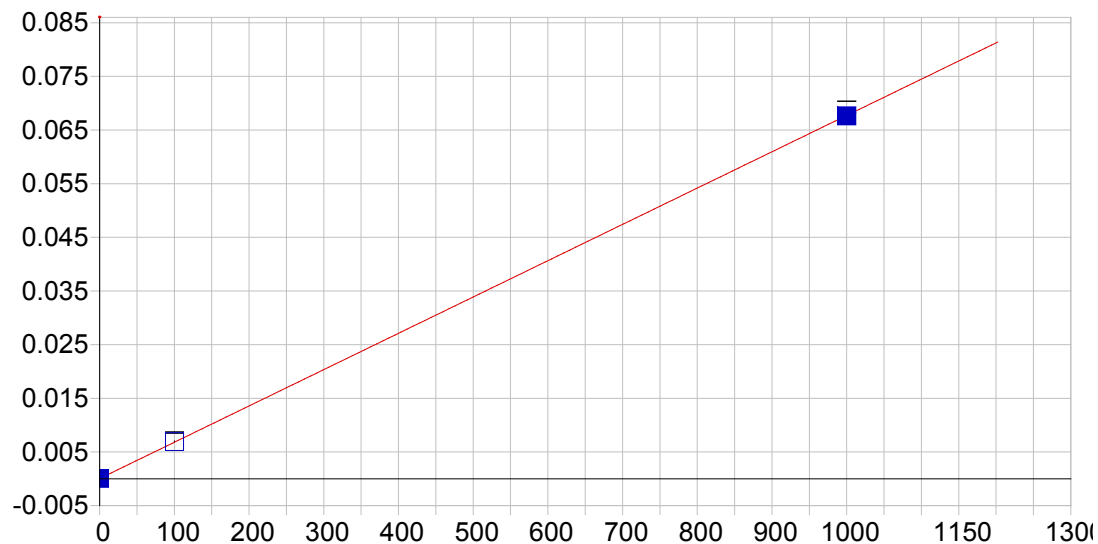


W 239.709 {140}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.368961	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	783.207254	
Predicted MQL:	2610.690846	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.1650	-7.16	.000	.00000	.000	1
CalStd9=100	1000.0	8961.7	7960.	796.	.00001	.000	1
CalStd12=100	10000.	2033.1	-7970.	-79.7	.00000	.000	1

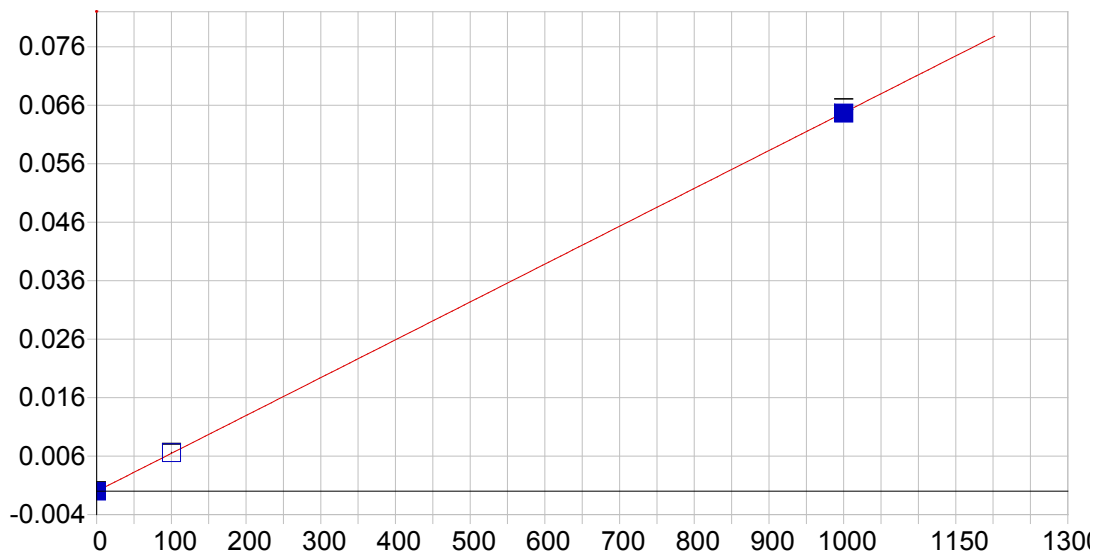


Hg 184.950 {482}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000039 Re-Slope: 1.000000
 A1 (Gain): 0.000068 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999987 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 0.672970
 Predicted MQL: 2.243235

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00147	-.001	.000	.00004	.000	1
CalStd8=100	100.00	101.63	1.63	1.63	.00692	.000	1
CalStd9=100	1000.0	998.37	-1.63	-.163	.06761	.001	1



Hg 194.227 {473}

Date of Fit: 11/30/2016 10:19:47 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000065 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999989 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 0.651034
 Predicted MQL: 2.170112

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00136	-.001	.000	.00000	.000	1
CalStd8=100	100.00	101.51	1.51	1.51	.00657	.000	1
CalStd9=100	1000.0	998.49	-1.51	-.151	.06463	.001	1

Sample Name: Blank Acquired: 11/28/2016 13:03:25 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-1.60	.000	-.866	.130	.999	895.	.000	.000	.001	1.62	-.540	.000
Stddev	2.84	.00	.555	.402	.343	7.	.000	.000	.000	.55	.339	.00
%RSD	178.	101.	64.0	309.	34.3	.751	8.23	24.2	24.9	33.7	62.7	200.

Elem	Cr2055	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mg2802	Mn2576	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	-.617	-1.24	.000	.000	.000	-1.06	.000	.000	.000	.643	.000
Stddev	.00	1.15	.52	.000	.000	.000	.38	.000	.000	.000	.242	.000
%RSD	44.6	186.	41.7	6.22	2.21	63.5	36.1	90.5	.953	30.8	37.6	90.4

Elem	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.037	-1.59	.238	.320	.000	.000	.259	.000	-.433	.000	2.24
Stddev	.491	.41	.510	.557	.00	.00	.246	.00	.301	.000	.36
%RSD	1340.	25.6	214.	174.	19.3	112.	95.0	3350.	69.4	35.9	16.2

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	650160.	44277.	10188.
Stddev	2793.	214.	41.
%RSD	.42952	.48230	.40636

Sample Name: CalStd1=0.25 Acquired: 11/28/2016 13:10:28 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	.000
Stddev	.000
%RSD	2.56

Int. Std.	Y_3242
Units	Cts/S
Avg	645760.
Stddev	4433.
%RSD	.68640

Sample Name: CalStd2=0.5 Acquired: 11/28/2016 13:17:39 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2288
Units	Cts/S	Cts/S
Avg	.000	4.96
Stddev	.000	.55
%RSD	2.51	11.2

Int. Std.	Y_3242
Units	Cts/S
Avg	647020.
Stddev	5492.
%RSD	.84875

Sample Name: CalStd3=1 Acquired: 11/28/2016 13:24:51 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2288	Co2286	Cu2247	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.78	2.80	.000	8.64	3.54	.702	.538
Stddev	1.58	.38	.000	.74	.28	.530	.662
%RSD	33.1	13.6	1.19	8.54	7.82	75.4	123.

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	648850.	44858.
Stddev	1406.	277.
%RSD	.21669	.61686

Sample Name: CalStd4=5 Acquired: 11/28/2016 13:32:04 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	As1890	Ba2335	Be3130	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.29	12.0	.001	19.5	.007	148.	.001	9.73	.000	10.00	14.8	.000
Stddev	.22	.3	.000	.6	.000	2.	.000	.26	.000	.576	.8	.000
%RSD	17.1	2.41	1.05	3.05	.876	1.03	.580	2.68	8.31	5.76	5.59	20.4

Elem	Zn2138
Units	Cts/S
Avg	93.8
Stddev	.7
%RSD	.719

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	649860.	45265.	10379.
Stddev	2500.	224.	53.
%RSD	.38468	.49381	.51046

Sample Name: CalStd5=10 Acquired: 11/28/2016 13:39:16 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba2335	Be3130	Cd2288	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	44.4	1.07	21.8	.001	72.6	38.7	.003	63.8	14.0	.000	17.6	.000
Stddev	1.4	.43	.2	.000	.6	.3	.000	2.2	.6	.000	.2	.000
%RSD	3.03	40.3	.781	.479	.839	.828	2.11	3.49	3.95	.887	1.02	4.41

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.7	2.76	6.58	.000	.000	1.89	.856	.000	39.1
Stddev	.4	.15	.65	.000	.000	.48	.144	.000	.4
%RSD	2.02	5.34	9.82	19.4	24.5	25.2	16.8	.718	1.14

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	641550.	44710.	10275.
Stddev	3102.	171.	98.
%RSD	.48348	.38264	.95775

Sample Name: CalStd6=20 Acquired: 11/28/2016 13:46:31 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba2335	Cu2247	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	53.4	33.8	.001	43.9	.000	.001	.000
Stddev	.3	.6	.000	.7	.000	.000	.000
%RSD	.627	1.90	.599	1.64	1.46	2.39	1.30

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	640870.	45080.	10098.
Stddev	2242.	105.	39.
%RSD	.34987	.23195	.38217

Sample Name: CalStd7=50 Acquired: 11/28/2016 13:53:37 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1937	Ba2335	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.21	104.	189.	.015	299.	66.7	.002	85.2	.000	102.	.001	7.48
Stddev	.35	.	2.	.000	2.	.3	.000	.7	.000	1.	.000	.44
%RSD	4.21	.362	.946	1.52	.726	.447	.637	.832	1.46	.878	5.32	5.91

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	.001	175.
Stddev	.000	1.
%RSD	.862	.481

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	632750.	44945.	10269.
Stddev	2002.	295.	68.
%RSD	.31640	.65638	.66593

Sample Name: CalStd8=100 Acquired: 11/28/2016 14:00:38 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2288	Co2286	Co2388	Cr2055	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	427.	18.6	3.81	210.	1930.	.013	.030	693.	389.	.001	.030	605.
Stddev	3.	.1	.22	1.	13.	.000	.000	3.	2.	.000	.000	6.
%RSD	.729	.636	5.86	.523	.650	.967	.434	.453	.520	.529	1.43	.916

Elem	Cu2247	Cu3247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	136.	.001	.010	.003	173.	.000	213.	209.	27.4	59.5	.004	14.8
Stddev	1.	.000	.000	.000	1.	.000	1.	1.	.2	1.1	.000	.1
%RSD	.472	2.30	.855	.831	.480	1.59	.445	.285	.756	1.79	2.39	.738

Elem	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	16.7	.001	347.
Stddev	.000	.4	.000	1.
%RSD	15.5	2.40	.717	.309

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	639580.	44472.	10147.
Stddev	2846.	215.	116.
%RSD	.44502	.48365	1.1477

Sample Name: CalStd9=1000 Acquired: 11/28/2016 14:07:52 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.005	185.	35.9	2020.	11000.	.124	.000	.276	6770.	3740.	.006
Stddev	.000	1.	.3	13.	76.	.001	.000	.002	44.	29.	.000
%RSD	1.33	.515	.762	.629	.692	1.18	1.23	.640	.646	.768	1.12

Elem	Cr2055	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mg2802	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.291	5830.	1310.	.005	.001	.000	286.	.000	.089	.029	1670.
Stddev	.004	28.	7.	.000	.000	.000	1.	.000	.001	.000	10.
%RSD	1.50	.481	.542	1.31	1.20	3.40	.483	10.9	1.25	1.10	.583

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	2040.	2010.	286.	571.	.029	.034	140.	.004	162.	.012
Stddev	.000	15.	16.	2.	5.	.000	.001	1.	.000	1.	.000
%RSD	1.28	.725	.779	.551	.791	1.22	1.66	.408	1.64	.659	1.15

Elem	Zn2138
Units	Cts/S
Avg	3340.
Stddev	21.
%RSD	.635

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	632920.	44970.	10198.
Stddev	4431.	272.	85.
%RSD	.70003	.60590	.83280

Sample Name: CalStd10=10000 Acquired: 11/28/2016 14:14:35 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.046	1800.	339.	99900.	.004	2.65	35500.	.055	2.79	55400.	12300.
Stddev	.001	8.	2.	825.	.000	.03	144.	.001	.02	229.	49.
%RSD	1.44	.418	.596	.825	1.77	1.07	.405	.960	.791	.414	.397

Elem	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mg2802	Mn2576	Mo2045	Ni2216	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.047	.012	.000	2720.	.001	.793	.275	.012	19100.	18900.	2520.
Stddev	.001	.000	.000	14.	.000	.010	.002	.000	62.	77.	12.
%RSD	1.09	1.02	.707	.520	1.15	1.28	.641	.352	.325	.409	.490

Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5460.	.281	.331	1330.	.037	1510.	.120	30200.
Stddev	23.	.002	.003	6.	.000	5.	.001	119.
%RSD	.418	.786	.984	.444	.904	.320	1.01	.394

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	613100.	45182.	9949.6
Stddev	4419.	105.	45.8
%RSD	.72082	.23162	.46037

Sample Name: CalStd11-100k Acquired: 11/28/2016 14:21:08 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2055	Cu3247	Pb2169
Units	Cts/S	Cts/S	Cts/S
Avg	25.3	.502	26400.
Stddev	.1	.004	51.
%RSD	.268	.887	.193

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	610750.	44978.	9825.1
Stddev	3486.	159.	33.8
%RSD	.57080	.35403	.34436

Sample Name: CalStd12-100000 Acquired: 11/28/2016 14:28:38 Type: Cal
Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2395	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.470	.039	.005	20700.	.007
Stddev	.003	.000	.000	27.	.000
%RSD	.557	.358	1.02	.132	.497

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	583620.	44253.	9471.8
Stddev	5284.	111.	59.5
%RSD	.90538	.25158	.62818

Sample Name: CalStd13=500000 Acquired: 11/28/2016 14:36:21 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.41	.189	.395	.021	88300.	.034
Stddev	.01	.001	.005	.000	79.	.000
%RSD	.463	.320	1.15	.739	.090	.354

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	543700.	42303.
Stddev	2510.	217.
%RSD	.46166	.51363

Sample Name: CalStd14-1000k Acquired: 11/28/2016 14:47:57 Type: Cal
 Method: DOD Calibration Updated 060614(v1742) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.74	.351	.598	.038	152000.	.066
Stddev	.02	.002	.008	.001	249.	.000
%RSD	.468	.642	1.39	1.36	.164	.608

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	502330.	40360.
Stddev	3636.	145.
%RSD	.72373	.35920

Sample Name: icv Acquired: 11/28/2016 15:02:35 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Co2388	Cr2677	Cu2247	Fe2343
Avg	48.7	11900.	2180.	2080.	50.3	10600.	54.0	546.	512.	216.	253.	5370.
Stddev	.9	130.	9.	17.	.4	207.	.2	2.	2.	1.	1.	23.
%RSD	1.86	1.09	.395	.801	.733	1.95	.431	.350	.464	.351	.299	.437

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se2062	Tl1908
Avg	10600.	548.	536.	543.	522.	511.	535.	538.	523.	533.	2090.	2070.
Stddev	57.	1.	2.	3.	2.	2.	2.	1.	3.	1.	23.	2.
%RSD	.535	.224	.400	.549	.323	.325	.431	.252	.480	.178	1.11	.102

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	V_2924	Zn2138
Avg	522.	530.
Stddev	2.	2.
%RSD	.394	.412

Check ? Value Range	None	None
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Sample Name: icv Acquired: 11/28/2016 15:02:35 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	630730.	44975.	10200.
Stddev	2798.	185.	42.
%RSD	.44354	.41058	.41605

Sample Name: icb Acquired: 11/28/2016 15:23:54 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	-3.43	-2.61	-6.02	-.174	.005	-1.90	-.023	-.077	.140	.317	1.34	-6.00
Stddev	.506	5.77	.68	.068	.031	.62	.109	.297	.215	.196	1.63	17.8
%RSD	147.	221.	11.4	39.0	663.	32.4	479.	384.	153.	62.0	121.	296.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.638	-.113	.031	-.954	.132	.377	-1.42	-.643	-.549	-1.42
Stddev	.040	.028	.343	.278	.780	1.52	4.05	2.37	.135	.06
%RSD	6.32	24.4	1090.	29.1	591.	404.	285.	369.	24.6	4.48

Check ? Value Range	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_3242	Y_3710	Y_2243
Avg	657100.	45139.	10409.
Stddev	4048.	67.	69.
%RSD	.61599	.14777	.66184

Sample Name: ICVLL Acquired: 11/28/2016 15:31:05 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	14.4	429.	16.5	11.3	4.57	570.	5.60	11.0	11.1	11.0	328.	313.
Stddev	.1	9.	3.5	.2	.05	5.	.09	.2	.5	.4	5.	19.
%RSD	.833	2.13	21.5	1.48	1.16	.960	1.65	2.03	4.79	3.65	1.37	5.95

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	541.	11.4	10.4	10.1	11.8	22.8	22.1	21.3	10.8	9.85
Stddev	5.	.2	.2	.6	.7	.9	2.4	1.3	.5	.17
%RSD	1.01	2.11	1.65	5.59	5.87	3.80	10.9	6.09	4.32	1.68

Check ? Value Range	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_3242	Y_3710	Y_2243
Avg	640860.	43747.	10173.
Stddev	6458.	127.	139.
%RSD	1.0077	.28925	1.3662

Sample Name: icsa Acquired: 11/28/2016 15:38:12 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2288	Co2286	Cr2677	Cu2247	Fe2395
Avg	.510	578000.	-.042	.000	.092	568000.	.000	-.183	.000	-.270	497000.
Stddev	.434	2790.	10.4	.387	.019	4040.	.23	.232	.399	3.23	4040.
%RSD	85.2	.484	24500.	7110000.	21.2	.713	107000.	127.	455000.	1200.	.813

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	552000.	552000.	.000	.000	.001	.000	.010	.004	-.001	.004	.001
Stddev	2620.	3450.	.12	.60	.568	4.47	5.37	8.56	4.25	.345	1.05
%RSD	.474	.625	200000.	3670000.	84900.	14e6	56500.	239000.	775000.	8940.	87200.

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	548610.	40875.	8550.4
Stddev	2730.	139.	102.5
%RSD	.49761	.34069	1.1987

Sample Name: icsab Acquired: 11/28/2016 15:45:41 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Co2388
Avg	474.	518000.	471.	462.	422.	438.	499.	509000.	466.	424.	461.
Stddev	1.	3050.	5.	10.	2.	4.	1.	1710.	1.	2.	2.
%RSD	.274	.589	1.01	2.16	.384	1.01	.195	.336	.318	.357	.359

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Cr2055	Cr2677	Cu3247	Fe2395	Mg2025	Mn2576	Mo2020	Mo2045	Ni2216	Pb2203	Sb2068
Avg	559.	445.	585.	454000.	495000.	513.	427.	513.	411.	401.	540.
Stddev	4.	2.	5.	1930.	1410.	4.	1.	1.	3.	2.	5.
%RSD	.776	.512	.896	.426	.286	.724	.273	.171	.678	.597	.849

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Avg	556.	450.	456.	438.	516.	449.
Stddev	6.	3.	34.	8.	1.	1.
%RSD	.990	.714	7.46	1.82	.148	.237

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: icsab Acquired: 11/28/2016 15:45:41 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	549200.	41302.	8763.1
Stddev	1262.	196.	69.2
%RSD	.22980	.47549	.78996

Sample Name: ICVLL ag Acquired: 11/28/2016 15:53:41 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.35	93.5	-6.70	-.102	.057	17.5	.117	-.119	-.100	.319	61.0	489.
Stddev	.20	97.4	3.12	.082	.013	7.1	.098	.138	.344	.103	7.8	571.
%RSD	2.19	104.	46.5	80.1	23.3	40.6	84.2	116.	343.	32.3	12.7	117.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.54	.020	.403	-.854	.251	.222	1.14	1.59	.104	-.499
Stddev	.08	.035	.257	.199	.756	.864	2.05	2.74	.435	.105
%RSD	.836	171.	63.7	23.2	301.	389.	180.	172.	418.	21.0

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	645030.	44759.	10333.
Stddev	3152.	74.	123.
%RSD	.48863	.16587	1.1925

Sample Name: ccv1 Acquired: 11/29/2016 02:33:04 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247	Fe2343
Avg	496.	4650.	5280.	4810.	467.	4880.	518.	4510.	5130.	5060.	4610.	4800.
Stddev	.	18.	18.	13.	2.	36.	1.	25.	71.	21.	15.	30.
%RSD	.063	.393	.338	.270	.439	.745	.233	.563	1.39	.405	.329	.628

Check ? None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2138
Avg	4890.	4740.	4740.	5390.	4900.	5270.	4660.	4560.	5120.	4630.	5060.
Stddev	104.	31.	16.	31.	26.	19.	70.	64.	37.	26.	15.
%RSD	2.13	.652	.337	.576	.532	.355	1.50	1.40	.722	.559	.297

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	697820.	46795.	11284.
Stddev	4472.	279.	116.
%RSD	.64078	.59725	1.0277

Sample Name: ccv2 Acquired: 11/29/2016 02:39:22 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2288	Co2286	Co2388	Cr2055
Avg	52.8	479.	520.	522.	514.	496.	50.0	490.	54.6	548.	460.	526.
Stddev	.4	6.	5.	15.	3.	3.	.4	2.	.4	1.	6.	9.
%RSD	.833	1.25	.931	2.84	.493	.549	.861	.323	.669	.239	1.39	1.63

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2343	Fe2395	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Avg	545.	509.	491.	450.	480.	494.	512.	475.	539.	529.	503.	545.
Stddev	3.	4.	5.	13.	5.	4.	3.	8.	1.	2.	4.	3.
%RSD	.498	.770	1.03	2.84	.947	.834	.653	1.66	.222	.429	.760	.565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Avg	475.	470.	538.	466.	517.	469.	529.
Stddev	7.	8.	6.	6.	7.	4.	3.
%RSD	1.39	1.74	1.09	1.19	1.32	.869	.576

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ccv2 Acquired: 11/29/2016 02:39:22 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	704400.	46714.	11389.
Stddev	8825.	124.	132.
%RSD	1.2528	.26538	1.1581

Sample Name: ccb Acquired: 11/29/2016 02:46:03 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	-.617	4.07	-4.19	-.096	-.062	-.307	-.042	-.065	.185	.344	-1.43	.873
Stddev	.343	4.70	1.75	.091	.015	.751	.044	.072	.116	.504	.65	16.5
%RSD	55.6	116.	41.7	94.8	24.5	244.	103.	110.	62.7	147.	45.8	1890.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.545	.064	.484	-.836	-.002	1.28	-.416	.027	-.249	-.824
Stddev	.062	.043	.345	.273	.213	1.56	1.89	1.29	.256	.053
%RSD	11.4	66.4	71.2	32.7	8850.	121.	456.	4830.	103.	6.44

Check ? Value Range	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_3242	Y_3710	Y_2243
Avg	726440.	47478.	11532.
Stddev	6152.	232.	112.
%RSD	.84685	.48770	.97452

Sample Name: lc5560301 Acquired: 11/29/2016 03:50:35 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3968	Cd2288	Co2388	Cr2055	Cr2677	Cu2247	Cu3247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	89.1	3840.	4170.	3960.	94.2	239.	98.6	921.	440.	432.	482.	622.
Stddev	.8	32.	10.	60.	.6	1.	.2	4.	1.	2.	2.	5.
%RSD	.848	.837	.242	1.51	.680	.376	.198	.385	.221	.467	.332	.805

Elem	Fe2343	Fe2395	Mg2802	Mn2576	Mo2020	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1950.	1730.	45.8	972.	.986	1090.	988.	1070.	957.	3470.	3930.	951.
Stddev	12.	18.	.2	6.	.531	7.	2.	4.	5.	18.	25.	4.
%RSD	.591	1.07	.400	.656	53.9	.611	.154	.386	.567	.528	.642	.390

Elem	Zn2138
Units	ug/L
Avg	995.
Stddev	3.
%RSD	.315

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	695270.	45259.	11004.
Stddev	6212.	409.	63.
%RSD	.89341	.90349	.56969

Sample Name: mbs60301 Acquired: 11/29/2016 03:57:07 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-549	12.9	-17.7	.326	-.083	23.2	.247	-.226	.578	.699	15.1	21.9
Stddev	.330	4.4	3.2	.077	.021	.2	.097	.216	.260	.527	1.5	10.3
%RSD	60.1	34.3	17.9	23.7	25.1	.864	39.5	95.3	44.9	75.5	9.95	46.9

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3.62	.317	.311	-1.26	9.37	.435	2.45	-3.49	-.201	3.23
Stddev	.05	.042	.186	.38	.73	.863	1.35	2.15	.231	.09
%RSD	1.42	13.3	59.7	29.9	7.81	198.	55.1	61.6	115.	2.84

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	717600.	47364.	11196.
Stddev	5066.	35.	79.
%RSD	.70596	.07332	.70346

Sample Name: ccv1 Acquired: 11/29/2016 04:04:21 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247	Fe2343
Avg	493.	4590.	5320.	4970.	462.	4700.	509.	F 4410.	5040.	5030.	4580.	4650.
Stddev	2.	31.	12.	43.	2.	50.	1.	26.	5.	2.	28.	23.
%RSD	.367	.665	.220	.854	.483	1.06	.125	.594	.103	.031	.599	.498

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								5000.				
Range								-10.4%				

Elem	Fe2395	Mg2025	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Avg	F 4190.	F 6730.	4750.	4560.	4640.	5430.	4870.	5230.	4640.	4530.	5130.	4530.
Stddev	73.	21.	117.	30.	29.	12.	10.	3.	13.	29.	12.	29.
%RSD	1.74	.316	2.47	.665	.627	.217	.200	.055	.268	.650	.230	.636

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	5000.	5000.										
Range	-10.4%	10.4%										

Elem	Zn2138
Avg	5010.
Stddev	5.
%RSD	.109

Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 11/29/2016 04:04:21 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	709560.	48413.	11422.
Stddev	3555.	106.	15.
%RSD	.50106	.21889	.12888

Sample Name: ccv2 Acquired: 11/29/2016 04:10:39 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2288	Co2286	Co2388	Cr2055
Avg	53.3	475.	518.	508.	511.	510.	49.0	485.	54.3	545.	451.	517.
Stddev	.1	1.	5.	13.	1.	2.	.3	4.	.0	1.	4.	.
%RSD	.105	.234	1.02	2.62	.113	.459	.616	.821	.007	.152	.793	.088

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2343	Mg2802	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Avg	543.	507.	481.	469.	483.	510.	464.	526.	542.	466.	540.	516.
Stddev	1.	1.	3.	4.	2.	1.	2.	1.	3.	1.	.	.
%RSD	.177	.130	.668	.835	.515	.207	.436	.099	.542	.137	.019	.083

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138
Avg	462.	527.
Stddev	2.	1.
%RSD	.396	.191

Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ccv2 Acquired: 11/29/2016 04:10:39 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	717030.	48111.	11487.
Stddev	2580.	110.	47.
%RSD	.35978	.22790	.41293

Sample Name: ccb Acquired: 11/29/2016 04:17:20 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	-.499	.457	-4.98	-.082	-.057	-.862	-.063	.137	.305	.599	-1.05	3.04
Stddev	.095	5.44	1.12	.243	.014	.712	.052	.244	.171	.252	.83	7.63
%RSD	19.0	1190.	22.4	295.	24.7	82.6	82.3	178.	55.9	42.0	78.5	251.

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.266	.060	.652	-1.14	-.625	.671	2.10	-.775	-.237	-.701
Stddev	.031	.051	.434	.13	1.24	.971	.93	3.18	.162	.081
%RSD	11.6	84.1	66.5	11.4	198.	145.	44.3	410.	68.4	11.5

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	723430.	48387.	11619.
Stddev	5783.	91.	36.
%RSD	.79941	.18866	.30834

Sample Name: 804613 Acquired: 11/29/2016 04:24:34 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3.50	204000.	971.	1020.	2380.	3.19	1760000.	66.9	117.	236.
Stddev	.27	1600.	2.	25.	19.	.06	34100.	.2	1.	1.
%RSD	7.58	.785	.242	2.46	.802	1.98	1.94	.291	.559	.278

Elem	Cu2247	Cu3247	Fe2343	Mg2025	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	791.	1060.	444000.	325000.	5190.	282.	283.	4050.	207.	373.
Stddev	6.	6.	5430.	550.	20.	.	2.	12.	5.	6.
%RSD	.734	.590	1.22	.169	.376	.069	.876	.307	2.65	1.62

Elem	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	579.	.695	593.	9340.
Stddev	30.	2.15	6.	19.
%RSD	5.21	309.	.933	.206

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	571440.	41084.	8735.4
Stddev	2137.	331.	75.6
%RSD	.37403	.80655	.86543

Sample Name: I804613 Acquired: 11/29/2016 04:31:26 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-233	37600.	217.	482.	501.	.511	361000.	15.7	30.1	57.8	196.
Stddev	.309	169.	3.	1.	4.	.016	939.	.1	.4	.5	1.
%RSD	133.	.451	1.24	.309	.816	3.05	.260	.703	1.45	.849	.506

Elem	Fe2343	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	133000.	70300.	63800.	1080.	67.2	70.6	1100.	49.7	87.9	1.98	125.
Stddev	444.	338.	289.	6.	.7	.7	8.	.9	1.2	1.64	1.
%RSD	.335	.481	.453	.571	.988	.994	.680	1.83	1.37	82.8	.801

Elem	Zn2138
Units	ug/L
Avg	2340.
Stddev	8.
%RSD	.340

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	687210.	47631.	10582.
Stddev	4872.	235.	142.
%RSD	.70897	.49311	1.3434

Sample Name: dup804613 Acquired: 11/29/2016 04:38:36 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3.45	179000.	825.	849.	2180.	4.77	1620000.	60.8	115.	202.
Stddev	.84	1330.	6.	13.	22.	.11	29200.	.5	.	1.
%RSD	24.5	.741	.719	1.54	1.01	2.23	1.80	.810	.407	.472

Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mn2576	Mo2020	Ni2216	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1830.	2560.	445000.	657000.	287000.	288000.	5040.	307.	358.	286.
Stddev	2.	12.	4090.	13500.	1130.	3080.	17.	2.	1.	2.
%RSD	.125	.472	.921	2.05	.394	1.07	.341	.527	.413	.595

Elem	Pb2169	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3360.	3570.	196.	306.	449.	2.08	628.	7830.
Stddev	24.	5.	3.	4.	22.	3.87	4.	5.
%RSD	.714	.149	1.31	1.21	4.87	187.	.608	.062

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	569140.	40869.	8706.9
Stddev	1007.	340.	122.6
%RSD	.17691	.83186	1.4086

Sample Name: mss804613 Acquired: 11/29/2016 04:45:27 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Co2388	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	85.1	186000.	4750.	5290.	93.7	1210000.	163.	888.	919.	667.
Stddev	.3	1470.	10.	57.	1.1	18300.	.	4.	8.	4.
%RSD	.347	.791	.209	1.08	1.12	1.52	.136	.481	.897	.553

Elem	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mn2576	Mo2020	Ni2216
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	522.	1130.	1510.	408000.	561000.	306000.	296000.	5600.	234.	1170.
Stddev	4.	6.	14.	4530.	5850.	125.	3070.	55.	1.	8.
%RSD	.775	.528	.900	1.11	1.04	.041	1.04	.972	.305	.710

Elem	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	6400.	6180.	933.	4430.	2380.	1550.	10300.
Stddev	18.	27.	9.	25.	14.	14.	38.
%RSD	.286	.438	.927	.557	.567	.894	.371

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	565840.	42280.	8823.7
Stddev	7644.	320.	72.9
%RSD	1.3509	.75736	.82566

Sample Name: msds804613 Acquired: 11/29/2016 04:52:12 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Co2388	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	83.6	194000.	4420.	5710.	89.7	1190000.	169.	860.	870.	657.
Stddev	.8	1640.	12.	45.	.5	17200.	1.	3.	4.	1.
%RSD	.942	.847	.275	.794	.610	1.44	.680	.329	.493	.207

Elem	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mn2576	Mo2020	Ni2216
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	521.	1050.	1440.	355000.	471000.	365000.	352000.	5260.	189.	1090.
Stddev	3.	4.	15.	4590.	5870.	1250.	4410.	34.	1.	3.
%RSD	.527	.343	1.07	1.29	1.25	.342	1.25	.643	.506	.287

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	979.	4950.	4900.	896.	889.	4280.	2390.	1400.	9960.
Stddev	3.	23.	15.	9.	7.	31.	4.	9.	37.
%RSD	.316	.463	.308	.960	.811	.724	.167	.620	.374

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	577760.	42452.	8901.5
Stddev	3803.	200.	30.1
%RSD	.65825	.47219	.33784

Sample Name: pdss804613 Acquired: 11/29/2016 04:58:57 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Co2388	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	82.8	196000.	4390.	5630.	88.7	1190000.	170.	859.	859.	655.
Stddev	.3	1170.	27.	41.	.9	15600.	.	2.	6.	2.
%RSD	.372	.594	.606	.720	.977	1.31	.254	.289	.665	.292

Elem	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2790	Mn2576	Mo2020	Ni2216
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	525.	1050.	1410.	352000.	459000.	371000.	356000.	5260.	187.	1080.
Stddev	3.	7.	4.	7130.	8150.	633.	3650.	37.	1.	8.
%RSD	.504	.635	.256	2.02	1.78	.171	1.03	.711	.609	.756

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	974.	4870.	4850.	870.	870.	4190.	2380.	1390.	9970.
Stddev	6.	21.	22.	7.	2.	30.	1.	11.	37.
%RSD	.633	.438	.457	.790	.279	.716	.053	.767	.368

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	580340.	42357.	8977.1
Stddev	1259.	323.	23.8
%RSD	.21694	.76304	.26541

Sample Name: 804616 Acquired: 11/29/2016 05:05:42 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Cd2288	Co2286	Cr2055	Cu2247	Cu3247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	22.2	1610000.	69.2	19700.	-16.0	440.	258.	1840.	2960.	5060.
Stddev	.8	7830.	9.8	96.	.3	2.	2.	27.	14.	24.
%RSD	3.57	.487	14.2	.488	1.85	.475	.641	1.44	.491	.481

Elem	Fe2343	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	540000.	543000.	9650.	311.	448.	1220.	651.	37400.	99.7	-56.8
Stddev	5770.	6220.	44.	1.	1.	8.	4.	195.	5.1	3.5
%RSD	1.07	1.15	.460	.318	.328	.673	.570	.521	5.16	6.21

Elem	Se2062	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	588.	-33.3	783.	29800.
Stddev	55.	4.3	5.	153.
%RSD	9.27	12.9	.694	.512

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	508930.	40085.	7897.4
Stddev	3485.	213.	84.2
%RSD	.68474	.53212	1.0660

Sample Name: 804619 Acquired: 11/29/2016 05:13:05 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Cr2055
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	18.4	53100.	88.3	907.	1140.	-13.4	1980000.	1240.	366.	6130.
Stddev	.7	260.	6.0	5.	9.	.4	26100.	5.	2.	69.
%RSD	3.77	.490	6.83	.497	.789	2.78	1.32	.437	.425	1.13

Elem	Cu2247	Cu3247	Fe2343	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Sb2068	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3620.	456.	86500.	225000.	4000.	10.7	66.5	688000.	132.	2.03
Stddev	13.	2.	2180.	2750.	99.	.5	.6	1760.	3.	4.68
%RSD	.367	.434	2.52	1.22	2.48	4.23	.873	.255	2.40	231.

Elem	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L
Avg	-53.2	95.0	91200.
Stddev	7.1	2.3	646.
%RSD	13.3	2.43	.709

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	522790.	41005.	8067.5
Stddev	6043.	257.	62.4
%RSD	1.1559	.62729	.77390

Sample Name: 804624 Acquired: 11/29/2016 05:20:02 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Cd2288	Co2388	Cr2055	Cu2247	Fe2343	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	17.2	115000.	-6.82	1370.	-37.3	70.4	1320.	6160.	469.	14200.	14600.
Stddev	.4	2130.	4.80	25.	1.0	.5	34.	26.	2.	366.	211.
%RSD	2.58	1.86	70.4	1.81	2.60	.657	2.57	.420	.465	2.58	1.44
Elem	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	181000.	178000.	1260.	28.0	47.2	96900.	-154.	-.965	-35.2	111.	49200.
Stddev	924.	3480.	32.	.9	.3	403.	1.	5.81	2.1	3.	297.
%RSD	.511	1.95	2.49	3.31	.536	.416	.609	601.	5.85	2.78	.604
Int. Std.	Y_3242	Y_3710	Y_2243								
Units	Cts/S	Cts/S	Cts/S								
Avg	511600.	41638.	8022.4								
Stddev	15336.	185.	34.5								
%RSD	2.9978	.44323	.42970								

Sample Name: 804625 Acquired: 11/29/2016 05:27:03 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	14.4	113000.	-6.92	16000.	-3.69	1480000.	29.5	4770.	497.	389.
Stddev	.2	533.	4.44	74.	.07	19300.	.3	52.	6.	3.
%RSD	1.46	.473	64.1	.465	1.90	1.30	.870	1.10	1.19	.846

Elem	Cu2247	Cu3247	Fe2343	Mg2790	Mn2576	Mo2020	Ni2216	Ni2316	Pb2169	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1960.	2650.	49200.	50100.	2210.	26.5	126.	85.2	6410.	20.2
Stddev	9.	11.	588.	318.	26.	.3	1.	.5	16.	2.6
%RSD	.469	.410	1.19	.634	1.19	1.27	.897	.566	.251	12.7

Elem	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	-.271	-7.98	58.6	22900.
Stddev	4.82	4.35	1.0	111.
%RSD	1780.	54.5	1.67	.487

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	576370.	44076.	8825.8
Stddev	3206.	774.	78.3
%RSD	.55630	1.7567	.88722

Sample Name: ccv1 Acquired: 11/29/2016 05:34:22 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247	Fe2343
Avg	486.	4520.	5240.	5240.	F 441.	F 4280.	497.	F 4190.	4920.	4990.	F 4310.	F 4400.
Stddev	3.	17.	17.	65.	7.	50.	1.	61.	13.	5.	58.	65.
%RSD	.610	.368	.327	1.23	1.53	1.16	.169	1.45	.259	.103	1.36	1.48

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
Value					500.	5000.		5000.			5000.	5000.
Range					-10.4%	-10.4%		-10.4%			-10.4%	-10.4%

Elem	Fe2395	Mg2025	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Avg	F 3760.	F 6710.	F 4240.	F 4300.	F 4420.	5270.	4860.	5120.	4610.	4510.	5070.	F 4320.
Stddev	43.	6.	119.	58.	43.	5.	5.	8.	18.	26.	12.	52.
%RSD	1.14	.082	2.81	1.35	.969	.102	.111	.163	.391	.582	.233	1.19

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value	5000.	5000.	5000.	5000.	5000.							5000.
Range	-10.4%	10.4%	-10.4%	-10.4%	-10.4%							-10.4%

Elem	Zn2138
Avg	4870.
Stddev	3.
%RSD	.051

Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 11/29/2016 05:34:22 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	732770.	51476.	11412.
Stddev	7709.	275.	31.
%RSD	1.0521	.53374	.27181

Sample Name: ccv2 Acquired: 11/29/2016 05:40:40 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2288	Co2286	Co2388	Cr2055
Avg	52.0	458.	516.	523.	497.	539.	45.7	477.	52.4	536.	F 419.	502.
Stddev	.4	5.	4.	11.	4.	2.	.2	3.	.4	4.	1.	9.
%RSD	.840	1.12	.806	2.03	.834	.338	.468	.631	.709	.761	.239	1.72

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value											500.	
Range											-10.4%	

Elem	Cr2677	Cu2247	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Avg	523.	503.	F 442.	F 432.	F 444.	502.	520.	531.	462.	534.	512.	F 430.
Stddev	3.	3.	2.	1.	3.	4.	5.	6.	10.	7.	6.	2.
%RSD	.514	.633	.374	.320	.665	.731	.911	1.04	2.14	1.39	1.16	.457

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value			500.	500.	500.							500.
Range			-10.4%	-10.4%	-10.4%							-10.4%

Elem	Zn2138
Avg	511.
Stddev	3.
%RSD	.639

Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 11/29/2016 05:40:40 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	754220.	52030.	11596.
Stddev	2841.	313.	129.
%RSD	.37670	.60206	1.1099

Sample Name: ccb Acquired: 11/29/2016 05:47:22 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	-.678	2.39	-5.22	-.065	-.058	2.86	-.076	.160	.391	.499	-.403	8.07
Stddev	.381	4.49	3.61	.035	.038	1.36	.112	.161	.594	.402	1.12	8.41
%RSD	56.2	188.	69.2	54.0	65.8	47.5	148.	101.	152.	80.6	278.	104.

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.330	.045	.609	-.959	-1.10	-.622	.781	1.04	-.426	-.164
Stddev	.045	.045	.145	.248	1.48	1.14	1.17	1.59	.401	.132
%RSD	13.7	100.	23.9	25.9	134.	183.	150.	153.	94.0	80.4

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	737970.	51668.	11505.
Stddev	5596.	198.	16.
%RSD	.75832	.38306	.14097

Sample Name: 804626 Acquired: 11/29/2016 05:54:37 Type: Unk
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.89	23100.	1.15	10400.	-20.6	921000.	317.	2100.	14600.	3920.	1200.
Stddev	.59	148.	2.80	109.	.2	19000.	3.	27.	87.	28.	3.
%RSD	31.4	.638	243.	1.04	1.14	2.06	.937	1.30	.598	.707	.256

Elem	Fe2343	Fe2395	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2068	Se1960
Units	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	22900.	21500.	24500.	23800.	1340.	8.20	25.7	647000.	654000.	255.	2.84
Stddev	284.	567.	91.	302.	18.	.42	.3	3490.	5620.	3.	4.41
%RSD	1.24	2.64	.374	1.27	1.33	5.18	1.07	.539	.859	1.17	155.

Elem	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L
Avg	-46.5	42.1	44100.
Stddev	8.6	.9	483.
%RSD	18.5	2.18	1.10

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	559790.	44270.	8807.1
Stddev	7370.	471.	90.4
%RSD	1.3165	1.0646	1.0270

Sample Name: ccv1 Acquired: 11/29/2016 07:07:15 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Fe2343	Mg2025
Avg	494.	F 4330.	5200.	4940.	F 436.	F 4210.	514.	F 4200.	4750.	5020.	F 4450.	F 6790.
Stddev	2.	13.	11.	54.	1.	31.	1.	9.	12.	4.	7.	12.
%RSD	.452	.302	.211	1.09	.151	.736	.263	.210	.251	.088	.168	.173

Check ?	None	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail
Value		5000.			500.	5000.		5000.			5000.	5000.
Range		-10.4%			-10.4%	-10.4%		-10.4%			-10.4%	10.4%

Elem	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2138
Avg	F 4390.	F 4380.	5310.	4880.	F 4300.	F 4250.	5060.	F 4270.	5010.
Stddev	13.	12.	15.	4.	12.	11.	11.	15.	9.
%RSD	.298	.263	.286	.087	.286	.261	.219	.351	.180

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value	5000.	5000.			5000.	5000.		5000.	
Range	-10.4%	-10.4%			-10.4%	-10.4%		-10.4%	

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	745640.	51032.	12085.
Stddev	2417.	32.	50.
%RSD	.32412	.06244	.41247

Sample Name: ccv2 Acquired: 11/29/2016 07:13:33 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Mg2802
Avg	53.0	442.	522.	512.	47.8	459.	55.1	542.	551.	510.	480.	460.
Stddev	.5	4.	3.	1.	.4	1.	.3	1.	4.	1.	3.	4.
%RSD	.863	.943	.631	.264	.918	.240	.563	.139	.807	.205	.534	.916

Check ? **Chk Pass** None **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	484.	514.	519.	541.	454.	454.	539.	511.	450.	530.
Stddev	4.	1.	1.	2.	4.	4.	2.	4.	6.	1.
%RSD	.852	.200	.132	.355	.889	.933	.304	.749	1.27	.196

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	728320.	50939.	11794.
Stddev	6485.	213.	64.
%RSD	.89035	.41832	.53840

Sample Name: ccb Acquired: 11/29/2016 07:20:16 Type: QC
Method: DOD Calibration Updated 060614(v1742) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2288	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Avg	-.345	2.89	-5.17	.080	-.025	-.241	.037	.037	.057	.367	-.504	1.84
Stddev	.149	4.59	1.91	.171	.019	.731	.069	.229	.377	.078	1.07	3.20
%RSD	43.2	159.	37.0	214.	76.4	303.	186.	615.	657.	21.4	212.	174.

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.396	.114	.853	-1.04	.729	.434	.257	1.72	-.038	-.045
Stddev	.034	.063	.361	.20	.661	1.24	4.20	2.10	.243	.048
%RSD	8.62	55.1	42.4	19.6	90.6	285.	1630.	122.	643.	106.

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

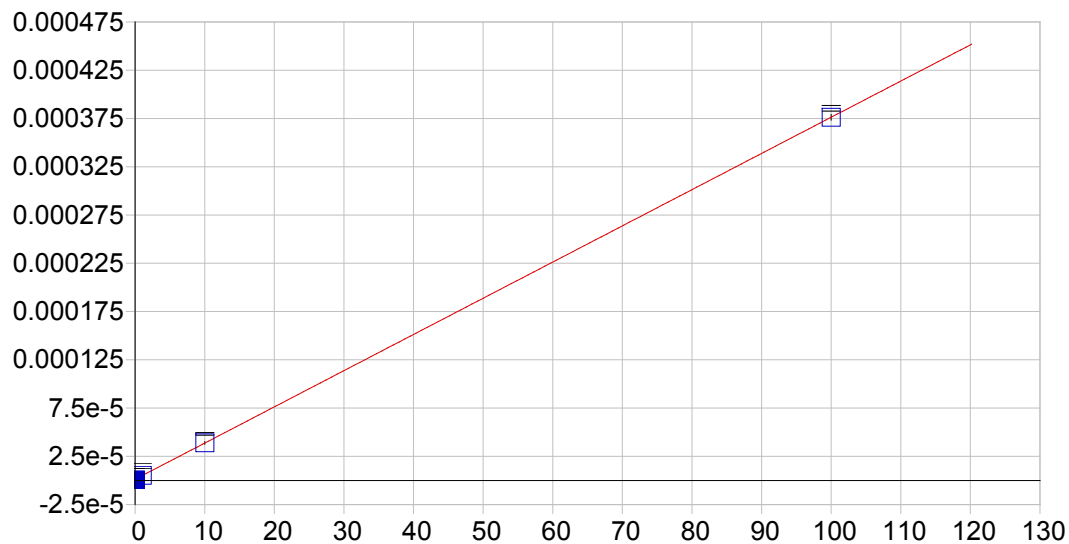
Int. Std.	Y_3242	Y_3710	Y_2243
Avg	739950.	51028.	11936.
Stddev	5423.	14.	44.
%RSD	.73294	.02839	.37131

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resl Slope
Ag 328.068 {103}	11/30/2016 12:03:54	11/29/2016 12:56:57	Linear	1/Var	0.000001	0.000004	0.000000	1.000000	0.999995	0.000000	0.637991	2.126638	OK.	1.000000
Al 309.271 {109}	11/30/2016 12:03:54	11/29/2016 13:24:31	Curvilinear	None	0.000195	0.000001	0.000000	1.000000	0.999999	0.000055	21.692842	72.309472	OK.	1.000000
Al 396.152 {85}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Conc	-0.000017	0.000003	0.000000	1.000000	0.999995	0.000021	6.316849	21.056163	OK.	1.000000
Al 167.079 {502}	11/30/2016 12:03:54	11/29/2016 13:03:26	Linear	1/Var	0.000152	0.000019	0.000000	1.000000	0.998878	0.000047	1.020985	3.403284	OK.	1.000000
As 193.759 {474}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Var	-0.000075	0.000014	0.000000	1.000000	0.999867	0.000019	3.224994	10.749979	OK.	1.000000
As 189.042 {479}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Conc	0.000020	0.000002	0.000000	1.000000	0.999624	0.000001	11.694791	38.982636	OK.	1.000000
Ba 233.527 {445}	11/30/2016 12:03:54	11/29/2016 13:03:26	Linear	1/Conc	0.000051	0.000154	0.000000	1.000000	0.999461	0.000006	0.200950	0.669832	OK.	1.000000
Ba 455.403 {74}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	None	0.000006	0.000004	0.000000	1.000000	1.000000	0.000015	0.406721	1.355738	OK.	1.000000
Ba 493.409 {68}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Var	0.017609	0.000165	0.000000	1.000000	0.999962	0.000139	0.397013	1.323376	OK.	1.000000
Be 313.042 {108}	11/30/2016 12:03:54	11/29/2016 13:03:26	Linear	1/Conc	0.000045	0.000067	0.000000	1.000000	0.999928	0.000000	0.033634	0.112112	OK.	1.000000
Be 234.861 {144}	11/30/2016 12:03:54	11/29/2016 13:03:26	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999971	0.000000	3.676473	12.254911	OK.	1.000000
Ca 315.887 {107}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Var	0.000011	0.000000	0.000000	1.000000	0.999862	0.000013	16.838697	56.128989	OK.	1.000000
Ca 317.933 {106}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Conc	0.003212	0.000001	0.000000	1.000000	1.000000	0.000001	7.682853	25.609510	OK.	1.000000
Ca 393.366 {86}	11/30/2016 12:03:54	11/29/2016 13:03:26	Linear	1/Conc	0.000268	0.000020	0.000000	1.000000	0.999989	0.000002	0.058129	0.193764	OK.	1.000000
Ca 396.847 {85}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Conc	0.002053	0.000196	0.000000	1.000000	0.999972	0.000069	0.078227	0.260755	OK.	1.000000
Cd 226.502 {449}	11/30/2016 12:03:54	11/29/2016 13:03:27	Linear	1/Var	0.000019	0.000303	0.000000	1.000000	0.999740	0.000050	0.162604	0.542012	OK.	1.000000
Cd 228.802 {447}	11/30/2016 12:03:54	11/29/2016 13:03:27	Linear	1/Conc	0.000130	0.000490	0.000000	1.000000	0.999911	0.000006	0.138455	0.461515	OK.	1.000000
Co 228.616 {447}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Conc	-0.000068	0.000267	0.000000	1.000000	0.999938	0.000011	0.225390	0.751301	OK.	1.000000
Co 238.892 {141}	11/30/2016 12:03:54	11/29/2016 13:09:57	Linear	1/Var	0.000001	0.000003	0.000000	1.000000	0.999872	0.000004	0.572862	1.909538	OK.	1.000000
Cr 205.560 {464}	11/30/2016 12:03:54	11/29/2016 13:17:09	Linear	1/Var	0.000166	0.000206	0.000000	1.000000	0.994956	0.000305	0.184925	0.616418	OK.	1.000000
Cr 267.716 {126}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Var	0.000007	0.000004	0.000000	1.000000	0.999905	0.000005	0.611573	2.038576	OK.	1.000000
Cu 224.700 {450}	11/30/2016 12:03:54	11/29/2016 13:09:58	Curvilinear	1/Conc	-0.000100	0.000100	-0.000000	1.000000	0.999839	0.000007	0.495011	1.650038	OK.	1.000000
Cu 324.754 {104}	11/30/2016 12:03:54	11/29/2016 13:17:10	Linear	None	-0.000319	0.000003	0.000000	1.000000	0.999986	0.000788	3.360030	11.200101	OK.	1.000000
Cu 327.396 {103}	11/30/2016 12:03:54	11/29/2016 13:17:10	Curvilinear	1/Conc	-0.000028	0.000002	0.000000	1.000000	0.999986	0.000001	5.768185	19.227283	OK.	1.000000
Fe 234.349 {144}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Var	0.000021	0.000001	0.000000	1.000000	0.998828	0.000015	1.329258	4.430860	OK.	1.000000
Fe 239.562 {140}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999944	0.000000	23.361140	77.870468	OK.	1.000000
Fe 259.940 {129}	11/30/2016 12:03:54	11/29/2016 13:40:16	Full Fit	1/Conc	0.000008	0.000001	0.000000	0.980000	0.999975	0.000015	4.618885	15.396282	OK.	1.000000
Mg 202.582 {466}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Conc	-0.000096	0.000017	-0.000000	1.000000	0.999722	0.000660	2.403645	8.012150	OK.	1.000000
Mg 279.079 {121}	11/30/2016 12:03:54	11/29/2016 13:40:16	Curvilinear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999978	0.000001	60.170333	200.567776	OK.	1.000000
Mg 280.270 {120}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Var	0.000168	0.000049	0.000000	1.000000	0.998223	0.000044	0.027014	0.090047	OK.	1.000000
Mn 257.610 {131}	11/30/2016 12:03:54	11/29/2016 13:09:58	Curvilinear	1/Conc	0.000166	0.001368	-0.000000	1.000000	0.999825	0.000220	0.077052	0.256839	OK.	1.000000
Mn 259.373 {130}	11/30/2016 12:03:54	11/29/2016 13:17:10	Curvilinear	1/Var	0.000000	0.000000	0.000000	1.000000	0.999998	0.000000	2.432210	8.107368	OK.	1.000000
Mo 202.030 {466}	11/30/2016 12:03:54	11/29/2016 13:03:27	Linear	1/Conc	0.000051	0.000127	0.000000	1.000000	0.999632	0.000010	0.278969	0.929895	OK.	1.000000
Mo 204.598 {464}	11/30/2016 12:03:54	11/29/2016 13:09:58	Curvilinear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999963	0.000000	0.580220	1.934068	OK.	1.000000
Mo 204.598 {465}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999989	0.000000	1.002515	3.341715	OK.	1.000000
Ni 221.647 {452}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	None	0.000016	0.000002	0.000000	1.000000	0.999998	0.000020	0.507760	1.692533	OK.	1.000000
Ni 231.604 {445}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	-0.000002	0.000003	0.000000	1.000000	0.999952	0.000000	0.323875	1.079584	OK.	1.000000
Pb 216.999 {455}	11/30/2016 12:03:54	11/29/2016 13:17:10	Linear	1/Var	0.000022	0.000020	0.000000	1.000000	0.999805	0.000173	2.876206	9.587353	OK.	1.000000
Pb 220.353 {453}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	0.000025	0.000042	0.000000	1.000000	0.999887	0.000006	1.719155	5.730517	OK.	1.000000
Pb 220.353 {153}	11/30/2016 12:03:54	11/29/2016 13:17:10	Linear	1/Conc	0.000055	0.000018	0.000000	1.000000	0.999983	0.000014	5.232753	17.442510	OK.	1.000000
Sb 206.833 {463}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	-0.000121	0.000020	0.000000	1.000000	0.999975	0.000002	2.198050	7.326832	OK.	1.000000
Sb 217.581 {455}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	0.000018	0.000024	0.000000	1.000000	0.999902	0.000003	2.066060	6.886867	OK.	1.000000
Se 196.090 {472}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	0.000023	0.000010	0.000000	1.000000	0.999956	0.000001	3.605151	12.017170	OK.	1.000000
Se 206.279 {463}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	-0.000060	0.000003	0.000000	1.000000	0.999918	0.000002	17.789619	59.298731	OK.	1.000000
Se 196.090 {471}	11/30/2016 12:03:54	11/29/2016 13:09:58	Linear	1/Conc	-0.000057	0.000006	0.000000	1.000000	0.999879	0.000001	6.378297	21.260989	OK.	1.000000
Tl 190.856 {476}	11/30/2016 12:03:54	11/29/2016 13:09:58	Curvilinear	1/Conc	0.000050	0.000021	-0.000000	1.000000	0.999985	0.000002	2.038796	6.795986	OK.	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Res Slope
Tl 190.856 {477}	11/30/2016 12:03:54	11/29/2016 13:09:58	Curvilinear	1/Var	-0.000033	0.000012	-0.000000	1.000000	0.999921	0.000035	3.043191	10.143969	OK.	1.000000
V 290.882 {116}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999987	0.000000	9.950332	33.167774	OK.	1.000000
V 292.402 {115}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	0.000005	0.000007	0.000000	1.000000	0.999952	0.000001	0.439129	1.463765	OK.	1.000000
Zn 206.200 {463}	11/30/2016 12:03:54	11/29/2016 13:17:10	Linear	1/Var	0.000085	0.000203	0.000000	1.000000	0.999187	0.000721	0.239235	0.797451	OK.	1.000000
Zn 213.856 {458}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Var	0.000008	0.000003	0.000000	1.000000	0.996678	0.000004	0.151765	0.505882	OK.	1.000000
Y 324.228 {104}*	11/30/2016 12:03:54	11/29/2016 11:59:19	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 { 91}*	11/30/2016 12:03:54	11/29/2016 11:59:19	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 224.306 {451}*	11/30/2016 12:03:54	11/29/2016 11:59:19	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 588.995 { 57}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Conc	0.000489	0.000002	0.000000	1.000000	0.962136	0.000915	3.002710	10.009035	OK.	1.000000
Si 251.611 {134}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Conc	0.000004	0.000000	0.000000	1.000000	0.999997	0.000000	17.559718	58.532393	OK.	1.000000
Ti 334.941 {101}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	0.000015	0.000007	0.000000	1.000000	0.999945	0.000001	1.284753	4.282510	OK.	1.000000
Sr 407.771 { 83}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	-0.000009	0.000282	0.000000	1.000000	0.999948	0.000011	0.062152	0.207173	OK.	1.000000
Sn 189.989 {478}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Var	0.000087	0.000012	0.000000	1.000000	0.986847	0.000290	2.183641	7.278803	OK.	1.000000
B 249.678 {135}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	0.000006	0.000003	0.000000	1.000000	0.999952	0.000000	0.895772	2.985907	OK.	1.000000
B 249.773 {135}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Conc	0.000013	0.000004	0.000000	1.000000	0.999986	0.000000	0.577073	1.923576	OK.	1.000000
Li 670.784 { 50}	11/30/2016 12:03:54	11/29/2016 13:09:59	Linear	1/Var	0.000045	0.000145	0.000000	1.000000	0.999707	0.000201	0.438744	1.462480	OK.	1.000000
K 766.490 { 44}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Conc	0.000066	0.000004	0.000000	1.000000	0.962452	0.002246	15.370400	51.234666	OK.	1.000000
P 213.618 {457}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	3.788952	12.629841	OK.	1.000000
S 182.034 {485}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Var	0.000068	0.000001	0.000000	1.000000	0.647193	0.001726	26.760666	89.202220	OK.	1.000000
W 239.709 {140}	11/30/2016 12:03:54	11/29/2016 13:24:31	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.372714	0.000000	1002.75600	3342.52002	OK.	1.000000
Hg 184.950 {482}	11/30/2016 12:03:54	11/29/2016 13:03:28	Linear	1/Conc	0.000015	0.000053	0.000000	1.000000	0.999985	0.000005	0.707918	2.359725	OK.	1.000000
Hg 194.227 {473}	11/30/2016 12:03:54	11/29/2016 13:03:28	Linear	1/Conc	-0.000031	0.000050	0.000000	1.000000	0.999982	0.000006	0.689827	2.299423	OK.	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 233.527 {445}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 205.560 {464}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {140}	0.000000	1	0
Fe 259.940 {129}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mo 202.030 {466}	0.000000	1	0
Mo 204.598 {464}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Se 196.090 {471}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0

Element, Wavelength and Order	Slope Y-int	QC Norm	
		Slope factor	Offset
Tl 190.856 {477}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 324.228 {104}* Y 371.030 { 91}* Y 224.306 {451}* Na 588.995 { 57} Si 251.611 {134} Ti 334.941 {101} Sr 407.771 { 83} Sn 189.989 {478} B 249.678 {135} B 249.773 {135} Li 670.784 { 50} K 766.490 { 44} P 213.618 {457} S 182.034 {485} W 239.709 {140} Hg 184.950 {482} Hg 194.227 {473}	0.000000	1	0

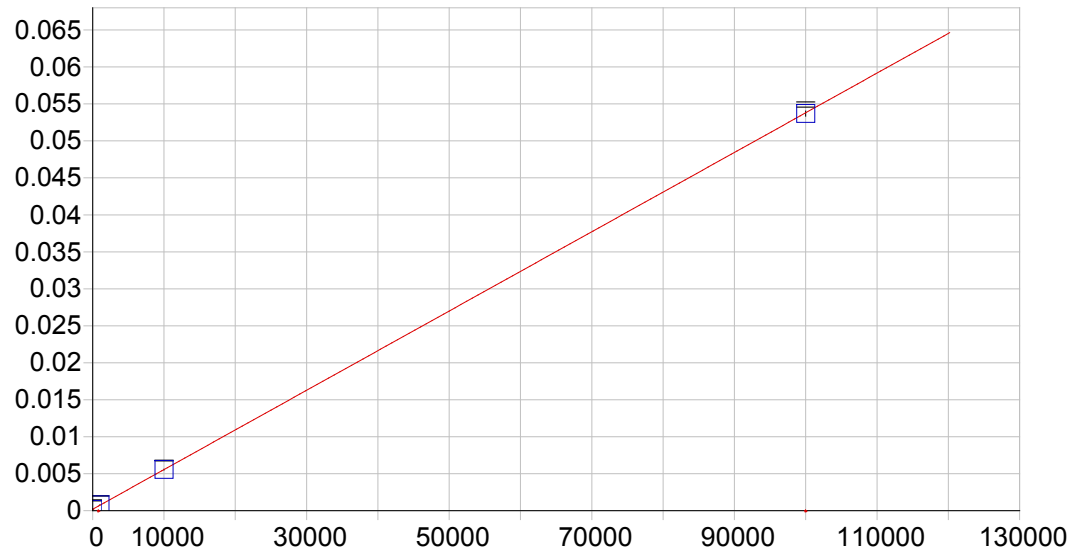


Ag 328.068 {103}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.637991
 Predicted MQL: 2.126638

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.20601	-.206	.000	.00000	.000	1
CalStd5=10	10.000	10.041	.041	.407	.00004	.000	1
CalStd8=100	100.00	99.980	-.020	-.020	.00038	.000	1
CalStd3=1	1.0000	1.0774	.077	7.74	.00001	.000	1

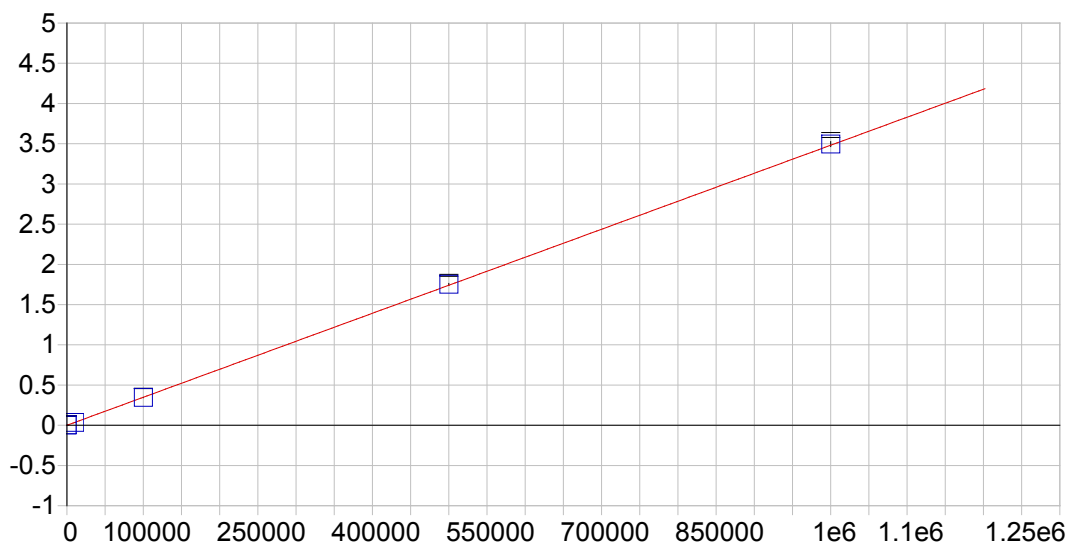


AI 309.271 {109}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: None

A0 (Offset): 0.000195 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000055
 Predicted MDL: 21.692842
 Predicted MQL: 72.309472

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-68.376	-68.4	.000	.00016	.000	1
CalStd10=10	10000.	9989.5	-10.5	-.105	.00555	.000	1
CalStd9=100	1000.0	1076.7	76.7	7.67	.00077	.000	1
CalStd12=100	100000.	99793.	-207.	-.207	.05369	.000	1

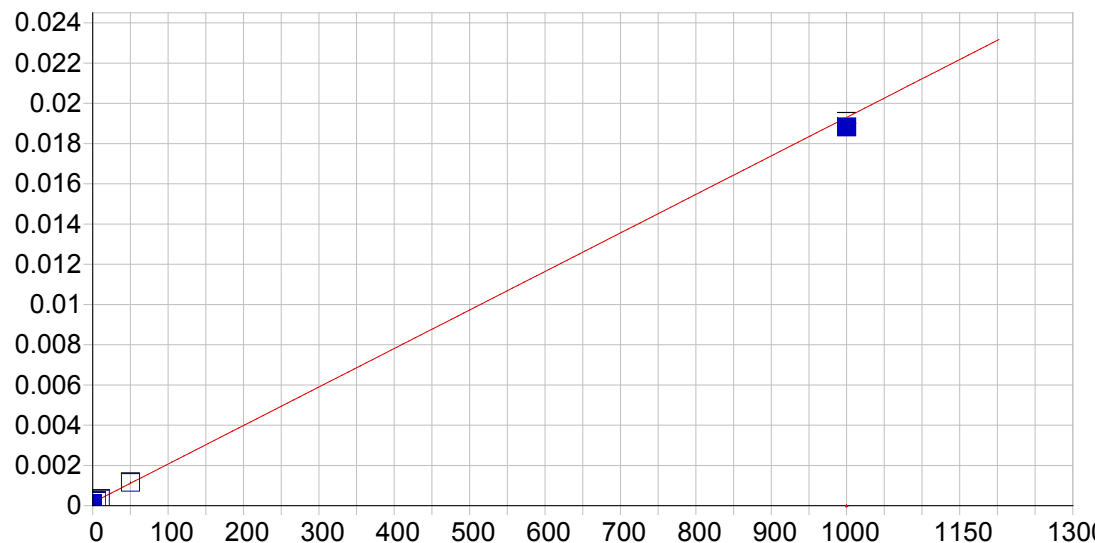


AI 396.152 { 85}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000017 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 0.000021
 Predicted MDL: 6.316849
 Predicted MQL: 21.056163

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00256	-.003	.000	-.00002	.000	1
CalStd14-100 1000000.		1004100.	4100.	.410	3.4955	.030	1
CalStd13=50 500000.		503080.	3080.	.616	1.7513	.012	1
CalStd10=10 10000.		9911.7	-88.3	-.883	.03449	.000	1
CalStd12-100 100000.		99101.	-899.	-.899	.34498	.002	1
CalStd9=100 1000.0		1018.1	18.1	1.81	.00353	.000	1

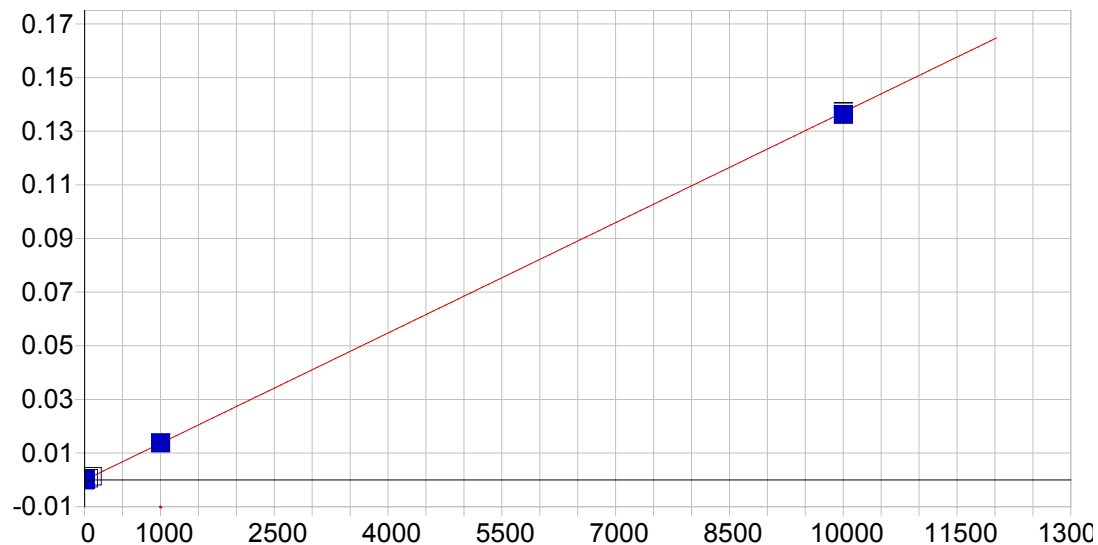


AI 167.079 {502}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000152	Re-Slope: 1.000000
A1 (Gain):	0.000019	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.998878	Status: OK.
Std Error of Est:	0.000047	
Predicted MDL:	1.020985	
Predicted MQL:	3.403284	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.4527	-2.45	.000	.00010	.000	1
CalStd9=100	1000.0	974.70	-25.3	-2.53	.01883	.000	1
CalStd5=10	10.000	9.7861	-.214	-2.14	.00034	.000	1
CalStd4=5	5.0000	4.0258	-.974	-19.5	.00023	.000	1
CalStd7=50	50.000	52.384	2.38	4.77	.00115	.000	1

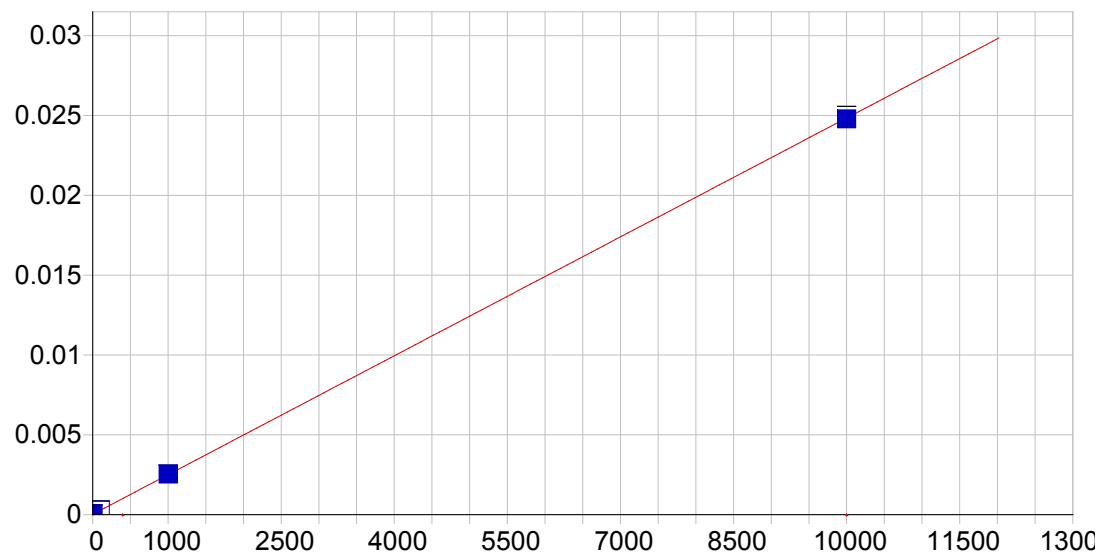


As 193.759 {474}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000075 Re-Slope: 1.000000
 A1 (Gain): 0.000014 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999867 Status: OK.
 Std Error of Est: 0.000019
 Predicted MDL: 3.224994
 Predicted MQL: 10.749979

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.09675	.097	.000	-.00007	.000	1
CalStd9=100	1000.0	1004.0	4.03	.403	.01371	.000	1
CalStd7=50	50.000	49.678	-.322	-.644	.00061	.000	1
CalStd5=10	10.000	6.7681	-3.23	-32.3	.00002	.000	1
CalStd8=100	100.00	104.30	4.30	4.30	.00136	.000	1
CalStd10=10	10000.	9935.7	-64.3	-.643	.13631	.001	1

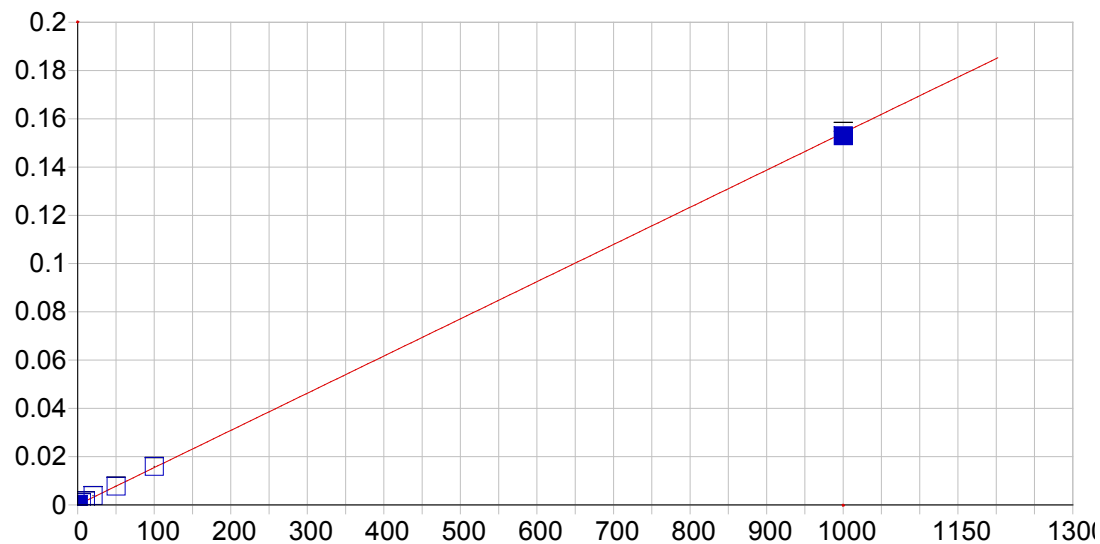


As 189.042 {479}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000020	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999624	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	11.694791	
Predicted MQL:	38.982636	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00653	-.007	.000	.00002	.000	1
CalStd9=100	1000.0	1011.4	11.4	1.14	.00253	.000	1
CalStd10=10	10000.	9973.0	-27.0	-.270	.02478	.000	1
CalStd8=100	100.00	109.60	9.60	9.60	.00029	.000	1
CalStd4=5	5.0000	11.008	6.01	120.	.00005	.000	1

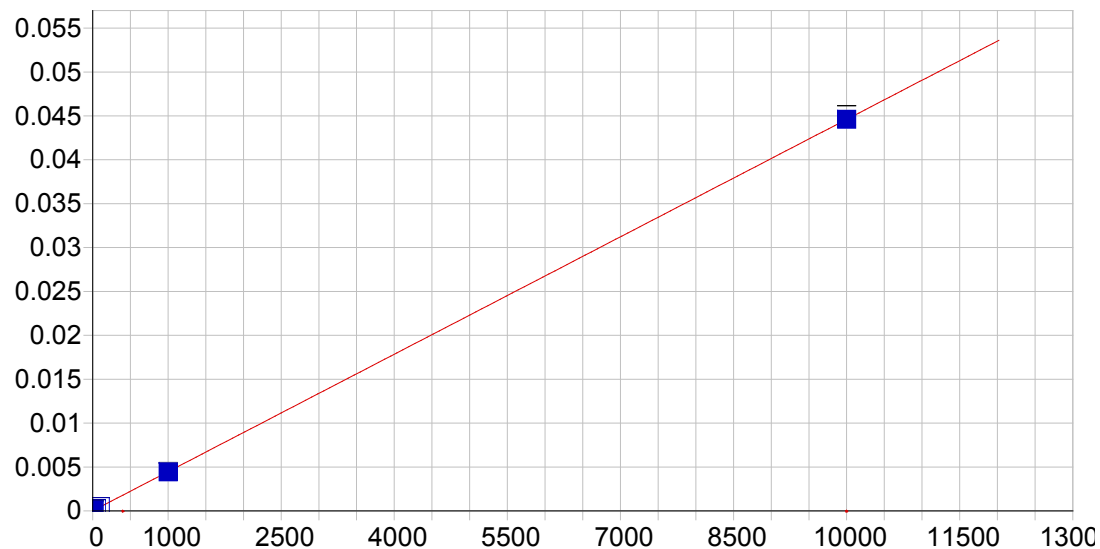


Ba 233.527 {445}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000051 Re-Slope: 1.000000
 A1 (Gain): 0.000154 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999461 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 0.200950
 Predicted MQL: 0.669832

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00036	.000	.000	.00005	.000	1
CalStd7=50	50.000	49.818	-.182	-.363	.00773	.000	1
CalStd5=10	10.000	10.469	.469	4.69	.00166	.000	1
CalStd6=20	20.000	24.703	4.70	23.5	.00386	.000	1
CalStd8=100	100.00	102.75	2.75	2.75	.01589	.000	1
CalStd4=5	5.0000	5.2422	.242	4.84	.00086	.000	1
CalStd9=100	1000.0	992.00	-8.00	-.800	.15291	.002	1
CalStd3=1	1.0000	1.0124	.012	1.24	.00021	.000	1

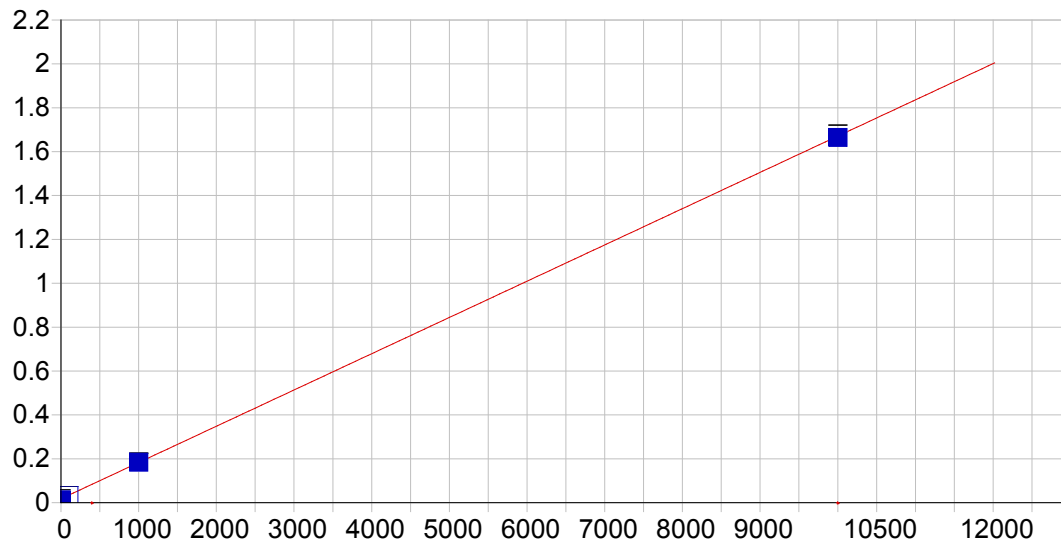


Ba 455.403 { 74}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000006 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000015
 Predicted MDL: 0.406721
 Predicted MQL: 1.355738

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.47456	-.475	.000	.00000	.000	1
CalStd7=50	50.000	50.758	.758	1.52	.00023	.000	1
CalStd5=10	10.000	9.9979	-.002	-.021	.00005	.000	1
CalStd6=20	20.000	24.335	4.34	21.7	.00011	.000	1
CalStd8=100	100.00	102.75	2.75	2.75	.00046	.000	1
CalStd4=5	5.0000	4.7707	-.229	-4.59	.00003	.000	1
CalStd9=100	1000.0	992.95	-7.05	-.705	.00443	.000	1
CalStd3=1	1.0000	.25182	-.748	-74.8	.00001	.000	1
CalStd10=10	10000.	10001.	.665	.007	.04461	.001	1

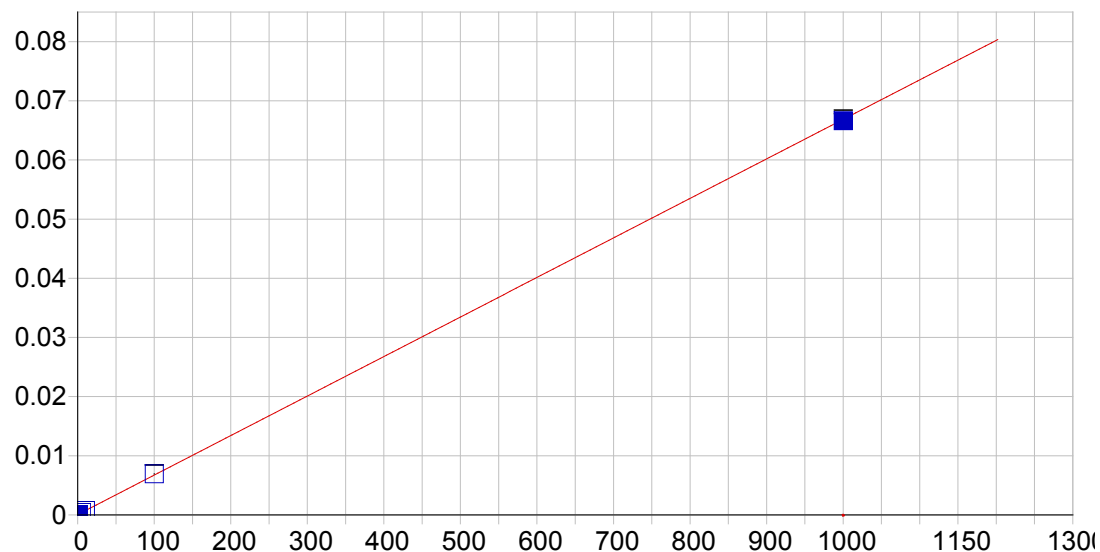


Ba 493.409 { 68}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.017609 Re-Slope: 1.000000
 A1 (Gain): 0.000165 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999962 Status: OK.
 Std Error of Est: 0.000139
 Predicted MDL: 0.397013
 Predicted MQL: 1.323376

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-31.577	-31.6	.000	.01239	.005	1
CalStd9=100	1000.0	1003.3	3.34	.334	.18351	.001	1
CalStd8=100	100.00	100.00	.000	.000	.03414	.000	1
CalStd10=10	10000.	9959.2	-40.8	-.408	1.6644	.016	1

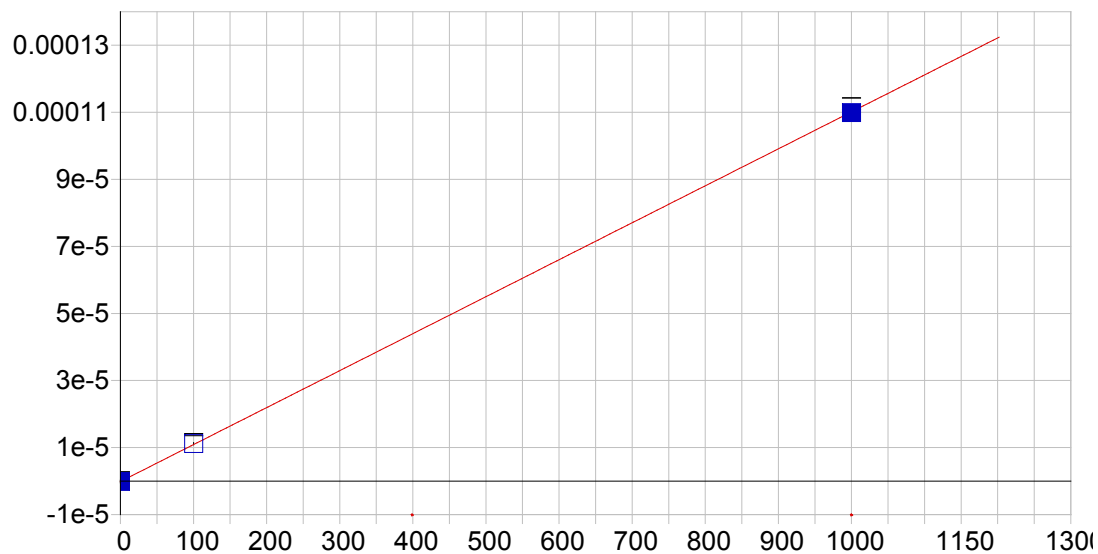


Be 313.042 {108}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000045 Re-Slope: 1.000000
 A1 (Gain): 0.000067 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999928 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.033634
 Predicted MQL: 0.112112

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	.000	.000	.00005	.000	1
CalStd5=10	10.000	10.544	.544	5.44	.00075	.000	1
CalStd8=100	100.00	102.94	2.94	2.94	.00692	.000	1
CalStd2=0.5	.50000	.54522	.045	9.04	.00008	.000	1
CalStd4=5	5.0000	5.3363	.336	6.73	.00040	.000	1
CalStd1=0.25	.25000	.24446	-.006	-2.22	.00006	.000	1
CalStd9=100	1000.0	996.09	-3.91	-.391	.06660	.000	1
CalStd3=1	1.0000	1.0445	.044	4.45	.00011	.000	1

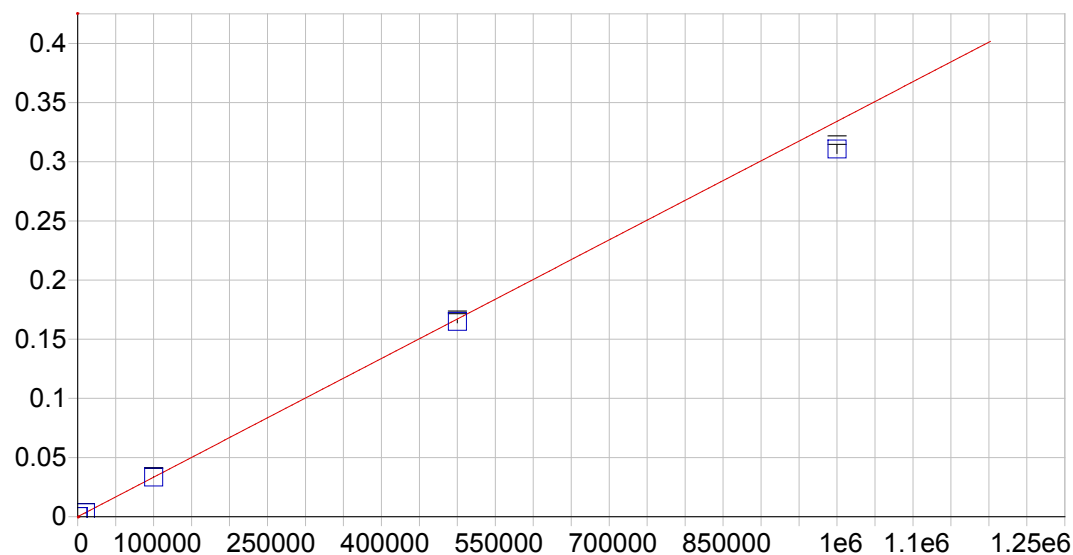


Be 234.861 {144}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999971 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 3.676473
 Predicted MQL: 12.254911

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00215	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	997.61	-2.39	-.239	.00011	.000	1
CalStd8=100	100.00	102.39	2.39	2.39	.00001	.000	1

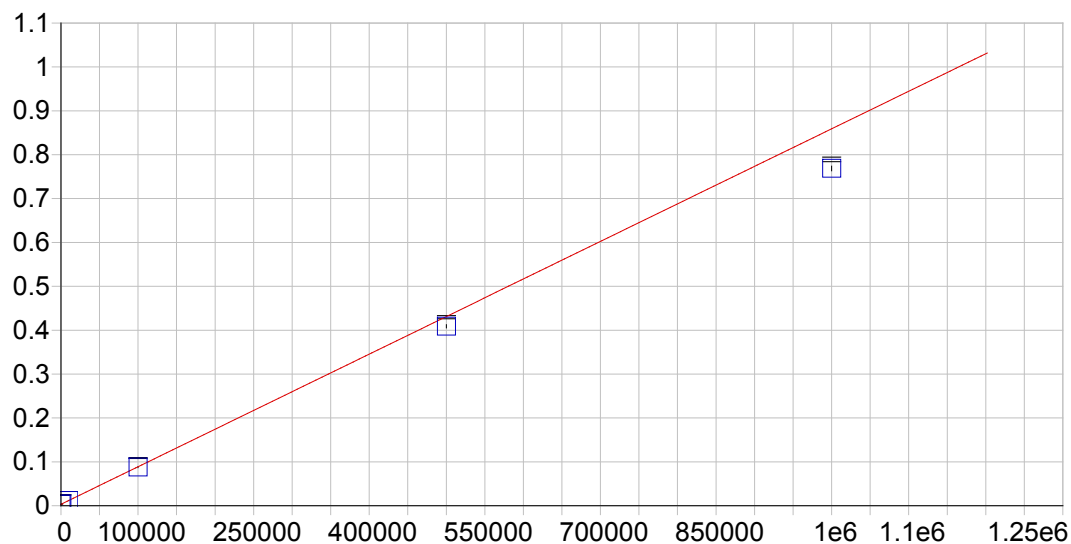


Ca 315.887 {107}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.000011 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999862 Status: OK.
 Std Error of Est: 0.000013
 Predicted MDL: 16.838697
 Predicted MQL: 56.128989

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.4865	1.49	.000	.00001	.000	1
CalStd10=10	10000.	9720.7	-279.	-2.79	.00326	.000	1
CalStd13=50	500000.	493710.	-6290.	-1.26	.16500	.001	1
CalStd14=100	1000000.	929460.	-70500.	-7.05	.31062	.004	1
CalStd9=100	1000.0	999.80	-.196	-.020	.00034	.000	1
CalStd12=100	100000.	100090.	89.4	.089	.03346	.000	1

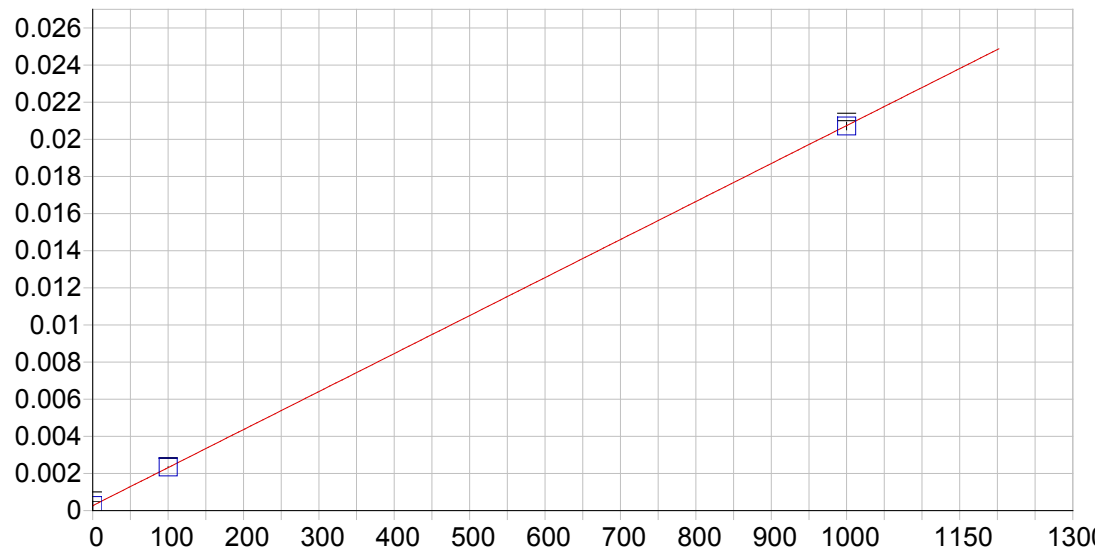


Ca 317.933 {106}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.003212 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 7.682853
 Predicted MQL: 25.609510

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01792	.018	.000	.00321	.000	1
CalStd10=10	10000.	9968.8	-31.2	-.312	.01174	.000	1
CalStd13=50	500000.	473990.	-26000.	-5.20	.40886	.004	1
CalStd14=100	1000000.	894390.	-106000.	-10.6	.76863	.005	1
CalStd9=100	1000.0	985.08	-14.9	-1.49	.00406	.000	1
CalStd12=100	100000.	98787.	-1210.	-1.21	.08775	.001	1

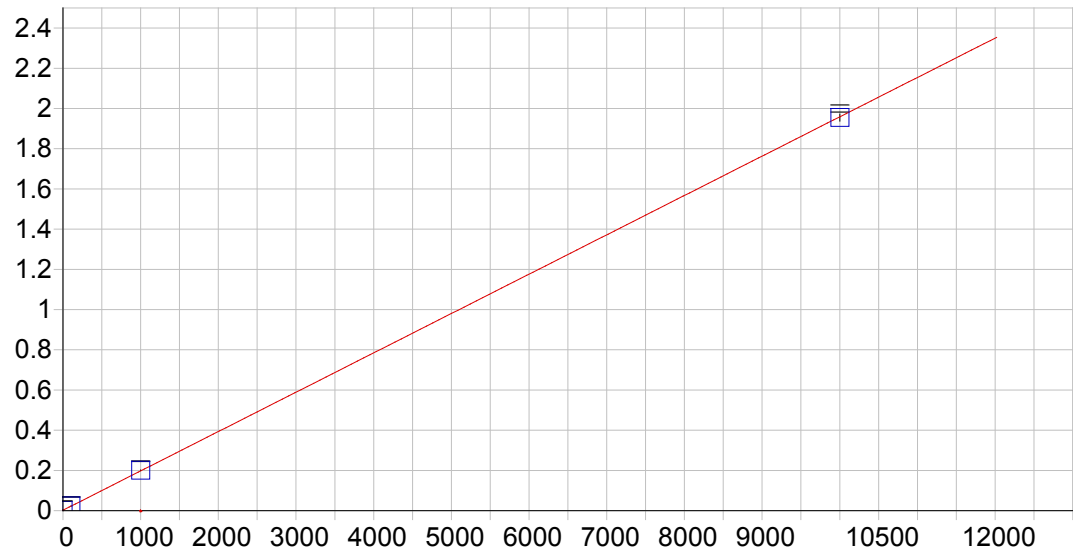


Ca 393.366 { 86}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000268 Re-Slope: 1.000000
 A1 (Gain): 0.000020 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999989 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.058129
 Predicted MQL: 0.193764

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00130	-.001	.000	.00027	.000	1
CalStd9=100	1000.0	998.55	-1.45	-.145	.02071	.000	1
CalStd8=100	100.00	101.45	1.45	1.45	.00234	.000	1

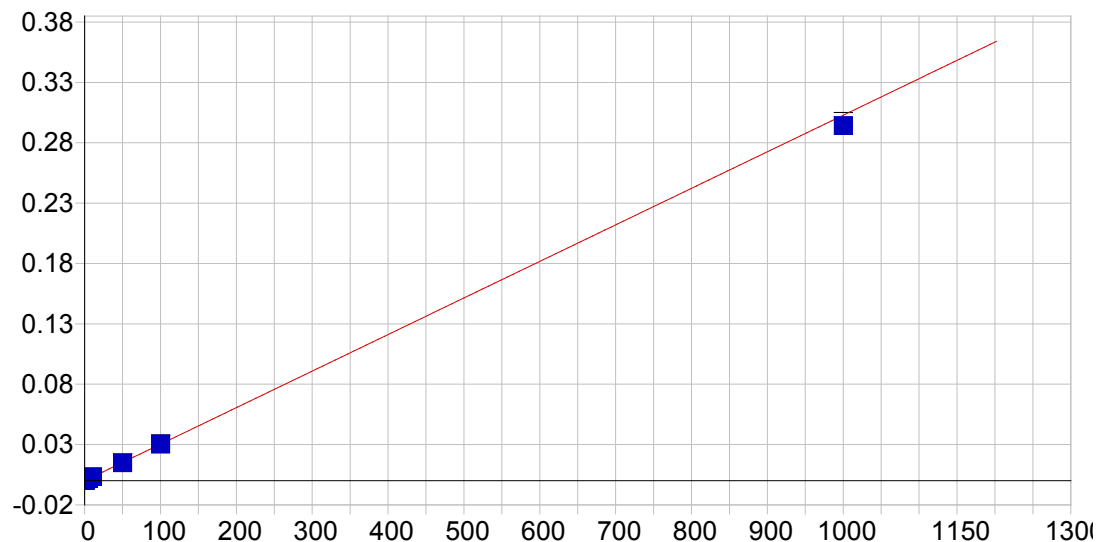


Ca 396.847 { 85}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.002053 Re-Slope: 1.000000
 A1 (Gain): 0.000196 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999972 Status: OK.
 Std Error of Est: 0.000069
 Predicted MDL: 0.078227
 Predicted MQL: 0.260755

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00746	-.007	.000	.00205	.002	1
CalStd10=10	10000.	9980.0	-20.0	-.200	1.9547	.018	1
CalStd8=100	100.00	106.29	6.29	6.29	.02285	.000	1
CalStd9=100	1000.0	1013.7	13.7	1.37	.20039	.001	1

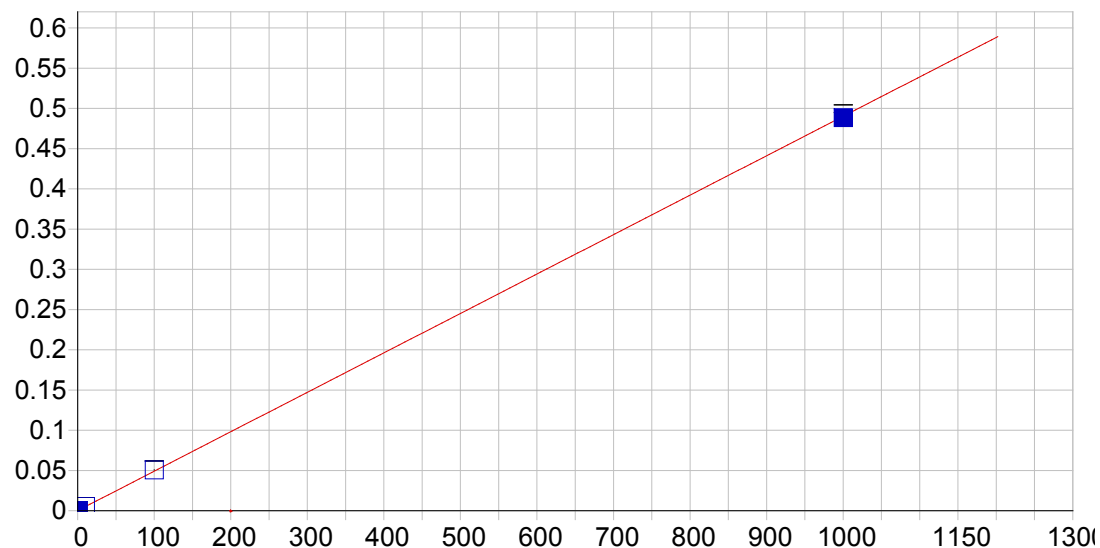


Cd 226.502 {449}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000019 Re-Slope: 1.000000
 A1 (Gain): 0.000303 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999740 Status: OK.
 Std Error of Est: 0.000050
 Predicted MDL: 0.162604
 Predicted MQL: 0.542012

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.15231	-.152	.000	-.00003	.000	1
CalStd7=50	50.000	49.045	-.955	-1.91	.01487	.000	1
CalStd3=1	1.0000	1.0369	.037	3.69	.00033	.000	1
CalStd2=0.5	.50000	.39454	-.105	-21.1	.00014	.000	1
CalStd4=5	5.0000	5.0961	.096	1.92	.00156	.000	1
CalStd8=100	100.00	99.891	-.109	-.109	.03027	.000	1
CalStd5=10	10.000	10.155	.155	1.55	.00309	.000	1
CalStd9=100	1000.0	971.47	-28.5	-2.85	.29430	.003	1

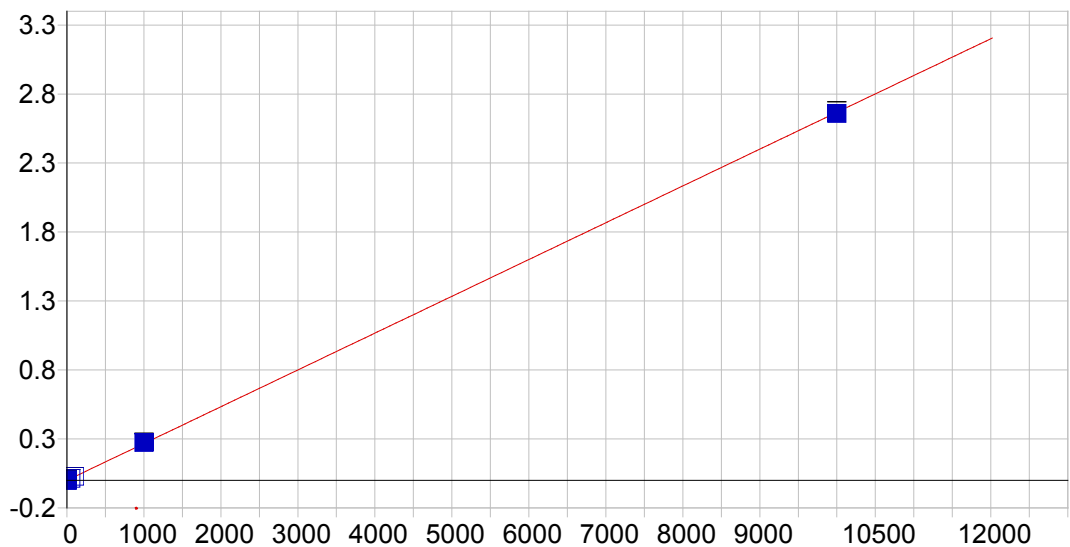


Cd 228.802 {447}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000130 Re-Slope: 1.000000
 A1 (Gain): 0.000490 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999911 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 0.138455
 Predicted MQL: 0.461515

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00025	.000	.000	.00013	.000	1
CalStd9=100	1000.0	996.23	-3.77	-.377	.48826	.005	1
CalStd8=100	100.00	102.92	2.92	2.92	.05056	.000	1
CalStd2=0.5	.50000	.66584	.166	33.2	.00046	.000	1
CalStd3=1	1.0000	1.0813	.081	8.13	.00066	.000	1
CalStd5=10	10.000	10.599	.599	5.99	.00532	.000	1

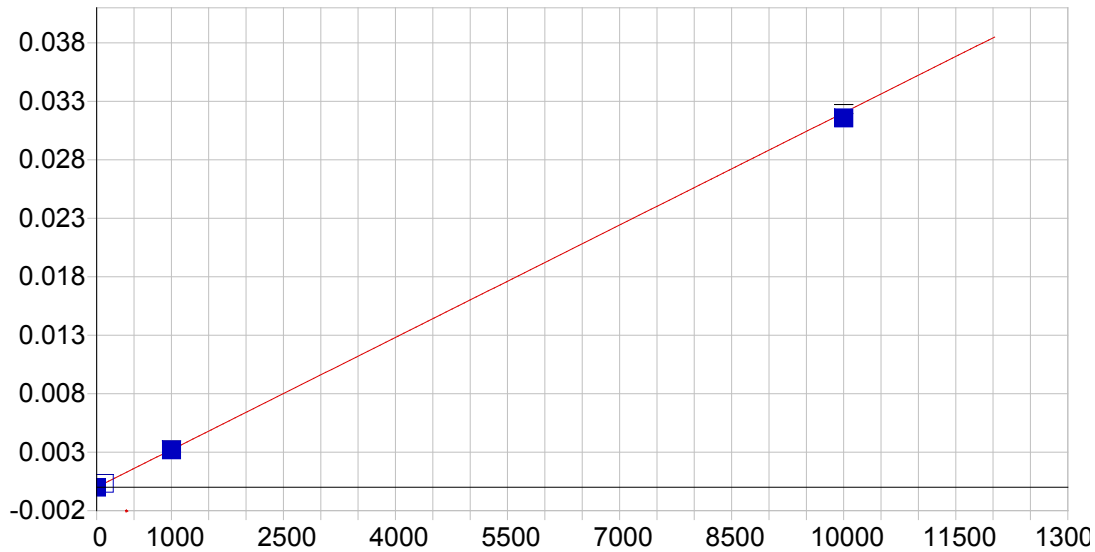


Co 228.616 {447}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000068 Re-Slope: 1.000000
 A1 (Gain): 0.000267 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999938 Status: OK.
 Std Error of Est: 0.000011
 Predicted MDL: 0.225390
 Predicted MQL: 0.751301

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00042	.000	.000	-.00007	.000	1
CalStd7=50	50.000	52.114	2.11	4.23	.01383	.000	1
CalStd5=10	10.000	10.929	.929	9.29	.00285	.000	1
CalStd4=5	5.0000	5.2972	.297	5.94	.00135	.000	1
CalStd8=100	100.00	107.03	7.03	7.03	.02848	.000	1
CalStd9=100	1000.0	1023.7	23.7	2.37	.27300	.003	1
CalStd3=1	1.0000	1.1359	.136	13.6	.00024	.000	1
CalStd10=10	10000.	9965.8	-34.2	-.342	2.6583	.020	1

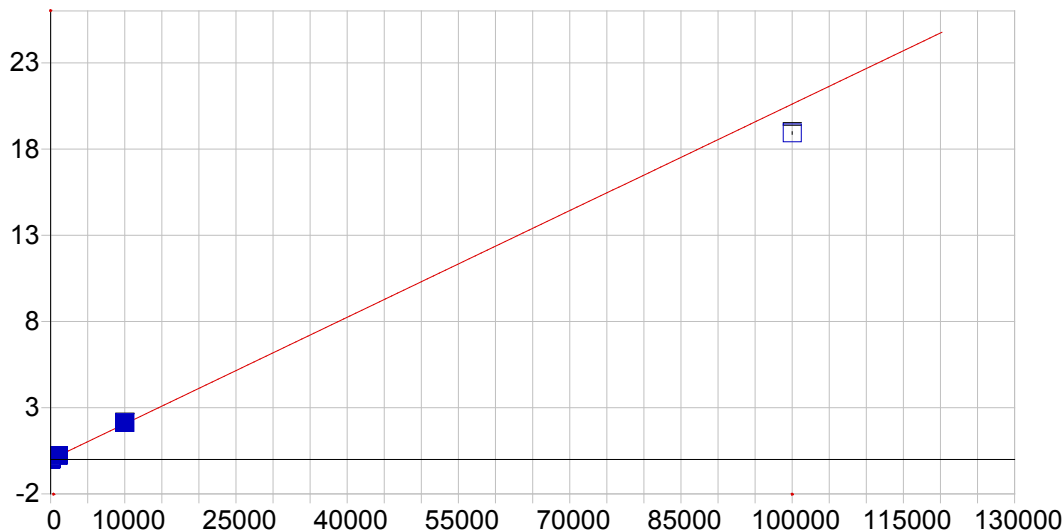


Co 238.892 {141}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999872 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.572862
 Predicted MQL: 1.909538

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19010	-.190	.000	.00000	.000	1
CalStd9=100	1000.0	995.05	-4.95	-.495	.00319	.000	1
CalStd10=10	10000.	9855.6	-144.	-1.44	.03157	.000	1
CalStd8=100	100.00	103.53	3.53	3.53	.00033	.000	1

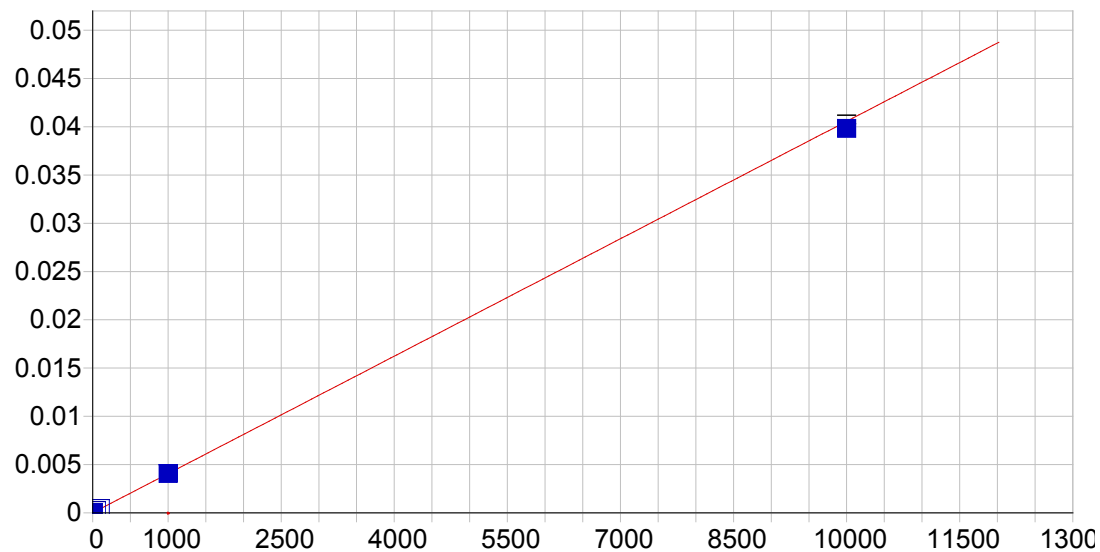


Cr 205.560 {464}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000166 Re-Slope: 1.000000
 A1 (Gain): 0.000206 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.994956 Status: OK.
 Std Error of Est: 0.000305
 Predicted MDL: 0.184925
 Predicted MQL: 0.616418

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2160	-1.22	.000	-.00008	.000	1
CalStd5=10	10.000	10.494	.494	4.94	.00233	.000	1
CalStd7=50	50.000	53.272	3.27	6.54	.01115	.000	1
CalStd9=100	1000.0	1079.9	79.9	7.99	.22277	.002	1
CalStd8=100	100.00	110.80	10.8	10.8	.02300	.000	1
CalStd4=5	5.0000	6.9327	1.93	38.7	.00160	.000	1
CalStd3=1	1.0000	.32741	-.673	-67.3	.00023	.000	1
CalStd11=100	100000.	91858.	-8140.	-8.14	18.934	.070	1
CalStd10=10	10000.	10354.	354.	3.54	2.1343	.014	1

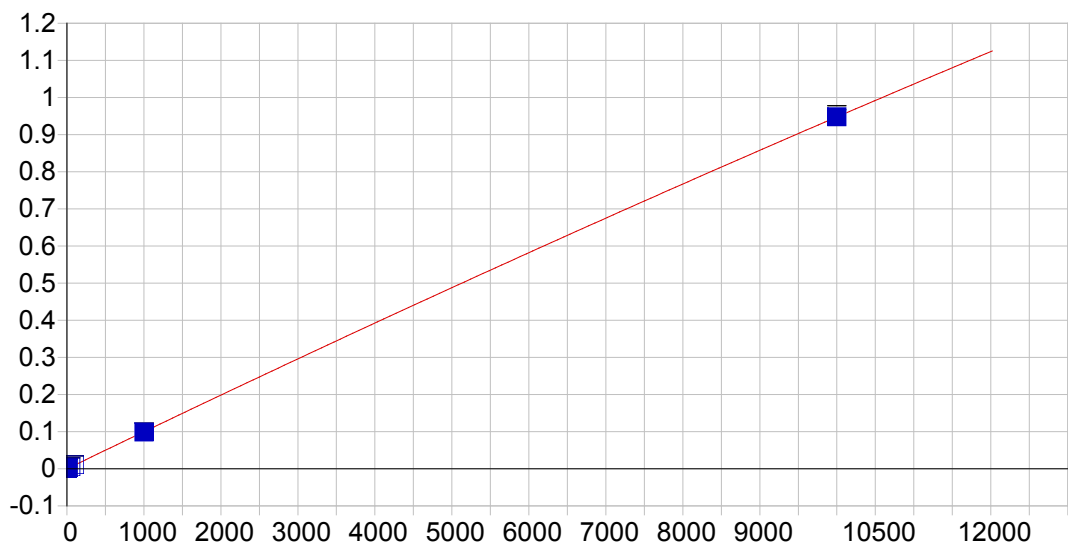


Cr 267.716 {126}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000007 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999905 Status: OK.
 Std Error of Est: 0.000005
 Predicted MDL: 0.611573
 Predicted MQL: 2.038576

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2124	-1.21	.000	.00000	.000	1
CalStd5=10	10.000	9.5373	-.463	-4.63	.00005	.000	1
CalStd7=50	50.000	50.382	.382	.763	.00021	.000	1
CalStd9=100	1000.0	998.27	-1.73	-.173	.00406	.000	1
CalStd8=100	100.00	103.19	3.19	3.19	.00043	.000	1
CalStd4=5	5.0000	5.7769	.777	15.5	.00003	.000	1
CalStd10=10	10000.	9815.3	-185.	-1.85	.03982	.000	1

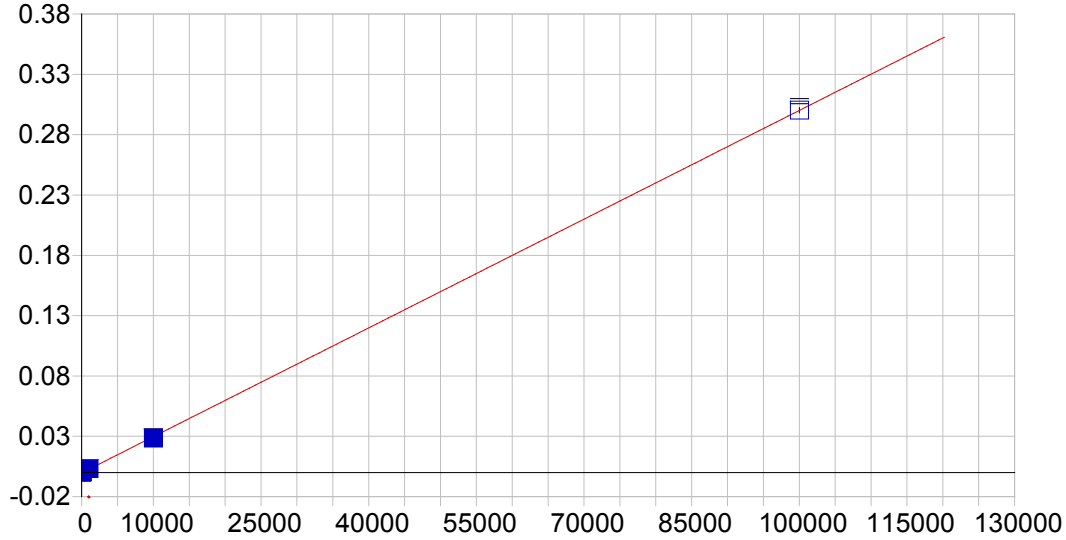


Cu 224.700 {450}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	-0.000100	Re-Slope: 1.000000
A1 (Gain):	0.000100	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999839	Status: OK.
Std Error of Est:	0.000007	
Predicted MDL:	0.495011	
Predicted MQL:	1.650038	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00109	-.001	.000	-.00010	.000	1
CalStd9=100	1000.0	987.93	-12.1	-1.21	.09856	.001	1
CalStd7=50	50.000	49.709	-.291	-.583	.00489	.000	1
CalStd8=100	100.00	102.25	2.25	2.25	.01016	.000	1
CalStd5=10	10.000	10.814	.814	8.14	.00099	.000	1
CalStd10=10	10000.	10001.	1.31	.013	.94813	.005	1
CalStd4=5	5.0000	7.9874	2.99	59.7	.00070	.000	1
CalStd6=20	20.000	24.853	4.85	24.3	.00239	.000	1
CalStd3=1	1.0000	1.1658	.166	16.6	.00002	.000	1

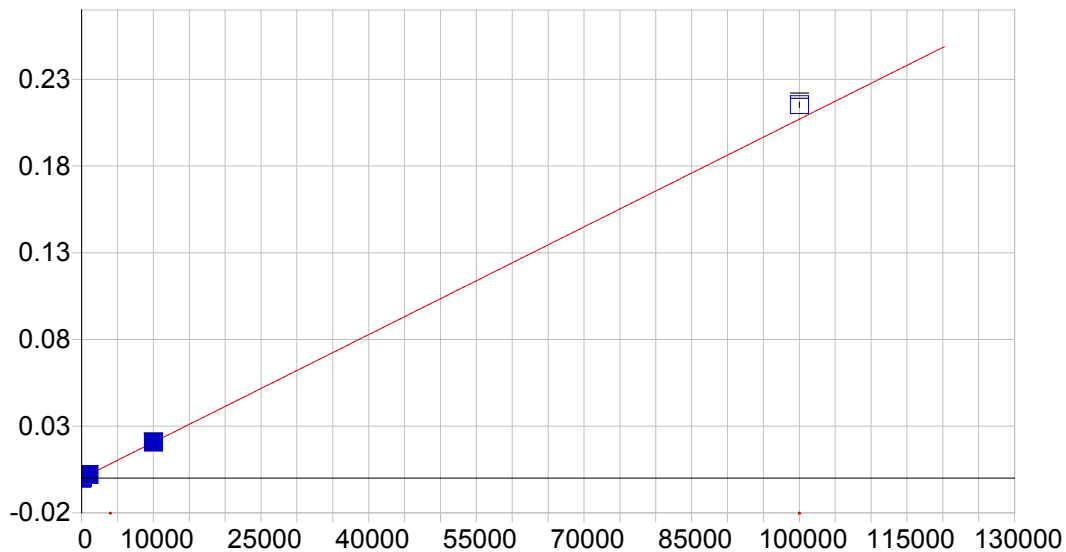


Cu 324.754 {104}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000319 Re-Slope: 1.000000
A1 (Gain): 0.000003 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999986 Status: OK.
Std Error of Est: 0.000788
Predicted MDL: 3.360030
Predicted MQL: 11.200101

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	131.15	131.	.000	.00007	.000	1
CalStd9=100	1000.0	1098.0	98.0	9.80	.00298	.000	1
CalStd8=100	100.00	232.42	132.	132.	.00038	.000	1
CalStd10=10	10000.	9599.5	-400.	-4.00	.02852	.000	1
CalStd11=100	100000.	100040.	38.9	.039	.30020	.002	1

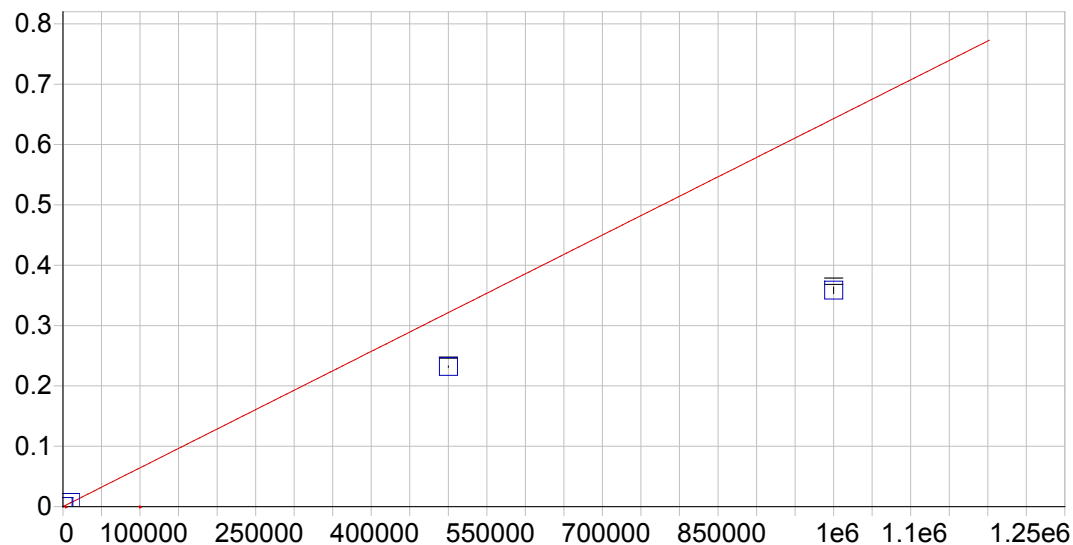


Cu 327.396 {103}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	-0.000028	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999986	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	5.768185	
Predicted MQL:	19.227283	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00922	-.009	.000	-.00003	.000	1
CalStd6=20	20.000	26.846	6.85	34.2	.00003	.000	1
CalStd7=50	50.000	51.989	1.99	3.98	.00008	.000	1
CalStd8=100	100.00	106.11	6.11	6.11	.00019	.000	1
CalStd9=100	1000.0	1022.6	22.6	2.26	.00209	.000	1
CalStd10=10	10000.	9999.3	-.711	-.007	.02067	.000	1
CalStd11=100	100000.	104040.	4040.	4.04	.21537	.001	1

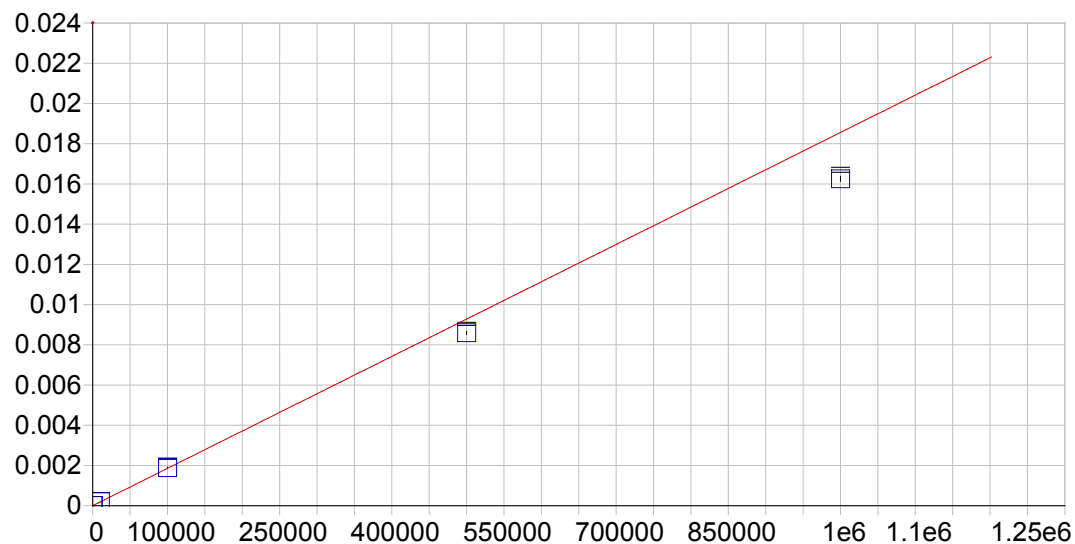


Fe 234.349 {144}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 0.000021 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998828 Status: OK.
 Std Error of Est: 0.000015
 Predicted MDL: 1.329258
 Predicted MQL: 4.430860

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.95377	-.954	.000	.00002	.000	1
CalStd10=10	10000.	10505.	505.	5.05	.00677	.000	1
CalStd13=50	500000.	360850.	-139000.	-27.8	.23200	.001	1
CalStd14=100	1000000.	557620.	-442000.	-44.2	.35850	.005	1
CalStd9=100	1000.0	1063.7	63.7	6.37	.00070	.000	1

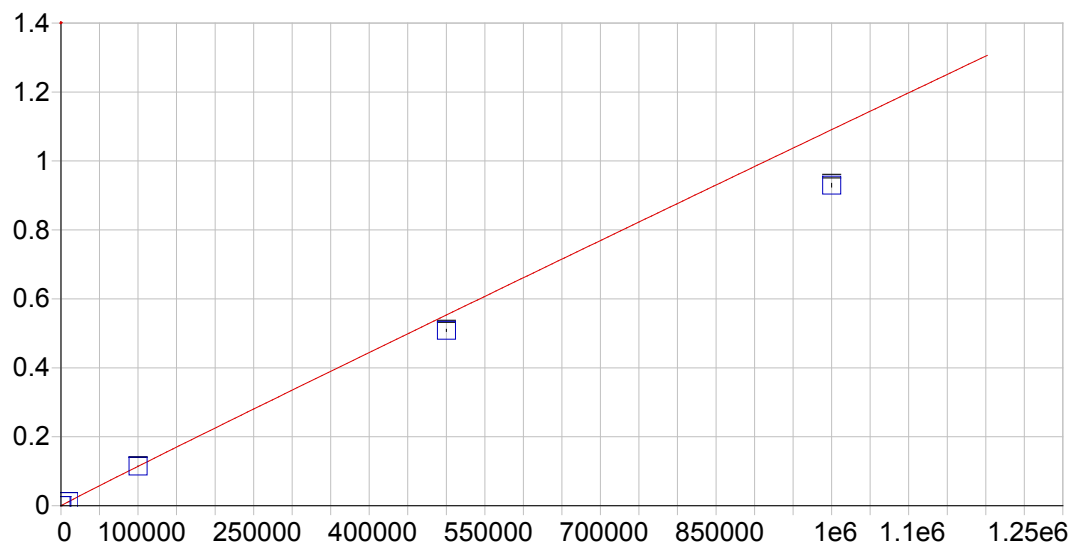


Fe 239.562 {140}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999944	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	23.361140	
Predicted MQL:	77.870468	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00129	-.001	.000	.00000	.000	1
CalStd10=10	10000.	10153.	153.	1.53	.00019	.000	1
CalStd13=50	500000.	462990.	-37000.	-7.40	.00859	.000	1
CalStd14=100	1000000.	875750.	-124000.	-12.4	.01625	.000	1
CalStd9=100	1000.0	964.58	-35.4	-3.54	.00002	.000	1
CalStd12=100	100000.	101560.	1560.	1.56	.00189	.000	1

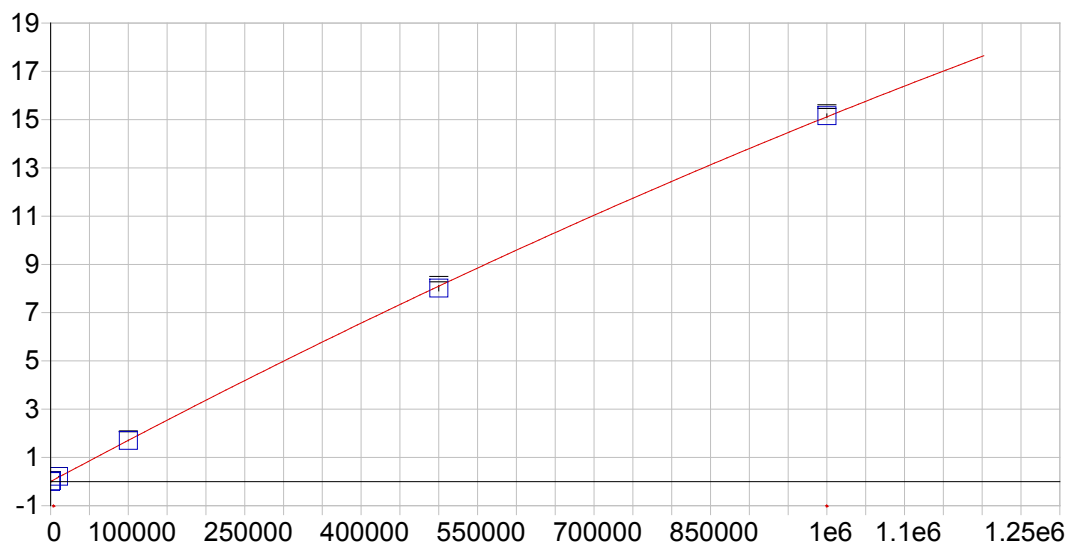


Fe 259.940 {129}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): 0.000008 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 0.980000
 Correlation: 0.999975 Status: OK.
 Std Error of Est: 0.000015
 Predicted MDL: 4.618885
 Predicted MQL: 15.396282

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06568	.066	.000	.00001	.000	1
CalStd10=10	10000.	9672.6	-327.	-3.27	.01158	.000	1
CalStd13=50	500000.	458950.	-41000.	-8.21	.50852	.003	1
CalStd14=100	1000000.	849410.	-151000.	-15.1	.92964	.005	1
CalStd9=100	1000.0	935.54	-64.5	-6.45	.00118	.000	1
CalStd12=100	100000.	100200.	196.	.196	.11445	.001	1

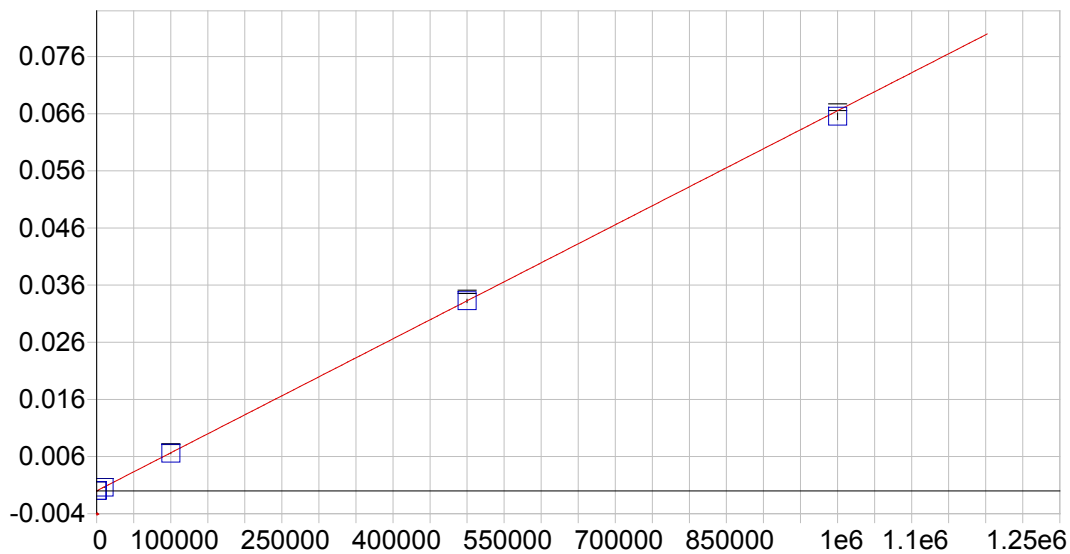


Mg 202.582 {466}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000096 Re-Slope: 1.000000
 A1 (Gain): 0.000017 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999722 Status: OK.
 Std Error of Est: 0.000660
 Predicted MDL: 2.403645
 Predicted MQL: 8.012150

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.51349	-.513	.000	-.00010	.000	1
CalStd13=50	500000.	494310.	-5690.	-1.14	8.0123	.111	1
CalStd10=10	10000.	12450.	2450.	24.5	.21467	.001	1
CalStd14=100	1000000.	1003300.	3320.	.332	15.159	.076	1
CalStd12=100	100000.	99763.	-237.	-.237	1.7021	.015	1
CalStd9=100	1000.0	1279.1	279.	27.9	.02200	.000	1

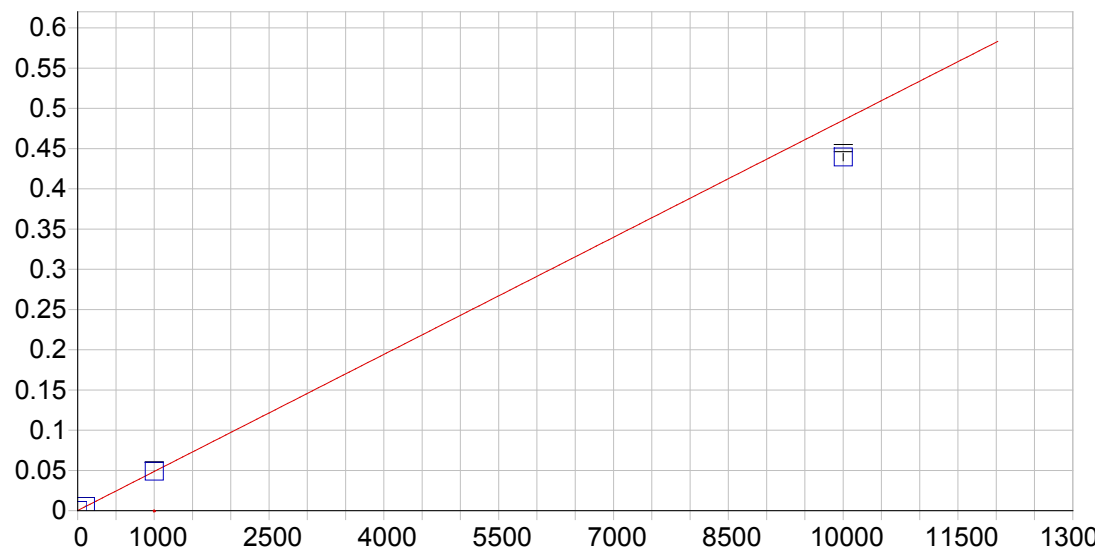


Mg 279.079 {121}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999978 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 60.170333
 Predicted MQL: 200.567776

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.16732	.167	.000	.00000	.000	1
CalStd13=50	500000.	499730.	-270.	-.054	.03324	.000	1
CalStd10=10	10000.	9504.6	-495.	-4.95	.00063	.000	1
CalStd14=100	1000000.	985350.	-14700.	-1.47	.06554	.001	1
CalStd12=100	100000.	98846.	-1150.	-1.15	.00658	.000	1
CalStd9=100	1000.0	887.62	-112.	-11.2	.00006	.000	1

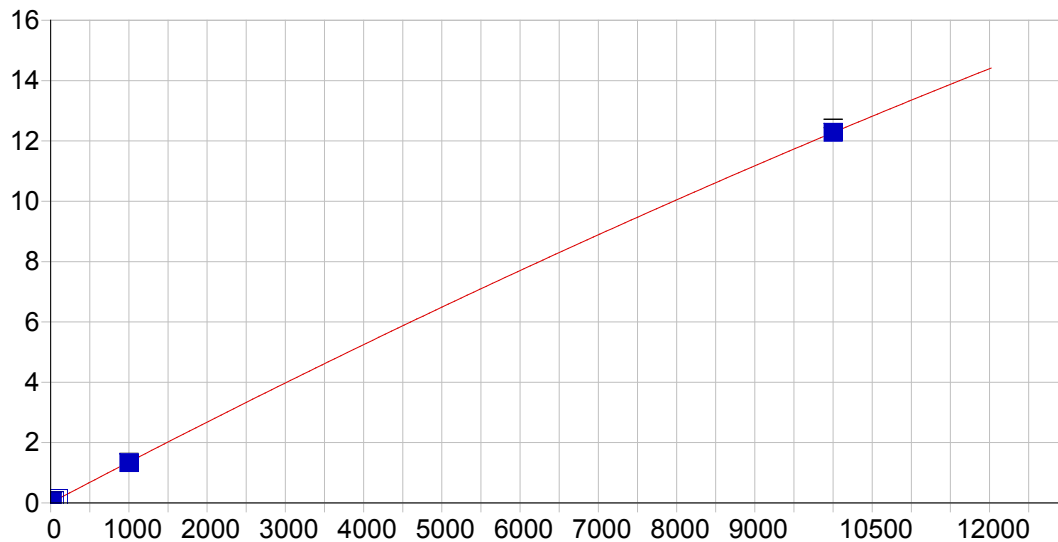


Mg 280.270 {120}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000168 Re-Slope: 1.000000
 A1 (Gain): 0.000049 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998223 Status: OK.
 Std Error of Est: 0.000044
 Predicted MDL: 0.027014
 Predicted MQL: 0.090047

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02145	-.021	.000	.00017	.000	1
CalStd9=100	1000.0	1006.7	6.74	.674	.04900	.000	1
CalStd10=10	10000.	9053.5	-946.	-9.46	.43935	.004	1
CalStd8=100	100.00	107.90	7.90	7.90	.00540	.000	1

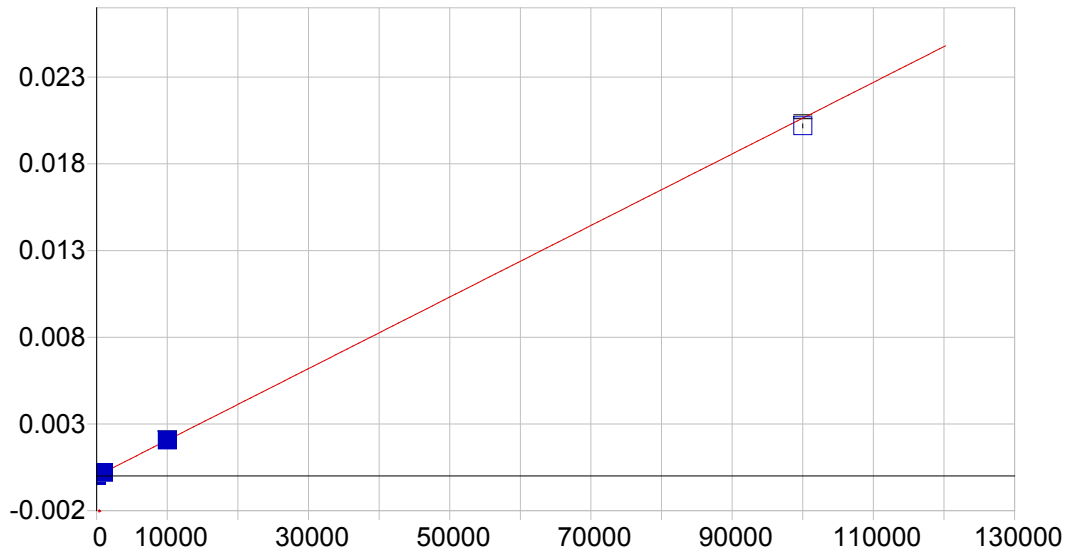


Mn 257.610 {131}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000166 Re-Slope: 1.000000
 A1 (Gain): 0.001368 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999825 Status: OK.
 Std Error of Est: 0.000220
 Predicted MDL: 0.077052
 Predicted MQL: 0.256839

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00450	-.005	.000	.00016	.000	1
CalStd5=10	10.000	10.736	.736	7.36	.01485	.000	1
CalStd7=50	50.000	50.938	.938	1.88	.06981	.001	1
CalStd6=20	20.000	25.416	5.42	27.1	.03492	.000	1
CalStd8=100	100.00	103.89	3.89	3.89	.14212	.001	1
CalStd4=5	5.0000	7.5667	2.57	51.3	.01052	.000	1
CalStd9=100	1000.0	984.72	-15.3	-1.53	1.3337	.011	1
CalStd10=10	10000.	10002.	1.81	.018	12.280	.140	1

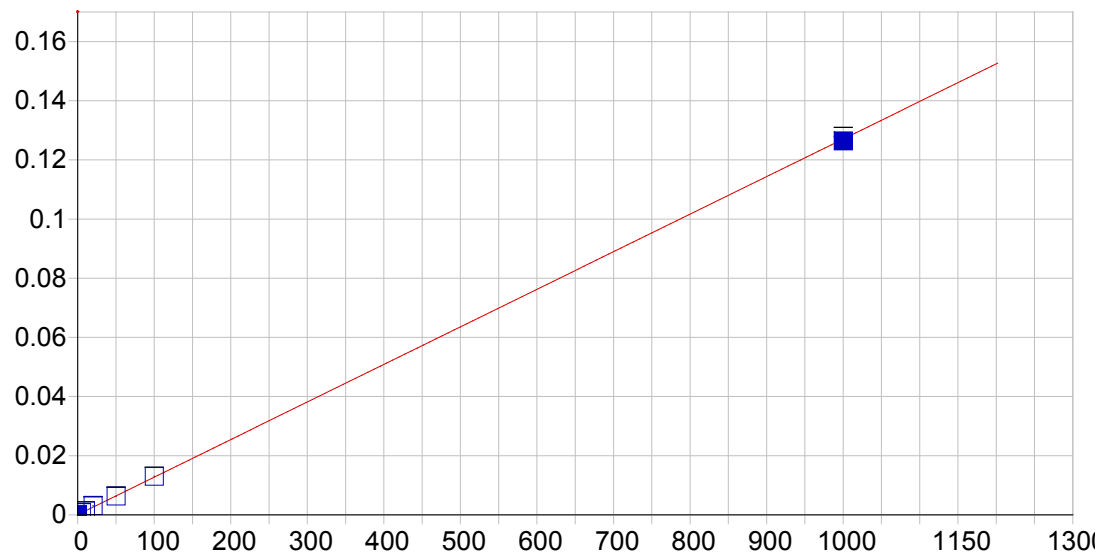


Mn 259.373 {130}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999998	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.432210	
Predicted MQL:	8.107368	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.13593	.136	.000	.00000	.000	1
CalStd10=10	10000.	10023.	22.8	.228	.00207	.000	1
CalStd11=100	100000.	97834.	-2170.	-2.17	.02019	.000	1
CalStd9=100	1000.0	995.92	-4.08	-.408	.00021	.000	1

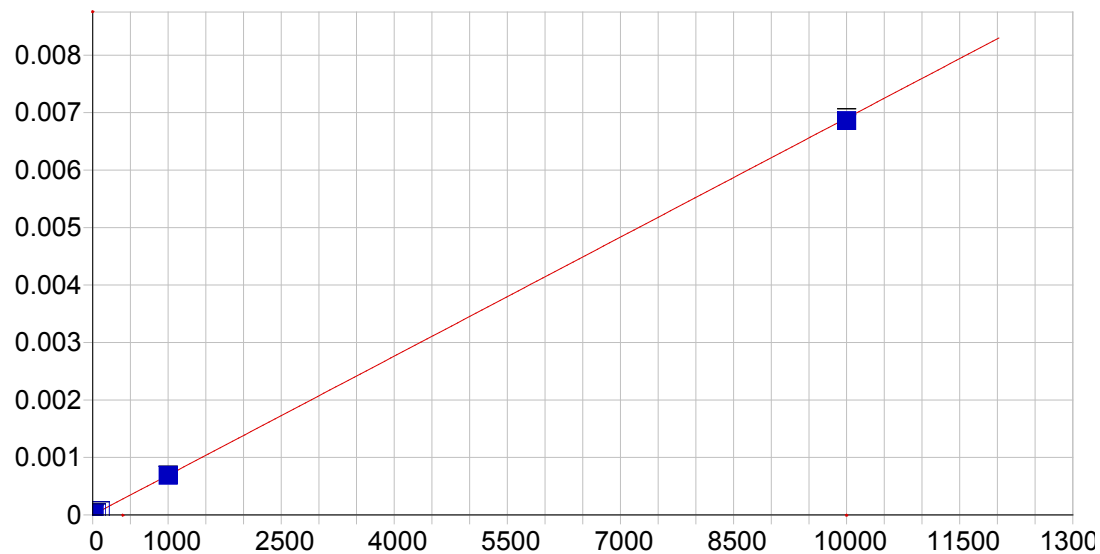


Mo 202.030 {466}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000051 Re-Slope: 1.000000
 A1 (Gain): 0.000127 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999632 Status: OK.
 Std Error of Est: 0.000010
 Predicted MDL: 0.278969
 Predicted MQL: 0.929895

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00108	-.001	.000	.000005	.000	1
CalStd7=50	50.000	49.084	-.916	-1.83	.00628	.000	1
CalStd6=20	20.000	23.966	3.97	19.8	.00309	.000	1
CalStd5=10	10.000	10.047	.047	.466	.00133	.000	1
CalStd8=100	100.00	102.00	2.00	2.00	.01300	.000	1
CalStd4=5	5.0000	5.0796	.080	1.59	.00070	.000	1
CalStd9=100	1000.0	994.83	-5.17	-.517	.12639	.002	1

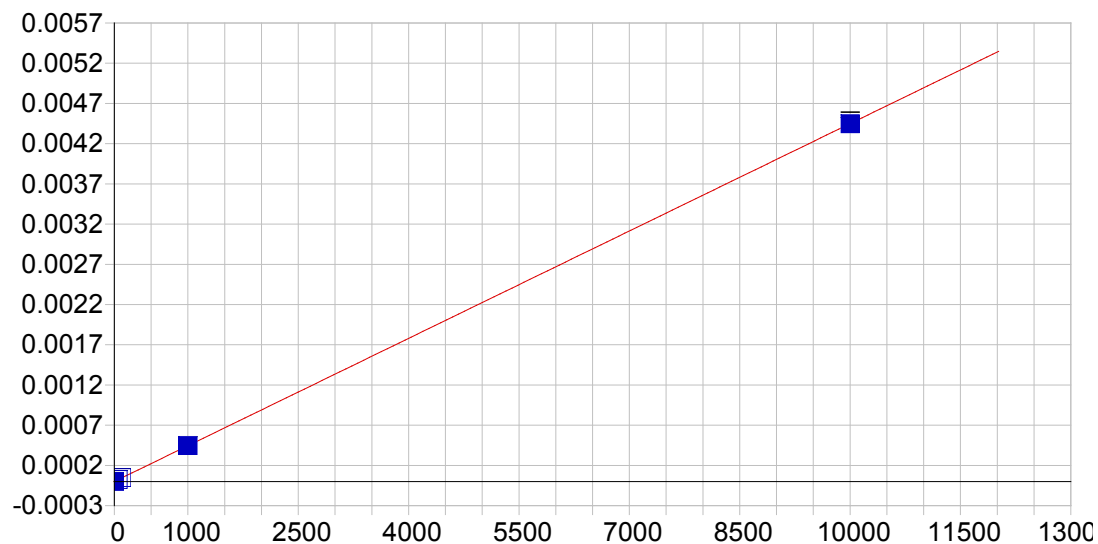


Mo 204.598 {464}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999963 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.580220
 Predicted MQL: 1.934068

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00001	.000	.000	.00000	.000	1
CalStd7=50	50.000	49.024	-.976	-1.95	.00003	.000	1
CalStd6=20	20.000	23.650	3.65	18.2	.00002	.000	1
CalStd5=10	10.000	9.4759	-.524	-5.24	.00001	.000	1
CalStd8=100	100.00	101.56	1.56	1.56	.00007	.000	1
CalStd4=5	5.0000	4.3933	-.607	-12.1	.00000	.000	1
CalStd9=100	1000.0	995.89	-4.11	-.411	.00069	.000	1
CalStd10=10	10000.	9933.3	-66.7	-.667	.00686	.000	1

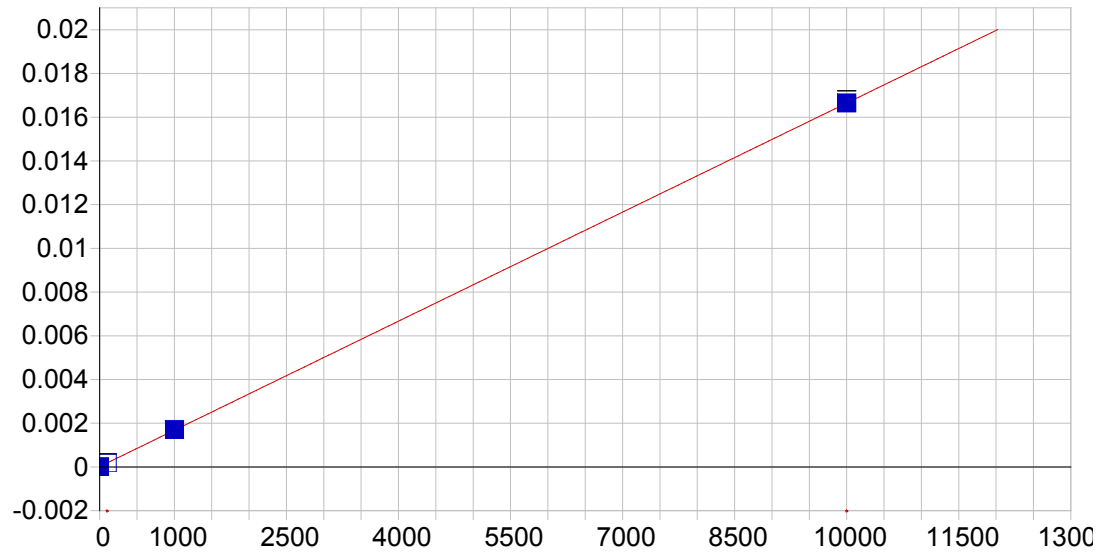


Mo 204.598 {465}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999989 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 1.002515
Predicted MQL: 3.341715

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00357	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	1000.7	.726	.073	.00045	.000	1
CalStd10=10	10000.	9993.5	-6.50	-.065	.00445	.000	1
CalStd7=50	50.000	51.357	1.36	2.71	.00002	.000	1
CalStd8=100	100.00	104.42	4.42	4.42	.00005	.000	1

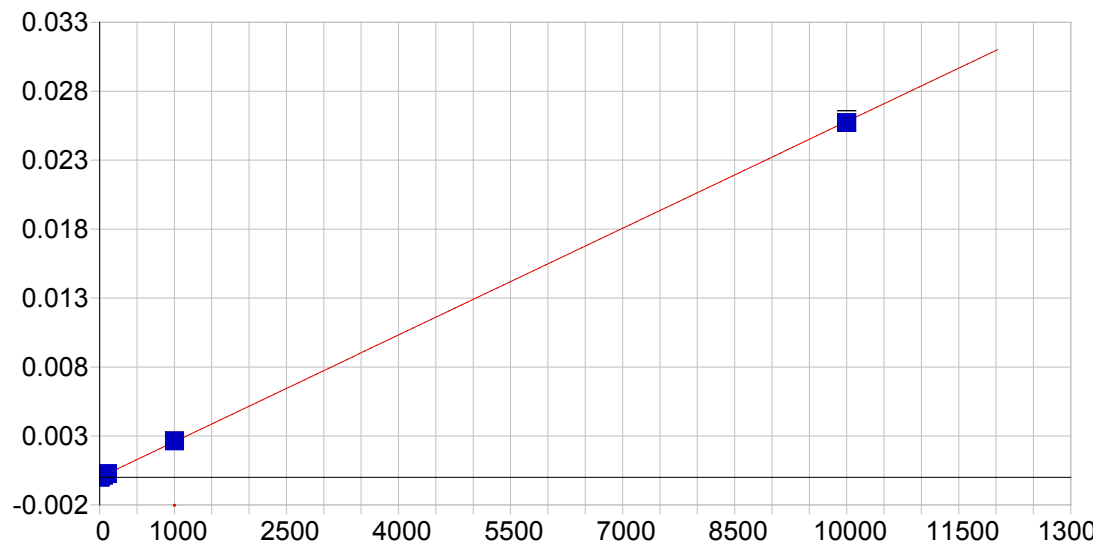


Ni 221.647 {452}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: None

A0 (Offset):	0.000016	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999998	Status: OK.
Std Error of Est:	0.000020	
Predicted MDL:	0.507760	
Predicted MQL:	1.692533	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-10.199	-10.2	.000	.00000	.000	1
CalStd10=10	10000.	9998.7	-1.30	-.013	.01664	.000	1
CalStd8=100	100.00	98.323	-1.68	-1.68	.00018	.000	1
CalStd9=100	1000.0	1013.2	13.2	1.32	.00170	.000	1

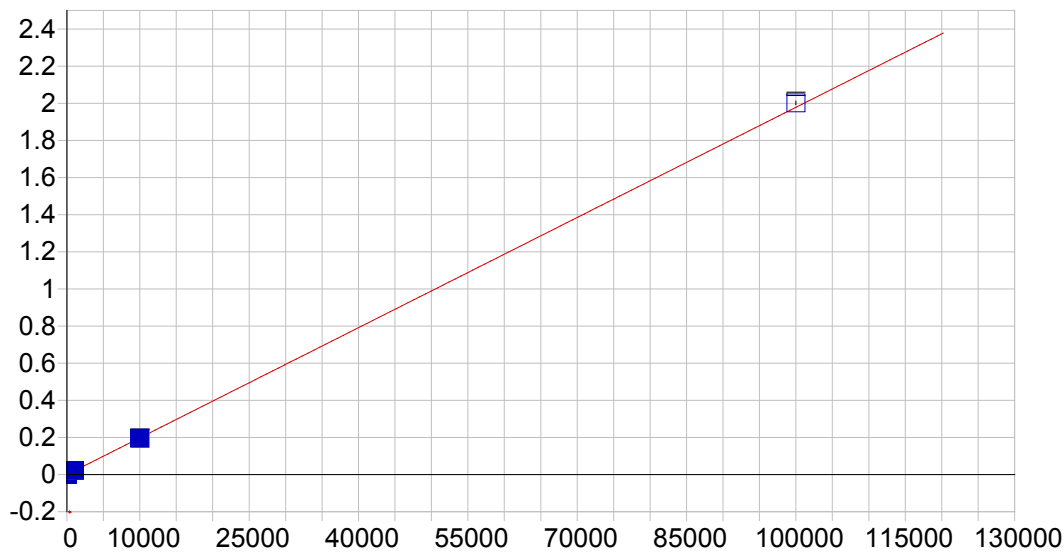


Ni 231.604 {445}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999952 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.323875
 Predicted MQL: 1.079584

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00047	.000	.000	.00000	.000	1
CalStd7=50	50.000	52.014	2.01	4.03	.00013	.000	1
CalStd5=10	10.000	10.525	.525	5.25	.00002	.000	1
CalStd8=100	100.00	105.60	5.60	5.60	.00027	.000	1
CalStd4=5	5.0000	5.4126	.413	8.25	.00001	.000	1
CalStd9=100	1000.0	1021.5	21.5	2.15	.00263	.000	1
CalStd3=1	1.0000	1.2229	.223	22.3	.00000	.000	1
CalStd10=10	10000.	9969.7	-30.3	-.303	.02572	.000	1

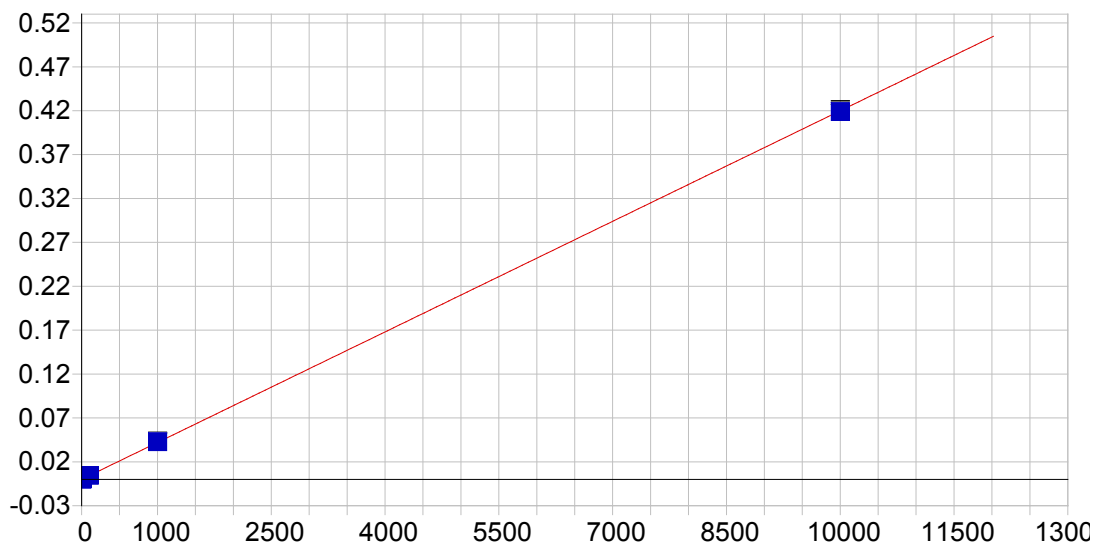


Pb 216.999 {455}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000022 Re-Slope: 1.000000
 A1 (Gain): 0.000020 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999805 Status: OK.
 Std Error of Est: 0.000173
 Predicted MDL: 2.876206
 Predicted MQL: 9.587353

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.6025	-1.60	.000	-.00001	.000	1
CalStd9=100	1000.0	1078.4	78.4	7.84	.02145	.000	1
CalStd10=10	10000.	9852.8	-147.	-1.47	.19594	.001	1
CalStd11=100	100000.	101190.	1190.	1.19	2.0018	.009	1
CalStd8=100	100.00	101.46	1.46	1.46	.00203	.000	1
CalStd5=10	10.000	8.5936	-1.41	-14.1	.00019	.000	1

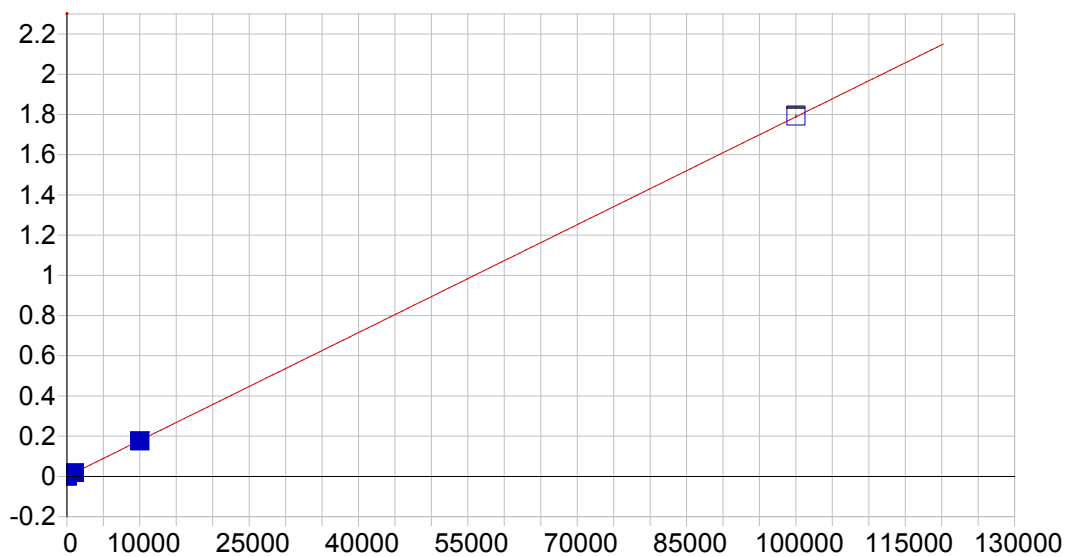


Pb 220.353 {453}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000025 Re-Slope: 1.000000
 A1 (Gain): 0.000042 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999887 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 1.719155
 Predicted MQL: 5.730517

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00336	-.003	.000	.00003	.000	1
CalStd5=10	10.000	9.9682	-.032	-.318	.00044	.000	1
CalStd8=100	100.00	105.72	5.72	5.72	.00446	.000	1
CalStd4=5	5.0000	8.0146	3.01	60.3	.00036	.000	1
CalStd9=100	1000.0	1017.2	17.2	1.72	.04274	.001	1
CalStd10=10	10000.	9974.1	-25.9	-.259	.41886	.002	1

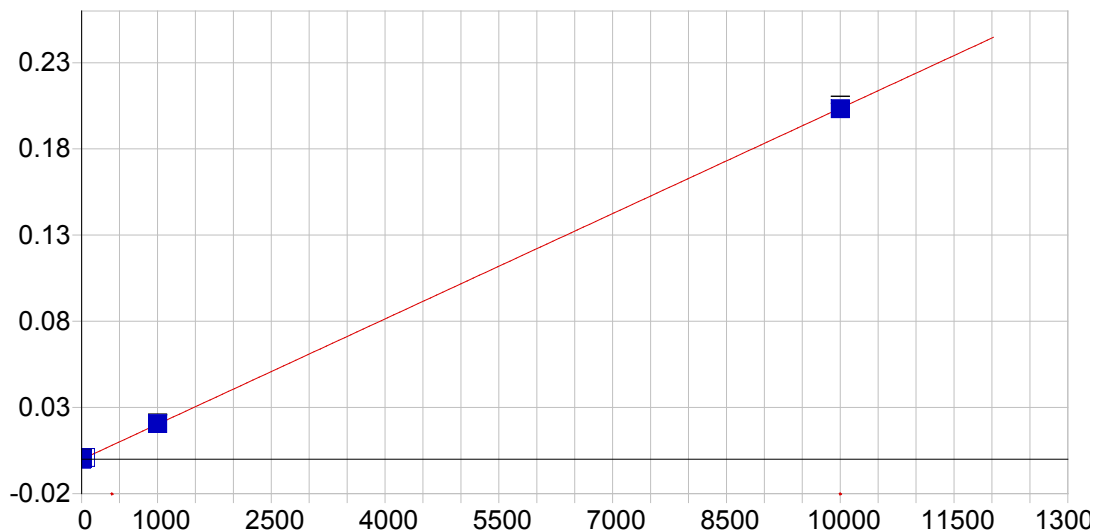


Pb 220.353 {153}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000055	Re-Slope: 1.000000
A1 (Gain):	0.000018	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999983	Status: OK.
Std Error of Est:	0.000014	
Predicted MDL:	5.232753	
Predicted MQL:	17.442510	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00652	-.007	.000	.00006	.000	1
CalStd9=100	1000.0	1011.0	11.0	1.10	.01813	.000	1
CalStd10=10	10000.	9829.4	-171.	-1.71	.17582	.001	1
CalStd8=100	100.00	106.97	6.97	6.97	.00197	.000	1
CalStd11=100	100000.	100150.	153.	.153	1.7913	.005	1

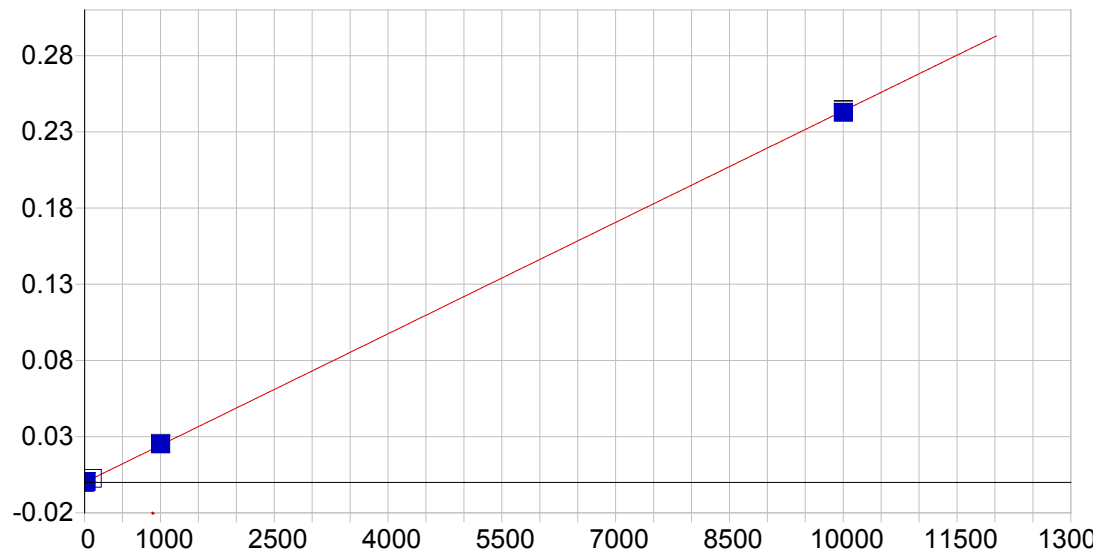


Sb 206.833 {463}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000121	Re-Slope: 1.000000
A1 (Gain):	0.000020	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999975	Status: OK.
Std Error of Est:	0.000002	
Predicted MDL:	2.198050	
Predicted MQL:	7.326832	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00130	-.001	.000	-.00012	.000	1
CalStd9=100	1000.0	1017.2	17.2	1.72	.02060	.000	1
CalStd5=10	10.000	11.412	1.41	14.1	.00011	.000	1
CalStd7=50	50.000	48.681	-1.32	-2.64	.00087	.000	1
CalStd10=10	10000.	9982.7	-17.3	-.173	.20324	.002	1

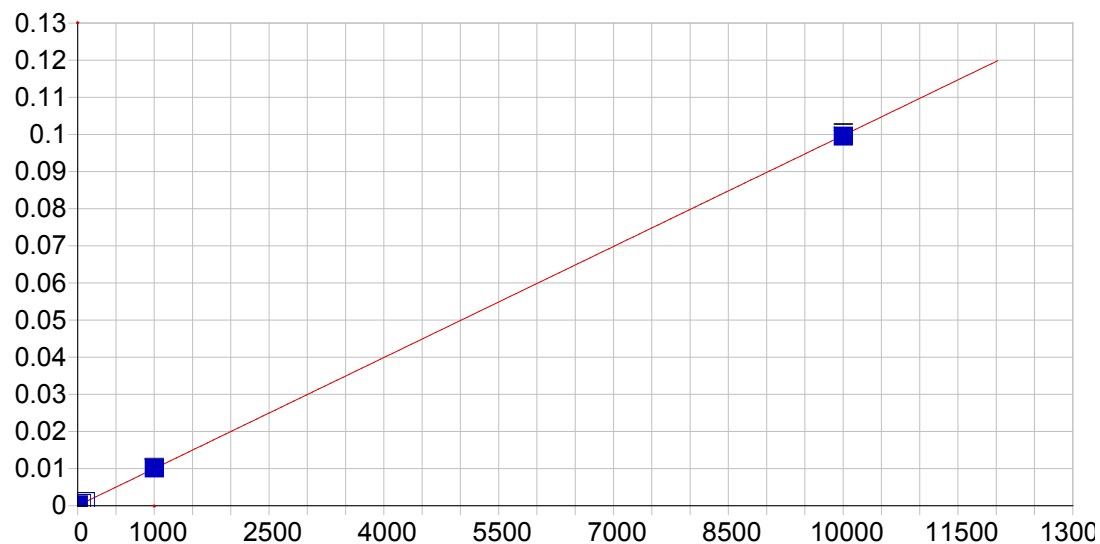


Sb 217.581 {455}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000018 Re-Slope: 1.000000
 A1 (Gain): 0.000024 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999902 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 2.066060
 Predicted MQL: 6.886867

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00104	-.001	.000	.000002	.000	1
CalStd9=100	1000.0	1031.7	31.7	3.17	.02516	.000	1
CalStd6=20	20.000	23.560	3.56	17.8	.00059	.000	1
CalStd5=10	10.000	9.9869	-.013	-.131	.00026	.000	1
CalStd8=100	100.00	105.97	5.97	5.97	.00260	.000	1
CalStd4=5	5.0000	4.7154	-.285	-5.69	.00013	.000	1
CalStd10=10	10000.	9959.0	-41.0	-.410	.24272	.002	1

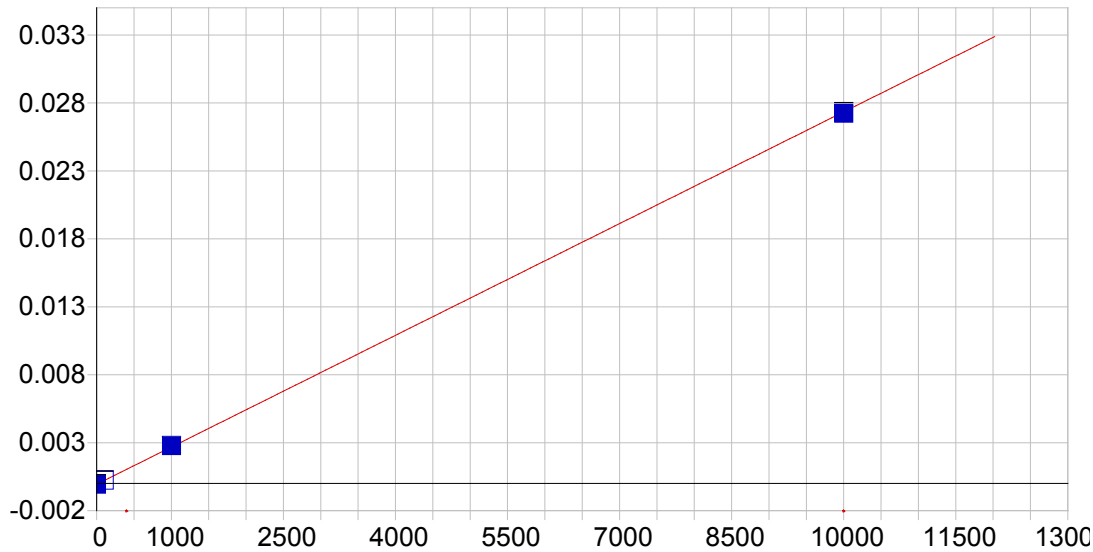


Se 196.090 {472}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000023 Re-Slope: 1.000000
 A1 (Gain): 0.000010 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999956 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 3.605151
 Predicted MQL: 12.017170

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00296	-.003	.000	.00002	.000	1
CalStd7=50	50.000	52.037	2.04	4.07	.00054	.000	1
CalStd9=100	1000.0	1014.9	14.9	1.49	.01014	.000	1
CalStd5=10	10.000	11.957	1.96	19.6	.00014	.000	1
CalStd8=100	100.00	104.74	4.74	4.74	.00107	.000	1
CalStd10=10	10000.	9976.3	-23.7	-.237	.09948	.001	1

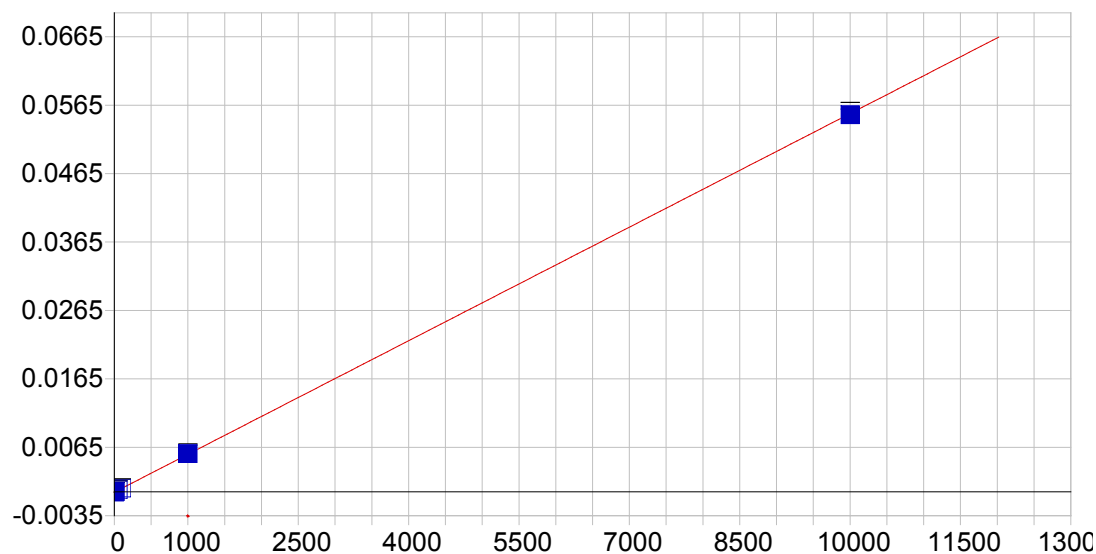


Se 206.279 {463}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000060 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999918 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 17.789619
 Predicted MQL: 59.298731

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01004	-.010	.000	-.00006	.000	1
CalStd9=100	1000.0	1034.2	34.2	3.42	.00278	.000	1
CalStd10=10	10000.	9958.8	-41.2	-.412	.02727	.000	1
CalStd8=100	100.00	107.04	7.04	7.04	.00023	.000	1

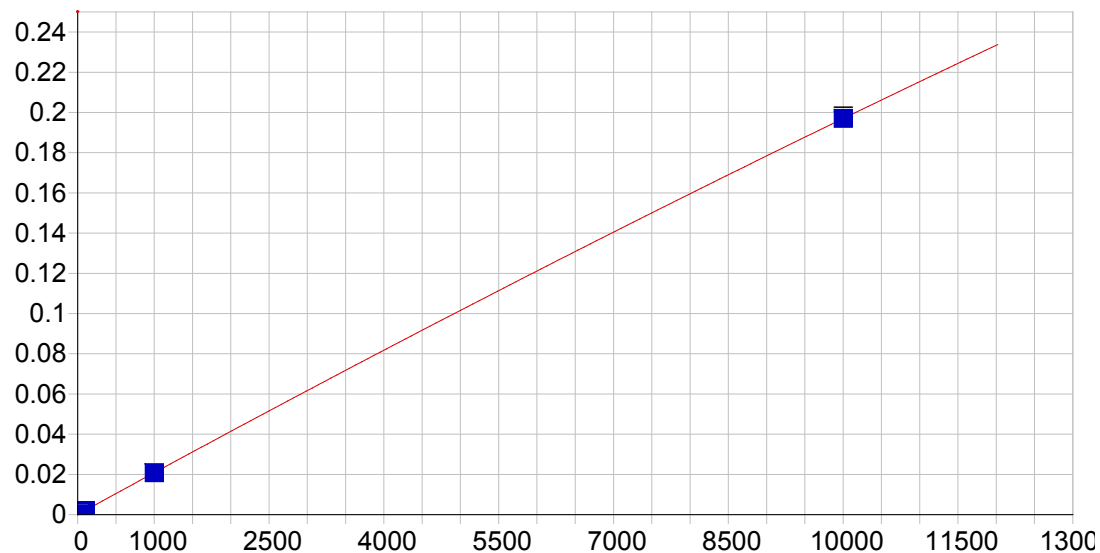


Se 196.090 {471}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000057 Re-Slope: 1.000000
 A1 (Gain): 0.000006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999879 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 6.378297
 Predicted MQL: 21.260989

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00529	-.005	.000	-.00006	.000	1
CalStd7=50	50.000	56.457	6.46	12.9	.00026	.000	1
CalStd9=100	1000.0	1014.5	14.5	1.45	.00556	.000	1
CalStd5=10	10.000	13.129	3.13	31.3	.00002	.000	1
CalStd8=100	100.00	107.60	7.60	7.60	.00054	.000	1
CalStd10=10	10000.	9968.3	-31.7	-.317	.05509	.000	1

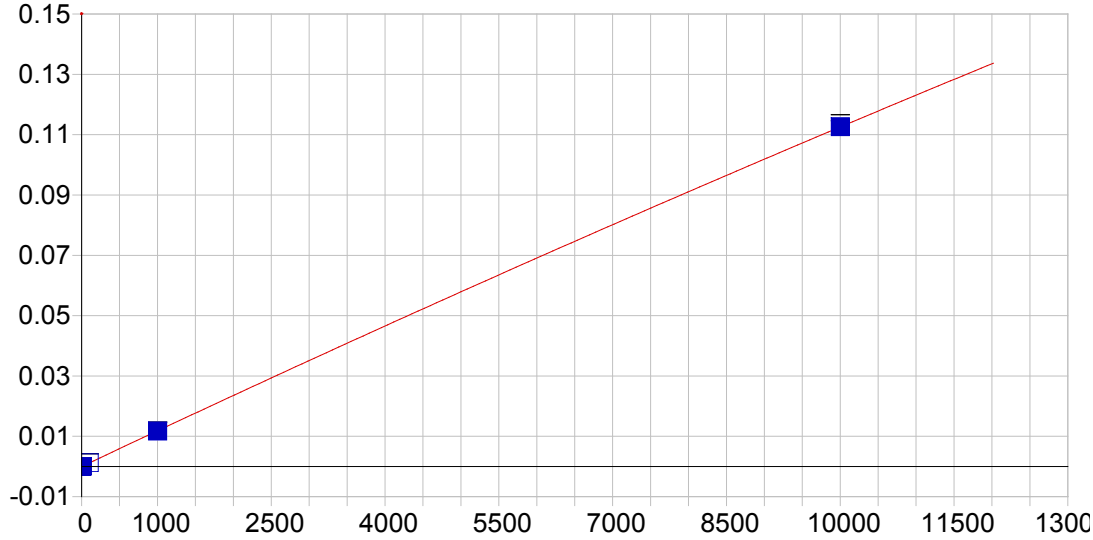


TI 190.856 {476}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000050	Re-Slope: 1.000000
A1 (Gain):	0.000021	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999985	Status: OK.
Std Error of Est:	0.000002	
Predicted MDL:	2.038796	
Predicted MQL:	6.795986	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00163	-.002	.000	.00005	.000	1
CalStd9=100	1000.0	995.24	-4.76	-.476	.02076	.000	1
CalStd8=100	100.00	102.87	2.87	2.87	.00220	.000	1
CalStd5=10	10.000	11.391	1.39	13.9	.00029	.000	1
CalStd10=10	10000.	10000.	.498	.005	.19708	.001	1

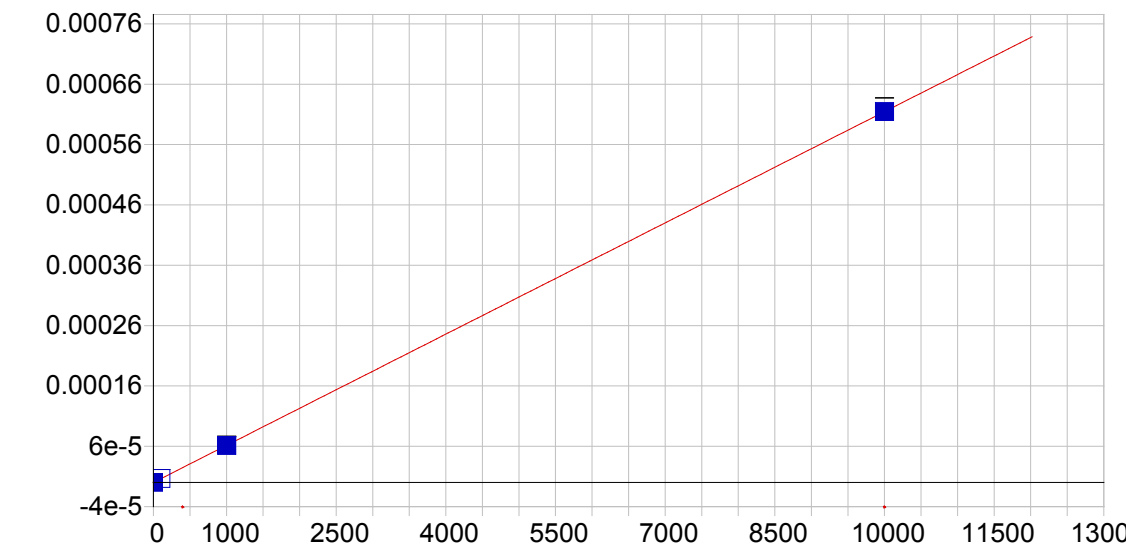


TI 190.856 {477}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): -0.000033 Re-Slope: 1.000000
A1 (Gain): 0.000012 Y-int: 0.000000
A2 (Curvature): -0.000000
n (Exponent): 1.000000
Correlation: 0.999921 Status: OK.
Std Error of Est: 0.000035
Predicted MDL: 3.043191
Predicted MQL: 10.143969

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.7053	-1.71	.000	-.00005	.000	1
CalStd9=100	1000.0	989.55	-10.4	-1.04	.01169	.000	1
CalStd8=100	100.00	102.47	2.47	2.47	.00119	.000	1
CalStd5=10	10.000	9.2682	-.732	-7.32	.00008	.000	1
CalStd10=10	10000.	10005.	5.44	.054	.11261	.001	1

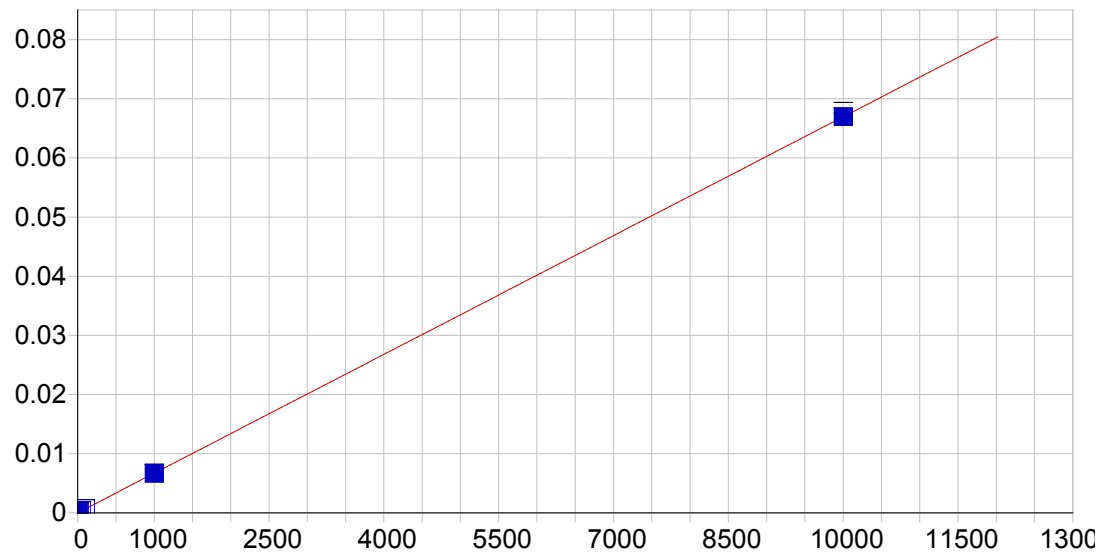


V 290.882 {116}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999987 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 9.950332
 Predicted MQL: 33.167774

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00427	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	993.64	-6.36	-.636	.00006	.000	1
CalStd10=10	10000.	10001.	1.48	.015	.00061	.000	1
CalStd8=100	100.00	104.89	4.89	4.89	.00001	.000	1

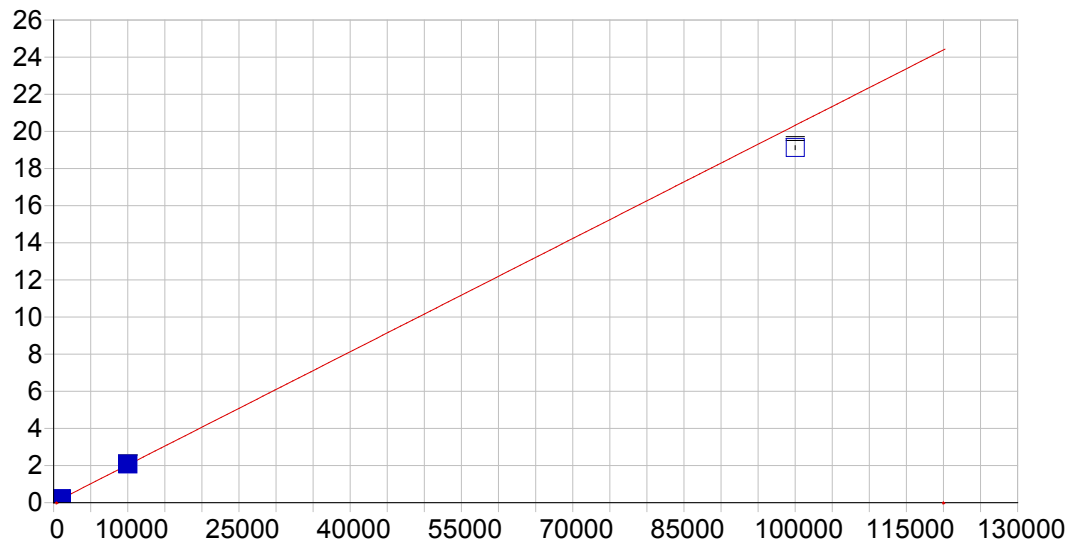


V 292.402 {115}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000007 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999952 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.439129
 Predicted MQL: 1.463765

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00268	-.003	.000	.00001	.000	1
CalStd7=50	50.000	49.998	-.002	-.005	.00034	.000	1
CalStd9=100	1000.0	991.03	-8.97	-.897	.00664	.000	1
CalStd6=20	20.000	24.334	4.33	21.7	.00017	.000	1
CalStd5=10	10.000	10.425	.425	4.25	.00008	.000	1
CalStd8=100	100.00	101.73	1.73	1.73	.00069	.000	1
CalStd10=10	10000.	10002.	2.47	.025	.06695	.001	1

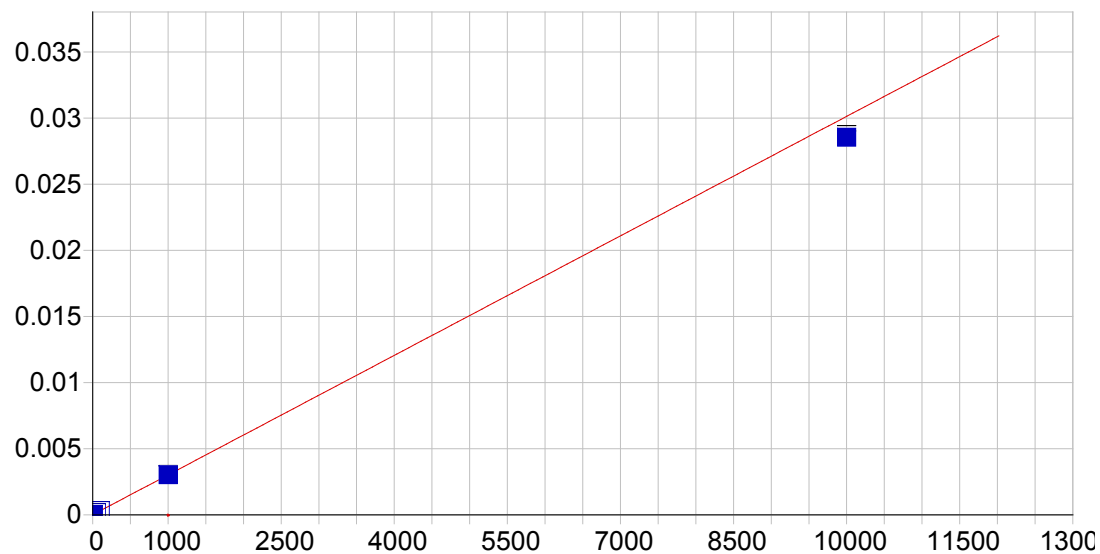


Zn 206.200 {463}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000085 Re-Slope: 1.000000
 A1 (Gain): 0.000203 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999187 Status: OK.
 Std Error of Est: 0.000721
 Predicted MDL: 0.239235
 Predicted MQL: 0.797451

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10232.	232.	2.32	2.0799	.007	1
Blank	.00000	-.01797	-.018	.000	.000008	.000	1
CalStd9=100	1000.0	1061.8	61.8	6.18	.21590	.002	1
CalStd11=100	100000.	94079.	-5920.	-5.92	19.122	.104	1

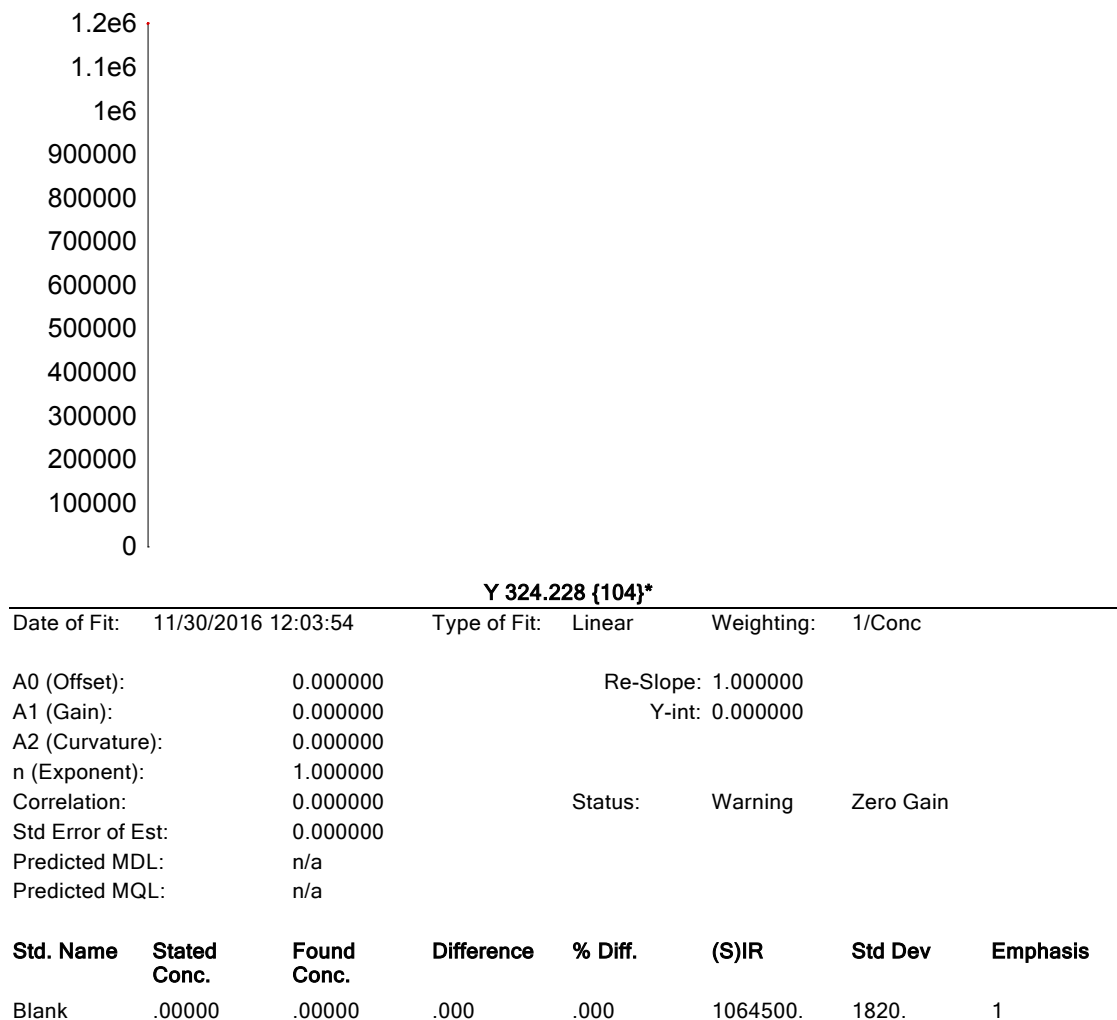


Zn 213.856 {458}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000008 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.996678 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.151765
 Predicted MQL: 0.505882

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0156	-2.02	.000	.00000	.000	1
CalStd8=100	100.00	101.40	1.40	1.40	.00031	.000	1
CalStd7=50	50.000	49.897	-.103	-.206	.00016	.000	1
CalStd5=10	10.000	8.8179	-1.18	-11.8	.00003	.000	1
CalStd9=100	1000.0	1002.4	2.44	.244	.00303	.000	1
CalStd4=5	5.0000	5.7234	.723	14.5	.00003	.000	1
CalStd10=10	10000.	9473.0	-527.	-5.27	.02855	.000	1



120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0

Y 371.030 { 91}*

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.000000 Status: Warning Zero Gain
Std Error of Est: 0.000000
Predicted MDL: n/a
Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	80687.	36800.	1

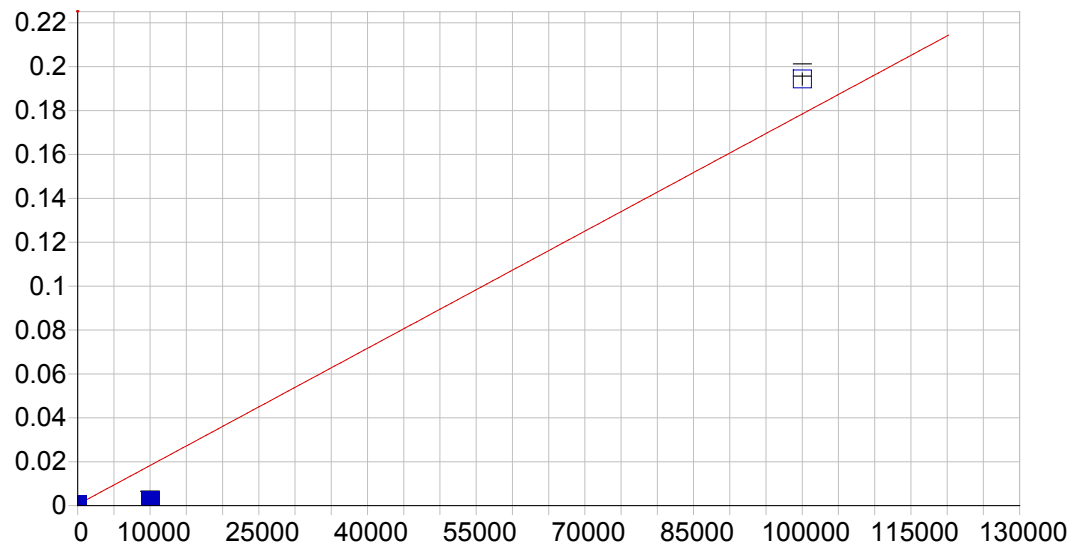
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0

Y 224.306 {451}*

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.000000 Status: Warning Zero Gain
Std Error of Est: 0.000000
Predicted MDL: n/a
Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	12634.	42.4	1

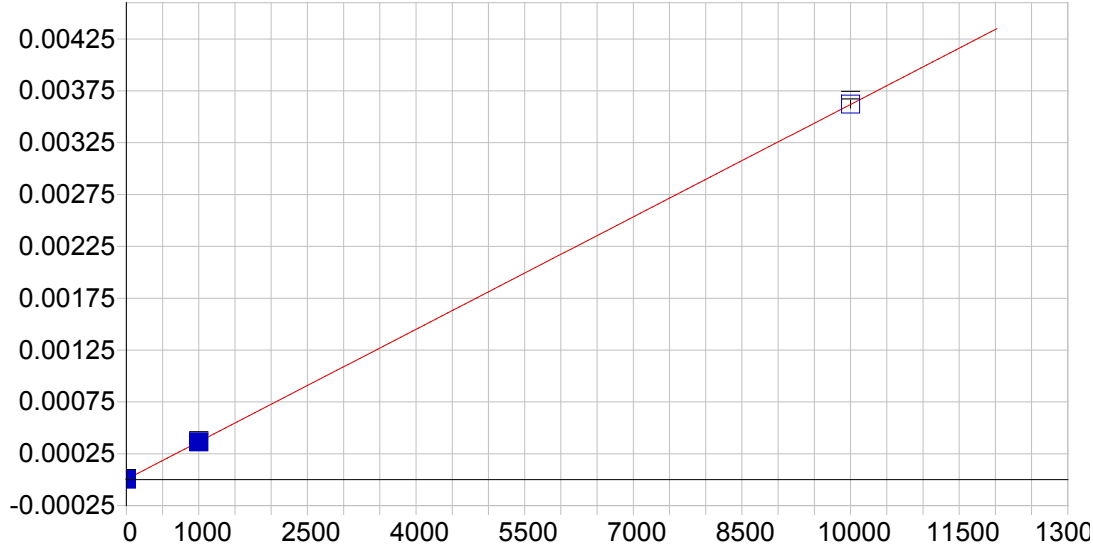


Na 588.995 { 57}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000489	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.962136	Status: OK.
Std Error of Est:	0.000915	
Predicted MDL:	3.002710	
Predicted MQL:	10.009035	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0583	8.06	.000	.00050	.000	1
CalStd9=100	10000.	1046.4	-8950.	-89.5	.00235	.000	1
CalStd12=100	100000.	108950.	8950.	8.95	.19436	.003	1

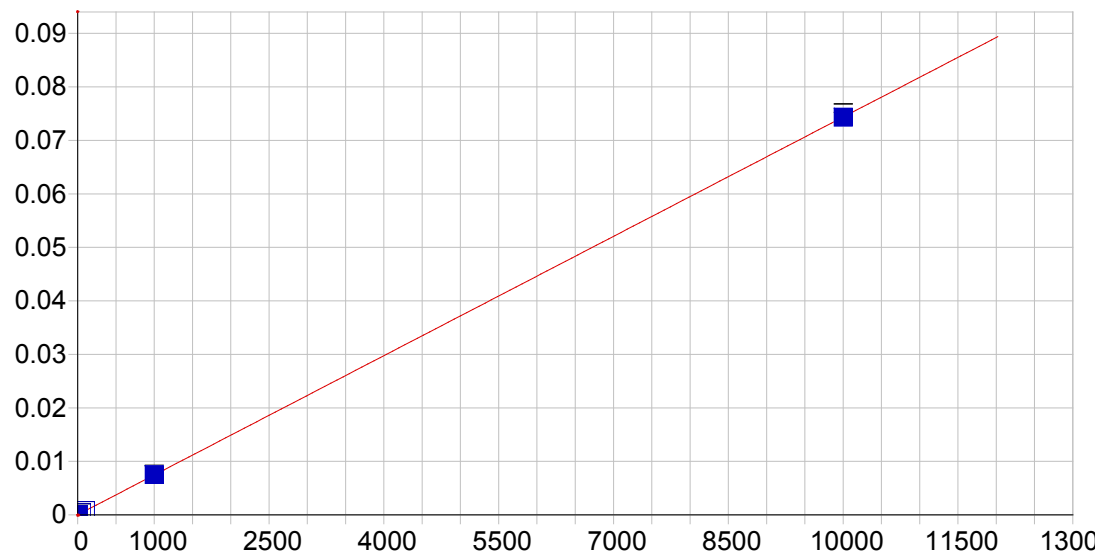


Si 251.611 {134}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	17.559718		
Predicted MQL:	58.532393		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00660	.007	.000	.00000	.000	1
CalStd9=100	1000.0	992.67	-7.33	-.733	.00036	.000	1
CalStd12=100	10000.	10007.	7.33	.073	.00362	.000	1

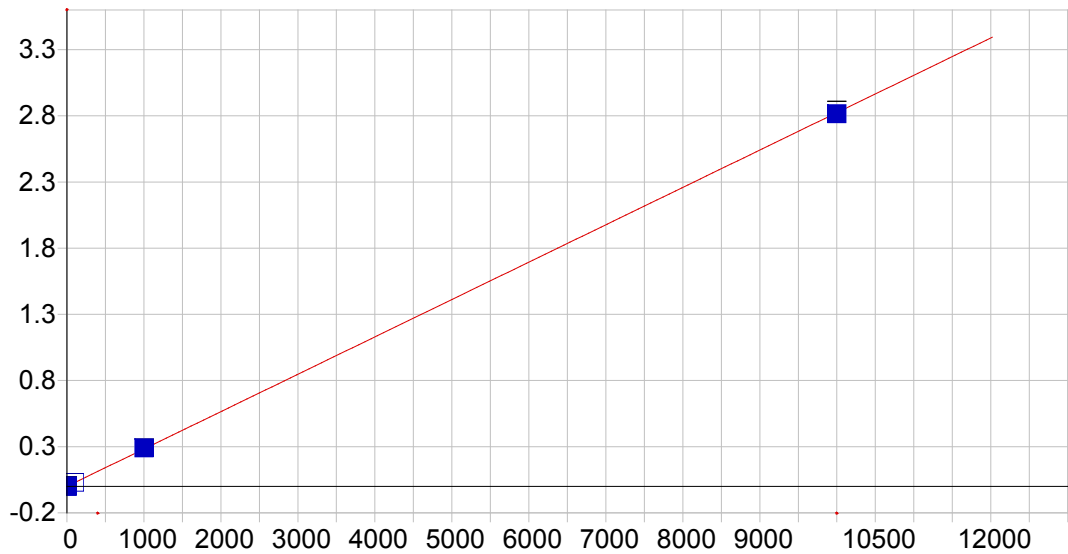


Ti 334.941 {101}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000015 Re-Slope: 1.000000
 A1 (Gain): 0.000007 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999945 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 1.284753
 Predicted MQL: 4.282510

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00257	.003	.000	.00001	.000	1
CalStd5=10	10.000	9.5727	-.427	-4.27	.00009	.000	1
CalStd8=100	100.00	101.36	1.36	1.36	.00077	.000	1
CalStd9=100	1000.0	1007.8	7.75	.775	.00751	.000	1
CalStd10=10	10000.	9994.6	-5.36	-.054	.07433	.001	1
CalStd7=50	50.000	49.041	-.959	-1.92	.00038	.000	1
CalStd4=5	5.0000	2.6338	-2.37	-47.3	.00003	.000	1

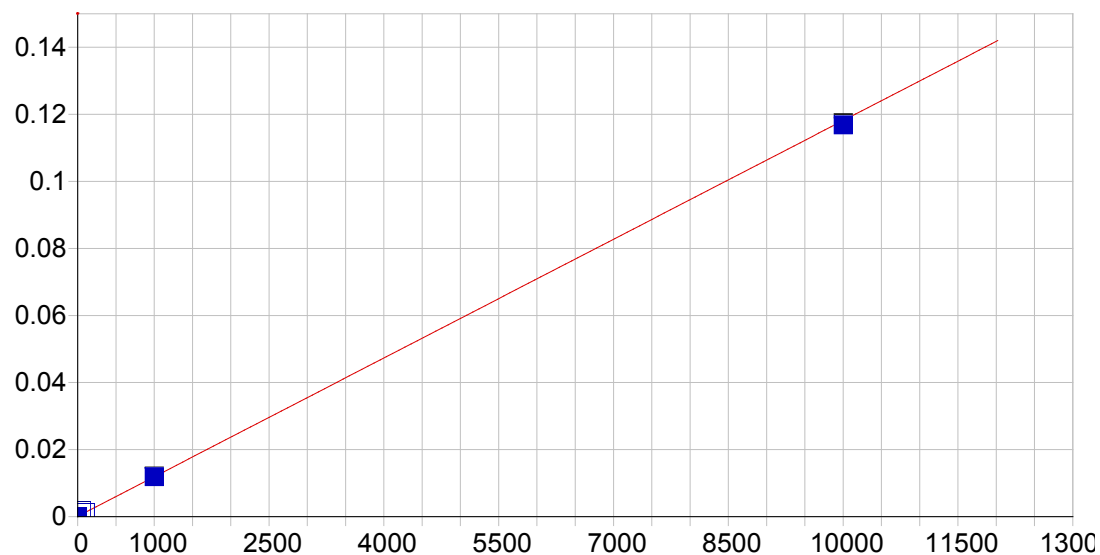


Sr 407.771 { 83}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000009	Re-Slope: 1.000000
A1 (Gain):	0.000282	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999948	Status: OK.
Std Error of Est:	0.000011	
Predicted MDL:	0.062152	
Predicted MQL:	0.207173	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00022	.000	.000	-.00001	.000	1
CalStd3=1	1.0000	1.0613	.061	6.13	.00029	.000	1
CalStd4=5	5.0000	5.1490	.149	2.98	.00145	.000	1
CalStd5=10	10.000	10.417	.417	4.17	.00293	.000	1
CalStd8=100	100.00	106.15	6.15	6.15	.02997	.000	1
CalStd9=100	1000.0	1025.4	25.4	2.54	.28957	.002	1
CalStd10=10	10000.	9967.8	-32.2	-.322	2.8150	.027	1

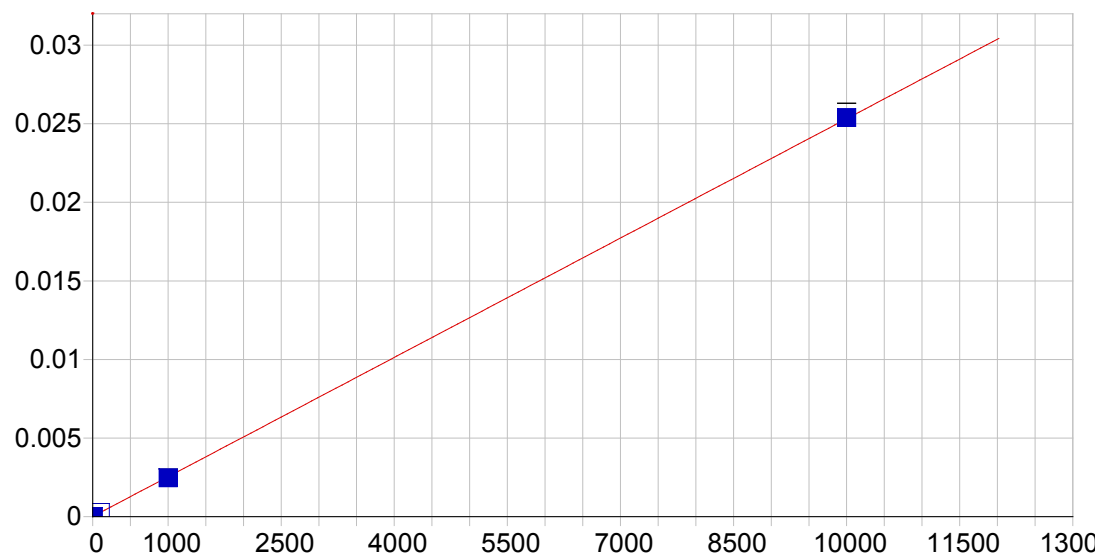


Sn 189.989 {478}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000087 Re-Slope: 1.000000
 A1 (Gain): 0.000012 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.986847 Status: OK.
 Std Error of Est: 0.000290
 Predicted MDL: 2.183641
 Predicted MQL: 7.278803

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.7471	-4.75	.000	.00003	.000	1
CalStd10=10	10000.	9887.8	-112.	-1.12	.11683	.001	1
CalStd9=100	1000.0	998.72	-1.28	-.128	.01188	.000	1
CalStd8=100	100.00	98.532	-1.47	-1.47	.00125	.000	1
CalStd7=50	50.000	152.62	103.	205.	.00189	.000	1

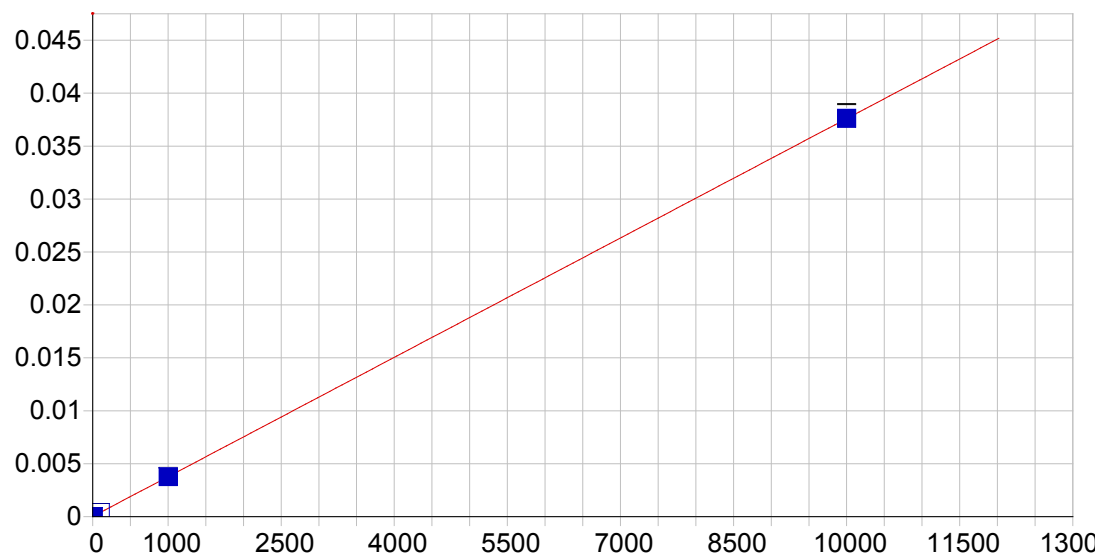


B 249.678 {135}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000006	Re-Slope: 1.000000
A1 (Gain):	0.000003	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999952	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.895772	
Predicted MQL:	2.985907	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00091	.001	.000	.00001	.000	1
CalStd8=100	100.00	101.98	1.98	1.98	.00026	.000	1
CalStd5=10	10.000	9.1646	-.835	-8.35	.00003	.000	1
CalStd9=100	1000.0	970.28	-29.7	-2.97	.00246	.000	1
CalStd10=10	10000.	10029.	28.6	.286	.02539	.000	1

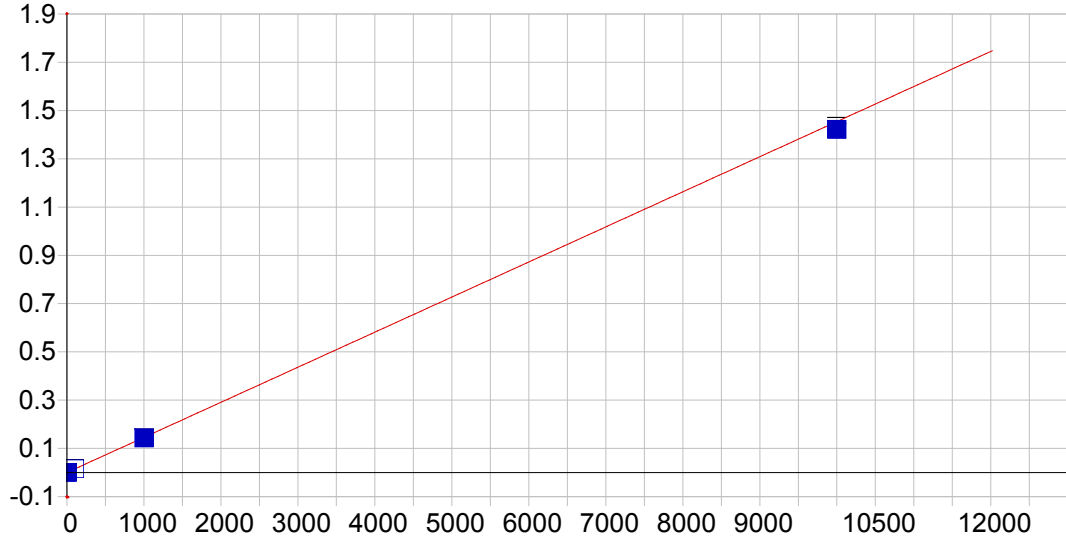


B 249.773 {135}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000013 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999986 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.577073
 Predicted MQL: 1.923576

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00128	.001	.000	.00001	.000	1
CalStd8=100	100.00	102.81	2.81	2.81	.00040	.000	1
CalStd5=10	10.000	8.4729	-1.53	-15.3	.00005	.000	1
CalStd9=100	1000.0	996.69	-3.31	-.331	.00377	.000	1
CalStd10=10	10000.	10002.	2.03	.020	.03769	.000	1

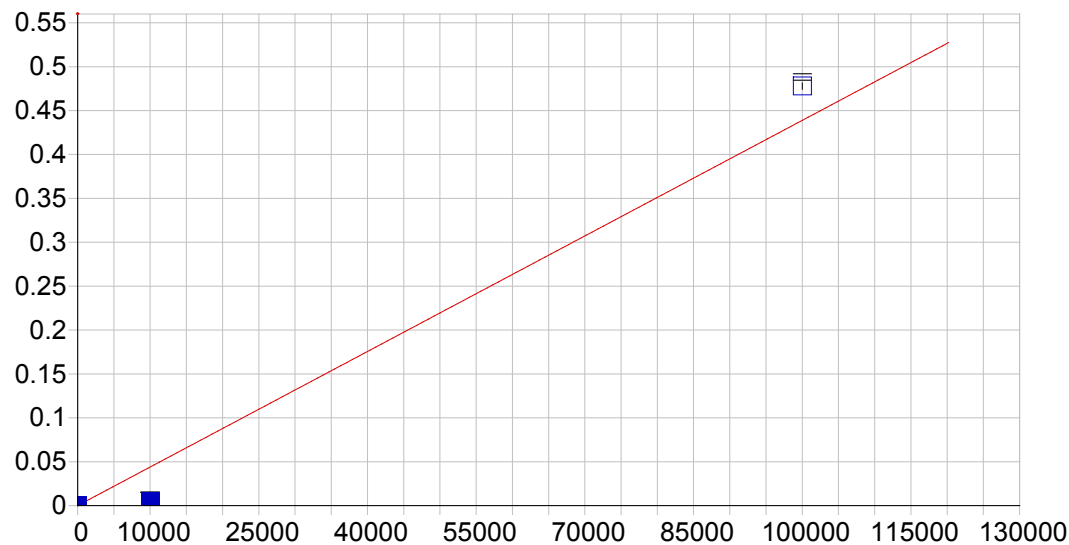


Li 670.784 { 50}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000145	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999707	Status:	OK.
Std Error of Est:	0.000201		
Predicted MDL:	0.438744		
Predicted MQL:	1.462480		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.41701	-.417	.000	-.00002	.000	1
CalStd5=10	10.000	10.942	.942	9.42	.00164	.000	1
CalStd8=100	100.00	102.28	2.28	2.28	.01492	.000	1
CalStd9=100	1000.0	983.57	-16.4	-1.64	.14306	.001	1
CalStd10=10	10000.	9773.7	-226.	-2.26	1.4212	.013	1

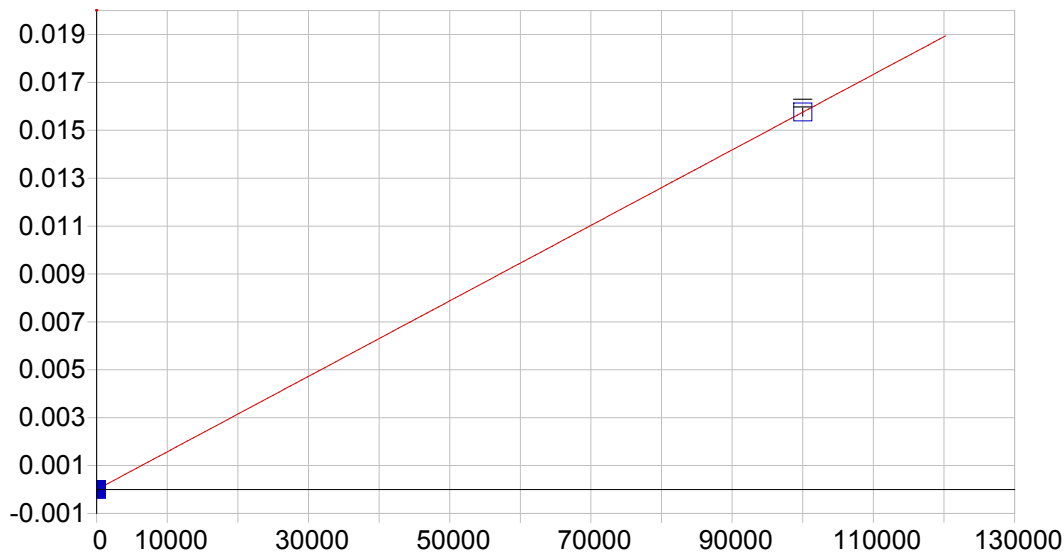


K 766.490 { 44 }

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000066	Re-Slope: 1.000000
A1 (Gain):	0.000004	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.962452	Status: OK.
Std Error of Est:	0.002246	
Predicted MDL:	15.370400	
Predicted MQL:	51.234666	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0227	8.02	.000	.00010	.000	1
CalStd9=100	10000.	1086.0	-8910.	-89.1	.00483	.000	1
CalStd12=100	100000.	108910.	8910.	8.91	.47794	.004	1

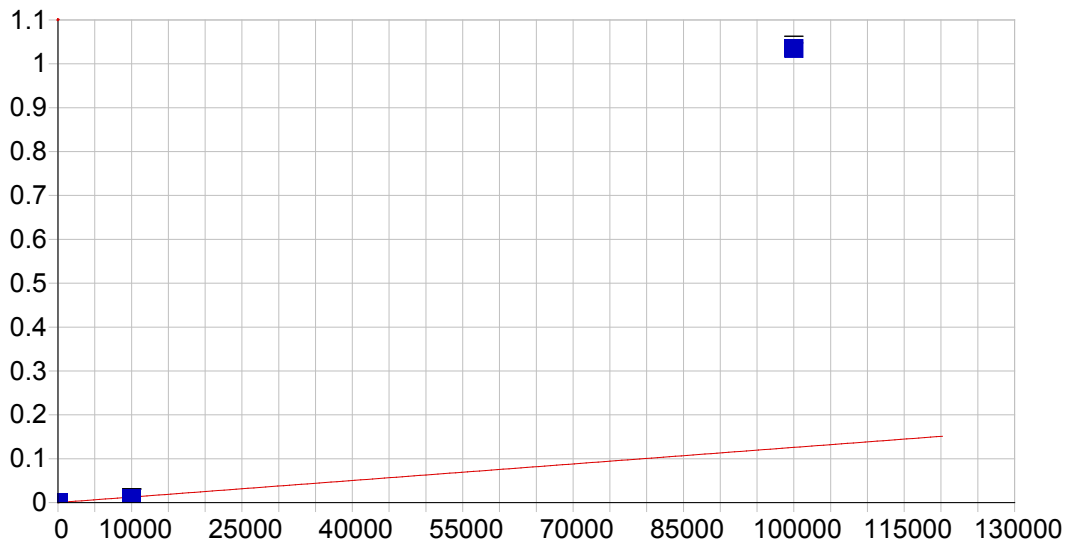


P 213.618 {457}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 3.788952
 Predicted MQL: 12.629841

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100	100000.	100000.	.000	.000	.01576	.000	1

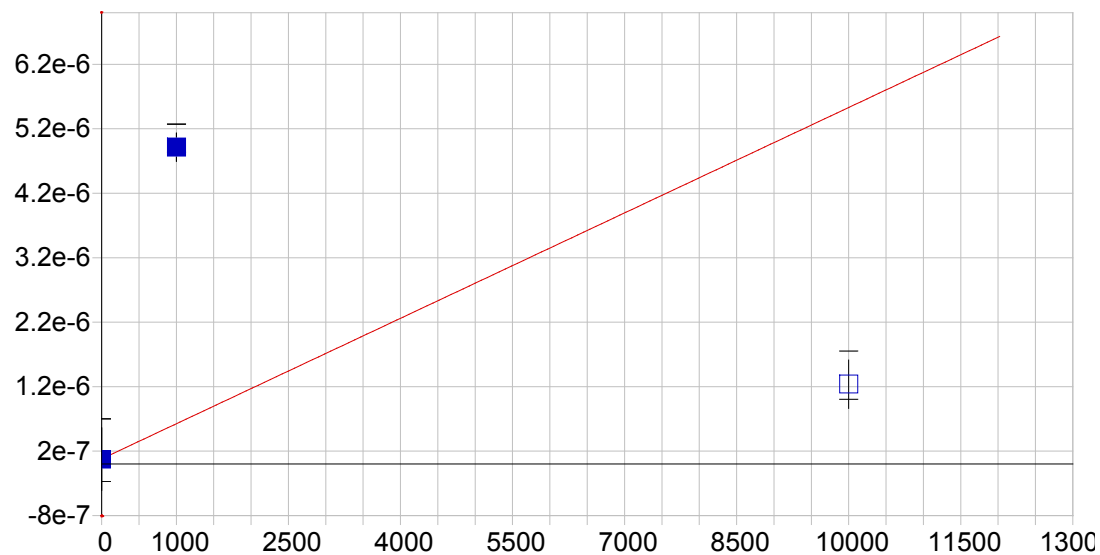


S 182.034 {485}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000068	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.647193	Status: OK.
Std Error of Est:	0.001726	
Predicted MDL:	26.760666	
Predicted MQL:	89.202220	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	7.6482	7.65	.000	.00008	.000	1
CalStd12-100 100000.		822780.	723000.	723.	1.0347	.008	1
CalStd9=100 10000.		8088.9	-1910.	-19.1	.01024	.000	1

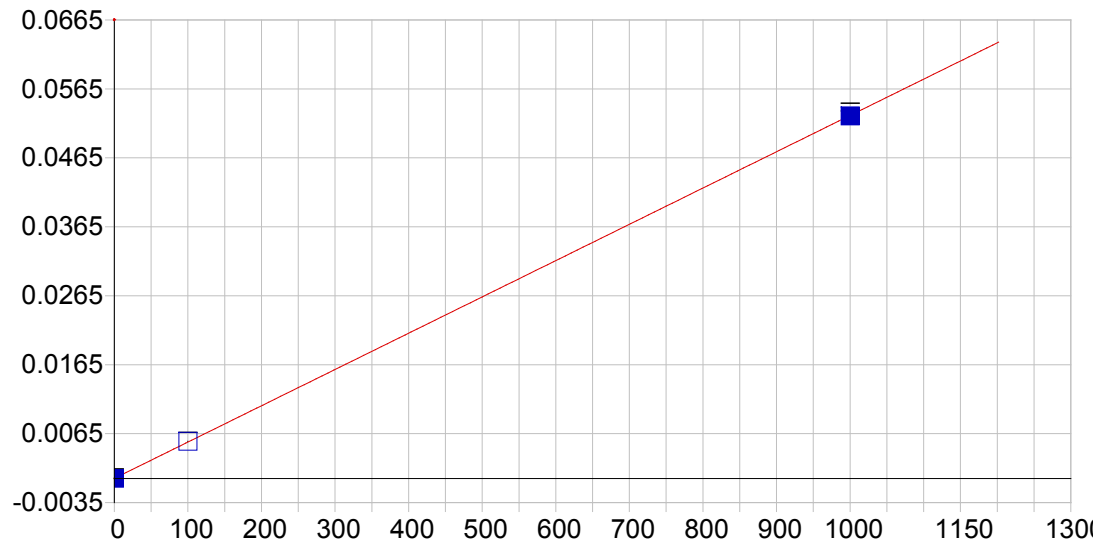


W 239.709 {140}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.372714	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1002.756007	
Predicted MQL:	3342.520025	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.0814	-7.08	.000	.00000	.000	1
CalStd9=100	1000.0	8868.8	7870.	787.	.00000	.000	1
CalStd12=100	10000.	2126.0	-7870.	-78.7	.00000	.000	1

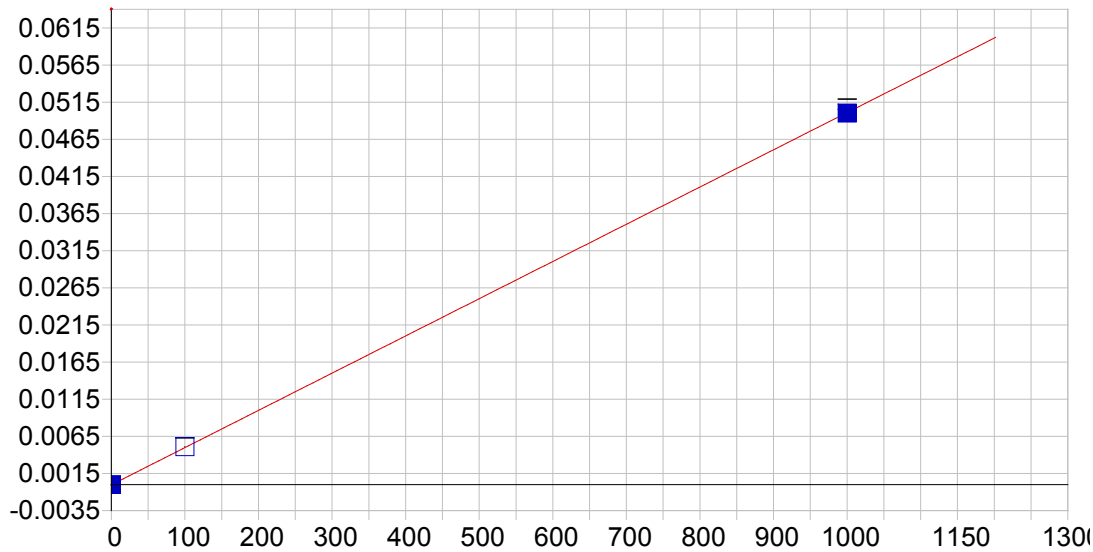


Hg 184.950 {482}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000015 Re-Slope: 1.000000
 A1 (Gain): 0.000053 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999985 Status: OK.
 Std Error of Est: 0.000005
 Predicted MDL: 0.707918
 Predicted MQL: 2.359725

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00158	-.002	.000	.00001	.000	1
CalStd8=100	100.00	101.76	1.76	1.76	.00537	.000	1
CalStd9=100	1000.0	998.24	-1.76	-.176	.05256	.001	1



Hg 194.227 {473}

Date of Fit: 11/30/2016 12:03:54 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000031	Re-Slope: 1.000000
A1 (Gain):	0.000050	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999982	Status: OK.
Std Error of Est:	0.000006	
Predicted MDL:	0.689827	
Predicted MQL:	2.299423	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00172	-.002	.000	-.00003	.000	1
CalStd8=100	100.00	101.92	1.92	1.92	.00508	.000	1
CalStd9=100	1000.0	998.08	-1.92	-.192	.05000	.001	1

Sample Name: Blank Acquired: 11/29/2016 11:52:19 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.012	.000	.000	.002	.000	.000	.000
Stddev	.000	.00	.00	.000	.000	.005	.000	.000	.002	.00	.00	.000
%RSD	551.	42.3	7.54	83.9	36.8	36.4	3.31	26.8	81.1	175.	128.	106.

Elem	Cr2055	Cr2677	Cu2247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.000	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	14.9	87.1	60.1	3.44	32.4	41.5	189.	1.38	45.4	162.	39.8	39.9

Elem	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.00	.00	.000	.00	.000	.000	.00	.00	.000	.000	.000
%RSD	138.	42.1	422.	324.	20.9	178.	19.4	60.9	54.2	35.8	44.0	14.6

Elem	Sr4077	Sn1899	B_2497
Units	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000
Stddev	.00	.000	.000
%RSD	271.	23.5	12.7

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1064500.	80687.	12634.
Stddev	1823.	36787.	42.
%RSD	.17125	45.593	.33572

Sample Name: CalStd1=0.25 Acquired: 11/29/2016 11:59:22 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	.000
Stddev	.000
%RSD	1.73

Int. Std.	Y_3242
Units	Cts/S
Avg	1041400.
Stddev	3031.
%RSD	.29109

Sample Name: CalStd2=0.5 Acquired: 11/29/2016 12:06:38 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Be3130	Cd2265
Units	Cts/S	Cts/S
Avg	.000	.000
Stddev	.000	.000
%RSD	2.42	9.04

Int. Std.	Y_3242	Y_2243
Units	Cts/S	Cts/S
Avg	1050300.	12489.
Stddev	2937.	61.
%RSD	.27960	.48756

Sample Name: CalStd3=1 Acquired: 11/29/2016 12:13:52 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cu2247	Ni2316	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	47.9	13.6	1.66	5.03	44.9	9.32	297.	65.5	6.54

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1053700.	51510.	12633.
Stddev	5784.	44.	25.
%RSD	.54895	.08446	.19461

Sample Name: CalStd4=5 Acquired: 11/29/2016 12:21:20 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1890	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.002	.001	.002	.000	.001	.011	.001	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	26.9	1.85	1.07	1.63	3.05	2.04	5.14	1.25	1.80	1.66	5.22	2.29

Elem	Pb2203	Sb2175	Zn2138	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.001
Stddev	.000	.000	.000	.000
%RSD	19.5	26.9	.547	.595

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1051600.	51283.	12534.
Stddev	4192.	122.	103.
%RSD	.39862	.23827	.82159

Sample Name: CalStd5=10 Acquired: 11/29/2016 12:28:35 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.002	.001	.003	.003	.002	.000	.001	.015	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.39	120.	2.38	.619	.553	1.11	.373	3.06	2.24	.526	.954	1.00

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.38	20.6	12.4	61.2	7.47	27.3	21.7	3.69	1.30	1.70	3.32

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1058500.	51246.	12647.
Stddev	1096.	138.	89.
%RSD	.10352	.26907	.69996

Sample Name: CalStd6=20 Acquired: 11/29/2016 12:35:47 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba2335	Cu2247	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.002	.035	.003	.000	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	1.01	1.70	.606	1.85	1.52	6.29	2.74

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1053200.	51070.	12517.
Stddev	1620.	179.	67.
%RSD	.15379	.35053	.53401

Sample Name: CalStd7=50 Acquired: 11/29/2016 12:42:55 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1937	Ba2335	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.008	.015	.014	.011	.000	.005	.070	.006	.000	.000	.001
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000
%RSD	1.83	.743	.830	.899	1.09	1.34	1.20	.998	1.16	.785	.948	5.46

Elem	Se1960	V_2924	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.000	.000	.002
Stddev	.000	.000	.000	.000
%RSD	5.12	.281	.286	1.63

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1045400.	51613.	12526.
Stddev	2989.	73.	58.
%RSD	.28589	.14227	.45985

Sample Name: CalStd8=100 Acquired: 11/29/2016 12:50:01 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.016	.034	.007	.023	.030	.028	.000	.023	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.756	1.95	3.23	.635	.222	.769	.508	.847	1.05	1.10	.635	.921

Elem	Cu2247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.010	.005	.142	.013	.000	.000	.000	.002	.004	.003	.001	.000
Stddev	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.139	.826	.666	.644	.666	.981	.829	1.66	3.25	1.20	3.68	16.6

Elem	Tl1908	V_2924	Zn2138	Sr4077	Sn1899	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.001	.000	.030	.001	.000
Stddev	.000	.000	.000	.000	.000	.000
%RSD	1.84	1.43	1.01	.581	.737	1.54

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1049200.	51705.	12439.
Stddev	8160.	89.	39.
%RSD	.77778	.17292	.31754

Sample Name: CalStd9=1000 Acquired: 11/29/2016 12:57:03 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.014	.003	.153	.184	.067	.000	.200	.294	.273	.003	.223
Stddev	.000	.000	.000	.002	.001	.000	.000	.001	.003	.003	.000	.002
%RSD	.948	.851	.653	1.20	.772	.457	1.53	.731	1.15	1.05	.543	1.11

Elem	Cr2677	Cu2247	Fe2343	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.099	.001	.000	.001	.000	.049	1.33	.000	.126	.001	.002
Stddev	.000	.001	.000	.000	.000	.000	.000	.01	.000	.002	.000	.000
%RSD	.285	1.24	.814	2.26	1.29	1.37	.600	.800	1.27	1.21	.425	.462

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.003	.021	.043	.021	.025	.010	.003	.012	.007	.216	.003	.290
Stddev	.000	.000	.001	.000	.000	.000	.000	.000	.000	.002	.000	.002
%RSD	.582	1.57	1.19	1.15	1.20	1.66	.628	1.18	.684	1.14	.632	.644

Elem	Sn1899	B_2497
Units	Cts/S	Cts/S
Avg	.012	.004
Stddev	.000	.000
%RSD	1.30	.562

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1045500.	52103.	12407.
Stddev	2098.	163.	101.
%RSD	.20070	.31318	.81282

Sample Name: CalStd10=10000 Acquired: 11/29/2016 13:03:31 Type: Cal
Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.034	.136	.025	1.66	.003	1.95	2.66	.032	2.13	.040	.948	.007
Stddev	.000	.001	.000	.02	.000	.02	.02	.000	.01	.000	.005	.000
%RSD	1.10	.698	.918	.940	1.23	.906	.748	1.22	.634	1.11	.564	1.29

Elem	Fe2395	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.012	.001	.439	12.3	.002	.007	.017	.026	.196	.419	.203
Stddev	.000	.000	.000	.004	.1	.000	.000	.000	.000	.001	.002	.002
%RSD	1.55	1.06	1.27	1.02	1.14	1.29	.748	.906	.776	.421	.489	.986

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sr4077	Sn1899	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.243	.099	.027	.113	.067	2.08	.029	2.82	.117	.038
Stddev	.002	.001	.000	.001	.001	.01	.000	.03	.001	.000
%RSD	.682	.864	.367	.882	1.33	.346	.706	.955	.478	1.24

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1006700.	51649.	12102.
Stddev	6863.	48.	62.
%RSD	.68167	.09351	.51231

Sample Name: CalStd11-100k Acquired: 11/29/2016 13:10:03 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2055	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	18.9	.020	2.00	19.1
Stddev	.1	.000	.01	.1
%RSD	.369	.539	.467	.543

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1030800.	52263.	12219.
Stddev	4912.	106.	40.
%RSD	.47650	.20214	.32744

Sample Name: CalStd12-100000 Acquired: 11/29/2016 13:17:14 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.345	.033	.002	.114	.007
Stddev	.002	.000	.000	.001	.000
%RSD	.649	1.17	1.59	.848	1.18

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	983620.	51001.	11699.
Stddev	11950.	378.	55.
%RSD	1.2149	.74078	.47271

Sample Name: CalStd13=500000 Acquired: 11/29/2016 13:24:35 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.75	.165	.232	.009	.509	.033
Stddev	.01	.001	.001	.000	.003	.000
%RSD	.693	.702	.413	.884	.606	.884

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	923700.	49335.	10842.
Stddev	3177.	98.	99.
%RSD	.34392	.19896	.91271

Sample Name: CalStd14-1000k Acquired: 11/29/2016 13:32:20 Type: Cal
 Method: DOD Calibration Updated 060614(v1743) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.50	.311	.358	.016	.930	.066
Stddev	.03	.004	.005	.000	.005	.001
%RSD	.868	1.14	1.48	.770	.579	.910

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	851950.	46685.	9920.6
Stddev	5299.	117.	39.0
%RSD	.62194	.25113	.39266

Sample Name: icv Acquired: 11/29/2016 13:53:21 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388	Cr2677	Cu2247	Fe2343
Avg	48.5	11900.	2070.	2020.	48.3	10300.	48.0	522.	508.	200.	250.	5410.
Stddev	.3	243.	16.	43.	.4	218.	.2	3.	2.	1.	2.	23.
%RSD	.700	2.05	.781	2.15	.863	2.12	.387	.623	.457	.656	.618	.434

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068
Avg	5050.	4920.	9910.	494.	486.	530.	531.	504.	518.	528.	519.	506.
Stddev	109.	132.	219.	3.	6.	4.	2.	2.	3.	2.	3.	1.
%RSD	2.15	2.69	2.21	.667	1.24	.797	.424	.483	.593	.373	.507	.234

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Sb2175	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sr4077	Sn1899	B_2497
Avg	520.	2120.	2010.	507.	545.	517.	531.	527.	513.
Stddev	2.	30.	12.	4.	4.	3.	11.	4.	4.
%RSD	.340	1.40	.610	.845	.716	.499	2.10	.779	.856

Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Sample Name: icv Acquired: 11/29/2016 13:53:21 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1052600.	52726.	12550.
Stddev	3757.	345.	43.
%RSD	.35696	.65438	.34336

Sample Name: ICVLL Acquired: 11/29/2016 14:00:05 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	F 39.9	1280.	64.7	32.1	13.7	1630.	16.1	32.4	30.7	31.9	952.	928.
Stddev	.5	18.	3.1	.3	.1	27.	.2	.2	.2	.6	19.	8.
%RSD	1.35	1.42	4.77	1.01	.546	1.66	1.43	.676	.527	1.80	2.00	.853

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.0											
Range	-30.0%											

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899
Avg	1520.	31.4	31.7	33.2	32.0	65.3	64.8	57.0	32.8	31.4	33.2	150.
Stddev	19.	.2	.3	.3	1.5	1.6	2.0	1.2	.3	.3	.4	1.
%RSD	1.26	.587	.923	.866	4.70	2.43	3.09	2.05	.808	.804	1.24	.389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	B_2497
Avg	64.2
Stddev	.9
%RSD	1.44

Check ?	Chk Pass
Value	
Range	

Sample Name: ICVLL Acquired: 11/29/2016 14:00:05 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1054200.	52690.	12678.
Stddev	2156.	188.	73.
%RSD	.20450	.35636	.57308

Sample Name: icb Acquired: 11/29/2016 14:14:23 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	-.132	-.696	-1.67	-.005	.044	-7.96	-.100	-.080	-1.65	.064	-8.75	.147
Stddev	.447	7.88	2.49	.080	.018	.30	.049	.281	.36	.352	19.7	5.65
%RSD	338.	1130.	150.	1560.	40.3	3.74	49.2	352.	21.7	546.	225.	3840.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899
Avg	.512	-.083	-.153	-.082	.443	-1.50	2.52	.023	-.010	-2.33	-.011	-7.77
Stddev	.058	.036	.146	.306	.788	2.51	2.15	1.74	.217	.11	.024	1.77
%RSD	11.3	43.4	95.8	373.	178.	167.	85.1	7490.	2250.	4.72	223.	22.7

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	B_2497
Avg	-.830
Stddev	.373
%RSD	45.0

Check ? Value Range	None
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Sample Name: icb Acquired: 11/29/2016 14:14:23 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1060500.	53623.	12568.
Stddev	7901.	163.	72.
%RSD	.74503	.30379	.56992

Sample Name: MRL Acquired: 11/29/2016 14:21:38 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1045000.	54358.	12478.
Stddev	2589.	123.	47.
%RSD	.24778	.22567	.37758

Sample Name: icsa Acquired: 11/29/2016 14:28:46 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395
Avg	-.092	549000.	.002	.203	-.023	518000.	.001	-.626	-.451	-.167	501000.
Stddev	1.20	4430.	13.2	.494	.026	2760.	1.56	.173	1.34	3.11	8720.
%RSD	1310.	.807	658000.	243.	113.	.531	139000.	27.6	298.	1860.	1.74

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	462000.	529000.	-.007	-.182	-.108	-.121	.001	.001	-.321	-1.01	.224
Stddev	3940.	4080.	.129	.338	1.13	1.07	5.48	6.71	8.14	.38	.973
%RSD	.853	.772	1800.	186.	1050.	889.	649000.	633000.	2540.	37.8	434.

Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Sr4077	Sn1899	B_2497
Avg	.217	-.508	.033
Stddev	.130	3.32	8.30
%RSD	59.9	654.	25500.

Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: icsa Acquired: 11/29/2016 14:28:46 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	903440.	50966.	10551.
Stddev	8419.	99.	48.
%RSD	.93191	.19475	.45873

Sample Name: icsab Acquired: 11/29/2016 14:36:17 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388
Avg	542.	508000.	543.	528.	497.	441.	475.	484000.	451.	479.	452.
Stddev	5.	6880.	13.	8.	7.	6.	2.	7220.	7.	5.	4.
%RSD	.943	1.36	2.46	1.51	1.42	1.31	.343	1.49	1.50	1.05	.811

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Cr2055	Cr2677	Cu2247	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316
Avg	534.	465.	465.	461000.	426000.	487000.	469.	505.	502.	450.	460.
Stddev	6.	1.	6.	2210.	4100.	6440.	4.	6.	4.	3.	3.
%RSD	1.09	.314	1.35	.480	.964	1.32	.809	1.12	.886	.567	.692

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Sr4077	Sn1899	B_2497
Avg	455.	518.	544.	504.	413.	496.	455.	516.	536.	489.	547.
Stddev	4.	5.	6.	11.	11.	2.	6.	4.	6.	4.	20.
%RSD	.904	.882	1.16	2.12	2.59	.324	1.41	.735	1.21	.864	3.58

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: icsab Acquired: 11/29/2016 14:36:17 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	914010.	51494.	10636.
Stddev	4245.	265.	74.
%RSD	.46448	.51530	.69675

Sample Name: icvll ag Acquired: 11/29/2016 14:44:17 Type: Unk
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.59	92.1	-1.56	-.072	.155	2.01	-.185	.069	-1.29	-.042	513.	483.
Stddev	.18	97.1	2.26	.099	.018	4.54	.230	.213	.14	.605	623.	565.
%RSD	1.86	105.	145.	139.	11.5	226.	124.	308.	11.1	1430.	121.	117.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	6.35	-.032	.098	-.350	-1.00	-.405	1.26	-2.19	.238	-1.39	.035	-5.18
Stddev	.34	.029	.308	.231	.99	1.93	3.30	1.25	.380	.17	.042	1.25
%RSD	5.28	90.9	313.	65.9	98.7	477.	262.	57.0	160.	12.2	120.	24.1

Elem	B_2497
Units	ug/L
Avg	-1.82
Stddev	1.73
%RSD	94.6

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1063300.	56032.	12580.
Stddev	8336.	173.	57.
%RSD	.78397	.30872	.45642

Sample Name: ccv1 Acquired: 11/29/2016 15:55:48 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu2247	Fe2343	Fe2395
Avg	461.	4610.	4660.	4650.	F 446.	F 4330.	458.	4580.	4950.	4770.	4890.	4530.
Stddev	2.	39.	54.	43.	2.	29.	4.	18.	45.	40.	18.	60.
%RSD	.479	.844	1.16	.917	.549	.676	.845	.383	.905	.840	.361	1.31

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					500.	5000.						
Range					-10.4%	-10.4%						

Elem	Mg2790	Mn2576	Mo2020	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Ti1908	V_2924	Zn2062	Sr4077
Avg	F 4130.	4590.	4670.	F 4450.	4800.	4750.	4740.	4990.	4660.	4560.	4830.	4720.
Stddev	24.	34.	46.	23.	36.	45.	45.	47.	37.	14.	49.	44.
%RSD	.589	.745	.979	.524	.739	.955	.938	.939	.794	.306	1.02	.925

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value	5000.			5000.								
Range	-10.4%			-10.4%								

Elem	Sn1899	B_2497
Avg	4690.	4570.
Stddev	35.	17.
%RSD	.755	.378

Check ?	None	Chk Pass
Value		
Range		

Sample Name: ccv1 Acquired: 11/29/2016 15:55:48 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1055000.	57274.	12201.
Stddev	4817.	187.	41.
%RSD	.45660	.32588	.33445

Sample Name: ccv2 Acquired: 11/29/2016 16:02:06 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Avg	50.1	491.	494.	486.	483.	471.	48.7	488.	49.9	494.	483.	522.
Stddev	1.1	7.	6.	11.	5.	5.	.2	5.	.6	5.	1.	6.
%RSD	2.19	1.52	1.13	2.22	1.08	.961	.379	.976	1.19	1.000	.284	1.20

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Avg	461.	497.	461.	473.	477.	462.	491.	476.	460.	492.	506.	502.
Stddev	2.	6.	19.	2.	2.	9.	5.	4.	3.	4.	5.	6.
%RSD	.528	1.16	4.01	.481	.408	1.97	.947	.882	.755	.804	.914	1.17

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899	B_2497
Avg	496.	501.	480.	477.	479.	496.	491.	485.
Stddev	6.	6.	6.	4.	5.	5.	5.	3.
%RSD	1.30	1.29	1.34	.792	1.01	.966	1.05	.597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: ccv2 Acquired: 11/29/2016 16:02:06 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1057000.	57052.	12223.
Stddev	6385.	200.	53.
%RSD	.60408	.35011	.43533

Sample Name: ccb Acquired: 11/29/2016 16:08:48 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	.032	-.502	-.070	-.104	.138	-8.29	-.105	.022	-1.33	.088	-10.3	2.79
Stddev	.241	3.38	2.93	.145	.035	.39	.140	.178	.34	.317	26.1	4.18
%RSD	753.	673.	4180.	139.	25.7	4.68	133.	802.	25.7	358.	253.	150.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899
Avg	-.491	-.074	.470	-.041	-1.01	-1.15	1.51	-2.55	.073	-2.30	.240	-6.95
Stddev	.014	.039	.229	.255	1.43	.37	1.56	1.57	.275	.09	.272	1.10
%RSD	2.94	52.7	48.7	617.	142.	32.3	103.	61.3	378.	3.85	113.	15.8

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	B_2497
Avg	3.16
Stddev	.13
%RSD	4.11

Check ? Value Range	None
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Sample Name: ccb Acquired: 11/29/2016 16:08:48 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1062900.	56581.	12398.
Stddev	3723.	211.	109.
%RSD	.35024	.37308	.87597

Sample Name: 804619 Acquired: 11/29/2016 16:44:26 Type: Unk
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.51	3700.	6.70	60.1	-1.11	136000.	72.5	25.9	295.	186.	6120.
Stddev	.48	282.	2.99	1.8	.03	9950.	2.3	.6	9.	5.	176.
%RSD	31.5	7.62	44.7	2.97	2.83	7.31	3.17	2.34	2.92	2.93	2.88

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	6910.	6140.	15200.	239.	1.23	4.99	55200.	55400.	-64.3	-5.59	-3.37
Stddev	440.	464.	1170.	7.	.14	.30	1610.	1640.	2.1	2.73	1.00
%RSD	6.37	7.56	7.65	3.05	11.0	6.06	2.91	2.97	3.24	48.9	29.7

Elem	V_2924	Zn2062	Sr4077	Sn1899	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	5.44	76600.	326.	-2.37	26.5
Stddev	.52	2200.	25.	1.14	1.1
%RSD	9.61	2.87	7.52	47.9	4.12

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1024900.	56947.	11770.
Stddev	7685.	131.	15.
%RSD	.74983	.22962	.13019

Sample Name: 804624 Acquired: 11/29/2016 16:51:42 Type: Unk
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.57	7250.	3.89	84.6	-3.11	151000.	5.28	102.	332.	31.9	1050.
Stddev	.26	201.	3.36	1.2	.04	4890.	.19	1.	4.	.7	40.
%RSD	16.2	2.78	86.3	1.37	1.38	3.24	3.61	1.33	1.13	2.31	3.77

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	924.	12100.	81.5	2.05	4.01	7710.	7580.	-8.76	-1.25	-1.49	6.85
Stddev	44.	303.	.7	.19	.17	120.	108.	1.85	1.52	1.85	.29
%RSD	4.75	2.50	.840	9.26	4.12	1.56	1.42	21.1	121.	124.	4.22

Elem	Zn2062	Sr4077	Sn1899	B_2497
Units	ug/L	ug/L	ug/L	ug/L
Avg	23800.	176.	-2.29	23.7
Stddev	259.	4.	2.16	.3
%RSD	1.09	2.48	94.7	1.36

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1029500.	56186.	11830.
Stddev	5885.	682.	126.
%RSD	.57164	1.2138	1.0644

Sample Name: 804626 Acquired: 11/29/2016 16:59:02 Type: Unk
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2055	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.201	1590.	2.65	640.	814.	-1.43	64900.	17.6	125.	722.	689.	202.
Stddev	.477	77.	2.02	33.	38.	.07	2980.	1.0	7.	40.	23.	9.
%RSD	237.	4.85	76.4	5.16	4.61	4.88	4.59	5.65	5.34	5.48	3.30	4.65

Elem	Fe2395	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1610.	1420.	1700.	74.8	.370	1.88	46400.	46800.	-55.7	-1.12	-3.41	2.03
Stddev	61.	67.	123.	1.5	.337	.17	2330.	2340.	2.5	3.24	3.28	.26
%RSD	3.76	4.74	7.20	1.98	91.2	9.31	5.03	5.00	4.56	290.	96.1	12.8

Elem	Zn2062	Sr4077	Sn1899	B_2497
Units	ug/L	ug/L	ug/L	ug/L
Avg	11500.	78.0	-7.17	17.9
Stddev	601.	3.6	2.33	.8
%RSD	5.22	4.60	32.5	4.70

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1052400.	56535.	12030.
Stddev	5038.	202.	179.
%RSD	.47873	.35681	1.4845

Sample Name: ccv1 Acquired: 11/29/2016 17:28:10 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu2247	Fe2343	Mg2790
Avg	472.	4720.	4710.	4700.	456.	4560.	468.	4690.	5050.	4830.	5010.	F 4430.
Stddev	5.	65.	18.	47.	6.	44.	3.	50.	27.	35.	54.	102.
%RSD	.963	1.38	.374	1.00	1.21	.970	.540	1.07	.532	.715	1.08	2.31

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value												5000.
Range												-10.4%

Elem	Mn2593	Mo2020	Ni2216	Pb2169	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Sr4077	Sn1899
Avg	4570.	4750.	4590.	4860.	4840.	4780.	4960.	4720.	4670.	4970.	4780.	4780.
Stddev	109.	31.	43.	37.	28.	27.	33.	29.	45.	24.	49.	22.
%RSD	2.39	.644	.940	.756	.586	.568	.664	.612	.957	.473	1.01	.455

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value												
Range												

Elem	B_2497
Avg	4670.
Stddev	46.
%RSD	.986

Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 11/29/2016 17:28:10 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1053400.	55253.	12340.
Stddev	7327.	165.	89.
%RSD	.69557	.29817	.72289

Sample Name: ccv2 Acquired: 11/29/2016 17:34:27 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Avg	50.1	500.	494.	497.	487.	478.	49.4	497.	50.5	501.	486.	529.
Stddev	.4	17.	6.	12.	2.	1.	.3	1.	.2	3.	4.	3.
%RSD	.848	3.37	1.17	2.50	.508	.151	.655	.198	.426	.549	.804	.577

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2247	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Avg	470.	496.	468.	480.	480.	469.	493.	481.	474.	498.	502.	505.
Stddev	3.	3.	21.	3.	2.	6.	2.	2.	3.	2.	2.	3.
%RSD	.572	.585	4.51	.594	.317	1.20	.433	.516	.567	.494	.471	.547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2138	Sr4077	Sn1899	B_2497
Avg	499.	499.	502.	516.	485.	479.	486.	503.	493.	489.
Stddev	4.	3.	6.	13.	2.	2.	3.	1.	6.	3.
%RSD	.700	.688	1.19	2.53	.362	.518	.549	.142	1.17	.634

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ccv2 Acquired: 11/29/2016 17:34:27 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1082200.	55204.	12598.
Stddev	2858.	164.	24.
%RSD	.26407	.29707	.19139

Sample Name: ccb Acquired: 11/29/2016 17:41:09 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2395	Fe2599
Avg	.118	6.29	2.46	.089	.064	-8.04	-.195	.009	-1.59	.249	-21.2	1.29
Stddev	.333	5.75	2.42	.123	.028	.77	.107	.199	.32	.285	20.4	6.95
%RSD	282.	91.4	98.4	138.	43.7	9.60	55.0	2270.	20.2	115.	96.0	540.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4077	Sn1899
Avg	-.533	-.052	.418	.035	-.261	-.686	1.33	-.996	-.309	-2.20	.382	-5.67
Stddev	.027	.032	.218	.091	1.51	1.46	2.55	1.24	.160	.06	.596	1.52
%RSD	5.10	61.4	52.1	261.	578.	213.	192.	124.	51.7	2.86	156.	26.9

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	B_2497
Avg	2.63
Stddev	.89
%RSD	33.6

Check ? Value Range	None
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Sample Name: ccb Acquired: 11/29/2016 17:41:09 Type: QC
Method: DOD Calibration Updated 060614(v1743) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

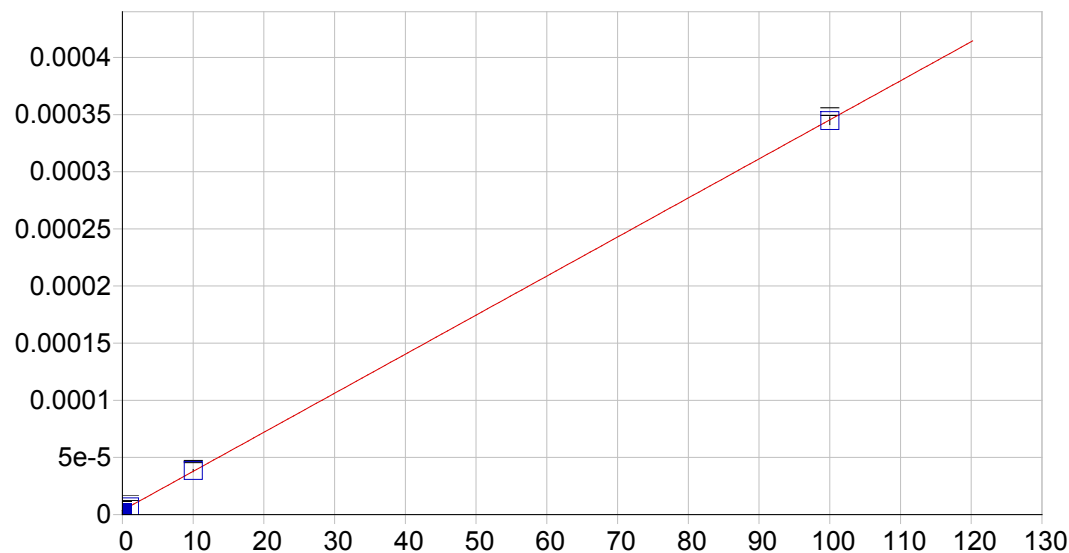
Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1081300.	54897.	12696.
Stddev	4324.	312.	62.
%RSD	.39987	.56778	.49102

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resl
														Slope
Ag 328.068 {103}	12/01/2016 12:25:17	11/30/2016 10:36:47	Linear	1/Var	0.000004	0.000003	0.000000	1.000000	0.999917	0.000001	0.666923	2.223077	OK.	1.000000
Al 309.271 {109}	12/01/2016 12:25:17	11/30/2016 11:04:40	Curvilinear	None	0.000224	0.000001	0.000000	1.000000	1.000000	0.000024	29.404240	98.014134	OK.	1.000000
Al 396.152 {85}	12/01/2016 12:25:17	11/30/2016 11:19:42	Full Fit	1/Conc	-0.000021	0.000002	0.000000	1.030000	0.999983	0.000028	16.930865	56.436216	OK.	1.000000
Al 167.079 {502}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Var	0.000202	0.000025	0.000000	1.000000	0.999997	0.000036	1.012235	3.374116	OK.	1.000000
As 193.759 {474}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Var	-0.000097	0.000017	0.000000	1.000000	0.999904	0.000035	3.386684	11.288948	OK.	1.000000
As 189.042 {479}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	0.000029	0.000003	0.000000	1.000000	0.999305	0.000001	12.631621	42.105403	OK.	1.000000
Ba 233.527 {445}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	0.000080	0.000194	0.000000	1.000000	0.999582	0.000007	0.208094	0.693648	OK.	1.000000
Ba 455.403 {74}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	None	0.000016	0.000005	0.000000	1.000000	0.999999	0.000023	0.320753	1.069178	OK.	1.000000
Ba 493.409 {68}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Var	0.015246	0.000139	0.000000	1.000000	0.999976	0.000299	0.613637	2.045456	OK.	1.000000
Be 313.042 {108}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	-0.000307	0.000052	0.000000	1.000000	0.999401	0.000001	0.069075	0.230250	OK.	1.000000
Be 234.861 {144}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999987	0.000000	4.399740	14.665801	OK.	1.000000
Ca 315.887 {107}	12/01/2016 12:25:17	11/30/2016 11:19:42	Linear	1/Var	0.000035	0.000000	0.000000	1.000000	0.999159	0.000066	23.917896	79.706319	OK.	1.000000
Ca 317.933 {106}	12/01/2016 12:25:17	11/30/2016 11:19:42	Curvilinear	1/Conc	0.001181	0.000001	0.000000	1.000000	0.999919	0.000026	6.996723	23.322411	OK.	1.000000
Ca 393.366 {86}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	0.000167	0.000015	0.000000	1.000000	0.999998	0.000001	0.068461	0.228202	OK.	1.000000
Ca 396.847 {85}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	0.001509	0.000172	0.000000	1.000000	0.999976	0.000056	0.117268	0.390894	OK.	1.000000
Cd 226.502 {449}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	0.000021	0.000523	0.000000	1.000000	0.999974	0.000003	0.134469	0.448231	OK.	1.000000
Cd 228.802 {447}	12/01/2016 12:25:17	11/30/2016 10:43:18	Linear	1/Conc	0.000219	0.000606	0.000000	1.000000	0.999990	0.000002	0.146166	0.487219	OK.	1.000000
Co 228.616 {447}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	-0.000109	0.000330	0.000000	1.000000	0.999944	0.000013	0.238876	0.796252	OK.	1.000000
Co 238.892 {141}	12/01/2016 12:25:17	11/30/2016 10:49:54	Curvilinear	1/Conc	-0.000000	0.000003	-0.000000	1.000000	0.999993	0.000001	0.597738	1.992459	OK.	1.000000
Cr 205.560 {464}	12/01/2016 12:25:17	11/30/2016 10:57:09	Linear	1/Var	0.000268	0.000245	0.000000	1.000000	0.998158	0.000997	0.203520	0.678401	OK.	1.000000
Cr 267.716 {126}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Var	0.000003	0.000004	0.000000	1.000000	0.999765	0.000004	0.606737	2.022458	OK.	1.000000
Cu 224.700 {450}	12/01/2016 12:25:17	11/30/2016 10:49:54	Curvilinear	1/Conc	-0.000064	0.000126	-0.000000	1.000000	0.999924	0.000006	0.514612	1.715375	OK.	1.000000
Cu 324.754 {104}	12/01/2016 12:25:17	11/30/2016 10:57:10	Linear	None	-0.000271	0.000003	0.000000	1.000000	0.999990	0.000711	4.439162	14.797206	OK.	1.000000
Cu 327.396 {103}	12/01/2016 12:25:17	11/30/2016 10:57:10	Curvilinear	1/Conc	-0.000048	0.000002	0.000000	1.000000	0.999957	0.000001	8.335318	27.784393	Warnin	1.000000
Fe 234.349 {144}	12/01/2016 12:25:17	11/30/2016 11:19:42	Curvilinear	1/Var	0.000019	0.000001	0.000000	1.000000	0.998991	0.000014	1.397505	4.658348	OK.	1.000000
Fe 239.562 {140}	12/01/2016 12:25:17	11/30/2016 11:19:42	Curvilinear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999998	0.000000	26.857779	89.525931	OK.	1.000000
Fe 259.940 {129}	12/01/2016 12:25:17	11/30/2016 11:19:42	Full Fit	1/Conc	0.000004	0.000001	0.000000	0.990000	0.999997	0.000004	7.656203	25.520678	OK.	1.000000
Mg 202.582 {466}	12/01/2016 12:25:17	11/30/2016 11:19:42	Curvilinear	1/Conc	-0.000138	0.000022	-0.000000	1.000000	0.999733	0.000818	2.428935	8.096452	OK.	1.000000
Mg 279.079 {121}	12/01/2016 12:25:17	11/30/2016 11:19:42	Full Fit	1/Var	-0.000001	0.000000	0.000000	1.020000	0.999984	0.000004	137.261142	457.537139	OK.	1.000000
Mg 280.270 {120}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Var	0.000104	0.000037	0.000000	1.000000	0.997482	0.000019	0.030975	0.103249	OK.	1.000000
Mn 257.610 {131}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	-0.000008	0.001386	0.000000	1.000000	0.999428	0.000405	0.090966	0.303219	OK.	1.000000
Mn 259.373 {130}	12/01/2016 12:25:17	11/30/2016 10:57:10	Linear	1/Var	0.000012	0.000006	0.000000	1.000000	0.999973	0.000011	1.477546	4.925152	OK.	1.000000
Mo 202.030 {466}	12/01/2016 12:25:17	11/30/2016 10:43:19	Linear	1/Conc	0.000031	0.000161	0.000000	1.000000	0.999643	0.000012	0.288266	0.960888	OK.	1.000000
Mo 204.598 {464}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Var	0.000000	0.000001	0.000000	1.000000	0.999939	0.000001	0.619950	2.066500	OK.	1.000000
Mo 204.598 {465}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	-0.000000	0.000001	0.000000	1.000000	0.999997	0.000000	0.712772	2.375908	OK.	1.000000
Ni 221.647 {452}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	None	0.000026	0.000002	0.000000	1.000000	0.999997	0.000037	0.346363	1.154543	OK.	1.000000
Ni 231.604 {445}	12/01/2016 12:25:17	11/30/2016 10:49:54	Linear	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.999957	0.000000	0.335494	1.118312	OK.	1.000000
Pb 216.999 {455}	12/01/2016 12:25:17	11/30/2016 10:57:10	Curvilinear	None	0.000560	0.000025	0.000000	1.000000	1.000000	0.001174	3.029474	10.098248	Warnin	1.000000
Pb 220.353 {453}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	-0.000039	0.000053	0.000000	1.000000	0.999871	0.000008	1.793380	5.977934	OK.	1.000000
Pb 220.353 {153}	12/01/2016 12:25:17	11/30/2016 10:57:10	Linear	1/Conc	0.390532	0.204228	0.000000	1.000000	0.999925	0.339052	5.387760	17.959200	OK.	1.000000
Sb 206.833 {463}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	-0.000168	0.000025	0.000000	1.000000	0.999958	0.000003	2.381882	7.939606	OK.	1.000000
Sb 217.581 {455}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	-0.000013	0.000030	0.000000	1.000000	0.999843	0.000005	2.213923	7.379744	OK.	1.000000
Se 196.090 {472}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000032	0.000012	0.000000	1.000000	0.999943	0.000002	3.834660	12.782201	OK.	1.000000
Se 206.279 {463}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000029	0.000003	0.000000	1.000000	0.999976	0.000001	18.656203	62.187342	OK.	1.000000
Se 196.090 {471}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000037	0.000012	0.000000	1.000000	0.999953	0.000002	3.732304	12.441014	OK.	1.000000
Tl 190.856 {476}	12/01/2016 12:25:17	11/30/2016 10:49:55	Curvilinear	1/Conc	0.000101	0.000026	-0.000000	1.000000	0.999986	0.000002	2.112010	7.040035	OK.	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Res Slope
Tl 190.856 {477}	12/01/2016 12:25:17	11/30/2016 10:49:55	Curvilinear	1/Conc	-0.000062	0.000015	-0.000000	1.000000	0.999985	0.000001	3.217236	10.724121	OK.	1.000000
V 290.882 {116}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	0.999931	0.000000	11.121097	37.070325	OK.	1.000000
V 292.402 {115}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Var	0.000008	0.000009	0.000000	1.000000	0.999516	0.000012	0.357444	1.191481	OK.	1.000000
Zn 206.200 {463}	12/01/2016 12:25:17	11/30/2016 10:57:10	Linear	1/Var	-0.000024	0.000249	0.000000	1.000000	0.999947	0.000628	0.255814	0.852713	OK.	1.000000
Zn 213.856 {458}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Var	0.000004	0.000003	0.000000	1.000000	0.998764	0.000005	0.162740	0.542465	OK.	1.000000
Y 324.228 {104}*	12/01/2016 12:25:17	11/30/2016 09:39:07	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 { 91}*	12/01/2016 12:25:17	11/30/2016 09:39:07	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 224.306 {451}*	12/01/2016 12:25:17	11/30/2016 09:39:07	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 588.995 { 57}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Conc	0.000437	0.000001	0.000000	1.000000	0.962045	0.000687	3.617839	12.059463	OK.	1.000000
Si 251.611 {134}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Conc	0.000007	0.000000	0.000000	1.000000	0.999999	0.000000	25.975322	86.584405	OK.	1.000000
Ti 334.941 {101}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	-0.000001	0.000007	0.000000	1.000000	0.999988	0.000000	1.887689	6.292297	OK.	1.000000
Sr 407.771 { 83}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	-0.000021	0.000246	0.000000	1.000000	0.999962	0.000008	0.093834	0.312779	OK.	1.000000
Sn 189.989 {478}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Var	0.000290	0.000014	0.000000	1.000000	0.925691	0.000665	2.353238	7.844127	OK.	1.000000
B 249.678 {135}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999983	0.000000	0.926506	3.088355	OK.	1.000000
B 249.773 {135}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	0.999994	0.000000	0.633948	2.113160	OK.	1.000000
Li 670.784 { 50}	12/01/2016 12:25:17	11/30/2016 10:49:55	Linear	1/Var	0.000051	0.000128	0.000000	1.000000	0.999958	0.000070	0.664022	2.213406	OK.	1.000000
K 766.490 { 44}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Conc	-0.000027	0.000004	0.000000	1.000000	0.962358	0.002026	22.761312	75.871041	OK.	1.000000
P 213.618 {457}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	4.040958	13.469861	OK.	1.000000
S 182.034 {485}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Var	-0.000169	0.000002	0.000000	1.000000	0.692853	0.008708	28.618570	95.395235	OK.	1.000000
W 239.709 {140}	12/01/2016 12:25:17	11/30/2016 11:04:40	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.391641	0.000000	2477.88791	8259.62636	OK.	1.000000
Hg 184.950 {482}	12/01/2016 12:25:17	11/30/2016 10:43:19	Linear	1/Conc	0.000015	0.000067	0.000000	1.000000	1.000000	0.000001	0.728403	2.428010	OK.	1.000000
Hg 194.227 {473}	12/01/2016 12:25:17	11/30/2016 10:43:20	Linear	1/Conc	-0.000013	0.000064	0.000000	1.000000	0.999999	0.000002	0.708281	2.360938	OK.	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 233.527 {445}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 205.560 {464}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {140}	0.000000	1	0
Fe 259.940 {129}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mo 202.030 {466}	0.000000	1	0
Mo 204.598 {464}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Se 196.090 {471}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0

Element, Wavelength and Order	Slope Y-int	QC Norm	
		Slope factor	Offset
Tl 190.856 {477}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 324.228 {104}*	0.000000	1	0
Y 371.030 { 91}*	0.000000	1	0
Y 224.306 {451}*	0.000000	1	0
Na 588.995 { 57}	0.000000	1	0
Si 251.611 {134}	0.000000	1	0
Ti 334.941 {101}	0.000000	1	0
Sr 407.771 { 83}	0.000000	1	0
Sn 189.989 {478}	0.000000	1	0
B 249.678 {135}	0.000000	1	0
B 249.773 {135}	0.000000	1	0
Li 670.784 { 50}	0.000000	1	0
K 766.490 { 44}	0.000000	1	0
P 213.618 {457}	0.000000	1	0
S 182.034 {485}	0.000000	1	0
W 239.709 {140}	0.000000	1	0
Hg 184.950 {482}	0.000000	1	0
Hg 194.227 {473}	0.000000	1	0

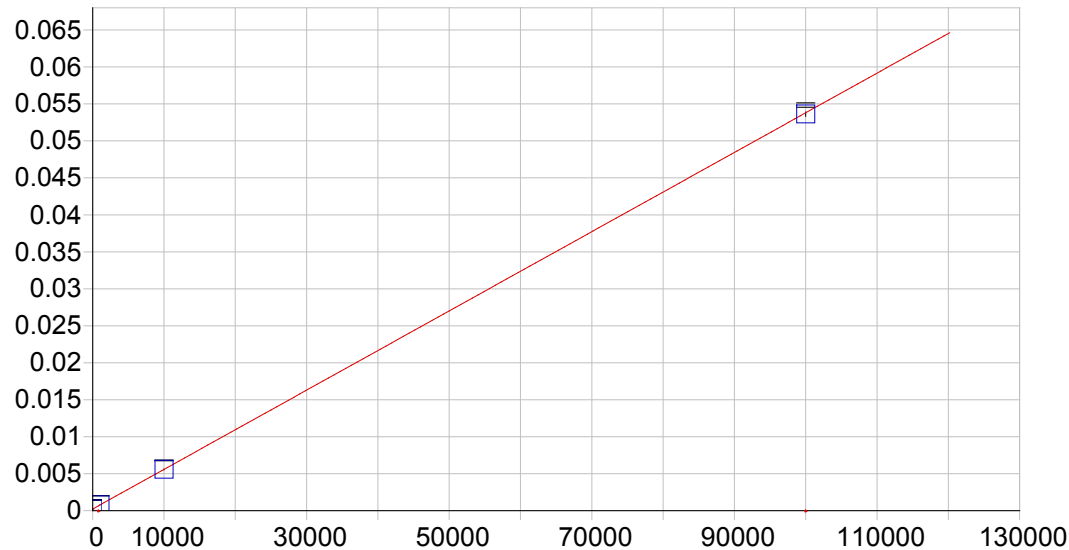


Ag 328.068 {103}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000004 Re-Slope: 1.000000
A1 (Gain): 0.000003 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999917 Status: OK.
Std Error of Est: 0.000001
Predicted MDL: 0.666923
Predicted MQL: 2.223077

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.48240	-.482	.000	.00000	.000	1
CalStd5=10	10.000	10.202	.202	2.02	.00004	.000	1
CalStd8=100	100.00	99.774	-.226	-.226	.00034	.000	1
CalStd3=1	1.0000	.90164	-.098	-9.84	.00001	.000	1

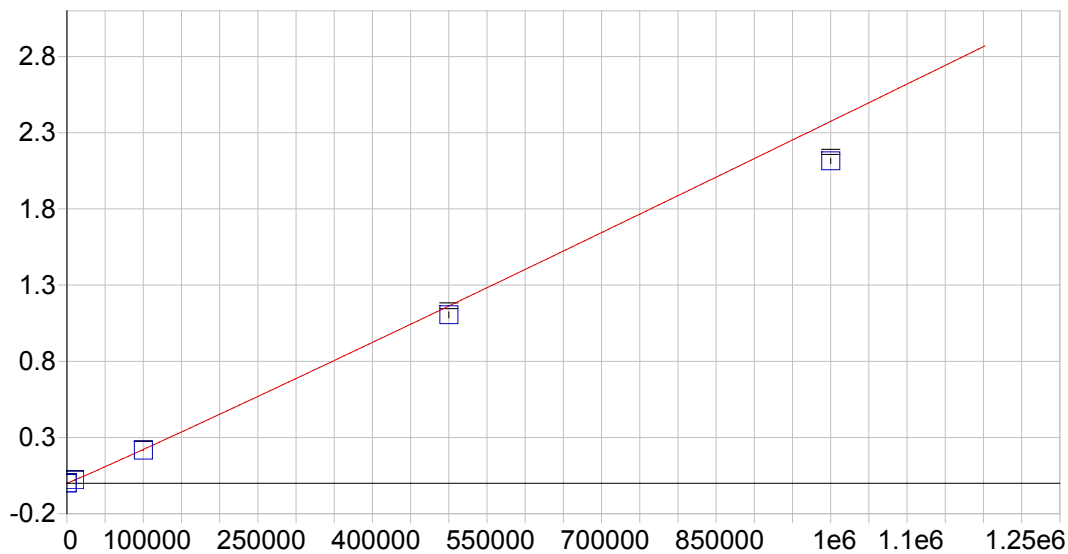


AI 309.271 {109}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: None

A0 (Offset): 0.000224 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000024
 Predicted MDL: 29.404240
 Predicted MQL: 98.014134

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-29.471	-29.5	.000	.00021	.000	1
CalStd10=10	10000.	9993.1	-6.95	-.069	.00558	.000	1
CalStd9=100	1000.0	1033.0	33.0	3.30	.00078	.000	1
CalStd12=100	100000.	99669.	-331.	-.331	.05362	.000	1

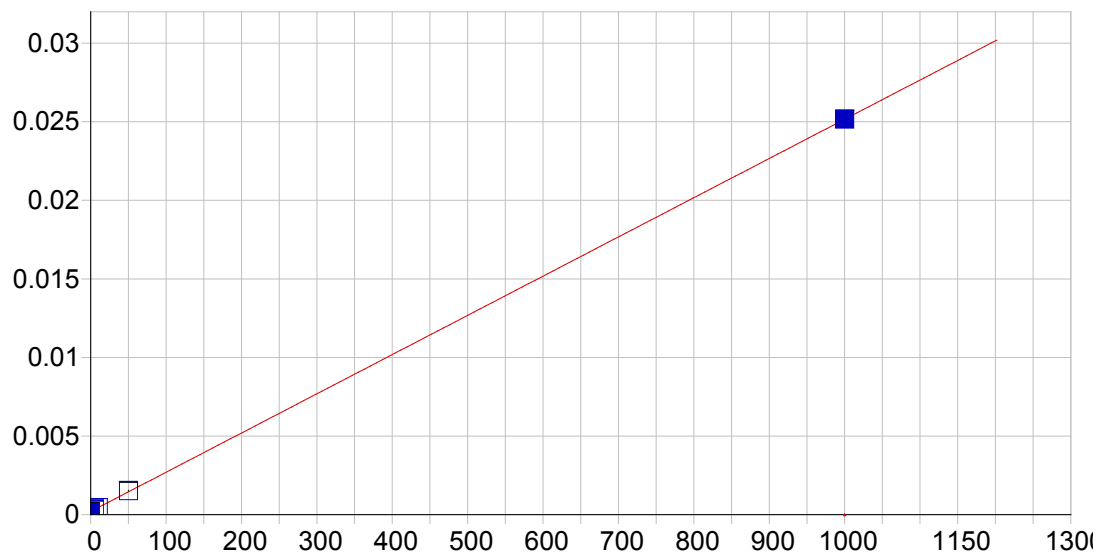


AI 396.152 { 85}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): -0.000021 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.030000
 Correlation: 0.999983 Status: OK.
 Std Error of Est: 0.000028
 Predicted MDL: 16.930865
 Predicted MQL: 56.436216

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00002	.000	1
CalStd14-100 1000000.		893770.	-106000.	-10.6	2.1152	.017	1
CalStd13=50 500000.		475640.	-24400.	-4.87	1.1046	.019	1
CalStd10=10 10000.		10348.	348.	3.48	.02140	.000	1
CalStd12-100 100000.		97641.	-2360.	-2.36	.21621	.002	1
CalStd9=100 1000.0		1137.1	137.	13.7	.00218	.000	1

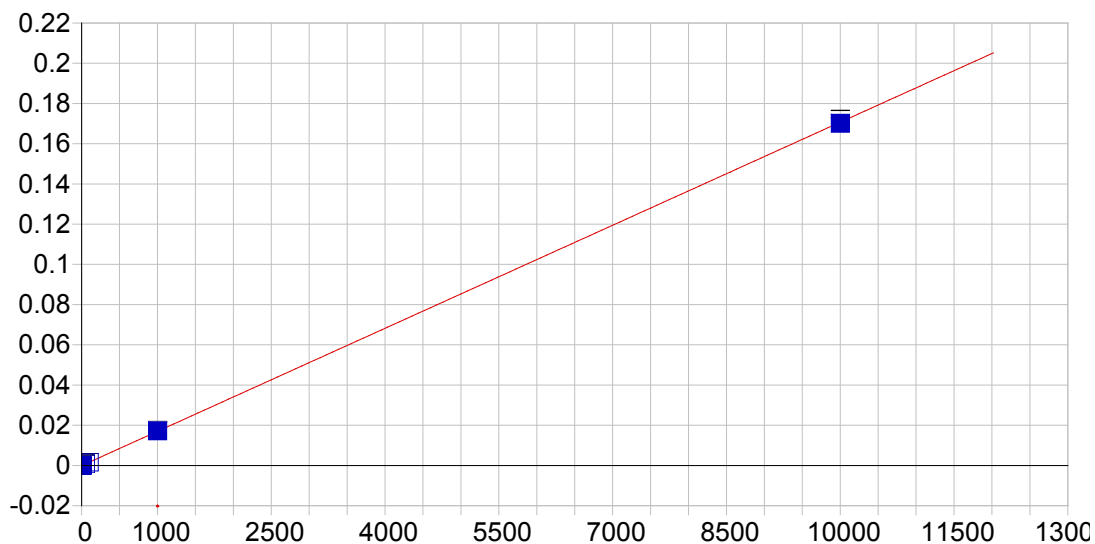


AI 167.079 {502}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000202	Re-Slope: 1.000000
A1 (Gain):	0.000025	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999997	Status: OK.
Std Error of Est:	0.000036	
Predicted MDL:	1.012235	
Predicted MQL:	3.374116	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.1954	-2.20	.000	.00015	.000	1
CalStd9=100	1000.0	999.96	-.041	-.004	.02517	.000	1
CalStd5=10	10.000	9.8905	-.110	-1.10	.00045	.000	1
CalStd4=5	5.0000	4.8302	-.170	-3.40	.00032	.000	1
CalStd7=50	50.000	52.499	2.50	5.00	.00151	.000	1

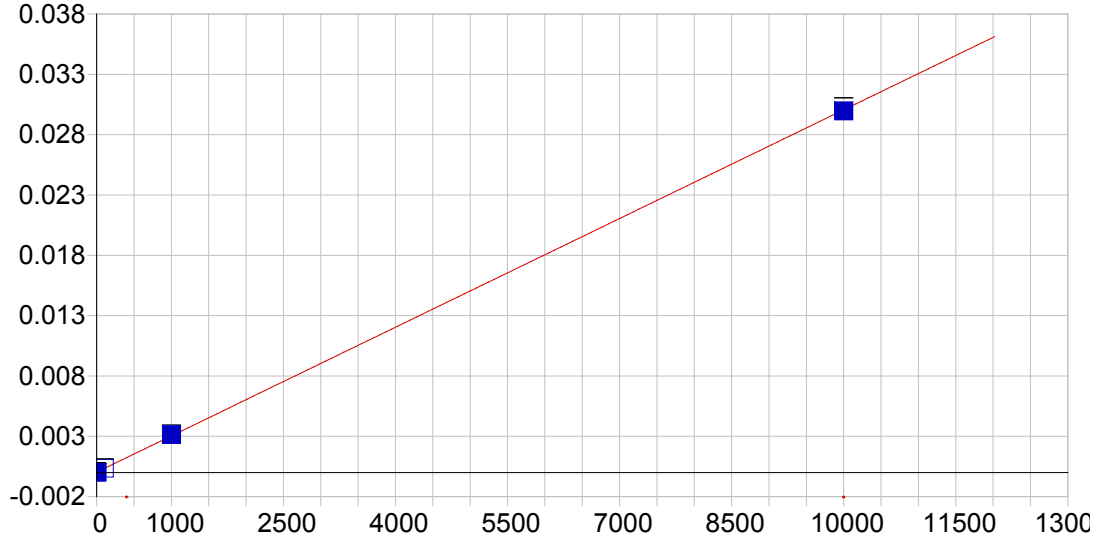


As 193.759 {474}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000097 Re-Slope: 1.000000
 A1 (Gain): 0.000017 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999904 Status: OK.
 Std Error of Est: 0.000035
 Predicted MDL: 3.386684
 Predicted MQL: 11.288948

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.1613	1.16	.000	-.00008	.000	1
CalStd9=100	1000.0	1008.8	8.83	.883	.01715	.000	1
CalStd7=50	50.000	48.100	-1.90	-3.80	.00072	.000	1
CalStd5=10	10.000	7.6589	-2.34	-23.4	.00003	.000	1
CalStd8=100	100.00	99.804	-.196	-.196	.00161	.000	1
CalStd10=10	10000.	9965.1	-34.9	-.349	.17026	.002	1

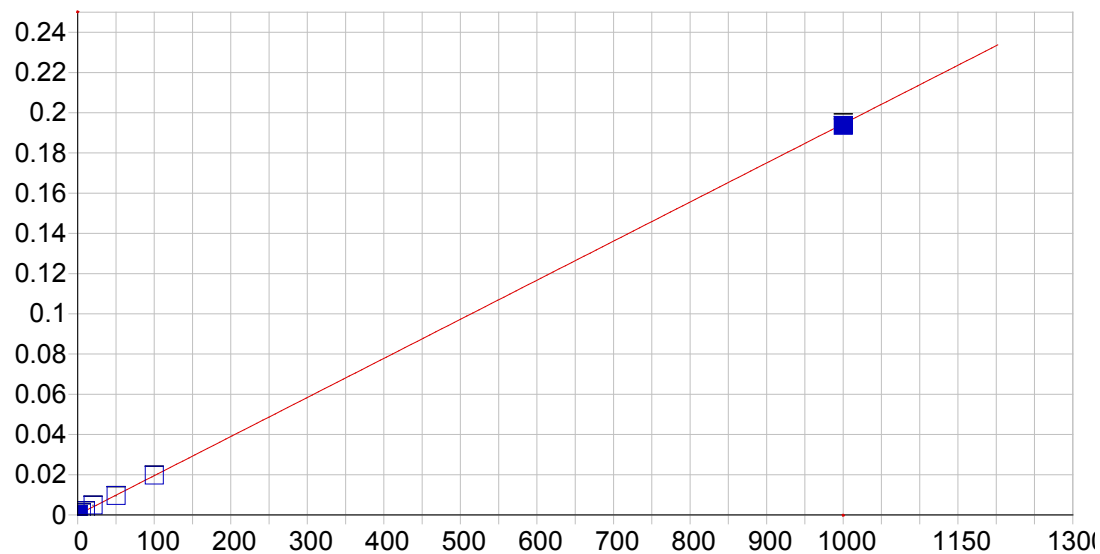


As 189.042 {479}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000029 Re-Slope: 1.000000
A1 (Gain): 0.000003 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999305 Status: OK.
Std Error of Est: 0.000001
Predicted MDL: 12.631621
Predicted MQL: 42.105403

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00775	.008	.000	.00003	.000	1
CalStd9=100	1000.0	1033.0	33.0	3.30	.00313	.000	1
CalStd10=10	10000.	9967.9	-32.1	-.321	.02996	.000	1
CalStd8=100	100.00	107.42	7.42	7.42	.00035	.000	1
CalStd4=5	5.0000	-3.2738	-8.27	-165.	.00002	.000	1

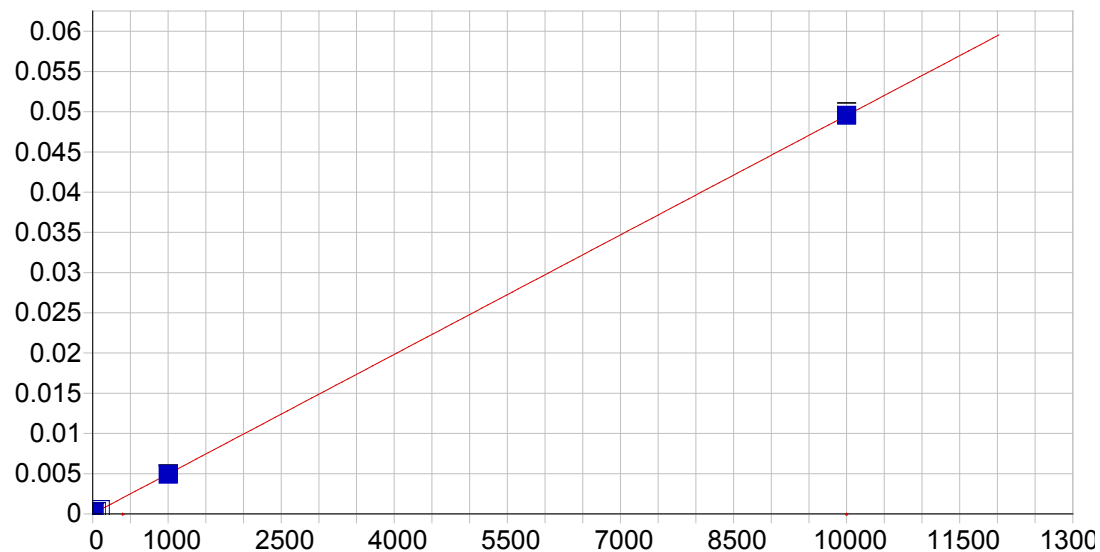


Ba 233.527 {445}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000080 Re-Slope: 1.000000
 A1 (Gain): 0.000194 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999582 Status: OK.
 Std Error of Est: 0.000007
 Predicted MDL: 0.208094
 Predicted MQL: 0.693648

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00010	.000	.000	.00008	.000	1
CalStd7=50	50.000	48.865	-1.13	-2.27	.00958	.000	1
CalStd5=10	10.000	10.161	.161	1.61	.00205	.000	1
CalStd6=20	20.000	24.301	4.30	21.5	.00480	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.01972	.000	1
CalStd4=5	5.0000	4.9232	-.077	-1.54	.00104	.000	1
CalStd9=100	1000.0	995.79	-4.21	-.421	.19365	.001	1
CalStd3=1	1.0000	.90339	-.097	-9.66	.00026	.000	1

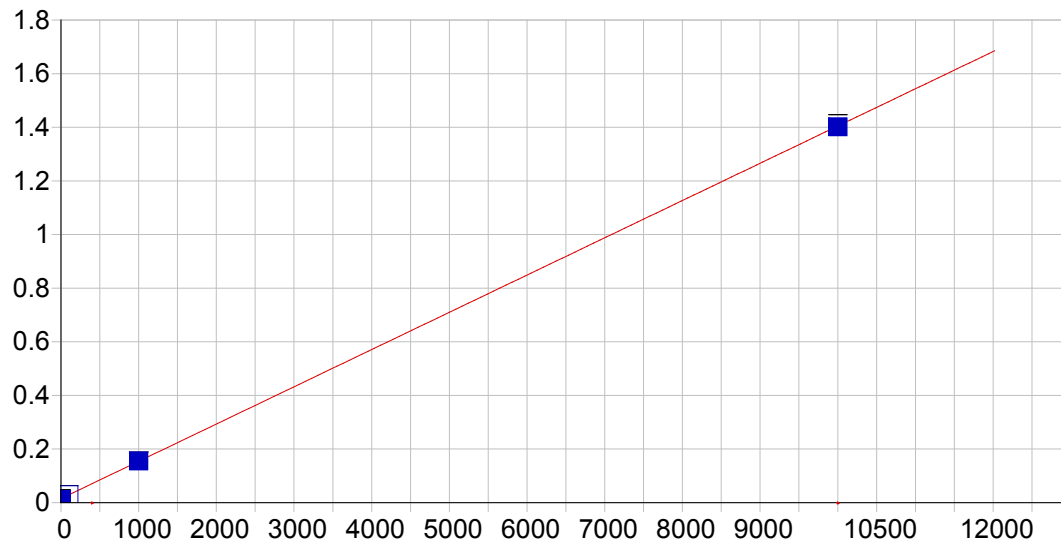


Ba 455.403 { 74}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000016 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000023
 Predicted MDL: 0.320753
 Predicted MQL: 1.069178

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.94371	.944	.000	.00002	.000	1
CalStd7=50	50.000	49.027	-.973	-1.95	.00026	.000	1
CalStd5=10	10.000	11.364	1.36	13.6	.00007	.000	1
CalStd6=20	20.000	25.615	5.62	28.1	.00014	.000	1
CalStd8=100	100.00	100.25	.245	.245	.00051	.000	1
CalStd4=5	5.0000	6.4174	1.42	28.3	.00005	.000	1
CalStd9=100	1000.0	989.19	-10.8	-1.08	.00492	.000	1
CalStd3=1	1.0000	2.1239	1.12	112.	.00003	.000	1
CalStd10=10	10000.	10001.	1.07	.011	.04955	.000	1

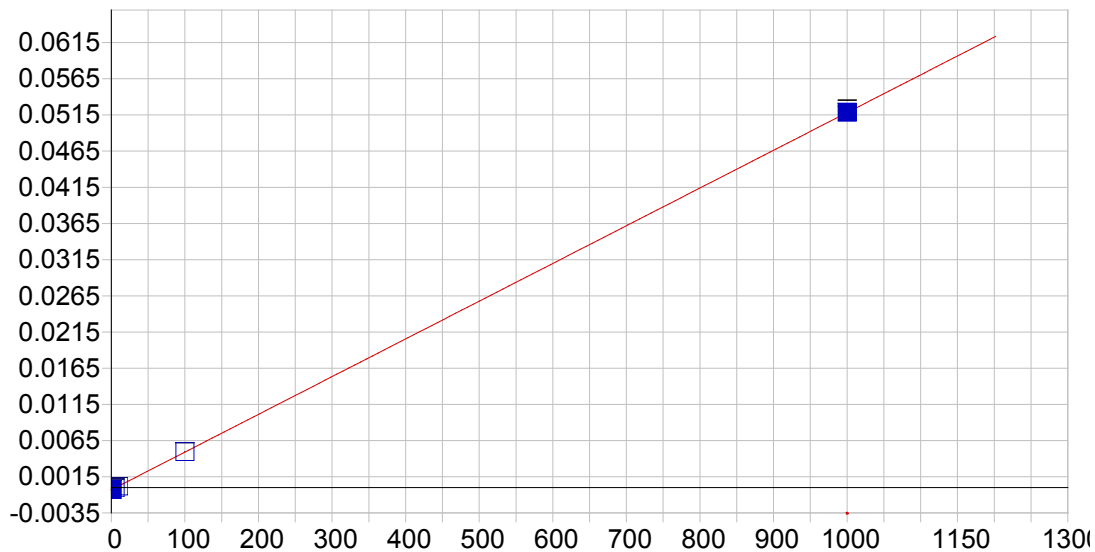


Ba 493.409 { 68 }

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.015246 Re-Slope: 1.000000
 A1 (Gain): 0.000139 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999976 Status: OK.
 Std Error of Est: 0.000299
 Predicted MDL: 0.613637
 Predicted MQL: 2.045456

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-17.309	-17.3	.000	.01284	.003	1
CalStd9=100	1000.0	1006.5	6.45	.645	.15511	.002	1
CalStd8=100	100.00	100.01	.009	.009	.02914	.000	1
CalStd10=10	10000.	9976.7	-23.3	-.233	1.4017	.012	1

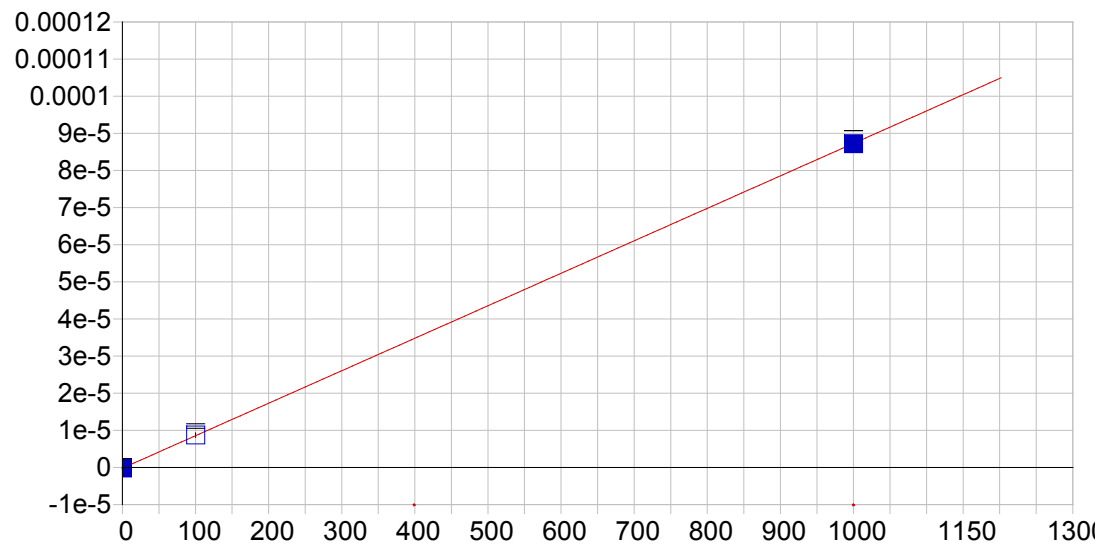


Be 313.042 {108}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000307 Re-Slope: 1.000000
 A1 (Gain): 0.000052 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999401 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.069075
 Predicted MQL: 0.230250

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00077	.001	.000	-.00031	.000	1
CalStd5=10	10.000	9.7358	-.264	-2.64	.00020	.000	1
CalStd8=100	100.00	101.12	1.12	1.12	.00497	.000	1
CalStd2=0.5	.50000	.08554	-.414	-82.9	-.00030	.000	1
CalStd4=5	5.0000	4.6827	-.317	-6.35	-.00006	.000	1
CalStd1=0.25	.25000	-.18870	-.439	-175.	-.00032	.000	1
CalStd9=100	1000.0	1000.7	.746	.075	.05187	.000	1
CalStd3=1	1.0000	.57184	-.428	-42.8	-.00028	.000	1

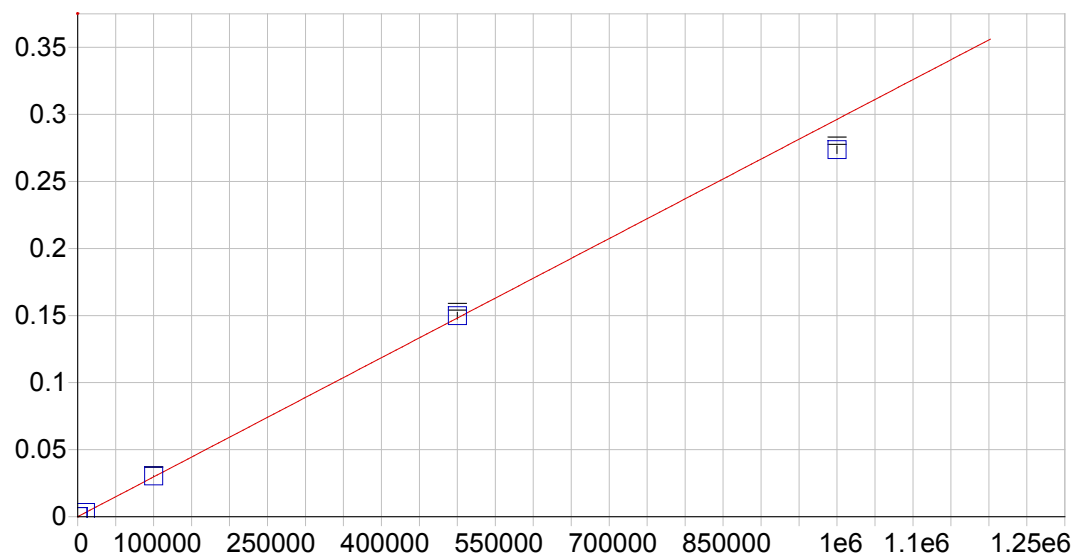


Be 234.861 {144}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999987 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 4.399740
 Predicted MQL: 14.665801

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00146	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	998.38	-1.62	-.162	.00009	.000	1
CalStd8=100	100.00	101.62	1.62	1.62	.00001	.000	1

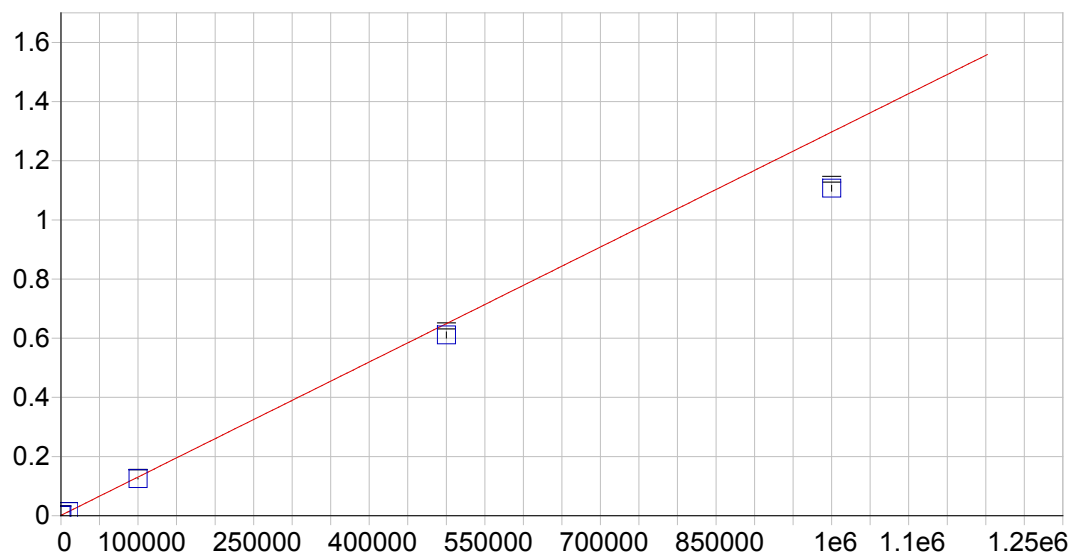


Ca 315.887 {107}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000035 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999159 Status: OK.
 Std Error of Est: 0.000066
 Predicted MDL: 23.911896
 Predicted MQL: 79.706319

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-26.413	-26.4	.000	.00003	.000	1
CalStd10=10	10000.	10280.	280.	2.80	.00308	.000	1
CalStd13=50	500000.	505450.	5450.	1.09	.14979	.002	1
CalStd14=100	1000000.	923560.	-76400.	-7.64	.27366	.003	1
CalStd9=100	1000.0	1007.8	7.82	.782	.00033	.000	1
CalStd12=100	100000.	102160.	2160.	2.16	.03030	.000	1

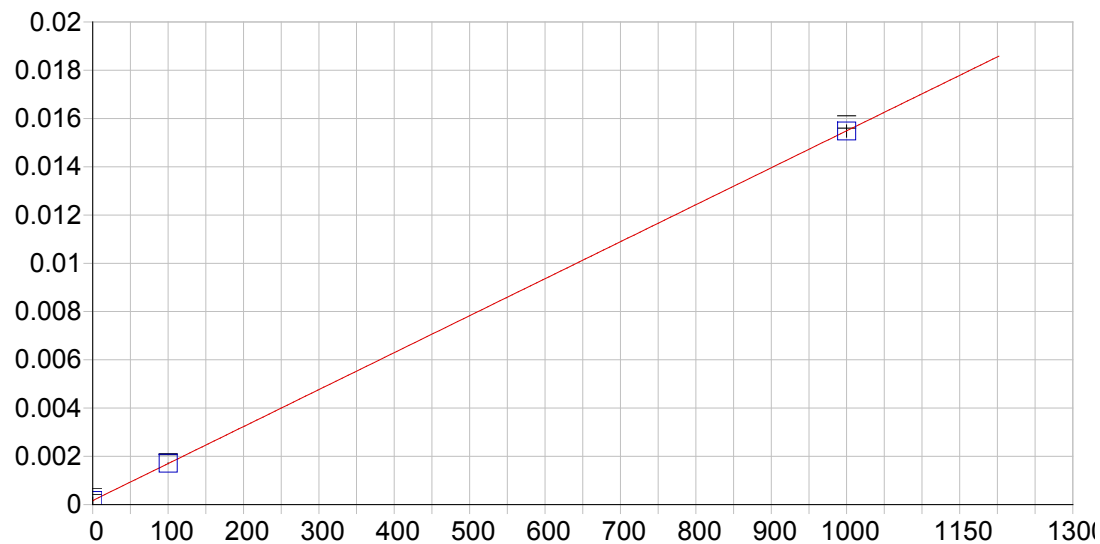


Ca 317.933 {106}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.001181 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999919 Status: OK.
 Std Error of Est: 0.000026
 Predicted MDL: 6.996723
 Predicted MQL: 23.322411

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.14971	.150	.000	.00118	.000	1
CalStd10=10 10000.		9525.2	-475.	-4.75	.01352	.000	1
CalStd13=50 500000.		470440.	-29600.	-5.91	.61084	.010	1
CalStd14=100 1000000.		853260.	-147000.	-14.7	1.1069	.010	1
CalStd9=100 1000.0		915.85	-84.2	-8.42	.00237	.000	1
CalStd12=100 100000.		95605.	-4400.	-4.40	.12508	.001	1

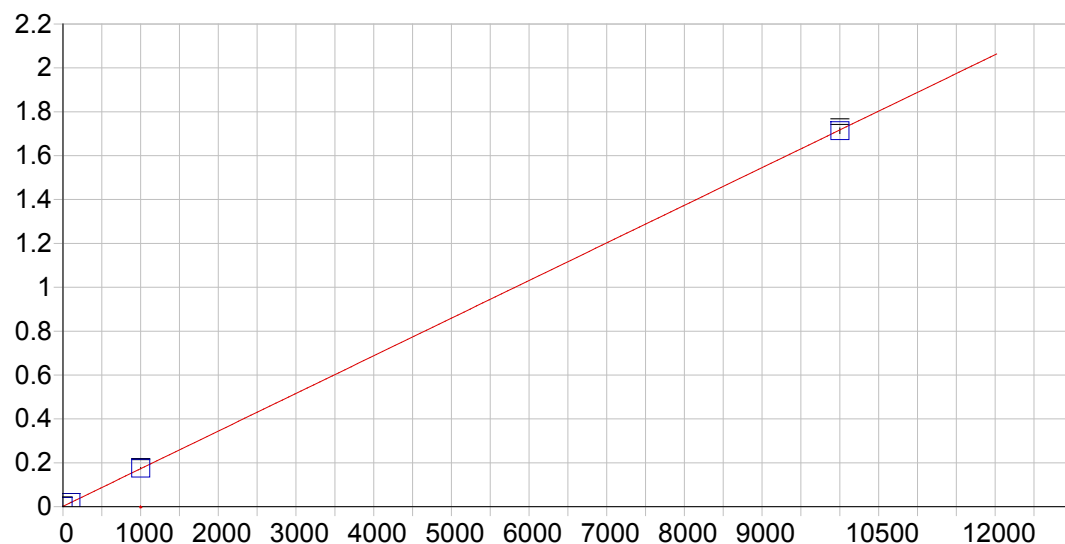


Ca 393.366 { 86}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000167 Re-Slope: 1.000000
 A1 (Gain): 0.000015 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.068461
 Predicted MQL: 0.228202

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00057	-.001	.000	.00017	.000	1
CalStd9=100	1000.0	999.37	-.630	-.063	.01548	.000	1
CalStd8=100	100.00	100.63	.630	.630	.00171	.000	1

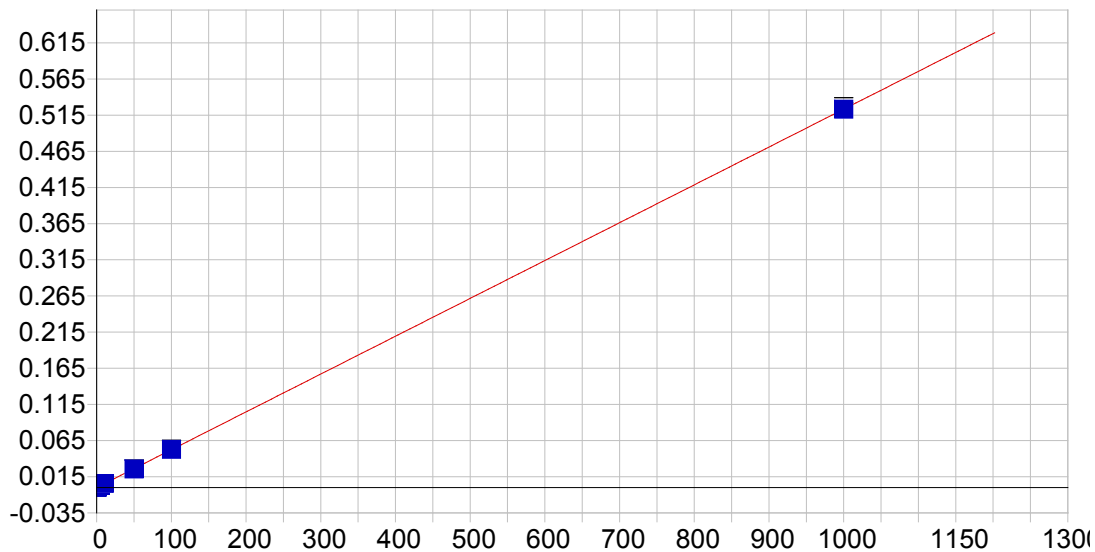


Ca 396.847 { 85}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.001509 Re-Slope: 1.000000
 A1 (Gain): 0.000172 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999976 Status: OK.
 Std Error of Est: 0.000056
 Predicted MDL: 0.117268
 Predicted MQL: 0.390894

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00682	-.007	.000	.00151	.001	1
CalStd10=10	10000.	9980.9	-19.1	-.191	1.7137	.013	1
CalStd8=100	100.00	105.67	5.67	5.67	.01964	.000	1
CalStd9=100	1000.0	1013.4	13.4	1.34	.17536	.002	1

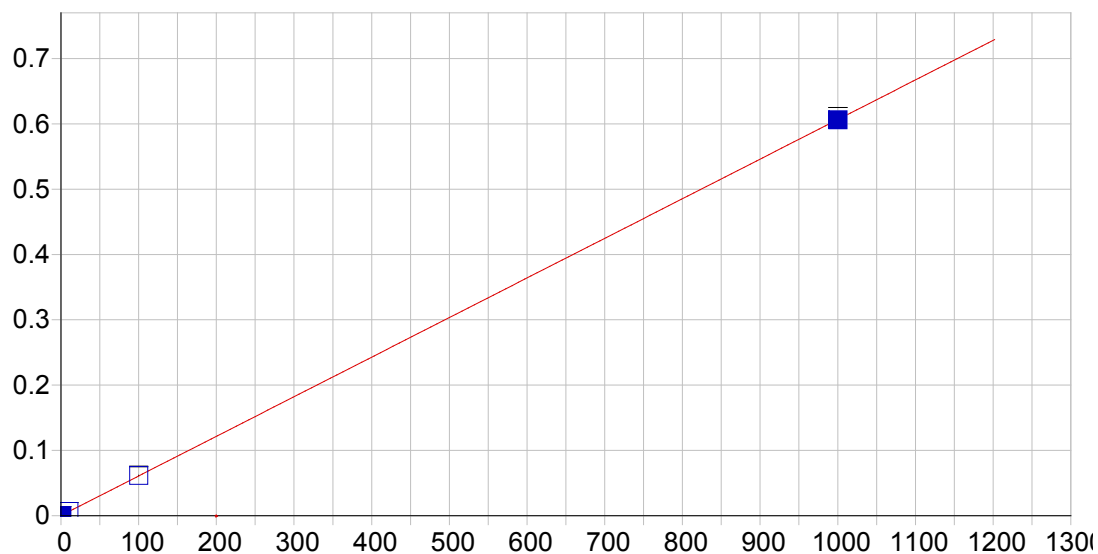


Cd 226.502 {449}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000021 Re-Slope: 1.000000
 A1 (Gain): 0.000523 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999974 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.134469
 Predicted MQL: 0.448231

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	.000	.000	.00002	.000	1
CalStd7=50	50.000	48.985	-1.01	-2.03	.02565	.000	1
CalStd3=1	1.0000	1.1178	.118	11.8	.00061	.000	1
CalStd2=0.5	.50000	.47281	-.027	-5.44	.00027	.000	1
CalStd4=5	5.0000	5.1367	.137	2.73	.00271	.000	1
CalStd8=100	100.00	100.77	.775	.775	.05275	.000	1
CalStd5=10	10.000	10.394	.394	3.94	.00546	.000	1
CalStd9=100	1000.0	999.62	-.381	-.038	.52313	.004	1

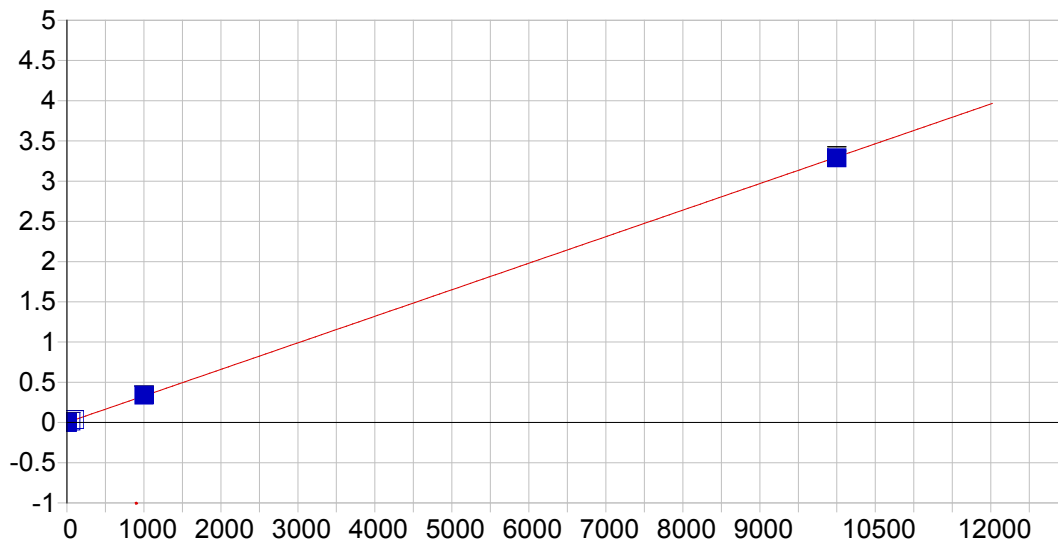


Cd 228.802 {447}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000219 Re-Slope: 1.000000
 A1 (Gain): 0.000606 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999990 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.146166
 Predicted MQL: 0.487219

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00006	.000	.000	.00022	.000	1
CalStd9=100	1000.0	998.92	-1.08	-.108	.60592	.005	1
CalStd8=100	100.00	100.98	.975	.975	.06145	.001	1
CalStd2=0.5	.50000	.44034	-.060	-11.9	.00049	.000	1
CalStd3=1	1.0000	.97687	-.023	-2.31	.00081	.000	1
CalStd5=10	10.000	10.192	.192	1.92	.00640	.000	1

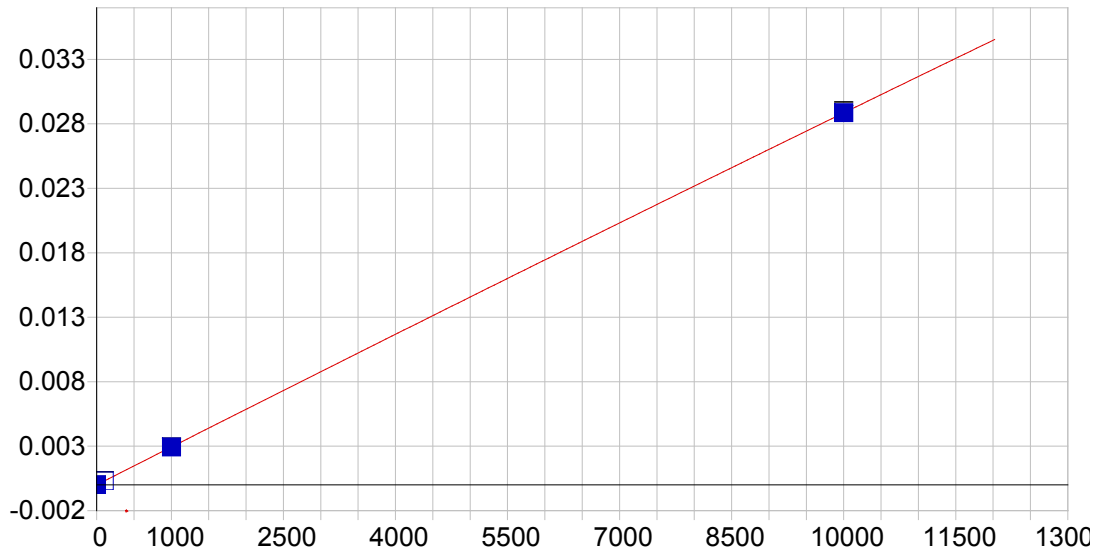


Co 228.616 {447}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000109 Re-Slope: 1.000000
 A1 (Gain): 0.000330 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999944 Status: OK.
 Std Error of Est: 0.000013
 Predicted MDL: 0.238876
 Predicted MQL: 0.796252

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00042	.000	.000	-.00011	.000	1
CalStd7=50	50.000	50.116	.116	.233	.01643	.000	1
CalStd5=10	10.000	10.698	.698	6.98	.00342	.000	1
CalStd4=5	5.0000	5.5005	.500	10.0	.00171	.000	1
CalStd8=100	100.00	104.80	4.80	4.80	.03447	.000	1
CalStd9=100	1000.0	1027.7	27.7	2.77	.33900	.003	1
CalStd3=1	1.0000	1.1760	.176	17.6	.00028	.000	1
CalStd10=10	10000.	9966.1	-33.9	-.339	3.2886	.026	1

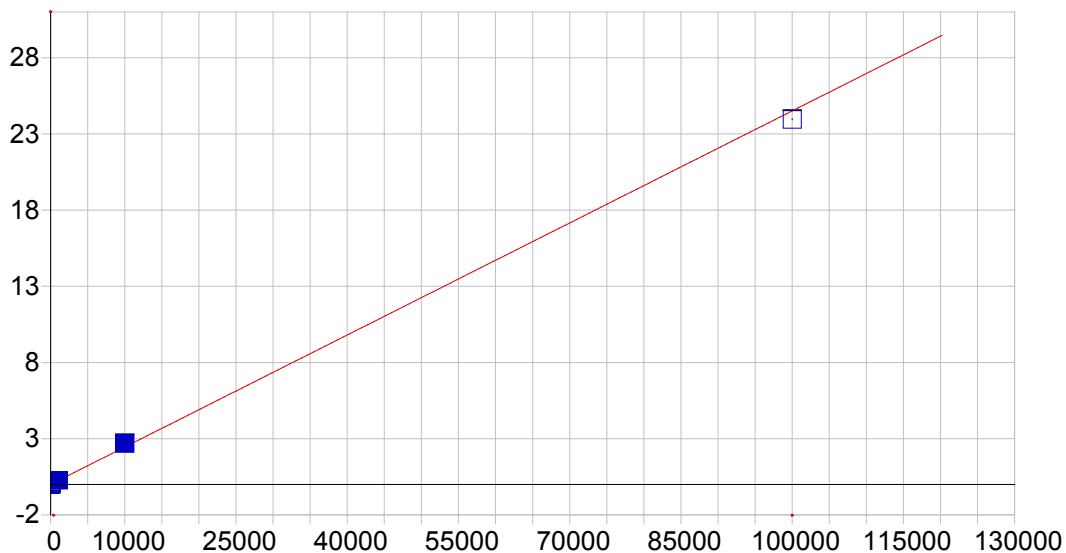


Co 238.892 {141}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999993 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.597738
 Predicted MQL: 1.992459

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00314	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	996.11	-3.89	-.389	.00293	.000	1
CalStd10=10	10000.	10000.	.367	.004	.02886	.000	1
CalStd8=100	100.00	103.53	3.53	3.53	.00030	.000	1

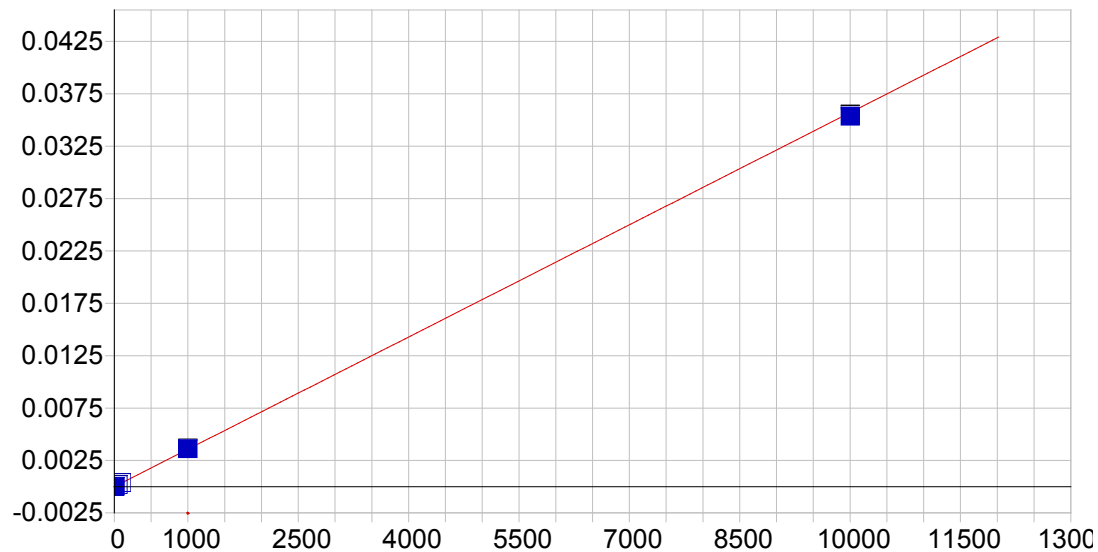


Cr 205.560 {464}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000268 Re-Slope: 1.000000
 A1 (Gain): 0.000245 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998158 Status: OK.
 Std Error of Est: 0.000997
 Predicted MDL: 0.203520
 Predicted MQL: 0.678401

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.4764	-1.48	.000	-.00009	.000	1
CalStd5=10	10.000	10.599	.599	5.99	.00287	.000	1
CalStd7=50	50.000	54.460	4.46	8.92	.01362	.000	1
CalStd9=100	1000.0	1146.2	146.	14.6	.28120	.002	1
CalStd8=100	100.00	114.67	14.7	14.7	.02837	.000	1
CalStd4=5	5.0000	6.7703	1.77	35.4	.00193	.000	1
CalStd3=1	1.0000	-.12144	-1.12	-112.	.00024	.000	1
CalStd11=100	100000.	97732.	-2270.	-2.27	23.955	.025	1
CalStd10=10	10000.	10961.	961.	9.61	2.6868	.023	1

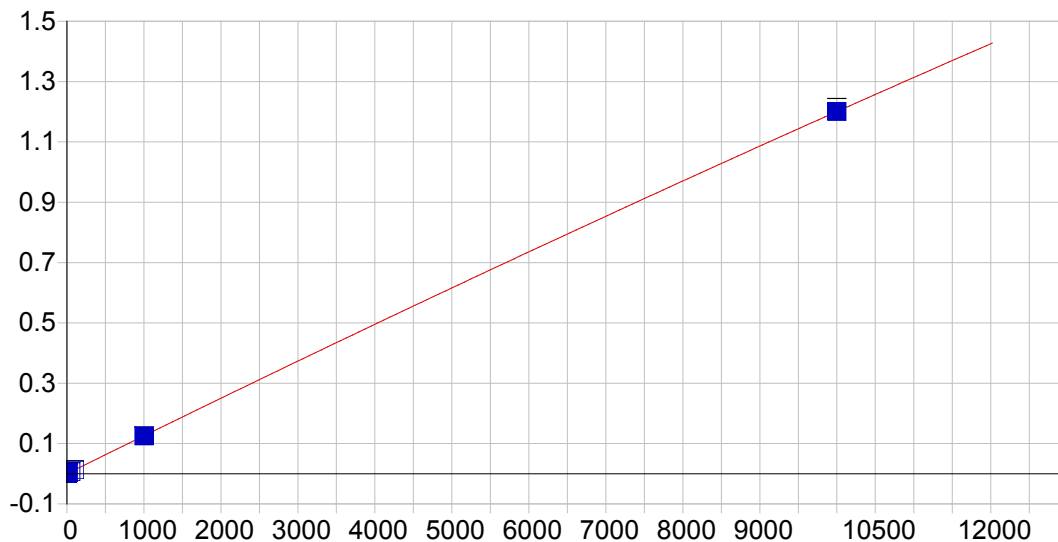


Cr 267.716 {126}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999765 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.606737
 Predicted MQL: 2.022458

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0912	-1.09	.000	.00000	.000	1
CalStd5=10	10.000	9.9397	-.060	-.603	.00004	.000	1
CalStd7=50	50.000	49.129	-.871	-1.74	.00018	.000	1
CalStd9=100	1000.0	1011.3	11.3	1.13	.00361	.000	1
CalStd8=100	100.00	103.52	3.52	3.52	.00037	.000	1
CalStd4=5	5.0000	6.4300	1.43	28.6	.00003	.000	1
CalStd10=10	10000.	9903.9	-96.1	-.961	.03536	.000	1

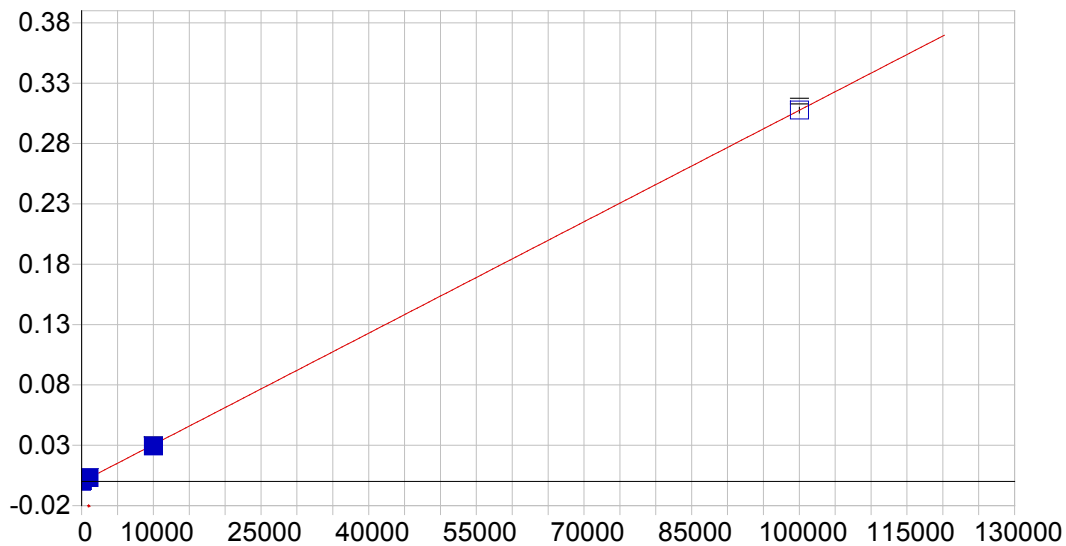


Cu 224.700 {450}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000064 Re-Slope: 1.000000
 A1 (Gain): 0.000126 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999924 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 0.514612
 Predicted MQL: 1.715375

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00048	.000	.000	-.00006	.000	1
CalStd9=100	1000.0	994.96	-5.04	-.504	.12509	.001	1
CalStd7=50	50.000	48.223	-1.78	-3.55	.00603	.000	1
CalStd8=100	100.00	100.50	.501	.501	.01263	.000	1
CalStd5=10	10.000	10.102	.102	1.02	.00121	.000	1
CalStd10=10	10000.	10001.	.549	.005	1.2010	.013	1
CalStd4=5	5.0000	6.8896	1.89	37.8	.00081	.000	1
CalStd6=20	20.000	23.840	3.84	19.2	.00295	.000	1
CalStd3=1	1.0000	.93895	-.061	-6.11	.00006	.000	1

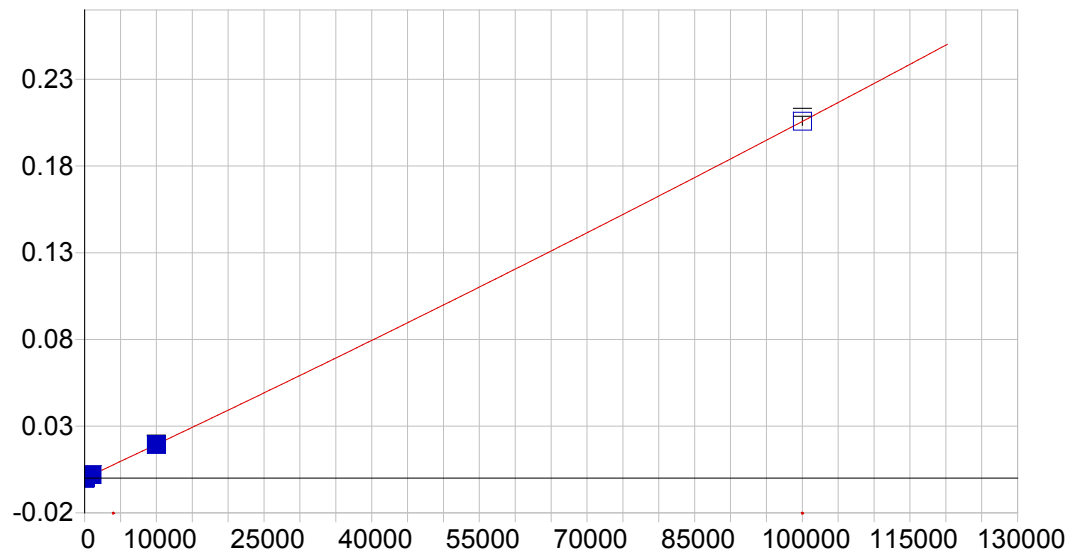


Cu 324.754 {104}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000271 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999990 Status: OK.
 Std Error of Est: 0.000711
 Predicted MDL: 4.439162
 Predicted MQL: 14.797206

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	113.18	113.	.000	.00008	.000	1
CalStd9=100	1000.0	1086.7	86.7	8.67	.00307	.000	1
CalStd8=100	100.00	218.44	118.	118.	.00040	.000	1
CalStd10=10	10000.	9647.4	-353.	-3.53	.02943	.000	1
CalStd11=100	100000.	100030.	34.3	.034	.30763	.002	1

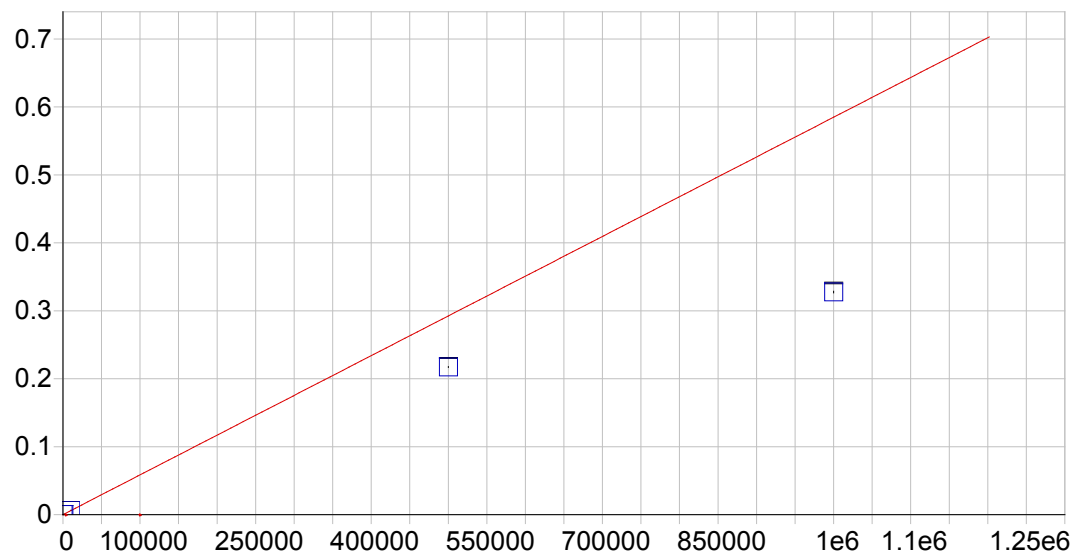


Cu 327.396 {103}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000048 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999957 Status: Warning Positive Curvature
 Std Error of Est: 0.000001
 Predicted MDL: 8.335318
 Predicted MQL: 27.784393

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01637	-.016	.000	-.00005	.000	1
CalStd6=20	20.000	32.521	12.5	62.6	.00001	.000	1
CalStd7=50	50.000	52.043	2.04	4.09	.00005	.000	1
CalStd8=100	100.00	113.25	13.2	13.2	.00017	.000	1
CalStd9=100	1000.0	1024.7	24.7	2.47	.00194	.000	1
CalStd10=10	10000.	9942.6	-57.4	-.574	.01935	.000	1
CalStd11=100	100000.	100000.	4.94	.005	.20574	.002	1

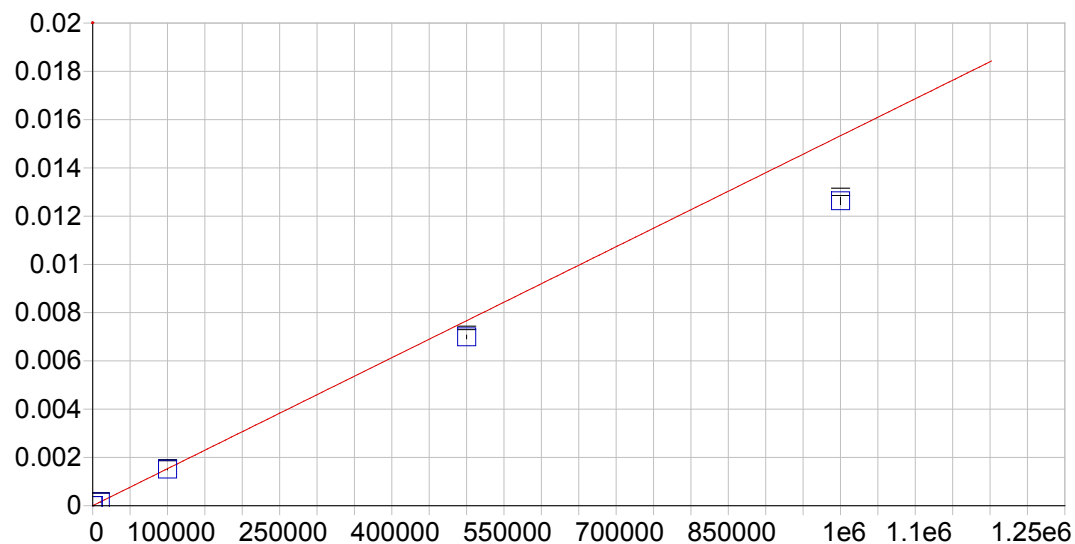


Fe 234.349 {144}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset):	0.000019	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.998991	Status: OK.
Std Error of Est:	0.000014	
Predicted MDL:	1.397505	
Predicted MQL:	4.658348	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.50679	-.507	.000	.00002	.000	1
CalStd10=10	10000.	10653.	653.	6.53	.00625	.000	1
CalStd13=50	500000.	371400.	-129000.	-25.7	.21722	.001	1
CalStd14=100	1000000.	560070.	-440000.	-44.0	.32755	.001	1
CalStd9=100	1000.0	1084.7	84.7	8.47	.00065	.000	1

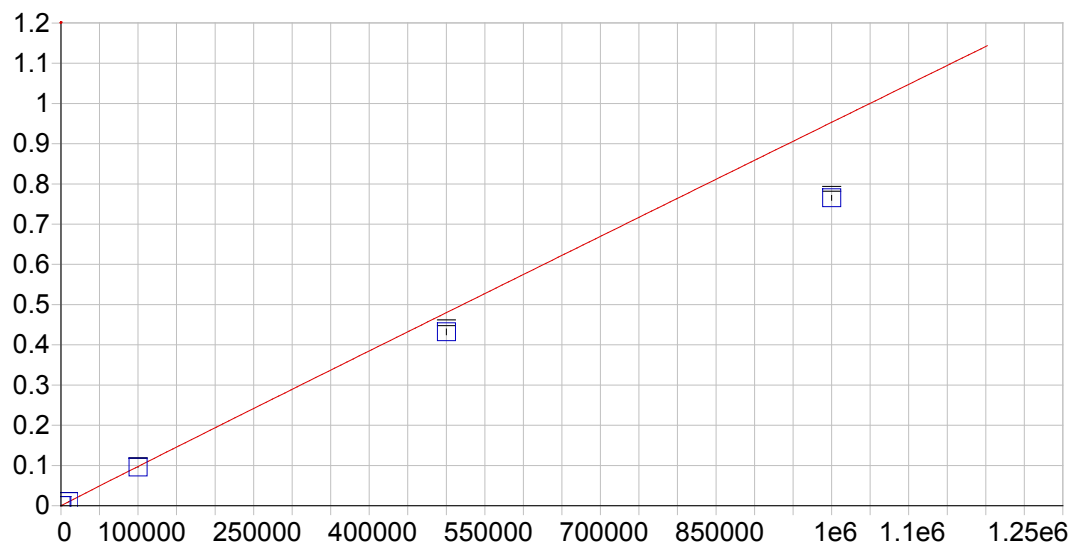


Fe 239.562 {140}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 26.857779
 Predicted MQL: 89.525931

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.05511	.055	.000	.00000	.000	1
CalStd10=10	10000.	9833.3	-167.	-1.67	.00015	.000	1
CalStd13=50	500000.	456090.	-43900.	-8.78	.00699	.000	1
CalStd14=100	1000000.	823920.	-176000.	-17.6	.01263	.000	1
CalStd9=100	1000.0	957.93	-42.1	-4.21	.00001	.000	1
CalStd12=100	100000.	98396.	-1600.	-1.60	.00151	.000	1

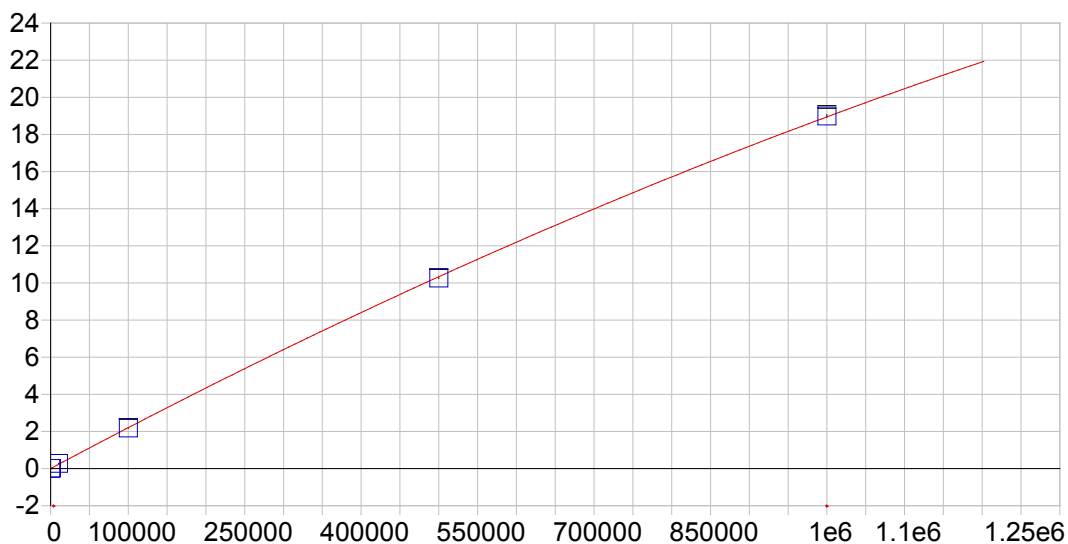


Fe 259.940 {129}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): 0.000004 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 0.990000
 Correlation: 0.999997 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 7.656203
 Predicted MQL: 25.520678

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04851	.049	.000	.00000	.000	1
CalStd10=10	10000.	9785.6	-214.	-2.14	.00977	.000	1
CalStd13=50	500000.	449830.	-50200.	-10.0	.43223	.007	1
CalStd14=100	1000000.	801230.	-199000.	-19.9	.76545	.006	1
CalStd9=100	1000.0	961.67	-38.3	-3.83	.00099	.000	1
CalStd12=100	100000.	98287.	-1710.	-1.71	.09589	.001	1

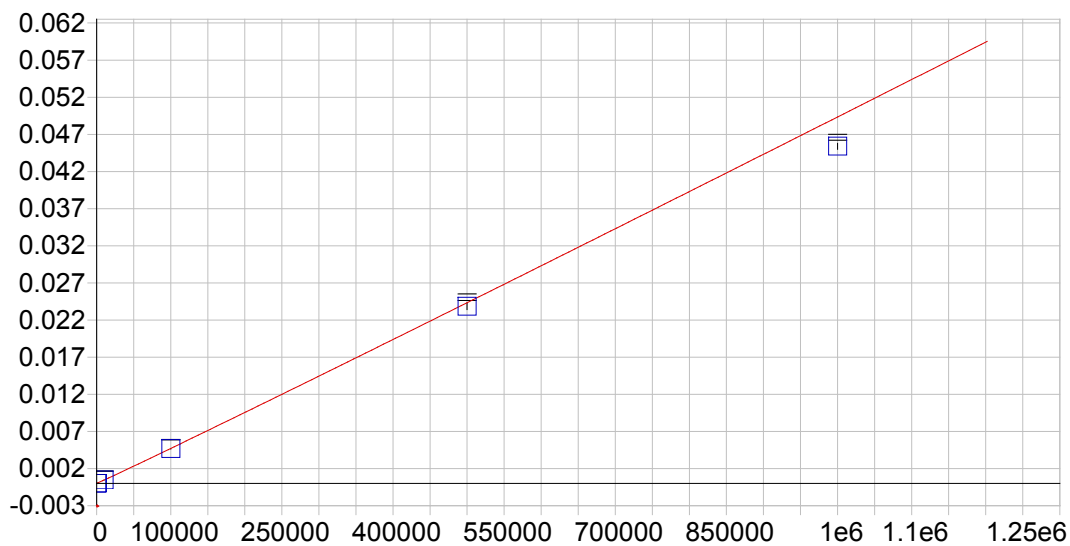


Mg 202.582 {466}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000138 Re-Slope: 1.000000
 A1 (Gain): 0.000022 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999733 Status: OK.
 Std Error of Est: 0.000818
 Predicted MDL: 2.428935
 Predicted MQL: 8.096452

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.49368	-.494	.000	-.00015	.000	1
CalStd13=50	500000.	495890.	-4110.	-.822	10.258	.021	1
CalStd10=10	10000.	12366.	2370.	23.7	.27627	.003	1
CalStd14=100	1000000.	1002600.	2620.	.262	18.989	.073	1
CalStd12=100	100000.	99005.	-995.	-.995	2.1832	.013	1
CalStd9=100	1000.0	1272.7	273.	27.3	.02836	.000	1

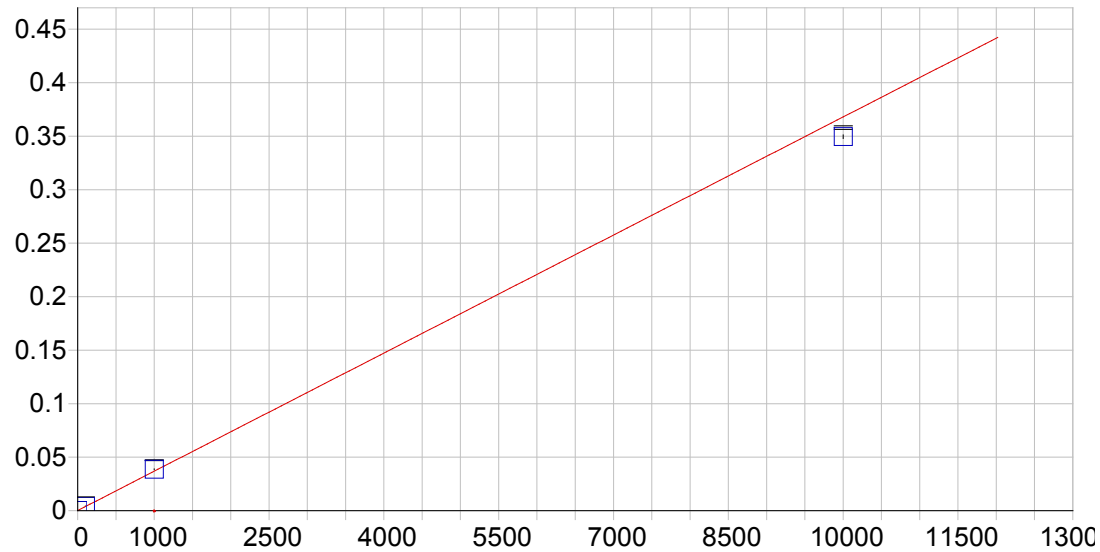


Mg 279.079 {121}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Full Fit Weighting: 1/Var

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.020000
 Correlation: 0.999984 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 137.261142
 Predicted MQL: 457.537139

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd13=50	500000.	490190.	-9810.	-1.96	.02384	.000	1
CalStd10=10	10000.	9977.4	-22.6	-.226	.00045	.000	1
CalStd14=100	1000000.	921500.	-78500.	-7.85	.04540	.000	1
CalStd12=100	100000.	99201.	-799.	-.799	.00467	.000	1
CalStd9=100	1000.0	1017.7	17.7	1.77	.00004	.000	1

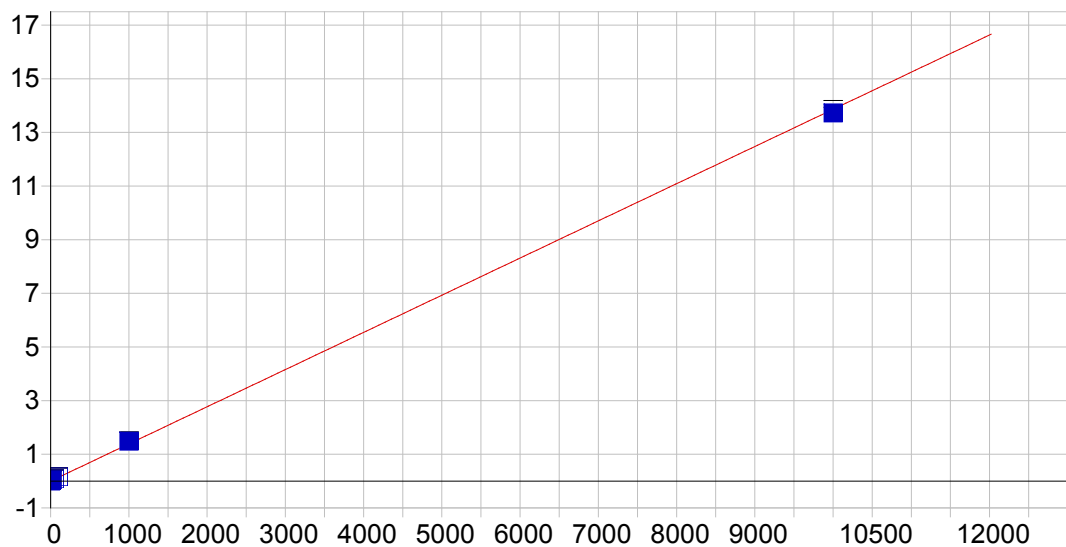


Mg 280.270 {120}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000104 Re-Slope: 1.000000
 A1 (Gain): 0.000037 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.997482 Status: OK.
 Std Error of Est: 0.000019
 Predicted MDL: 0.030975
 Predicted MQL: 0.103249

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00671	-.007	.000	.00010	.000	1
CalStd9=100	1000.0	1046.7	46.7	4.67	.03861	.000	1
CalStd10=10	10000.	9498.5	-501.	-5.01	.34954	.002	1
CalStd8=100	100.00	112.19	12.2	12.2	.00423	.000	1

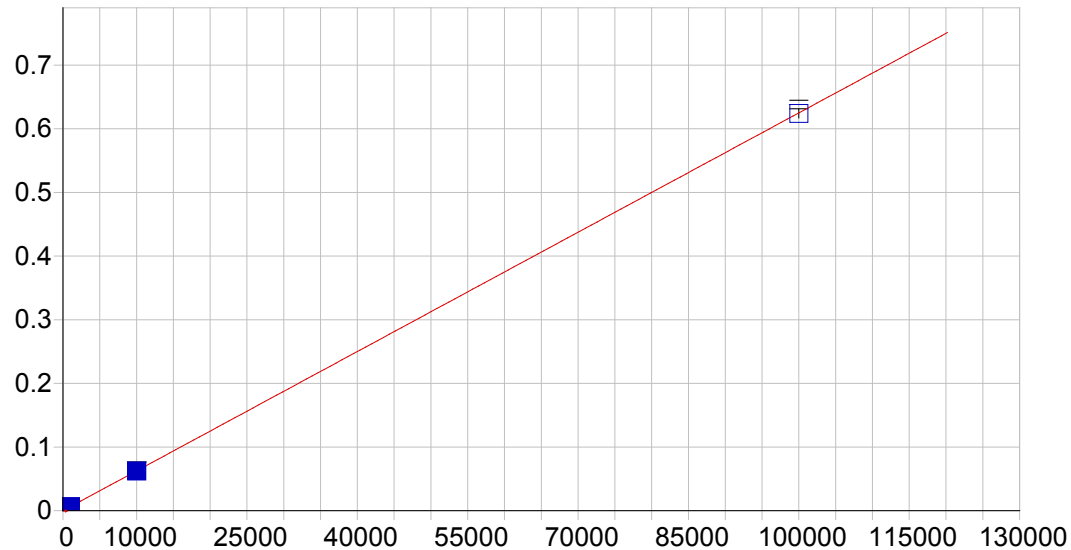


Mn 257.610 {131}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000008 Re-Slope: 1.000000
 A1 (Gain): 0.001386 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999428 Status: OK.
 Std Error of Est: 0.000405
 Predicted MDL: 0.090966
 Predicted MQL: 0.303219

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00722	-.007	.000	-.00002	.000	1
CalStd5=10	10.000	11.868	1.87	18.7	.01644	.000	1
CalStd7=50	50.000	53.719	3.72	7.44	.07445	.001	1
CalStd6=20	20.000	27.108	7.11	35.5	.03757	.000	1
CalStd8=100	100.00	111.54	11.5	11.5	.15459	.000	1
CalStd4=5	5.0000	8.2485	3.25	65.0	.01142	.000	1
CalStd9=100	1000.0	1072.2	72.2	7.22	1.4862	.011	1
CalStd10=10	10000.	9900.4	-99.6	-.996	13.723	.127	1

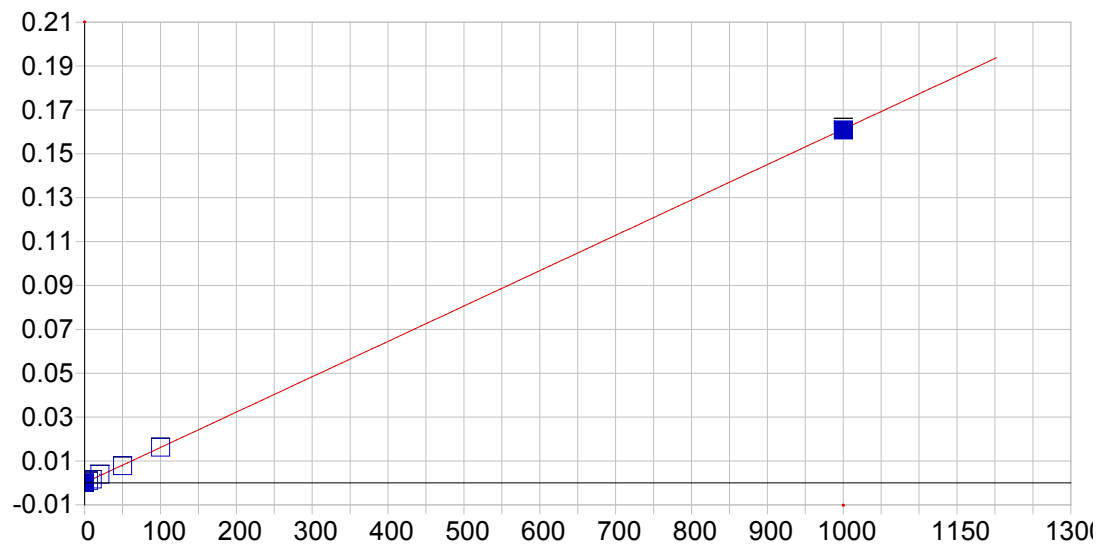


Mn 259.373 {130}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000012 Re-Slope: 1.000000
 A1 (Gain): 0.000006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999973 Status: OK.
 Std Error of Est: 0.000011
 Predicted MDL: 1.477546
 Predicted MQL: 4.925152

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07665	-.077	.000	.00001	.000	1
CalStd10=10	10000.	9933.4	-66.6	-.666	.06215	.001	1
CalStd11=100	100000.	99821.	-179.	-.179	.62378	.007	1
CalStd9=100	1000.0	1012.6	12.6	1.26	.00635	.000	1

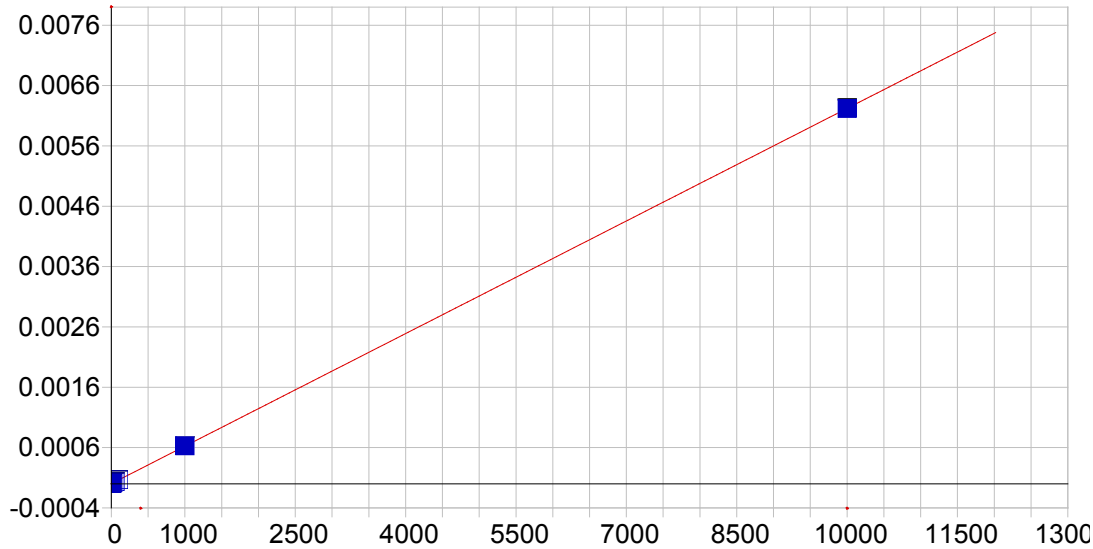


Mo 202.030 {466}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000031 Re-Slope: 1.000000
 A1 (Gain): 0.000161 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999643 Status: OK.
 Std Error of Est: 0.000012
 Predicted MDL: 0.288266
 Predicted MQL: 0.960888

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00098	-.001	.000	.00003	.000	1
CalStd7=50	50.000	48.030	-1.97	-3.94	.00777	.000	1
CalStd6=20	20.000	23.888	3.89	19.4	.00388	.000	1
CalStd5=10	10.000	10.111	.111	1.11	.00166	.000	1
CalStd8=100	100.00	100.40	.401	.401	.01621	.000	1
CalStd4=5	5.0000	5.1458	.146	2.92	.00086	.000	1
CalStd9=100	1000.0	997.42	-2.58	-.258	.16081	.001	1

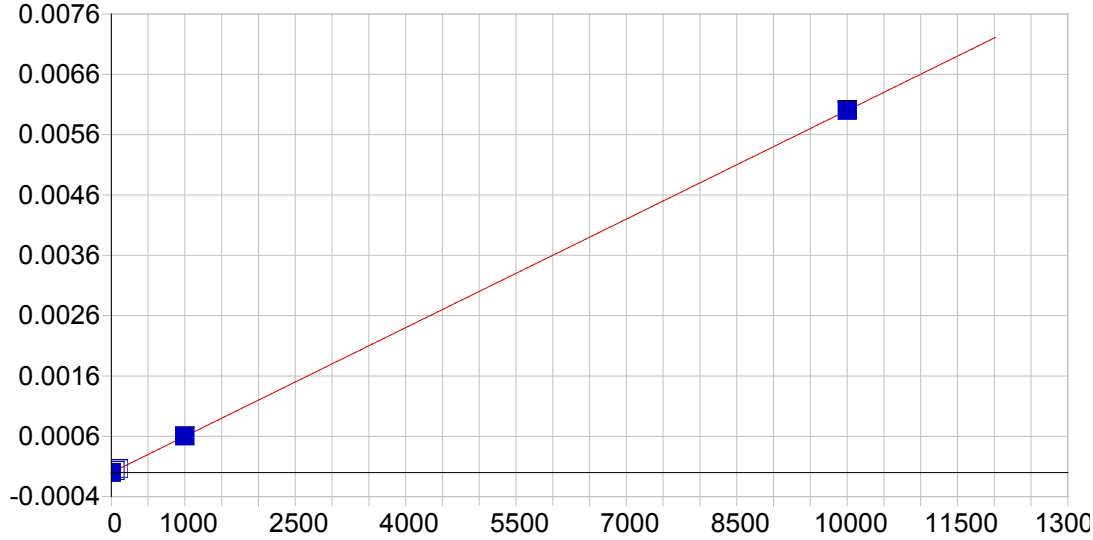


Mo 204.598 {464}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999939 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.619950
 Predicted MQL: 2.066500

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.34186	-.342	.000	.00000	.000	1
CalStd7=50	50.000	48.475	-1.52	-3.05	.00003	.000	1
CalStd6=20	20.000	24.065	4.06	20.3	.00002	.000	1
CalStd5=10	10.000	9.9429	-.057	-.571	.00001	.000	1
CalStd8=100	100.00	102.43	2.43	2.43	.00006	.000	1
CalStd4=5	5.0000	5.0129	.013	.259	.00000	.000	1
CalStd9=100	1000.0	1006.2	6.20	.620	.00063	.000	1
CalStd10=10	10000.	9997.3	-2.67	-.027	.00622	.000	1

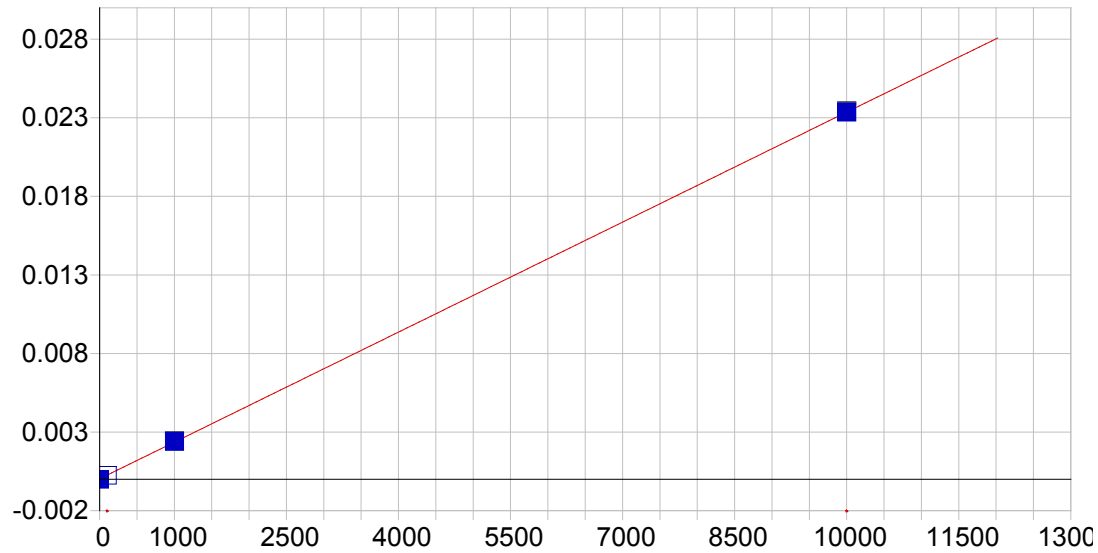


Mo 204.598 {465}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.712772		
Predicted MQL:	2.375908		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1004.2	4.22	.422	.00060	.000	1
CalStd10=10	10000.	9995.2	-4.80	-.048	.00600	.000	1
CalStd7=50	50.000	49.118	-.882	-1.76	.00003	.000	1
CalStd8=100	100.00	101.46	1.46	1.46	.00006	.000	1

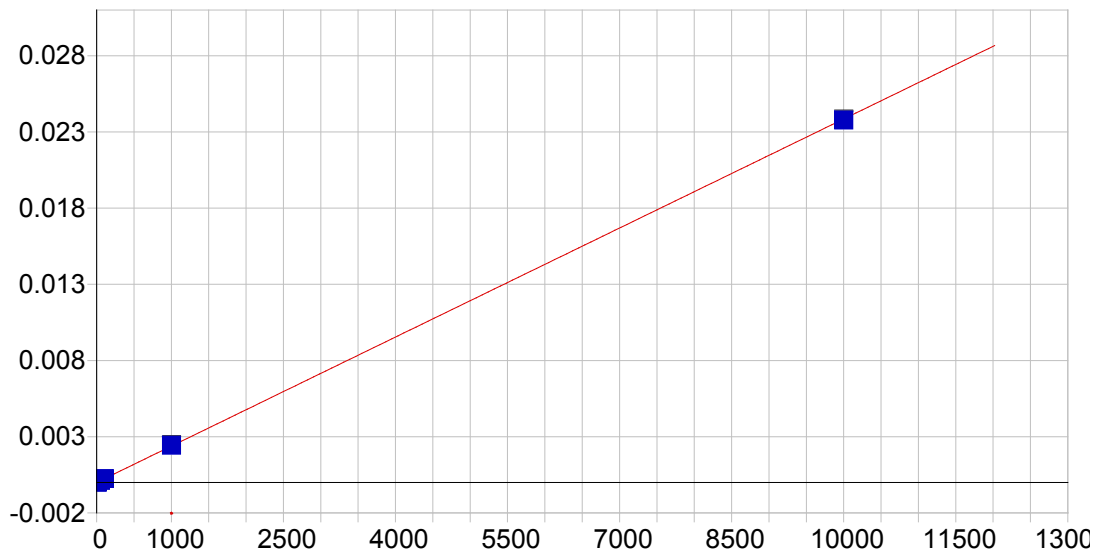


Ni 221.647 {452}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000026 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999997 Status: OK.
 Std Error of Est: 0.000037
 Predicted MDL: 0.346363
 Predicted MQL: 1.154543

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-11.117	-11.1	.000	.00000	.000	1
CalStd10=10	10000.	9998.2	-1.77	-.018	.02336	.000	1
CalStd8=100	100.00	94.607	-5.39	-5.39	.00025	.000	1
CalStd9=100	1000.0	1018.3	18.3	1.83	.00240	.000	1

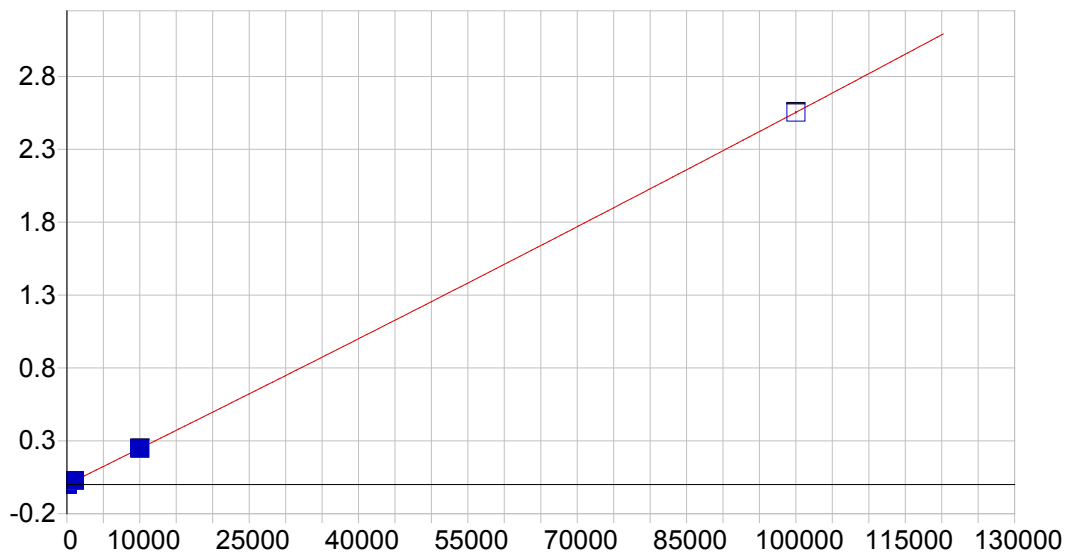


Ni 231.604 {445}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999957 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.335494
 Predicted MQL: 1.118312

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00028	.000	.000	.00000	.000	1
CalStd7=50	50.000	50.369	.369	.738	.00012	.000	1
CalStd5=10	10.000	10.616	.616	6.16	.00002	.000	1
CalStd8=100	100.00	105.21	5.21	5.21	.00025	.000	1
CalStd4=5	5.0000	5.3444	.344	6.89	.00001	.000	1
CalStd9=100	1000.0	1023.3	23.3	2.33	.00244	.000	1
CalStd3=1	1.0000	1.0698	.070	6.98	.00000	.000	1
CalStd10=10	10000.	9970.1	-29.9	-.299	.02378	.000	1

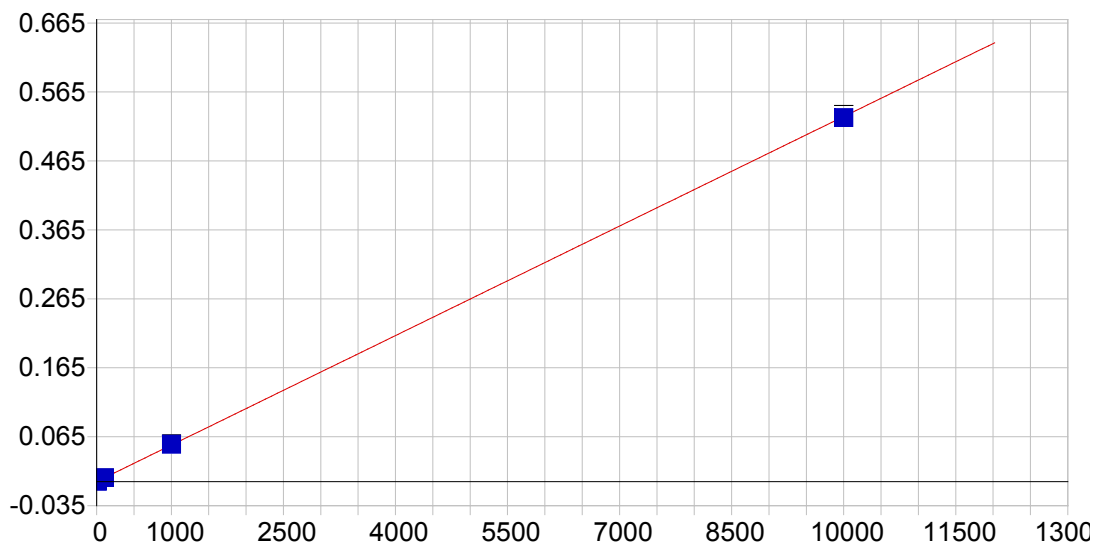


Pb 216.999 {455}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: None

A0 (Offset):	0.000560	Re-Slope: 1.000000
A1 (Gain):	0.000025	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: Warning Positive Curvature
Std Error of Est:	0.001174	
Predicted MDL:	3.029474	
Predicted MQL:	10.098248	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-23.768	-23.8	.000	-.00003	.000	1
CalStd9=100	1000.0	1072.9	72.9	7.29	.02713	.000	1
CalStd10=10	10000.	9992.3	-7.73	-.077	.24888	.003	1
CalStd11=100	100000.	100000.	.066	.000	2.5539	.005	1
CalStd8=100	100.00	81.383	-18.6	-18.6	.00256	.000	1
CalStd5=10	10.000	-12.806	-22.8	-228.	.00024	.000	1

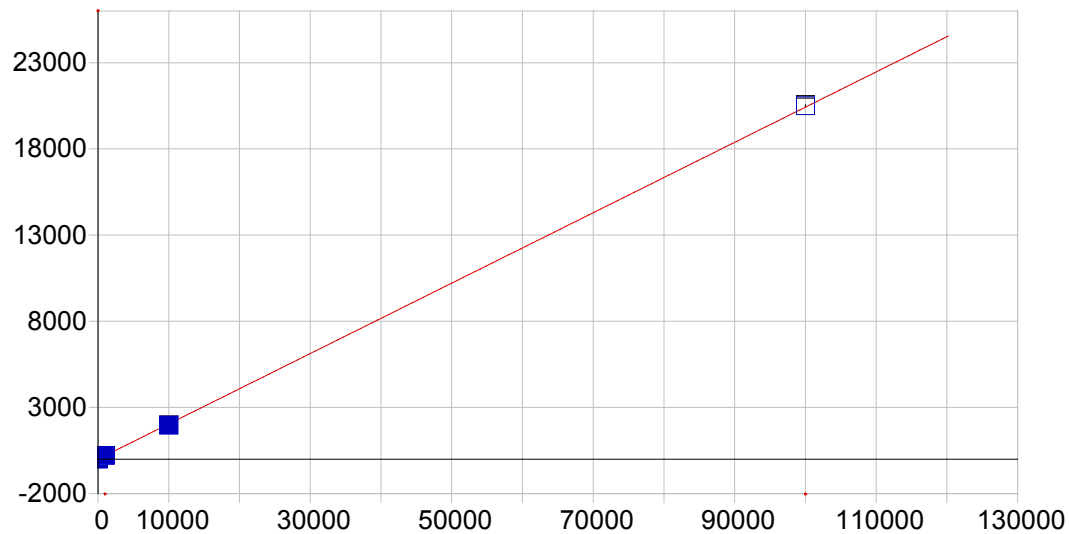


Pb 220.353 {453}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000039 Re-Slope: 1.000000
 A1 (Gain): 0.000053 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999871 Status: OK.
 Std Error of Est: 0.000008
 Predicted MDL: 1.793380
 Predicted MQL: 5.977934

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00404	-.004	.000	-.00004	.000	1
CalStd5=10	10.000	11.127	1.13	11.3	.00055	.000	1
CalStd8=100	100.00	105.25	5.25	5.25	.00553	.000	1
CalStd4=5	5.0000	8.1299	3.13	62.6	.00039	.000	1
CalStd9=100	1000.0	1020.5	20.5	2.05	.05399	.000	1
CalStd10=10	10000.	9969.9	-30.1	-.301	.52774	.005	1

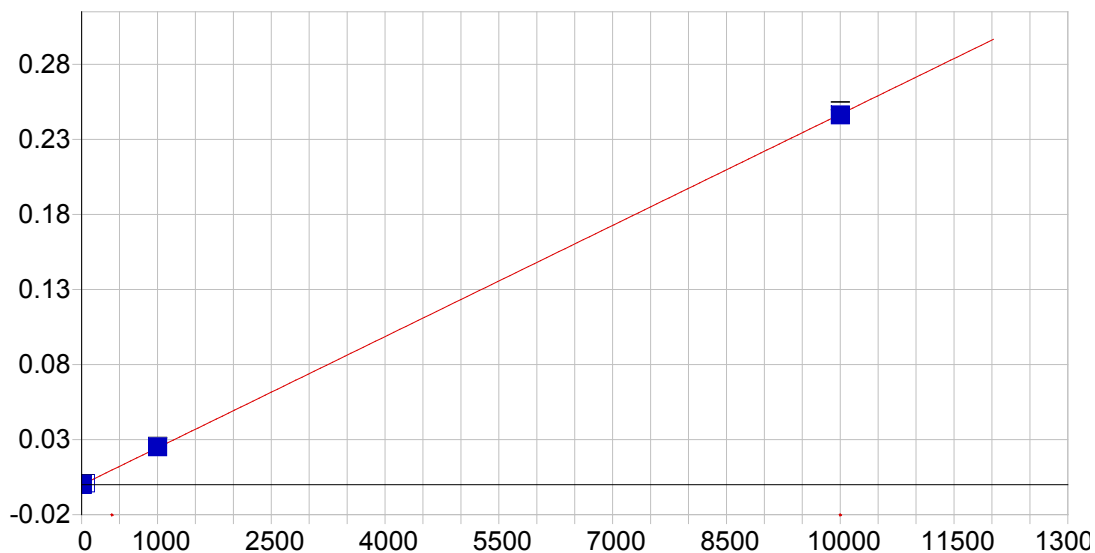


Pb 220.353 {153}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.390532	Re-Slope: 1.000000
A1 (Gain):	0.204228	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999925	Status: OK.
Std Error of Est:	0.339052	
Predicted MDL:	5.387760	
Predicted MQL:	17.959200	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00805	-.008	.000	.38889	.788	1
CalStd9=100	1000.0	1008.4	8.36	.836	206.29	1.80	1
CalStd10=10	10000.	9624.6	-375.	-3.75	1965.6	6.81	1
CalStd8=100	100.00	110.61	10.6	10.6	22.980	.759	1
CalStd11=100	100000.	100360.	356.	.356	20496.	71.8	1

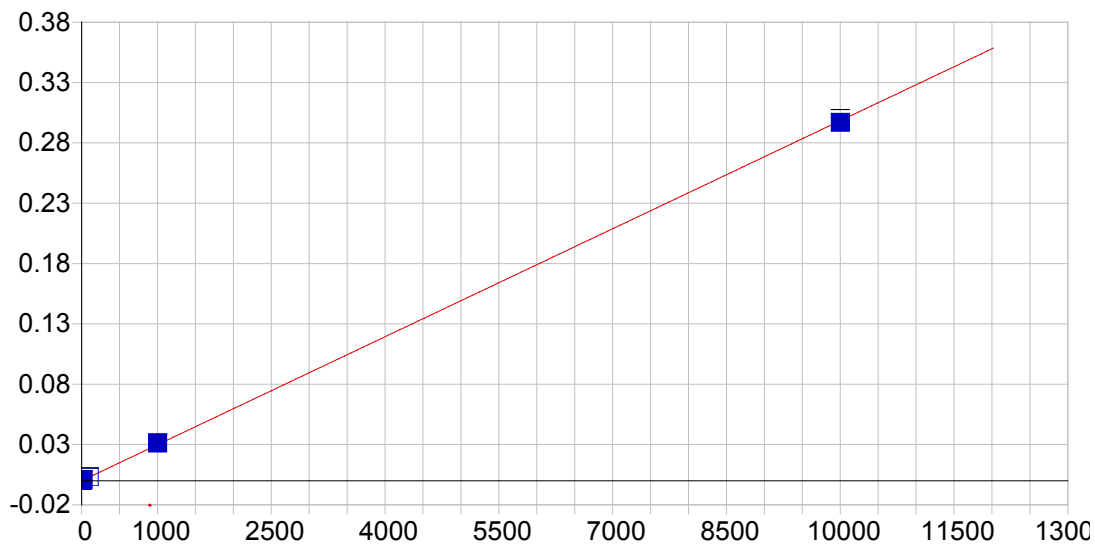


Sb 206.833 {463}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000168 Re-Slope: 1.000000
 A1 (Gain): 0.000025 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999958 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 2.381882
 Predicted MQL: 7.939606

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00070	.001	.000	-.00017	.000	1
CalStd9=100	1000.0	1025.5	25.5	2.55	.02515	.000	1
CalStd5=10	10.000	9.7469	-.253	-2.53	.00007	.000	1
CalStd7=50	50.000	46.598	-3.40	-6.80	.00098	.000	1
CalStd10=10	10000.	9978.2	-21.8	-.218	.24623	.003	1

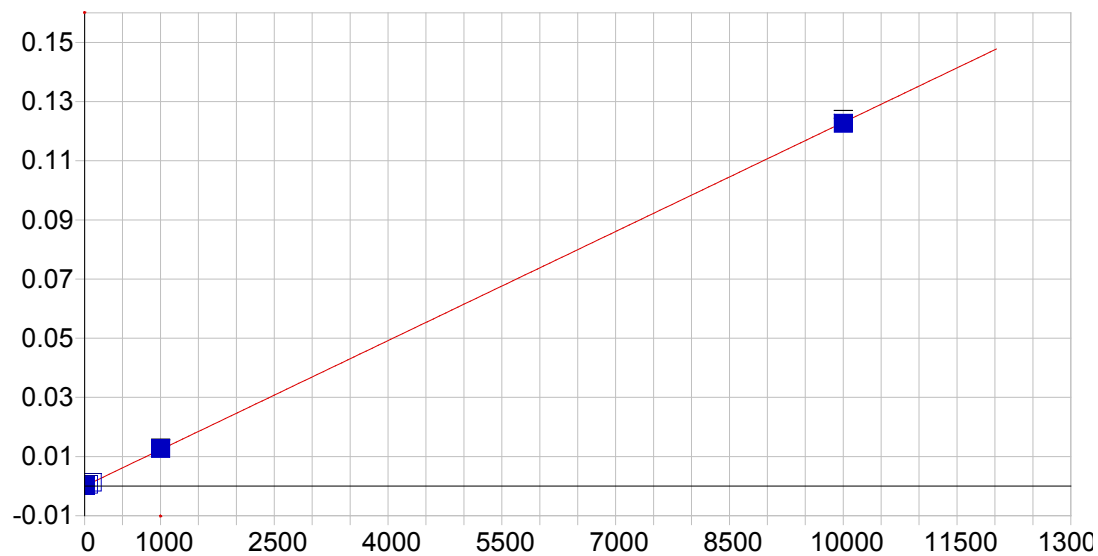


Sb 217.581 {455}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000013 Re-Slope: 1.000000
 A1 (Gain): 0.000030 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999843 Status: OK.
 Std Error of Est: 0.000005
 Predicted MDL: 2.213923
 Predicted MQL: 7.379744

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00089	-.001	.000	-.00001	.000	1
CalStd9=100	1000.0	1041.0	41.0	4.10	.03104	.000	1
CalStd6=20	20.000	24.629	4.63	23.1	.00072	.000	1
CalStd5=10	10.000	11.174	1.17	11.7	.00032	.000	1
CalStd8=100	100.00	103.02	3.02	3.02	.00306	.000	1
CalStd4=5	5.0000	3.8158	-1.18	-23.7	.00010	.000	1
CalStd10=10	10000.	9951.3	-48.7	-.487	.29682	.003	1

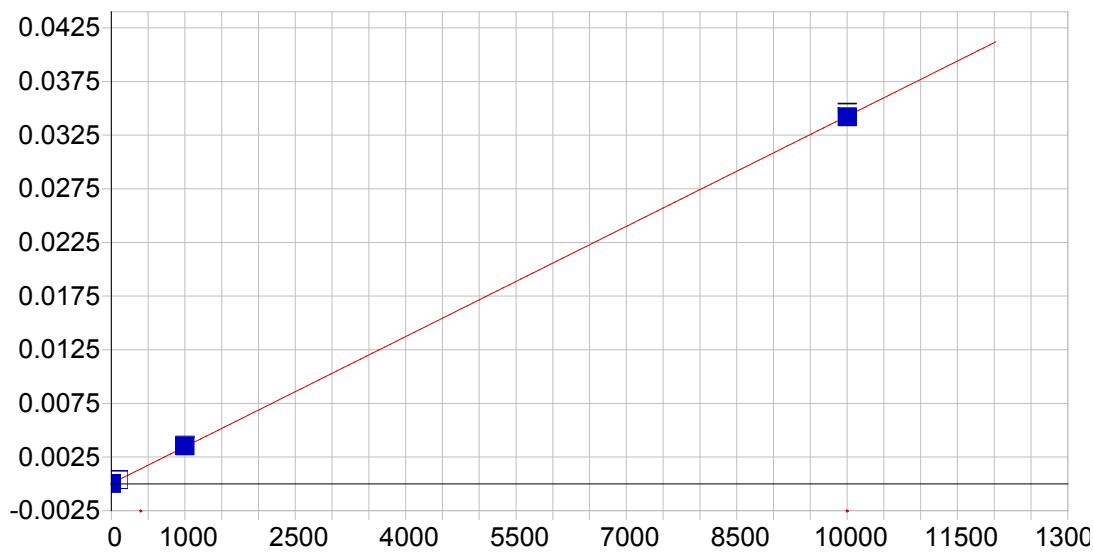


Se 196.090 {472}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000032 Re-Slope: 1.000000
 A1 (Gain): 0.000012 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999943 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 3.834660
 Predicted MQL: 12.782201

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00176	.002	.000	.00003	.000	1
CalStd7=50	50.000	48.611	-1.39	-2.78	.00063	.000	1
CalStd9=100	1000.0	1027.1	27.1	2.71	.01265	.000	1
CalStd5=10	10.000	8.0504	-1.95	-19.5	.00013	.000	1
CalStd8=100	100.00	102.27	2.27	2.27	.00129	.000	1
CalStd10=10	10000.	9974.0	-26.0	-.260	.12260	.001	1

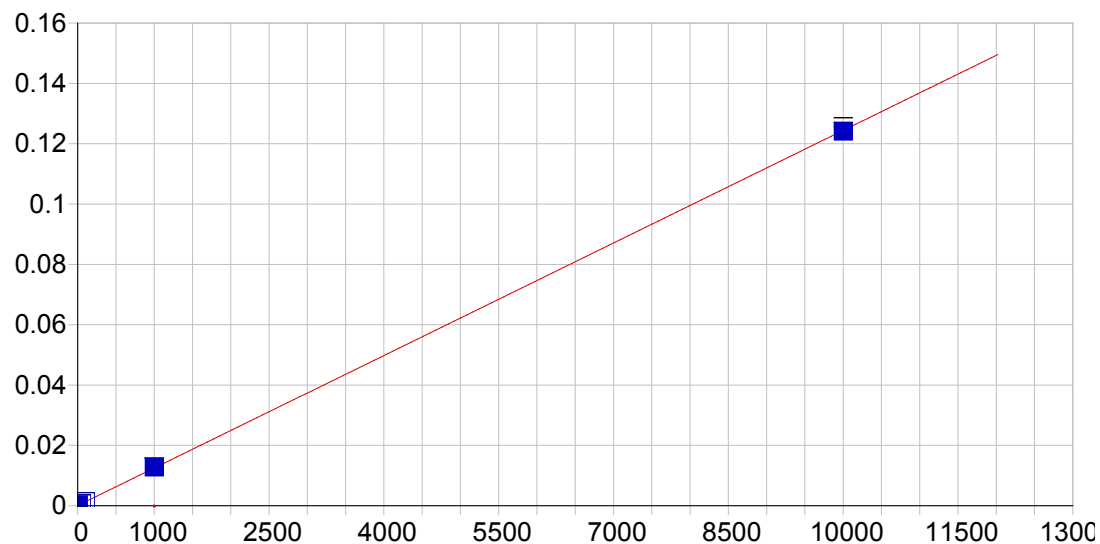


Se 206.279 {463}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000029 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999976 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 18.656203
 Predicted MQL: 62.187342

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00359	-.004	.000	.00003	.000	1
CalStd9=100	1000.0	1021.1	21.1	2.11	.00353	.000	1
CalStd10=10	10000.	9977.2	-22.8	-.228	.03424	.000	1
CalStd8=100	100.00	101.71	1.71	1.71	.00038	.000	1

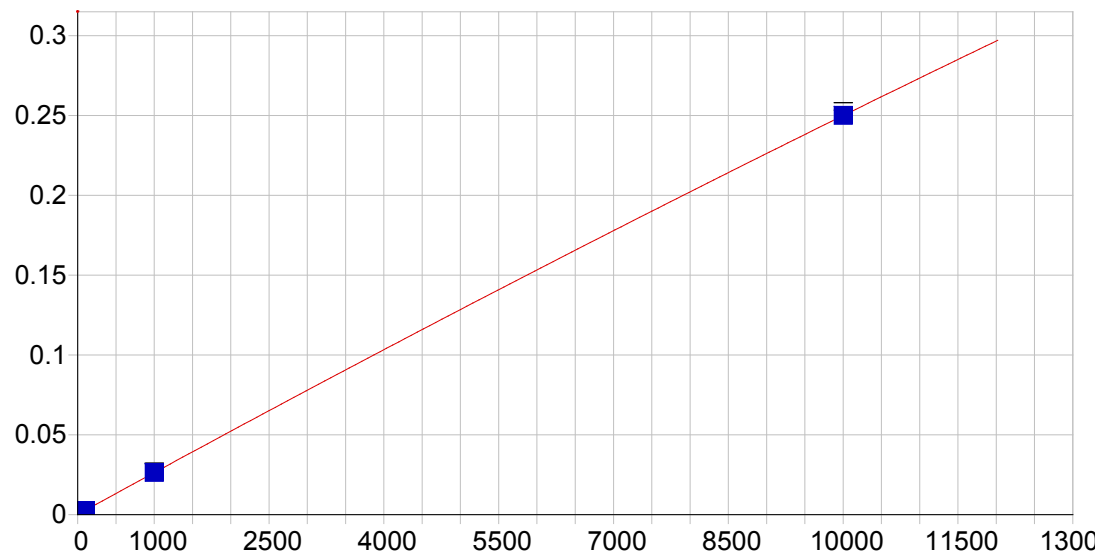


Se 196.090 {471}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000037 Re-Slope: 1.000000
 A1 (Gain): 0.000012 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999953 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 3.732304
 Predicted MQL: 12.441014

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00057	.001	.000	.00004	.000	1
CalStd7=50	50.000	46.053	-3.95	-7.89	.00061	.000	1
CalStd9=100	1000.0	1026.0	26.0	2.60	.01280	.000	1
CalStd5=10	10.000	9.9329	-.067	-.671	.00016	.000	1
CalStd8=100	100.00	100.45	.452	.452	.00129	.000	1
CalStd10=10	10000.	9977.6	-22.4	-.224	.12412	.001	1

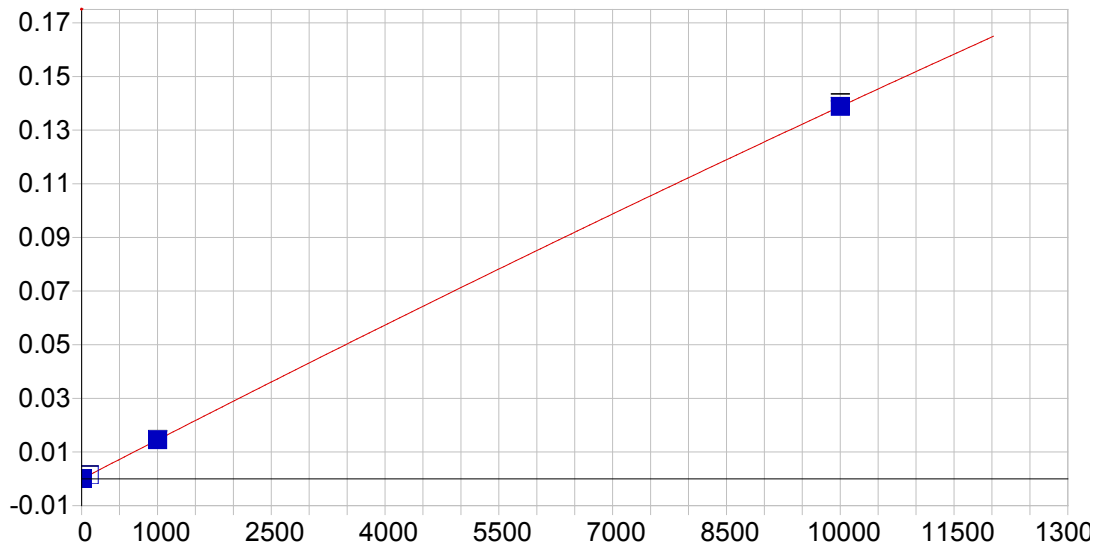


TI 190.856 {476}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000101	Re-Slope: 1.000000
A1 (Gain):	0.000026	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999986	Status: OK.
Std Error of Est:	0.000002	
Predicted MDL:	2.112010	
Predicted MQL:	7.040035	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00169	.002	.000	.00010	.000	1
CalStd9=100	1000.0	1003.0	2.97	.297	.02640	.000	1
CalStd8=100	100.00	98.950	-1.05	-1.05	.00271	.000	1
CalStd5=10	10.000	8.3888	-1.61	-16.1	.00032	.000	1
CalStd10=10	10000.	9999.7	-.315	-.003	.25007	.002	1

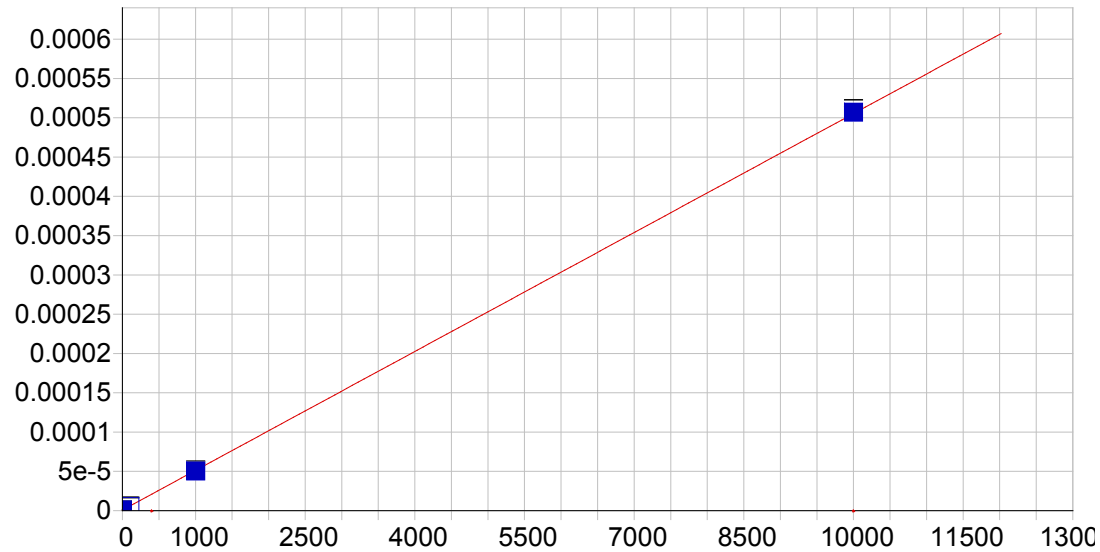


TI 190.856 {477}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): -0.000062 Re-Slope: 1.000000
 A1 (Gain): 0.000015 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999985 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 3.217236
 Predicted MQL: 10.724121

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00163	.002	.000	-.00006	.000	1
CalStd9=100	1000.0	1001.3	1.28	.128	.01453	.000	1
CalStd8=100	100.00	100.56	.565	.565	.00141	.000	1
CalStd5=10	10.000	8.3021	-1.70	-17.0	.00006	.000	1
CalStd10=10	10000.	9999.9	-.146	-.001	.13881	.001	1

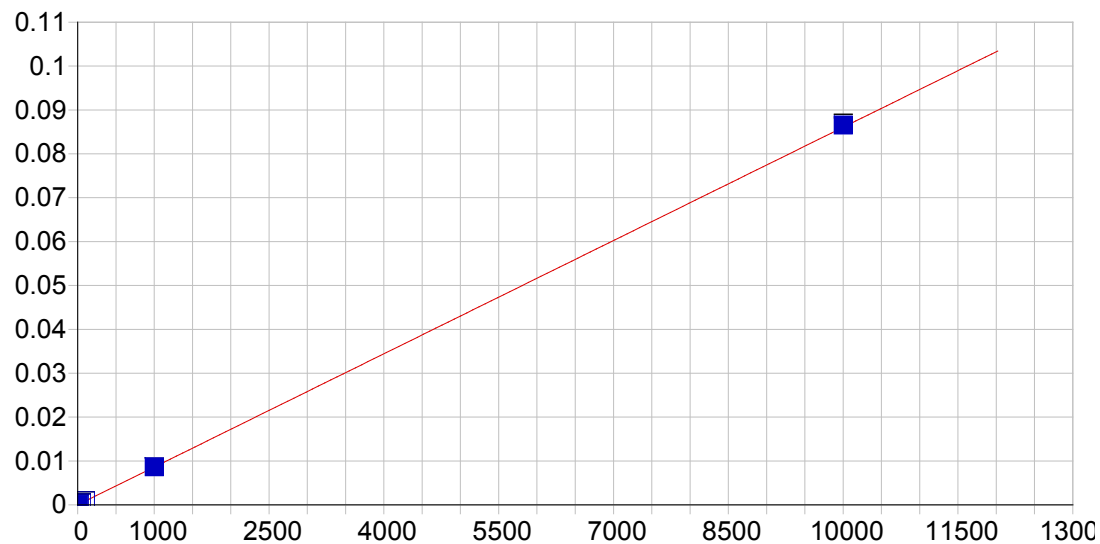


V 290.882 {116}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999931 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 11.121097
 Predicted MQL: 37.070325

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01180	.012	.000	.00000	.000	1
CalStd9=100	1000.0	979.35	-20.7	-2.07	.00005	.000	1
CalStd10=10	10000.	10031.	30.7	.307	.00051	.000	1
CalStd8=100	100.00	89.963	-10.0	-10.0	.00001	.000	1

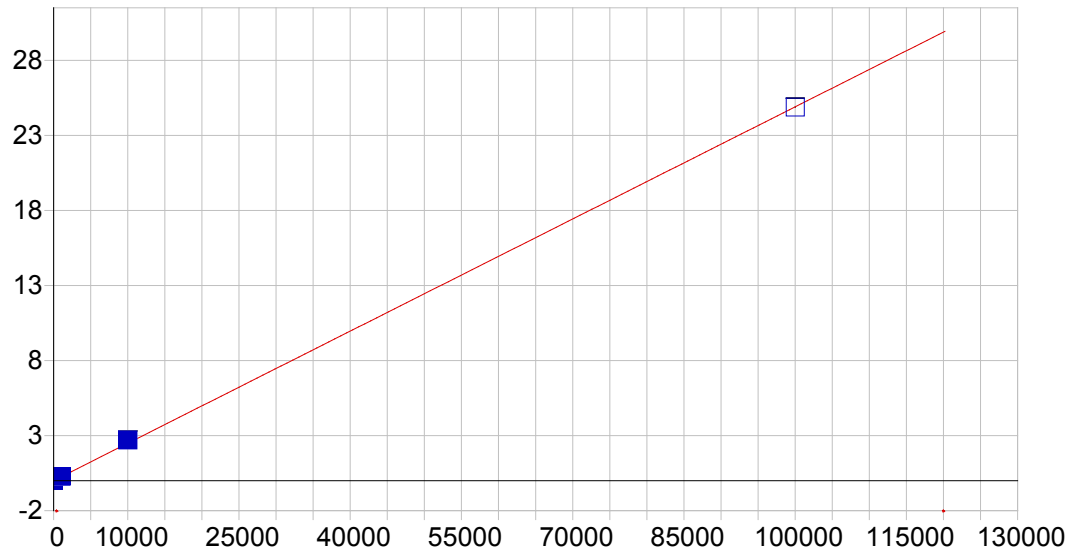


V 292.402 {115}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000008 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999516 Status: OK.
 Std Error of Est: 0.000012
 Predicted MDL: 0.357444
 Predicted MQL: 1.191481

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.03724	-.037	.000	.00001	.000	1
CalStd7=50	50.000	49.052	-.948	-1.90	.00043	.000	1
CalStd9=100	1000.0	1005.4	5.39	.539	.00866	.000	1
CalStd6=20	20.000	25.074	5.07	25.4	.00022	.000	1
CalStd5=10	10.000	10.330	.330	3.30	.00010	.000	1
CalStd8=100	100.00	102.70	2.70	2.70	.00089	.000	1
CalStd10=10	10000.	10056.	56.4	.564	.08653	.000	1

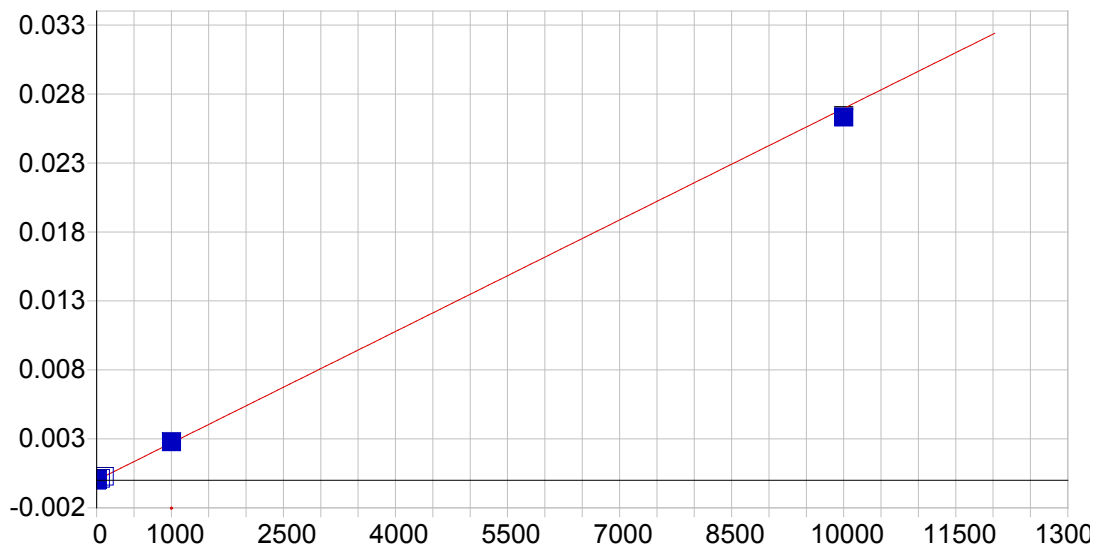


Zn 206.200 {463}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000024 Re-Slope: 1.000000
 A1 (Gain): 0.000249 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999947 Status: OK.
 Std Error of Est: 0.000628
 Predicted MDL: 0.255814
 Predicted MQL: 0.852713

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10856.	856.	8.56	2.7033	.017	1
Blank	.00000	-.01824	-.018	.000	-.00003	.000	1
CalStd9=100	1000.0	1126.5	127.	12.7	.28050	.002	1
CalStd11=100	100000.	99904.	-95.5	-.096	24.877	.011	1

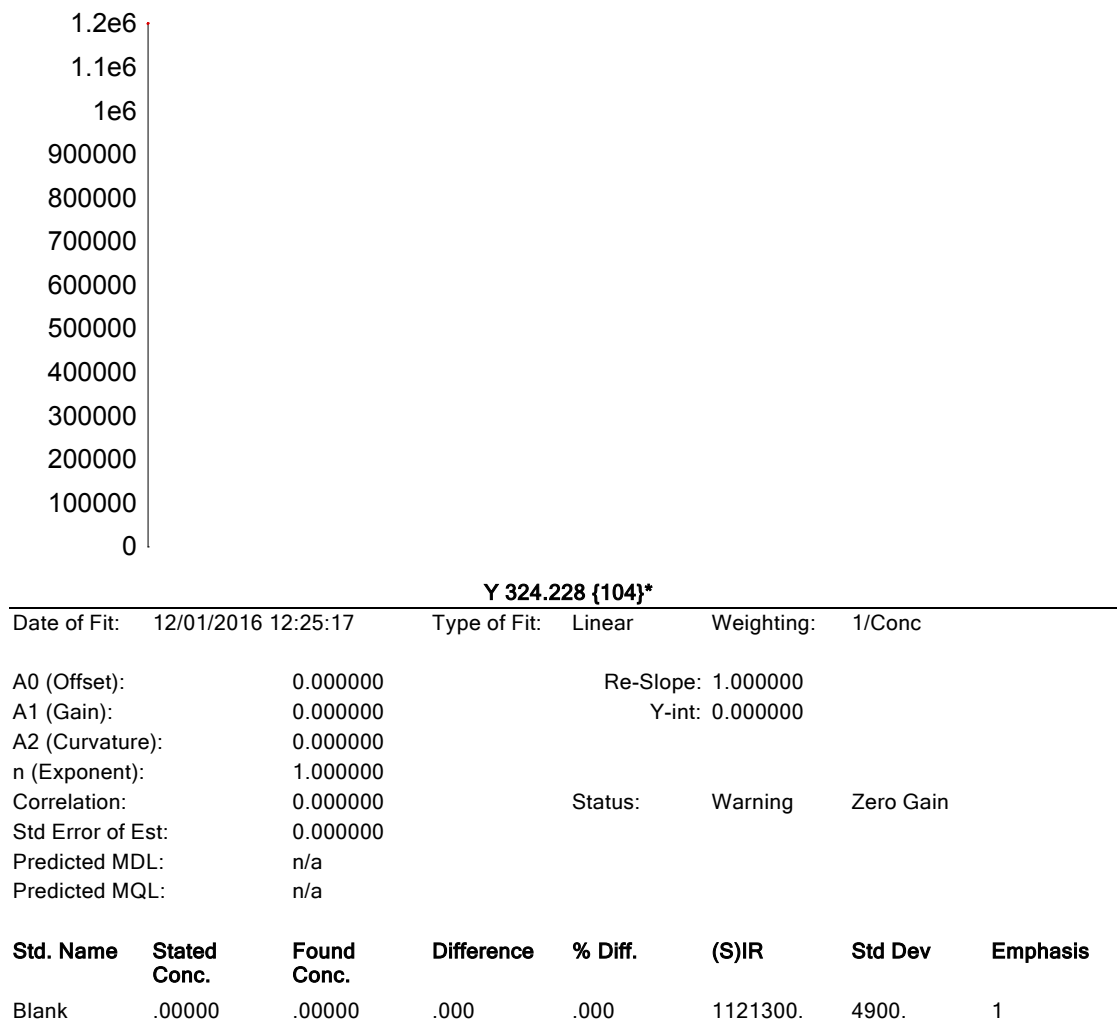


Zn 213.856 {458}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000004	Re-Slope: 1.000000
A1 (Gain):	0.000003	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.998764	Status: OK.
Std Error of Est:	0.000005	
Predicted MDL:	0.162740	
Predicted MQL:	0.542465	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5241	-1.52	.000	.00000	.000	1
CalStd8=100	100.00	105.64	5.64	5.64	.00029	.000	1
CalStd7=50	50.000	50.921	.921	1.84	.00014	.000	1
CalStd5=10	10.000	9.9409	-.059	-.591	.00003	.000	1
CalStd9=100	1000.0	1032.7	32.7	3.27	.00279	.000	1
CalStd4=5	5.0000	6.5860	1.59	31.7	.00002	.000	1
CalStd10=10	10000.	9765.9	-234.	-2.34	.02633	.000	1



80000
70000
60000
50000
40000
30000
20000
10000
0

Y 371.030 { 91}* |

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.000000 Status: Warning Zero Gain
 Std Error of Est: 0.000000
 Predicted MDL: n/a
 Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	56597.	19200.	1

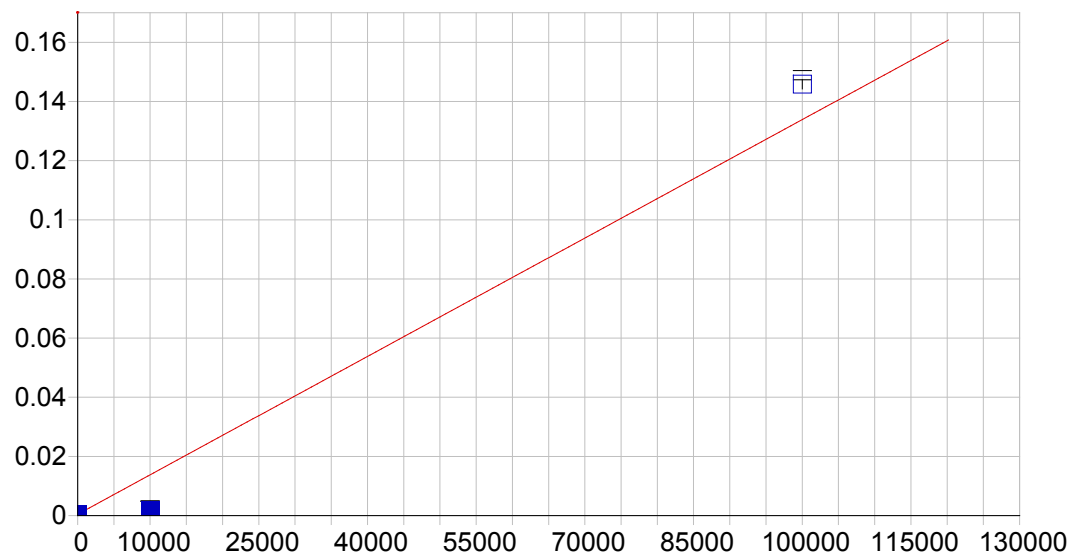
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0

Y 224.306 {451}*

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.000000 Status: Warning Zero Gain
Std Error of Est: 0.000000
Predicted MDL: n/a
Predicted MQL: n/a

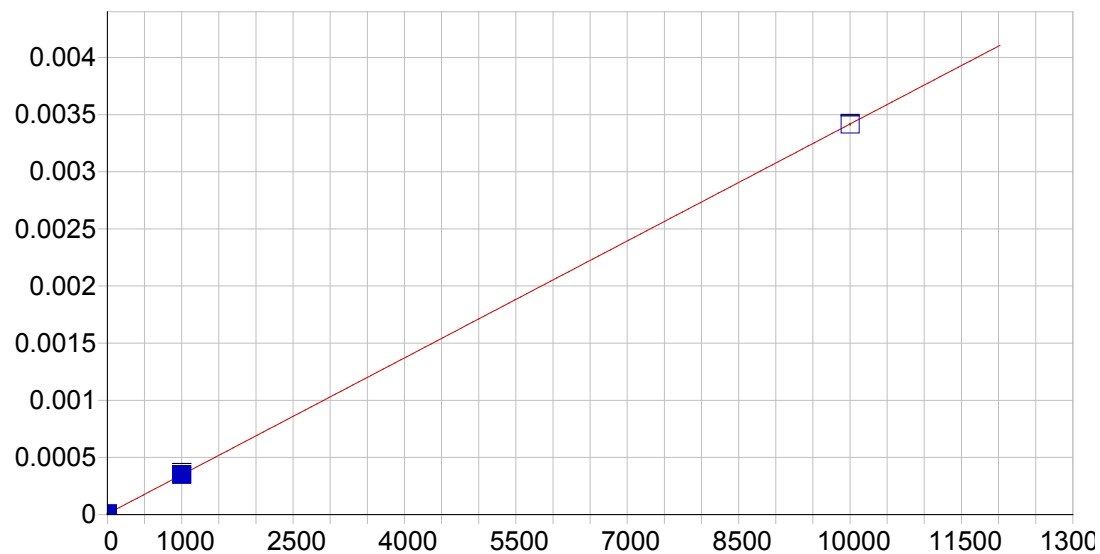
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	9716.2	67.5	1



Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000437 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.962045 Status: OK.
 Std Error of Est: 0.000687
 Predicted MDL: 3.617839
 Predicted MQL: 12.059463

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0687	8.07	.000	.00045	.000	1
CalStd9=100	10000.	1034.9	-8970.	-89.7	.00182	.000	1
CalStd12=100	100000.	108960.	8960.	8.96	.14581	.002	1

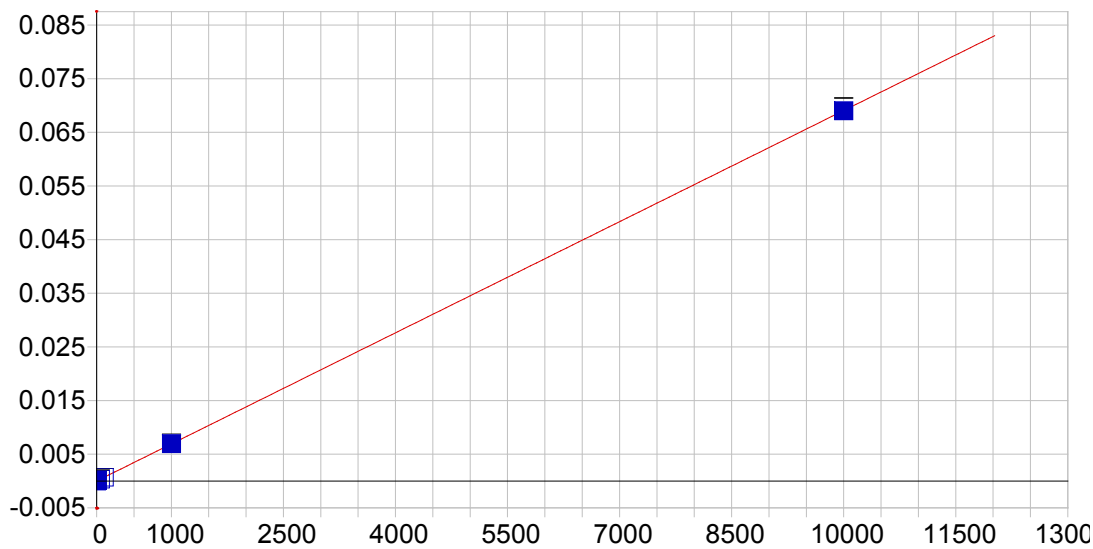


Si 251.611 {134}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000007 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 25.975322
 Predicted MQL: 86.584405

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00468	-.005	.000	.00001	.000	1
CalStd9=100	1000.0	1005.2	5.20	.520	.00035	.000	1
CalStd12=100	10000.	9994.8	-5.20	-.052	.00342	.000	1

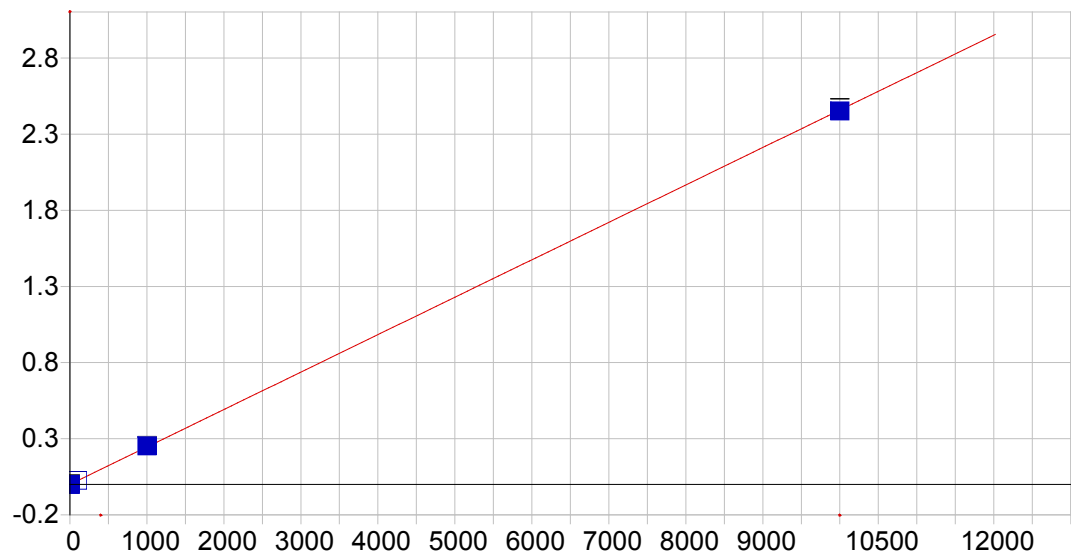


Ti 334.941 {101}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.887689		
Predicted MQL:	6.292297		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00128	-.001	.000	.00000	.000	1
CalStd5=10	10.000	10.913	.913	9.13	.00007	.000	1
CalStd8=100	100.00	102.40	2.40	2.40	.00071	.000	1
CalStd9=100	1000.0	1005.1	5.08	.508	.00694	.000	1
CalStd10=10	10000.	9991.2	-8.80	-.088	.06901	.001	1
CalStd7=50	50.000	49.702	-.298	-.596	.00034	.000	1
CalStd4=5	5.0000	5.7138	.714	14.3	.00004	.000	1

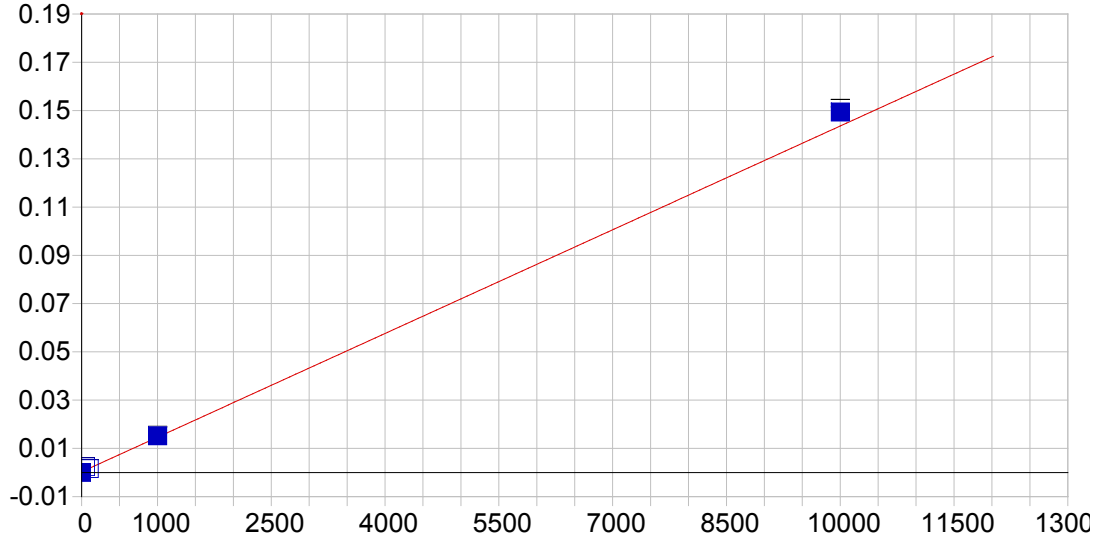


Sr 407.771 { 83}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000021 Re-Slope: 1.000000
 A1 (Gain): 0.000246 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999962 Status: OK.
 Std Error of Est: 0.000008
 Predicted MDL: 0.093834
 Predicted MQL: 0.312779

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00010	.000	.000	-.00002	.000	1
CalStd3=1	1.0000	1.0216	.022	2.16	.00023	.000	1
CalStd4=5	5.0000	4.9871	-.013	-.258	.00121	.000	1
CalStd5=10	10.000	10.152	.152	1.52	.00248	.000	1
CalStd8=100	100.00	104.10	4.10	4.10	.02557	.000	1
CalStd9=100	1000.0	1024.2	24.2	2.42	.25178	.003	1
CalStd10=10	10000.	9971.6	-28.4	-.284	2.4515	.021	1

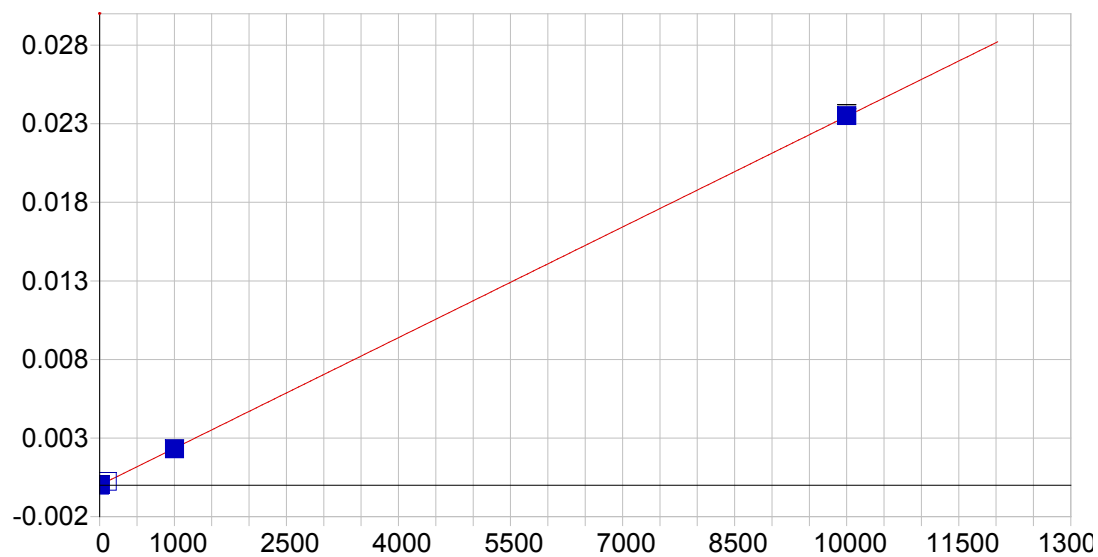


Sn 189.989 {478}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000290 Re-Slope: 1.000000
A1 (Gain): 0.000014 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.925691 Status: OK.
Std Error of Est: 0.000665
Predicted MDL: 2.353238
Predicted MQL: 7.844127

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-20.558	-20.6	.000	.00000	.000	1
CalStd10=10	10000.	10399.	399.	3.99	.14930	.002	1
CalStd9=100	1000.0	1038.5	38.5	3.85	.01517	.000	1
CalStd8=100	100.00	87.934	-12.1	-12.1	.00155	.000	1
CalStd7=50	50.000	144.41	94.4	189.	.00236	.000	1

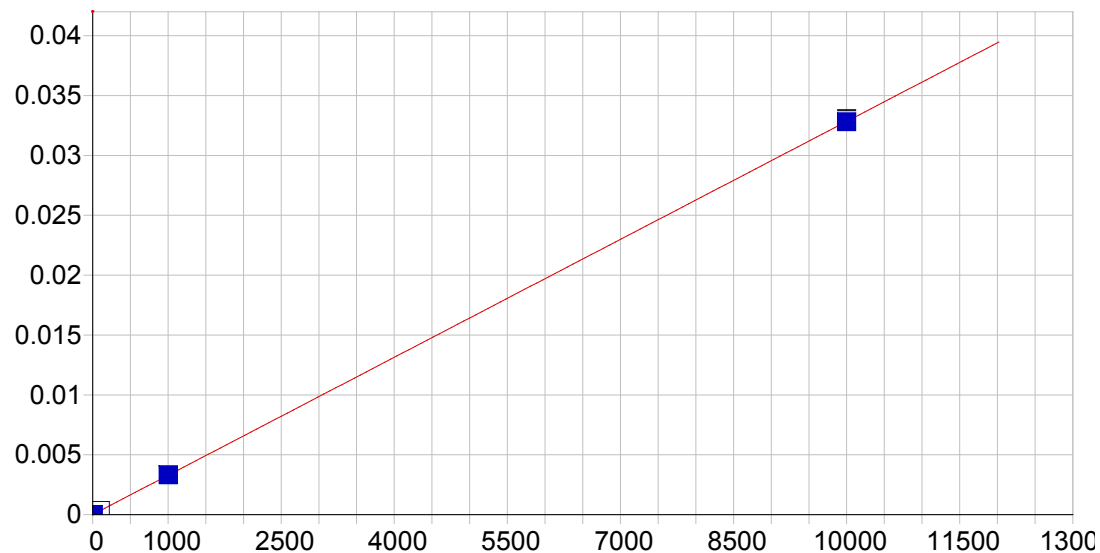


B 249.678 {135}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999983	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.926506	
Predicted MQL:	3.088355	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00011	.000	.000	.00000	.000	1
CalStd8=100	100.00	101.38	1.38	1.38	.00024	.000	1
CalStd5=10	10.000	9.9144	-.086	-.856	.00002	.000	1
CalStd9=100	1000.0	982.01	-18.0	-1.80	.00231	.000	1
CalStd10=10	10000.	10017.	16.7	.167	.02351	.000	1

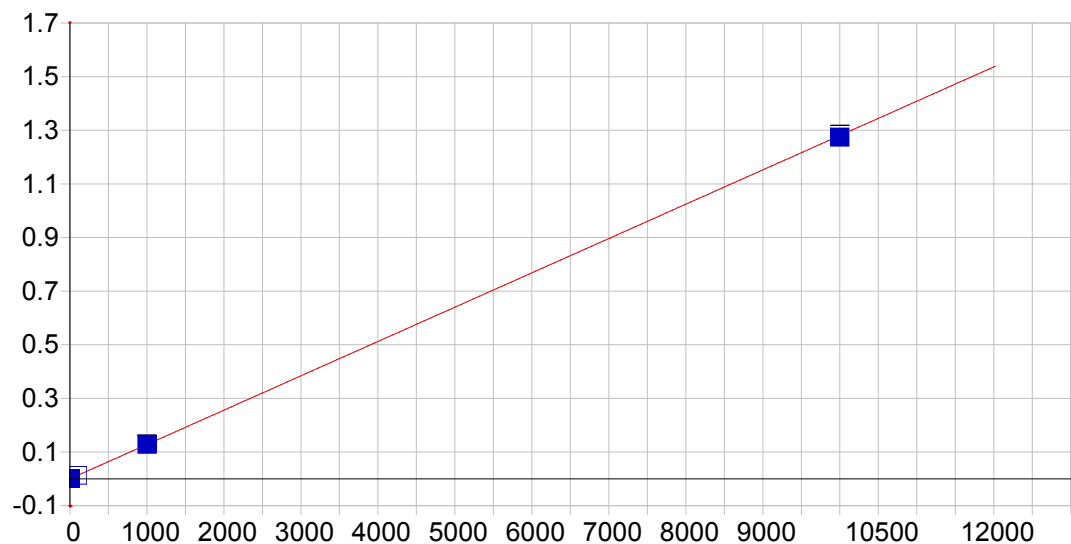


B 249.773 {135}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999994 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.633948
 Predicted MQL: 2.113160

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00044	.000	.000	.00001	.000	1
CalStd8=100	100.00	102.65	2.65	2.65	.00034	.000	1
CalStd5=10	10.000	10.111	.111	1.11	.00004	.000	1
CalStd9=100	1000.0	1007.6	7.62	.762	.00332	.000	1
CalStd10=10	10000.	9989.6	-10.4	-.104	.03289	.000	1

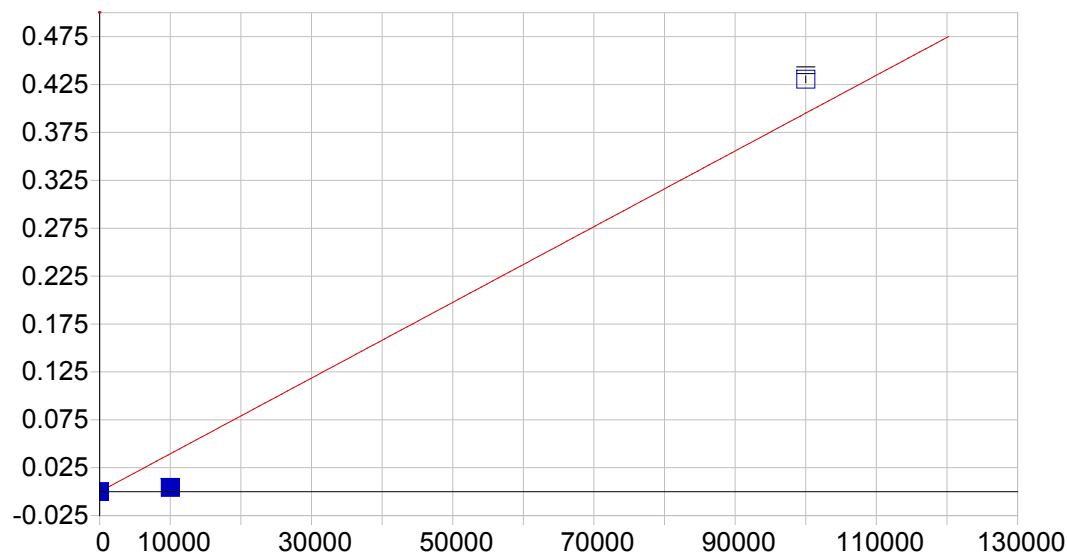


Li 670.784 { 50}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000051 Re-Slope: 1.000000
 A1 (Gain): 0.000128 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999958 Status: OK.
 Std Error of Est: 0.000070
 Predicted MDL: 0.664022
 Predicted MQL: 2.213406

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.21799	-.218	.000	.00002	.000	1
CalStd5=10	10.000	10.344	.344	3.44	.00138	.000	1
CalStd8=100	100.00	101.53	1.53	1.53	.01305	.000	1
CalStd9=100	1000.0	999.23	-.766	-.077	.12798	.002	1
CalStd10=10	10000.	9952.0	-48.0	-.480	1.2742	.010	1

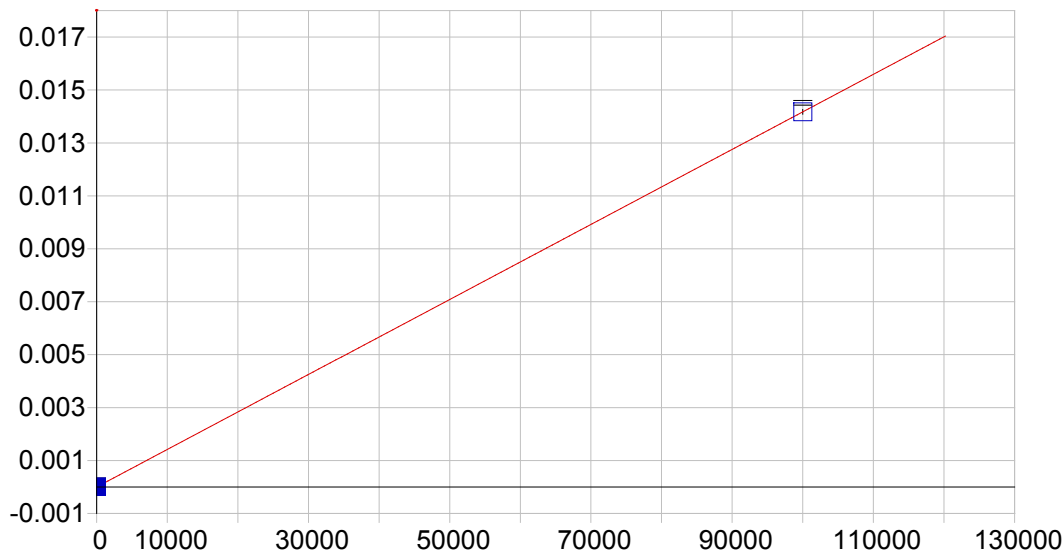


K 766.490 { 44 }

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000027 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.962358 Status: OK.
 Std Error of Est: 0.002026
 Predicted MDL: 22.761312
 Predicted MQL: 75.871041

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.0333	8.03	.000	.00000	.000	1
CalStd9=100	10000.	1074.2	-8930.	-89.3	.00421	.000	1
CalStd12=100	100000.	108920.	8920.	8.92	.43046	.003	1

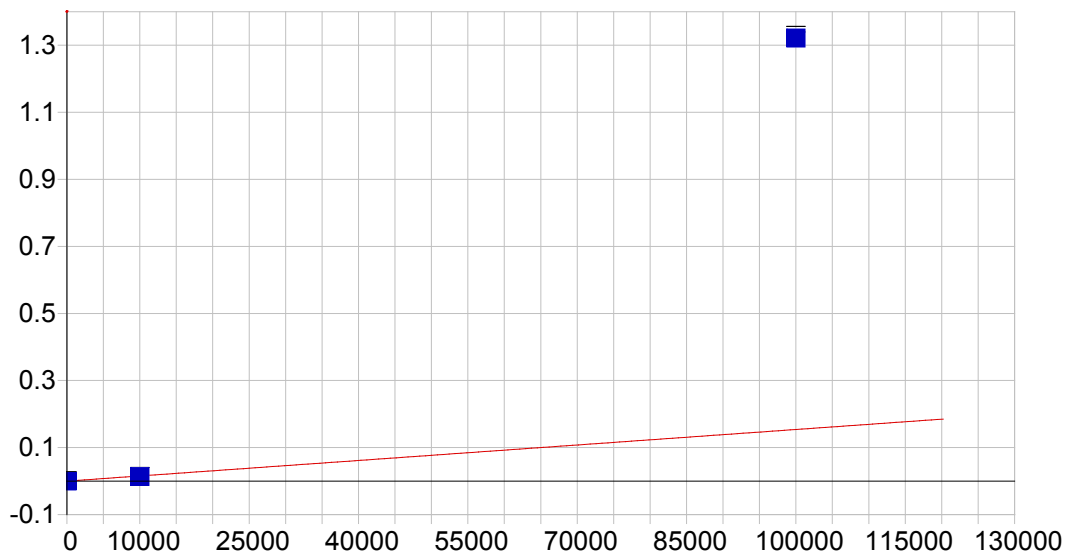


P 213.618 {457}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	4.040958	
Predicted MQL:	13.469861	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100	100000.	100000.	.000	.000	.01417	.000	1

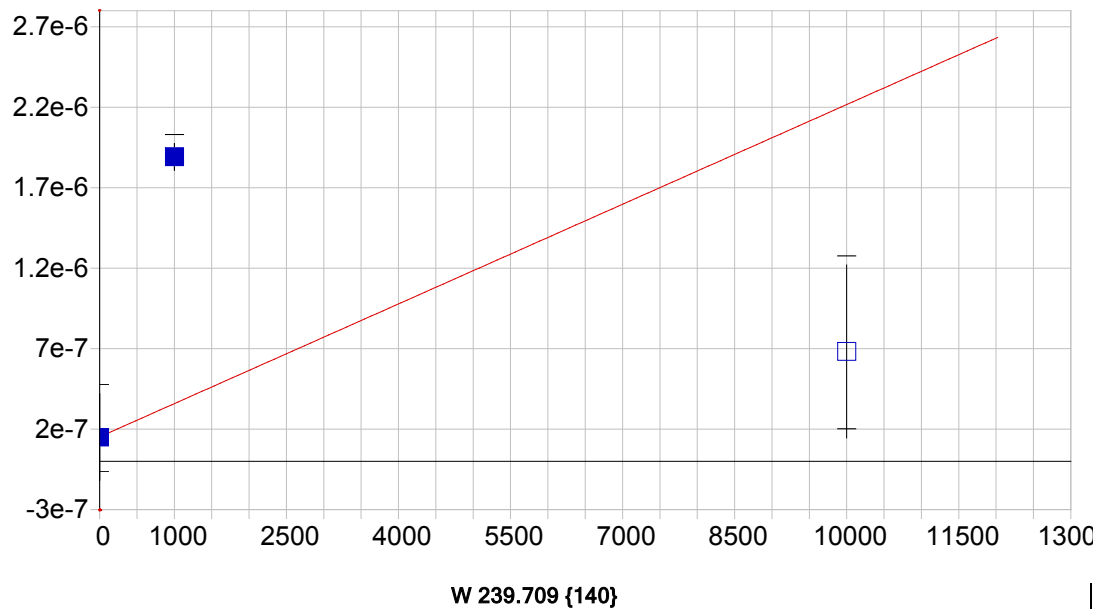


S 182.034 {485}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	-0.000169	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.692853	Status: OK.
Std Error of Est:	0.008708	
Predicted MDL:	28.618570	
Predicted MQL:	95.395235	

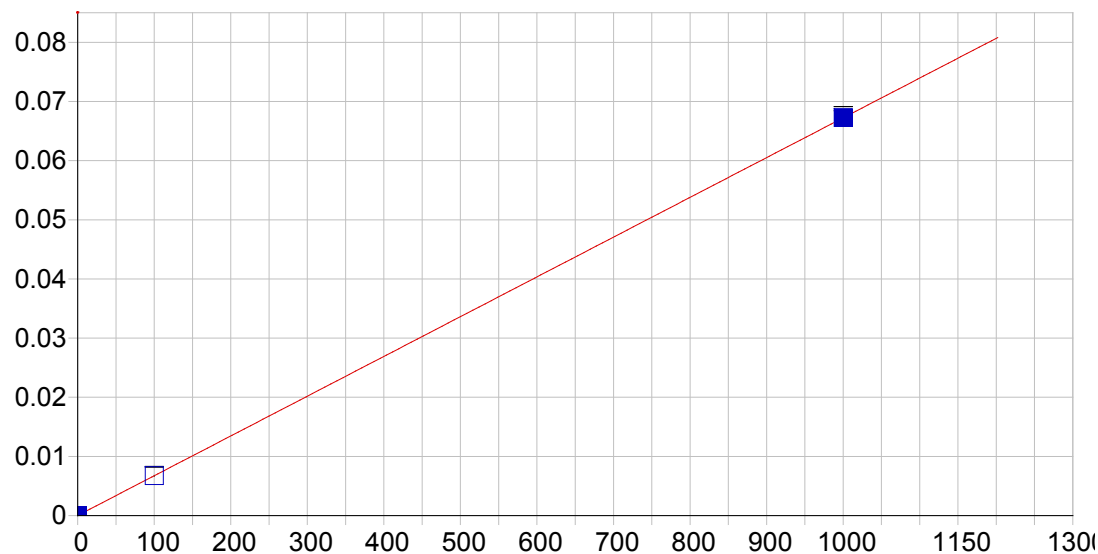
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	139.41	139.	.000	.00005	.000	1
CalStd12-100 100000.		857910.	758000.	758.	1.3209	.008	1
CalStd9=100 10000.		8725.8	-1270.	-12.7	.01327	.000	1



Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.391641	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2477.887911	
Predicted MQL:	8259.626369	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.6823	-6.68	.000	.00000	.000	1
CalStd9=100	1000.0	8425.3	7430.	743.	.00000	.000	1
CalStd12=100	10000.	2569.8	-7430.	-74.3	.00000	.000	1

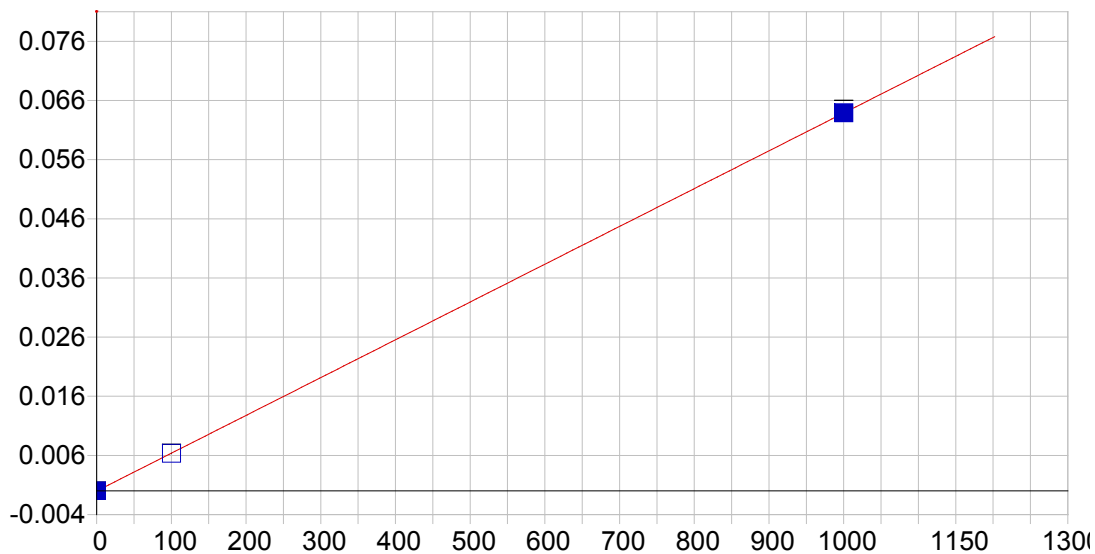


Hg 184.950 (482)

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000015	Re-Slope: 1.000000
A1 (Gain):	0.000067	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	0.728403	
Predicted MQL:	2.428010	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00021	.000	.000	.00002	.000	1
CalStd8=100	100.00	99.764	-.236	-.236	.00672	.000	1
CalStd9=100	1000.0	1000.2	.236	.024	.06725	.000	1



Hg 194.227 {473}

Date of Fit: 12/01/2016 12:25:17 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000013 Re-Slope: 1.000000
 A1 (Gain): 0.000064 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.708281
 Predicted MQL: 2.360938

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00043	.000	.000	-.00001	.000	1
CalStd8=100	100.00	99.525	-.475	-.475	.00635	.000	1
CalStd9=100	1000.0	1000.5	.475	.047	.06391	.001	1

Sample Name: Blank Acquired: 11/30/2016 09:32:03 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.013	.000	.000	.002	.000	.000	.000
Stddev	.000	.00	.00	.000	.000	.003	.00	.000	.001	.000	.00	.00
%RSD	83.0	71.5	28.9	151.	32.6	24.7	1.24	32.4	72.8	326.	46.3	4740.

Elem	Cr2055	Cr2677	Cu2247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.00	.00	.000	.000	.00	.000	.00	.000	.000	.000	.000
%RSD	18.7	434.	78.1	2.13	56.0	110.	.646	150.	65.8	143.	35100.	1970.

Elem	Ni2316	Pb2203	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.389	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.00	.788	.00	.00	.000	.000	.00	.000	.00	.000	.00
%RSD	38.0	82.6	203.	17.8	304.	134.	111.	45.6	23.4	69.1	174.	497.

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1121300.	56597.	9716.2
Stddev	4902.	19208.	67.5
%RSD	.43719	33.939	.69457

Sample Name: CalStd1=0.25 Acquired: 11/30/2016 09:39:11 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	.000
Stddev	.00
%RSD	.554

Int. Std.	Y_3242
Units	Cts/S
Avg	1113900.
Stddev	4159.
%RSD	.37333

Sample Name: CalStd2=0.5 Acquired: 11/30/2016 09:46:35 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Be3130	Cd2265
Units	Cts/S	Cts/S
Avg	.000	.000
Stddev	.00	.000
%RSD	.373	13.3

Int. Std.	Y_3242	Y_2243
Units	Cts/S	Cts/S
Avg	1107100.	9639.1
Stddev	6337.	49.6
%RSD	.57239	.51416

Sample Name: CalStd3=1 Acquired: 11/30/2016 09:53:49 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cu2247	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.001	.000	.000	.000	.000
Stddev	.000	.000	.00	.000	.000	.000	.000	.000
%RSD	35.7	12.2	1.55	5.42	20.4	24.7	49.1	202.

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1111900.	46551.	9583.6
Stddev	3772.	193.	52.9
%RSD	.33926	.41431	.55222

Sample Name: CalStd4=5 Acquired: 11/30/2016 10:01:03 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1890	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.003	.002	.002	.000	.001	.011	.001	.000	.000
Stddev	.000	.000	.00	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	97.5	4.55	5.52	2.07	4.39	1.91	8.90	2.03	.484	4.88	8.47	6.66

Elem	Pb2203	Sb2175	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000
Stddev	.000	.000	.000
%RSD	15.0	21.7	1.49

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1106600.	46982.	9617.4
Stddev	5141.	133.	45.6
%RSD	.46457	.28410	.47414

Sample Name: CalStd5=10 Acquired: 11/30/2016 10:08:17 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.002	.000	.005	.003	.003	.000	.001	.016	.002	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.54	124.	2.16	2.02	1.73	.959	1.20	2.00	3.56	.243	1.70	6.10

Elem	Ni2316	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.001	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.48	12.4	51.5	6.45	39.9	57.1	2.22	2.17

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1106800.	46900.	9605.1
Stddev	2558.	86.	30.3
%RSD	.23115	.18308	.31591

Sample Name: CalStd6=20 Acquired: 11/30/2016 10:15:32 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba2335	Cu2247	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.005	.003	.038	.004	.000	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	.417	2.66	.670	1.30	3.30	8.69	2.52

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1107600.	46673.	9698.9
Stddev	10447.	304.	68.8
%RSD	.94321	.65046	.70976

Sample Name: CalStd7=50 Acquired: 11/30/2016 10:22:43 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	As1937	Ba2335	Cd2265	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.010	.026	.016	.014	.000	.006	.074	.008	.000	.000	.001
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000
%RSD	5.85	1.16	.978	.925	.926	1.54	1.55	.820	.555	.904	.600	7.51

Elem	Se1960	V_2924	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.000	.000	.002
Stddev	.000	.000	.000	.000
%RSD	4.28	.431	.329	1.11

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1129000.	46975.	9794.9
Stddev	3429.	92.	72.0
%RSD	.30374	.19482	.73479

Sample Name: CalStd8=100 Acquired: 11/30/2016 10:29:49 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3968	Cd2265	Co2286	Co2388	Cr2055	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.002	.000	.020	.029	.005	.020	.053	.034	.000	.028	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.952	3.30	10.5	.516	.785	.445	.572	.477	.686	1.40	.249	.914

Elem	Cu2247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Pb2203	Sb2175	Se1960	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.013	.004	.155	.016	.000	.000	.000	.006	23.0	.003	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.8	.000	.000	.000
%RSD	.704	.681	.268	.505	.890	1.09	1.18	1.35	3.30	1.56	1.69	6.55

Elem	Tl1908	V_2924	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.001	.000	.002
Stddev	.000	.000	.000	.000
%RSD	2.86	.783	1.09	.705

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1126200.	46766.	9784.8
Stddev	7195.	162.	48.5
%RSD	.63887	.34575	.49543

Sample Name: CalStd9=1000 Acquired: 11/30/2016 10:36:51 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.002	.017	.003	.194	.155	.052	.000	.175	.523	.339	.003	.281
Stddev	.000	.000	.000	.001	.002	.000	.000	.002	.004	.003	.000	.002
%RSD	1.46	1.32	1.55	.664	1.25	.819	2.25	1.33	.672	.844	.664	.808

Elem	Cr2677	Cu2247	Fe2343	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.125	.001	.001	.000	.039	1.49	.006	.161	.001	.002	.002
Stddev	.000	.001	.000	.000	.000	.000	.01	.000	.001	.000	.000	.000
%RSD	1.07	.723	.910	2.75	5.01	.895	.755	1.43	.775	.937	.843	.665

Elem	Pb2203	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.054	206.	.025	.031	.013	.004	.015	.009	.280	.003	.015
Stddev	.000	2.	.000	.000	.000	.000	.000	.000	.002	.000	.000
%RSD	.745	.872	1.01	.879	1.17	1.45	1.02	.815	.596	.805	1.05

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1114900.	46811.	9565.8
Stddev	6610.	122.	43.6
%RSD	.59287	.25997	.45592

Sample Name: CalStd10=10000 Acquired: 11/30/2016 10:43:23 Type: Cal
Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1937	As1890	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.021	.170	.030	1.40	.003	1.71	3.29	.029	2.69	.035	1.20	.006
Stddev	.000	.002	.000	.01	.000	.01	.03	.000	.02	.000	.01	.000
%RSD	.813	1.10	1.12	.825	1.50	.743	.791	.470	.840	.487	1.10	.515

Elem	Fe2599	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2216	Ni2316	Pb2203	Pb2203	Sb2068	Sb2175
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.010	.000	.350	13.7	.062	.006	.023	.024	.528	1970.	.246	.297
Stddev	.000	.000	.002	.1	.001	.000	.000	.000	.005	7.	.003	.003
%RSD	.820	.966	.470	.923	1.24	.170	.274	.202	.868	.346	1.06	1.09

Elem	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.123	.034	.139	.087	2.70	.026	.149
Stddev	.001	.000	.001	.000	.02	.000	.002
%RSD	1.08	1.11	.941	.482	.636	.288	1.04

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1074600.	46369.	9351.5
Stddev	1247.	110.	77.9
%RSD	.11604	.23742	.83263

Sample Name: CalStd11-100k Acquired: 11/30/2016 10:49:59 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2055	Mn2593	Pb2203	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	24.0	.624	20500.	24.9
Stddev	.0	.007	72.	.0
%RSD	.104	1.08	.350	.046

Int. Std.	Y_3710	Y_2243
Units	Cts/S	Cts/S
Avg	46523.	9380.6
Stddev	48.	20.4
%RSD	.10425	.21788

Sample Name: CalStd12-100000 Acquired: 11/30/2016 10:57:14 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.216	.030	.096	.005
Stddev	.002	.000	.001	.000
%RSD	.706	.525	.541	.569

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1038700.	45818.	9015.7
Stddev	5402.	160.	44.9
%RSD	.52008	.34890	.49847

Sample Name: CalStd13=500000 Acquired: 11/30/2016 11:04:44 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.10	.150	.217	.432	.024
Stddev	.02	.002	.001	.007	.000
%RSD	1.71	1.66	.296	1.67	1.86

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	974560.	43989.	8433.0
Stddev	3463.	206.	15.3
%RSD	.35535	.46745	.18106

Sample Name: CalStd14-1000k Acquired: 11/30/2016 11:12:21 Type: Cal
 Method: DOD Calibration Updated 060614(v1744) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3961	Ca3158	Fe2343	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.12	.274	.328	.765	.045
Stddev	.02	.003	.001	.006	.000
%RSD	.801	.989	.389	.785	.869

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	925830.	42394.	7817.7
Stddev	3691.	94.	29.8
%RSD	.39862	.22067	.38112

Sample Name: icv Acquired: 11/30/2016 11:27:08 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388	Cr2677	Cu2247	Fe2343
Avg	48.5	12300.	2060.	2020.	44.9	10300.	49.3	519.	511.	204.	249.	5490.
Stddev	1.0	121.	32.	23.	.5	96.	.3	2.	3.	1.	2.	47.
%RSD	1.97	.991	1.53	1.12	1.02	.929	.556	.447	.526	.495	.785	.856

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Sb2068	Sb2175	Se2062
Avg	4950.	9990.	541.	501.	526.	535.	510.	516.	515.	502.	519.	2020.
Stddev	35.	149.	1.	9.	3.	4.	5.	5.	4.	4.	6.	31.
%RSD	.703	1.49	.145	1.71	.624	.818	.914	.906	.836	.828	1.20	1.52

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Tl1908	V_2924	Zn2062	Zn2138	Sn1899
Avg	2000.	513.	574.	530.	541.
Stddev	19.	5.	2.	5.	5.
%RSD	.964	.941	.392	.905	.930

Check ? Value Range	None	None	None	None	None
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Sample Name: icv Acquired: 11/30/2016 11:27:08 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1106000.	46870.	9576.3
Stddev	8094.	89.	55.7
%RSD	.73176	.18927	.58119

Sample Name: ICVLL Acquired: 11/30/2016 11:33:54 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2790
Avg	F 40.1	1410.	64.0	31.9	12.9	1610.	16.6	32.4	32.7	31.4	935.	1600.
Stddev	.7	16.	2.6	.5	.1	27.	.2	.7	.7	.3	16.	84.
%RSD	1.76	1.13	4.02	1.54	.422	1.66	1.14	2.08	2.00	1.11	1.69	5.21

Check ?	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2790
Value	60.0											
Range	-30.0%											

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	34.8	31.7	32.9	34.4	66.4	66.9	61.1	33.1	33.2	146.
Stddev	.2	.4	.1	2.2	1.6	1.7	3.6	.6	.3	2.
%RSD	.482	1.20	.241	6.45	2.38	2.46	5.82	1.70	.897	1.23

Check ?	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Value										
Range										

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1106100.	46719.	9666.1
Stddev	5415.	102.	47.3
%RSD	.48951	.21814	.48962

Sample Name: icb Acquired: 11/30/2016 11:48:50 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Avg	-788	15.4	-1.40	-.067	-.279	-29.5	-6.16	-.023	.088	-.643	-.654	2.34
Stddev	.575	13.9	3.99	.183	.093	25.9	.32	.129	.144	.360	.238	11.1
%RSD	73.0	90.1	285.	274.	33.2	87.7	5.19	548.	164.	55.9	36.4	472.

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	1.14	.087	-.051	-.041	.970	.275	2.75	-.320	-.284	-1.47	-19.9
Stddev	.05	.042	.297	.231	1.44	1.33	1.91	2.08	.389	.12	2.5
%RSD	4.57	48.0	588.	566.	149.	484.	69.5	648.	137.	8.19	12.6

Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1121900.	46794.	9787.8
Stddev	6581.	158.	69.1
%RSD	.58657	.33864	.70605

Sample Name: icsa Acquired: 11/30/2016 12:03:16 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Avg	.115	525000.	.011	.185	.000	552000.	.000	-.725	-.581	-.156	486000.
Stddev	.570	1880.	13.0	.514	.101	2230.	.678	.558	.474	1.15	2060.
%RSD	493.	.358	114000.	278.	2630000.	.404	155000.	77.0	81.5	736.	.423

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	547000.	.000	.624	-.410	-.603	.001	.001	-.668	-.002	.000	.000
Stddev	2220.	.349	.451	.557	3.14	7.35	7.44	2.66	1.45	1.13	2.50
%RSD	.405	579000.	72.3	136.	521.	968000.	805000.	398.	83700.	377000.	524000.

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	978520.	43335.	8394.0
Stddev	2670.	225.	48.0
%RSD	.27284	.52031	.57218

Sample Name: icsab Acquired: 11/30/2016 12:10:49 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba2335	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388
Avg	565.	496000.	560.	557.	512.	476.	523.	522000.	473.	505.	467.
Stddev	5.	4030.	12.	22.	2.	4.	4.	4240.	2.	2.	1.
%RSD	.926	.812	2.18	3.96	.419	.803	.773	.813	.443	.493	.152

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Cr2055	Cr2677	Cu2247	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316
Avg	588.	509.	476.	466000.	518000.	538.	506.	516.	530.	485.	476.
Stddev	3.	2.	3.	2630.	3660.	3.	7.	2.	4.	3.	3.
%RSD	.553	.411	.675	.566	.706	.558	1.38	.448	.675	.570	.538

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Sn1899
Avg	475.	552.	567.	536.	434.	533.	489.	547.	519.
Stddev	5.	8.	5.	7.	7.	3.	2.	4.	8.
%RSD	.952	1.52	.855	1.22	1.64	.522	.325	.700	1.56

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: icsab Acquired: 11/30/2016 12:10:49 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	986510.	43031.	8440.7
Stddev	6878.	124.	15.4
%RSD	.69723	.28747	.18248

Sample Name: icvll ag Acquired: 11/30/2016 12:18:56 Type: Unk
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	8.88	115.	-1.82	-.043	-.929	-30.4	5.29	-.067	.113	-.906	-.551	578.
Stddev	.49	106.	2.89	.205	.064	19.3	5.12	.184	.087	.389	.566	663.
%RSD	5.51	92.4	158.	474.	6.89	63.5	96.7	273.	76.5	42.9	103.	115.

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	7.31	.191	.212	-.064	2.52	.523	1.64	-.687	-.328	-.903	-17.4
Stddev	.25	.030	.072	.346	1.82	1.33	3.66	2.38	.279	.117	1.6
%RSD	3.47	15.8	34.0	539.	72.0	254.	222.	346.	85.1	12.9	9.37

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1135200.	45628.	9766.4
Stddev	8831.	98.	48.8
%RSD	.77789	.21564	.49920

Sample Name: ccv1 Acquired: 11/30/2016 19:47:01 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu2247	Fe2343	Mg2790
Avg	471.	5460.	4640.	5080.	484.	5190.	467.	4800.	5220.	4500.	5240.	5200.
Stddev	.	26.	36.	11.	2.	27.	1.	16.	7.	11.	11.	30.
%RSD	.056	.468	.781	.217	.351	.513	.136	.323	.128	.234	.204	.585

Check ? None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Mn2576	Mo2045	Ni2216	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Sn1899
Avg	4840.	4870.	4780.	4680.	4770.	4540.	4490.	4780.	5270.	4600.
Stddev	10.	24.	25.	7.	27.	32.	17.	15.	2.	6.
%RSD	.214	.486	.528	.146	.576	.709	.367	.317	.043	.121

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1144500.	45441.	10216.
Stddev	5526.	164.	16.
%RSD	.48281	.36073	.15964

Sample Name: ccv2 Acquired: 11/30/2016 19:53:18 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	50.2	600.	482.	493.	52.2	527.	51.4	516.	521.	479.	534.	540.
Stddev	.9	12.	5.	1.	.6	.	.3	2.	8.	3.	14.	7.
%RSD	1.78	2.02	.951	.205	1.10	.059	.643	.457	1.45	.540	2.56	1.34

Check ? Chk Pass None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	538.	474.	514.	510.	512.	489.	480.	509.	518.	480.
Stddev	1.	2.	5.	3.	3.	7.	4.	7.	5.	5.
%RSD	.119	.470	.880	.534	.566	1.53	.809	1.32	.991	.941

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1143500.	45273.	10087.
Stddev	10698.	130.	30.
%RSD	.93554	.28798	.29911

Sample Name: ccb Acquired: 11/30/2016 20:00:01 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Avg	-1.27	9.61	1.21	.069	-1.38	-40.0	-5.91	-.130	.363	-.979	-2.15	18.6
Stddev	.34	17.7	1.57	.225	.07	22.3	1.21	.066	.288	.236	.47	6.6
%RSD	26.9	184.	130.	327.	4.84	55.8	20.5	50.7	79.2	24.1	22.1	35.4

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	.219	.139	.035	.506	1.60	-.095	1.89	.959	-.041	-1.42	-19.6
Stddev	.030	.061	.220	.253	1.30	1.29	1.23	.606	.264	.08	1.7
%RSD	13.8	43.8	638.	50.1	81.5	1360.	65.1	63.2	646.	5.60	8.90

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1151000.	45077.	10061.
Stddev	3054.	101.	26.
%RSD	.26535	.22393	.25355

Sample Name: 804616 Acquired: 11/30/2016 20:07:15 Type: Unk
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 10
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-1.03	94900.	-18.5	1680.	-2.65	191000.	19.7	20.9	97.2	222.	64300.
Stddev	.56	3430.	8.0	62.	.07	7250.	1.1	.8	3.5	7.	2240.
%RSD	54.7	3.62	43.1	3.67	2.47	3.79	5.77	3.67	3.61	3.09	3.48

Elem	Fe2599	Mg2790	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	75800.	37400.	638.	762.	18.0	53.4	2200.	2300.	7.66	.303	-3.91
Stddev	2650.	1520.	20.	35.	.4	1.2	53.	87.	1.98	2.42	1.77
%RSD	3.49	4.07	3.07	4.62	2.03	2.28	2.40	3.78	25.9	801.	45.2

Elem	V_2924	Zn2062	Sn1899
Units	ug/L	ug/L	ug/L
Avg	49.4	3860.	71.0
Stddev	1.4	96.	5.9
%RSD	2.91	2.48	8.36

Int. Std.	Y_3242	Y_3710	Y_2243
Units	Cts/S	Cts/S	Cts/S
Avg	1113700.	45573.	9660.5
Stddev	5154.	232.	71.5
%RSD	.46282	.50940	.73960

Sample Name: ccv1 Acquired: 11/30/2016 20:43:25 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2055	Cu2247	Fe2343	Mg2790
Avg	459.	5180.	4640.	4900.	466.	4930.	461.	4680.	5170.	4480.	5070.	4870.
Stddev	3.	82.	16.	62.	4.	36.	1.	43.	10.	11.	41.	152.
%RSD	.679	1.57	.341	1.26	.946	.725	.266	.910	.201	.252	.803	3.12

Check ? None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Mn2576	Mo2045	Ni2216	Pb2203	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Sn1899
Avg	4770.	4760.	4660.	4640.	4750.	4570.	4480.	4640.	5160.	4560.
Stddev	31.	32.	36.	8.	14.	33.	4.	52.	18.	8.
%RSD	.650	.670	.779	.162	.299	.713	.079	1.11	.352	.185

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1130200.	45539.	9940.6
Stddev	6953.	143.	23.9
%RSD	.61523	.31430	.24074

Sample Name: ccv2 Acquired: 11/30/2016 20:49:55 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	49.6	595.	476.	485.	50.3	517.	50.6	508.	505.	473.	522.	522.
Stddev	.2	13.	4.	3.	.4	2.	.5	3.	3.	5.	10.	4.
%RSD	.395	2.24	.867	.584	.756	.335	.900	.656	.687	.954	1.83	.759

Check ? **Chk Pass** None **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	524.	468.	502.	501.	503.	487.	478.	493.	509.	473.
Stddev	3.	4.	3.	4.	4.	7.	7.	2.	4.	5.
%RSD	.635	.833	.677	.871	.795	1.43	1.44	.414	.751	1.03

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1140500.	45227.	10003.
Stddev	7361.	90.	48.
%RSD	.64544	.19962	.48303

Sample Name: ccb Acquired: 11/30/2016 20:56:38 Type: QC
Method: DOD Calibration Updated 060614(v1744) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Ca3968	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Avg	-1.24	-3.70	.597	.193	-1.20	-13.5	-5.91	-.117	.247	-.720	-2.30	4.17
Stddev	.06	17.2	3.23	.149	.12	16.9	1.12	.078	.245	.292	.42	5.04
%RSD	4.43	464.	541.	77.2	10.2	125.	19.0	66.6	99.2	40.6	18.1	121.

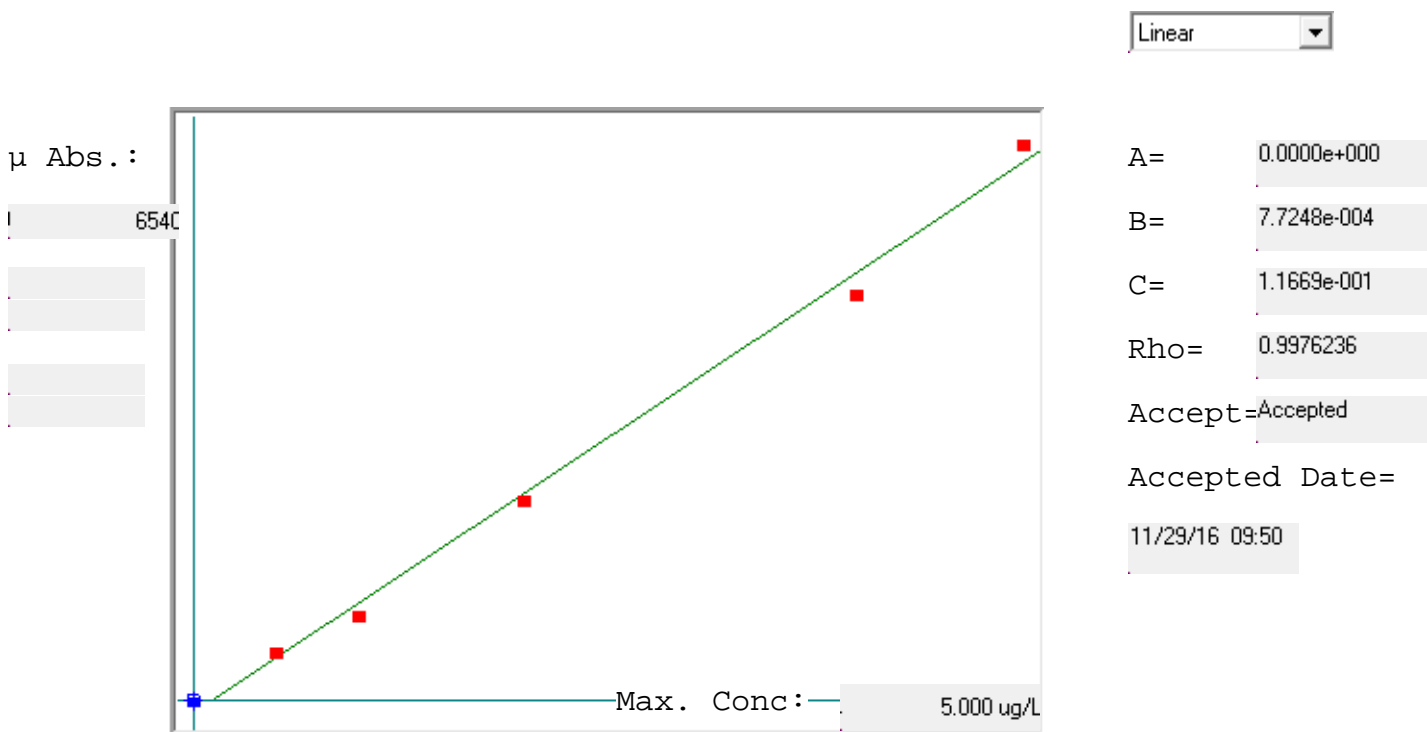
Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
---------------------------	------	------	------	------	------	------	------	------	------	------	------	------

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sn1899
Avg	.184	.203	.067	.203	2.59	-.411	-.383	.433	-.251	-1.38	-18.4
Stddev	.025	.061	.100	.157	.77	.997	2.22	2.19	.100	.18	.6
%RSD	13.9	30.1	148.	77.3	29.6	243.	580.	506.	40.0	12.8	3.02

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None
---------------------------	------	------	------	------	------	------	------	------	------	------	------

Int. Std.	Y_3242	Y_3710	Y_2243
Avg	1145400.	45331.	10060.
Stddev	5361.	47.	33.
%RSD	.46807	.10334	.32963

CVAA water

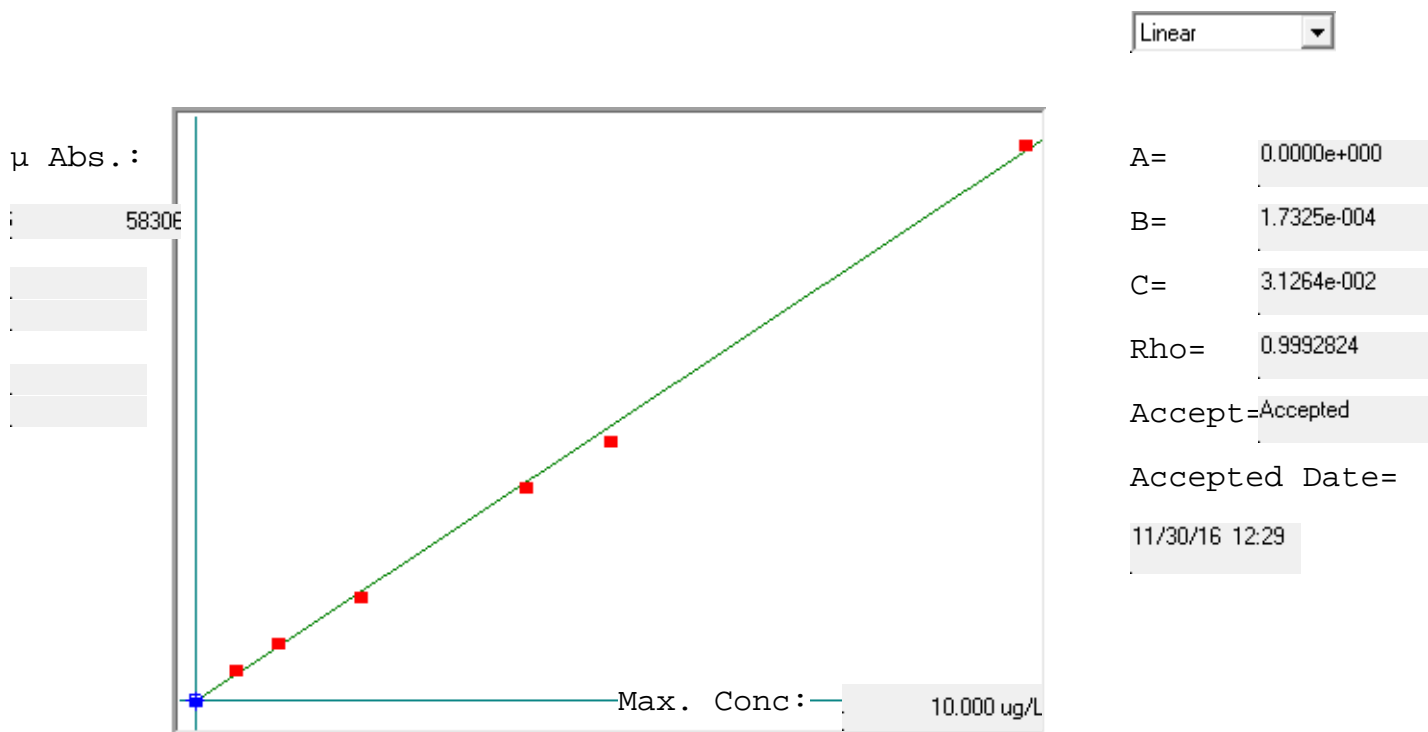


Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Calibration Blank	0.000	0.125	0.125	10	7.726	14	0	8	21	
0.5	0.500	0.555	0.055	568	1.8 %	552	569	571	580	
1.0	1.000	0.896	-0.104	1008	3.2 %	965	996	1021	1052	
2.0	2.000	1.941	-0.059	2362	3.4 %	2251	2333	2399	2466	
4.0	4.000	3.814	-0.186	4786	2.7 %	4585	4768	4853	4939	
5.0	5.000	5.168	0.168	6539	3.6 %	6219	6436	6654	6849	

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
Calibration Blank	29 Nov 2016 07:08:33	Hg	ug/L		-305.500
0.5	29 Nov 2016 07:10:42	Hg	ug/L		906.250
1.0	29 Nov 2016 07:12:53	Hg	ug/L		1579.750
2.0	29 Nov 2016 07:15:04	Hg	ug/L		3394.250
4.0	29 Nov 2016 07:17:15	Hg	ug/L		7037.500
5.0	29 Nov 2016 07:19:26	Hg	ug/L		8971.000
ICV	29 Nov 2016 07:21:37	Hg	ug/L		2.902
ICB	29 Nov 2016 07:23:48	Hg	ug/L		-0.206
81066 MBW60356	29 Nov 2016 07:30:17	Hg	ug/L		-0.238
806415	29 Nov 2016 07:32:27	Hg	ug/L		0.055
MSW806415	29 Nov 2016 07:34:37	Hg	ug/L		3.185
MSDW806415	29 Nov 2016 07:36:46	Hg	ug/L		2.870
PDSW806415	29 Nov 2016 07:38:56	Hg	ug/L		4.304
806725	29 Nov 2016 07:41:08	Hg	ug/L		-0.279
811112 LCSW60365	29 Nov 2016 07:43:19	Hg	ug/L		3.674
811111 MBW60365	29 Nov 2016 07:45:30	Hg	ug/L		-0.209
CCV	29 Nov 2016 07:47:42	Hg	ug/L		3.140
CCB	29 Nov 2016 07:49:51	Hg	ug/L		-0.123
809338	29 Nov 2016 07:52:01	Hg	ug/L		0.111
DUP809338	29 Nov 2016 07:54:12	Hg	ug/L		0.119
MSW809338	29 Nov 2016 07:56:23	Hg	ug/L		3.840
MSDW809338	29 Nov 2016 07:58:33	Hg	ug/L		3.552
809341	29 Nov 2016 08:00:44	Hg	ug/L		-0.219
811074 MBW60358	29 Nov 2016 08:05:05	Hg	ug/L		-0.259
805688	29 Nov 2016 08:07:16	Hg	ug/L		0.061
805712	29 Nov 2016 08:09:26	Hg	ug/L		0.092
DUP805712	29 Nov 2016 08:11:36	Hg	ug/L		0.092
CCV	29 Nov 2016 08:13:47	Hg	ug/L		3.006
CCB	29 Nov 2016 08:15:56	Hg	ug/L		-0.077
MSW805712	29 Nov 2016 08:18:06	Hg	ug/L		4.026
MSDW805712	29 Nov 2016 08:20:16	Hg	ug/L		3.278
811092 LCSW60361	29 Nov 2016 08:22:28	Hg	ug/L		3.592
811091 MBW60361	29 Nov 2016 08:24:41	Hg	ug/L		-0.193
803376	29 Nov 2016 08:26:53	Hg	ug/L		0.096
MSW803376	29 Nov 2016 08:29:03	Hg	ug/L		3.454
PDSW803376	29 Nov 2016 08:31:13	Hg	ug/L		4.575
806573	29 Nov 2016 08:33:23	Hg	ug/L		-0.274
806712	29 Nov 2016 08:35:34	Hg	ug/L		0.079
MSW806712	29 Nov 2016 08:37:44	Hg	ug/L		3.652
CCV	29 Nov 2016 08:39:53	Hg	ug/L		2.614
CCB	29 Nov 2016 08:42:03	Hg	ug/L		-0.111
MSDW806712	29 Nov 2016 08:44:13	Hg	ug/L		3.717
PDSW806712	29 Nov 2016 08:46:23	Hg	ug/L		4.433
807032	29 Nov 2016 08:48:34	Hg	ug/L		0.113
CCV	29 Nov 2016 08:52:39	Hg	ug/L		2.738
CCB	29 Nov 2016 08:54:47	Hg	ug/L		-0.049
Calibration Blank	29 Nov 2016 09:37:36	Hg	ug/L		10.750
0.5	29 Nov 2016 09:39:45	Hg	ug/L		568.000
1.0	29 Nov 2016 09:41:56	Hg	ug/L		1008.500
2.0	29 Nov 2016 09:44:07	Hg	ug/L		2362.250
4.0	29 Nov 2016 09:46:18	Hg	ug/L		4786.250
5.0	29 Nov 2016 09:48:29	Hg	ug/L		6539.500
ICV	29 Nov 2016 09:50:40	Hg	ug/L		4.573
ICB	29 Nov 2016 09:52:50	Hg	ug/L		0.117
ICV	29 Nov 2016 09:53:24	Hg	ug/L		3.115
ICB	29 Nov 2016 09:55:33	Hg	ug/L		-0.106
MSDW806712	29 Nov 2016 09:57:42	Hg	ug/L		0.146
PDSW806712	29 Nov 2016 09:59:52	Hg	ug/L		0.158
807032	29 Nov 2016 10:02:02	Hg	ug/L		0.145
807046	29 Nov 2016 10:04:13	Hg	ug/L		0.118
807047	29 Nov 2016 10:06:24	Hg	ug/L		0.133
807594	29 Nov 2016 10:08:36	Hg	ug/L		0.125
808263	29 Nov 2016 10:10:47	Hg	ug/L		0.118
808264	29 Nov 2016 10:12:56	Hg	ug/L		0.114
808265	29 Nov 2016 10:15:06	Hg	ug/L		0.109
808266	29 Nov 2016 10:17:16	Hg	ug/L		0.123
CCV	29 Nov 2016 10:19:26	Hg	ug/L		3.106
CCB	29 Nov 2016 10:21:35	Hg	ug/L		-0.072
808267	29 Nov 2016 10:23:44	Hg	ug/L		0.099
808268	29 Nov 2016 10:25:54	Hg	ug/L		0.087
808269	29 Nov 2016 10:28:04	Hg	ug/L		0.093

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
808270	29 Nov 2016 10:30:14	Hg	ug/L		0.093
808271	29 Nov 2016 10:32:25	Hg	ug/L		0.105
MSW808271	29 Nov 2016 10:34:35	Hg	ug/L		5.262
MSDW808271	29 Nov 2016 10:36:46	Hg	ug/L		4.855
PDSW808271	29 Nov 2016 10:38:58	Hg	ug/L		6.580
808272	29 Nov 2016 10:41:11	Hg	ug/L		-0.215
CCV	29 Nov 2016 10:48:45	Hg	ug/L		3.053
CCB	29 Nov 2016 10:50:53	Hg	ug/L		-0.064
807718	29 Nov 2016 10:55:13	Hg	ug/L		0.285
MSW807718	29 Nov 2016 10:57:23	Hg	ug/L		5.620
MSDW807718	29 Nov 2016 10:59:33	Hg	ug/L		5.478
PDSW807718	29 Nov 2016 11:01:43	Hg	ug/L		7.079
811025 LCSW60351	29 Nov 2016 11:03:54	Hg	ug/L		5.485
811024 MBW60351	29 Nov 2016 11:06:06	Hg	ug/L		-0.240
807696	29 Nov 2016 11:08:18	Hg	ug/L		0.082
DUP807696	29 Nov 2016 11:10:29	Hg	ug/L		0.093
MSW807696	29 Nov 2016 11:12:40	Hg	ug/L		5.280
CCV	29 Nov 2016 11:18:33	Hg	ug/L		3.161
CCB	29 Nov 2016 11:20:42	Hg	ug/L		-0.089
MSDW807696	29 Nov 2016 11:22:51	Hg	ug/L		5.080
808426	29 Nov 2016 11:25:01	Hg	ug/L		-0.165
808434	29 Nov 2016 11:27:12	Hg	ug/L		0.096
808797	29 Nov 2016 11:29:23	Hg	ug/L		0.095
808798	29 Nov 2016 11:31:33	Hg	ug/L		0.143
811020 LCSW60350	29 Nov 2016 11:33:44	Hg	ug/L		3.009
811019 MBW60350	29 Nov 2016 11:35:53	Hg	ug/L		-0.013
804532	29 Nov 2016 11:38:04	Hg	ug/L		0.138
804535	29 Nov 2016 11:40:14	Hg	ug/L		0.136
DUP804535	29 Nov 2016 11:42:25	Hg	ug/L		0.166
CCV	29 Nov 2016 11:44:35	Hg	ug/L		3.128
CCB	29 Nov 2016 11:46:44	Hg	ug/L		-0.051
MSW804535	29 Nov 2016 11:48:53	Hg	ug/L		5.154
MSDW804535	29 Nov 2016 11:51:05	Hg	ug/L		4.737
804566	29 Nov 2016 11:53:17	Hg	ug/L		-0.121
804567	29 Nov 2016 11:55:28	Hg	ug/L		0.107
811124 LCSW60367	29 Nov 2016 11:57:39	Hg	ug/L		7.645
811123 MBW603697	29 Nov 2016 11:59:49	Hg	ug/L		-0.279
804577	29 Nov 2016 12:02:01	Hg	ug/L		0.148
DUP804577	29 Nov 2016 12:04:12	Hg	ug/L		0.154
MSW804577	29 Nov 2016 12:06:22	Hg	ug/L		5.082
MSDW804577	29 Nov 2016 12:08:33	Hg	ug/L		4.574
CCV	29 Nov 2016 12:14:23	Hg	ug/L		3.098
CCB	29 Nov 2016 12:16:31	Hg	ug/L		-0.085
811037 LCSW60356	29 Nov 2016 12:23:02	Hg	ug/L		2.356
811112 LCSW60365	29 Nov 2016 12:25:13	Hg	ug/L		2.459
811075 LCSW60358	29 Nov 2016 12:27:24	Hg	ug/L		2.340
811092 LCSW60361	29 Nov 2016 12:29:35	Hg	ug/L		2.927
MSW808271	29 Nov 2016 12:31:46	Hg	ug/L	10	0.432
PDSW808271	29 Nov 2016 12:33:56	Hg	ug/L	10	0.768
811071 LCSW60357	29 Nov 2016 12:36:07	Hg	ug/L		3.086
811070 MBW60357	29 Nov 2016 12:38:17	Hg	ug/L		-0.020
CCV	29 Nov 2016 12:40:28	Hg	ug/L		3.180
CCB	29 Nov 2016 12:42:37	Hg	ug/L		-0.030
MSW807718	29 Nov 2016 12:44:46	Hg	ug/L	10	0.667
MSDW807718	29 Nov 2016 12:46:57	Hg	ug/L	10	0.647
MSW807696	29 Nov 2016 12:51:18	Hg	ug/L	10	0.628
MSDW807696	29 Nov 2016 12:53:29	Hg	ug/L	10	0.572
MSW804535	29 Nov 2016 12:55:40	Hg	ug/L	10	0.561
811124 LCSW60367	29 Nov 2016 12:57:51	Hg	ug/L		3.135
MSW804577	29 Nov 2016 13:00:02	Hg	ug/L	10	0.422
811037 LCSW60356	29 Nov 2016 13:02:13	Hg	ug/L		2.980
811075 LCSW603358	29 Nov 2016 13:04:24	Hg	ug/L		2.843
CCV	29 Nov 2016 13:06:34	Hg	ug/L		2.823
CCB	29 Nov 2016 13:08:43	Hg	ug/L		-0.072
811025 LCSW60351	29 Nov 2016 13:17:26	Hg	ug/L		4.626
CCV	29 Nov 2016 13:19:37	Hg	ug/L		2.949
CCB	29 Nov 2016 13:21:46	Hg	ug/L		-0.024

CVAA SOIL



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Calibration Blank	0.000	0.040	0.040	51	3.082	48	56	49	51	
0.5	0.500	0.601	0.101	3289	2.7 %	3166	3255	3335	3401	
1.0	1.000	1.104	0.104	6193	2.5 %	5960	6157	6283	6375	
2.0	2.000	1.920	-0.080	10900	2.4 %	10501	10835	11058	11208	
4.0	4.000	3.937	-0.063	22545	2.5 %	21718	22350	22875	23239	
5.0	5.000	4.765	-0.235	27321	3.3 %	26109	26918	27757	28502	
10.0	10.000	10.133	0.133	58305	2.7 %	56179	57645	59040	60358	

113016so pdf

Method: CVA SOIL

Operator: Admin

Date of Analysis: 30 Nov 2016 06:50:41

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
Calibration Blank	30 Nov 2016 10:21:08	Hg	ug/L		55.000
0.5	30 Nov 2016 10:23:16	Hg	ug/L		3289.250
1.0	30 Nov 2016 10:25:27	Hg	ug/L		6193.750
2.0	30 Nov 2016 10:27:39	Hg	ug/L		10900.500
4.0	30 Nov 2016 10:29:51	Hg	ug/L		22545.500
5.0	30 Nov 2016 10:32:03	Hg	ug/L		27321.500
10.0	30 Nov 2016 10:34:16	Hg	ug/L		65396.500
Calibration Blank	30 Nov 2016 12:24:54	Hg	ug/L		51.000
10.0	30 Nov 2016 12:27:03	Hg	ug/L		58305.500
ICV	30 Nov 2016 12:29:14	Hg	ug/L		3.009
ICB	30 Nov 2016 12:31:30	Hg	ug/L		-0.092
MRL	30 Nov 2016 12:33:41	Hg	ug/L		0.796
811271 LCSS60386	30 Nov 2016 12:35:51	Hg	ug/L		1.909
811270 MBS60386	30 Nov 2016 12:38:00	Hg	ug/L		-0.045
809172	30 Nov 2016 12:40:11	Hg	ug/L		0.387
DUP809172	30 Nov 2016 12:42:20	Hg	ug/L		0.466
MSS809172	30 Nov 2016 12:44:29	Hg	ug/L		2.423
MSDS809172	30 Nov 2016 12:46:39	Hg	ug/L		2.391
809174	30 Nov 2016 12:48:51	Hg	ug/L		0.066
809175	30 Nov 2016 12:51:02	Hg	ug/L		0.374
809176	30 Nov 2016 12:53:13	Hg	ug/L		0.332
CCV	30 Nov 2016 13:04:54	Hg	ug/L		3.160
CCB	30 Nov 2016 13:07:02	Hg	ug/L		-0.059
809177	30 Nov 2016 13:09:14	Hg	ug/L		0.020
809178	30 Nov 2016 13:11:25	Hg	ug/L		0.425
809179	30 Nov 2016 13:13:36	Hg	ug/L		0.427
809180	30 Nov 2016 13:15:46	Hg	ug/L		0.430
809181	30 Nov 2016 13:17:55	Hg	ug/L		0.245
809182	30 Nov 2016 13:20:04	Hg	ug/L		0.263
809183	30 Nov 2016 13:22:14	Hg	ug/L		0.486
809184	30 Nov 2016 13:24:23	Hg	ug/L		0.340
809185	30 Nov 2016 13:26:32	Hg	ug/L		0.667
811262 LCSS60384	30 Nov 2016 13:28:42	Hg	ug/L		2.156
CCV	30 Nov 2016 13:33:43	Hg	ug/L		2.994
CCB	30 Nov 2016 13:35:52	Hg	ug/L		-0.052
811261 MBS60384	30 Nov 2016 13:38:04	Hg	ug/L		0.032
804690	30 Nov 2016 13:40:14	Hg	ug/L	10	0.300
DUP804690	30 Nov 2016 13:42:26	Hg	ug/L	10	0.348
MSS804690	30 Nov 2016 13:44:37	Hg	ug/L	10	0.687
MSDS804690	30 Nov 2016 13:46:48	Hg	ug/L	10	0.565
811257 LCSS60383	30 Nov 2016 13:48:58	Hg	ug/L		2.151
811256 MBS60383	30 Nov 2016 13:51:08	Hg	ug/L		-0.037
CCV	30 Nov 2016 14:04:50	Hg	ug/L		2.702
CCB	30 Nov 2016 14:06:58	Hg	ug/L		-0.060
804616	30 Nov 2016 14:11:20	Hg	ug/L		7.066
811267 LCSS60385	30 Nov 2016 14:13:48	Hg	ug/L		1.921
811266 MBS60385	30 Nov 2016 14:16:03	Hg	ug/L		-0.044
806690	30 Nov 2016 14:18:16	Hg	ug/L	10	0.329
MSS806690	30 Nov 2016 14:20:27	Hg	ug/L	10	0.817
MSDS806690	30 Nov 2016 14:22:39	Hg	ug/L	10	0.733
PDSS806690	30 Nov 2016 14:24:49	Hg	ug/L	10	2.772
806734	30 Nov 2016 14:26:59	Hg	ug/L		0.064
809820	30 Nov 2016 14:29:12	Hg	ug/L	10	0.261
CCV	30 Nov 2016 14:31:22	Hg	ug/L		3.060
CCB	30 Nov 2016 14:33:30	Hg	ug/L		-0.063
810272	30 Nov 2016 14:35:42	Hg	ug/L		0.401
MRL	30 Nov 2016 14:37:52	Hg	ug/L		0.838
MDL	30 Nov 2016 14:40:02	Hg	ug/L		0.831
804613	30 Nov 2016 14:42:12	Hg	ug/L	10	2.420
DUP804613	30 Nov 2016 14:44:22	Hg	ug/L	10	2.992
MSS804613	30 Nov 2016 14:46:35	Hg	ug/L	10	3.350
MSDS804613	30 Nov 2016 14:48:48	Hg	ug/L	10	2.798
CCV	30 Nov 2016 14:51:01	Hg	ug/L		2.974
CCB	30 Nov 2016 14:53:12	Hg	ug/L		-0.064

**METALS
LOGBOOK
DOCUMENTS**

MICP WATER QSM Analytical Run
132729 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	808863			ICV			MICP WATER QSM	0			
	808864			ICVLL			MICP WATER QSM	0			
	808865			ICB			MICP WATER QSM	0			
	808866			ICSA			MICP WATER QSM	0			
	808867			ICSAB			MICP WATER QSM	0			
	808868			ICVLL			MICP WATER QSM	0			
	808869			CCV1			MICP WATER QSM	0			
	808870			CCV2			MICP WATER QSM	0			
	808871			CCB			MICP WATER QSM	0			
	805599			LCSW			ICP TOTAL QSM	60178			
	805598			MBW			ICP TOTAL QSM	60178			
123585	804577	VEC-SUMP1-110916	11/09/2016 1230	L	TETRA TECH	VE CARTER SCHOOL	ICP TOTAL QSM	60178	SW	4	
	808872			DUP			ICP TOTAL QSM	60178			
	805600	VEC-SUMP1-110916	11/09/2016 1230	MSW			ICP TOTAL QSM	60178			
	805601	VEC-SUMP1-110916	11/09/2016 1230	MSDW			ICP TOTAL QSM	60178			
	805602	VEC-SUMP1-110916	11/09/2016 1230				ICP TOTAL QSM	60178			
	808873			CCV1			MICP WATER QSM	0			
	808874			CCV2			MICP WATER QSM	0			
	808875			CCB			MICP WATER QSM	0			

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

MICP WATER QSM Analytical Run
132729 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECRPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	808876			PDSW	804577		ICP TOTAL QSM	0			
	808877			CCV1			MICP WATER QSM	0			
	808878			CCV2			MICP WATER QSM	0			
	808879			CCB			MICP WATER QSM	0			
23	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

MICP SOIL QSM Analytical Run
133031 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	812440			ICV			MICP SOIL QSM	0			
	812441			ICB			MICP SOIL QSM	0			
	812442			ICVLL			MICP SOIL QSM	0			
	812443			ICSA			MICP SOIL QSM	0			
	812444			ICSAB			MICP SOIL QSM	0			
	812445			ICVLL			MICP SOIL QSM	0			
	812446			CCV1			MICP SOIL QSM	0			
	812447			CCV2			MICP SOIL QSM	0			
	812448			CCB			ICP QSM	0			
	809600			LCSS			ICP QSM	60301			
	809599			MBS			MICP SOIL QSM	60301			
	812449			CCV1			MICP SOIL QSM	0			
	812450			CCV2			MICP SOIL QSM	0			
	812451			CCB			ICP QSM	60301			
123585	804613	VEC-WASTE5-110916	11/09/2016 1238	L	804613	TETRA TECH VE CARTER SCHOOL	ICP QSM	0	S	4	
	812452			DUP	804613		ICP QSM	60301			
	809601	VEC-WASTE5-110916	11/09/2016 1238	MSS	804613		ICP QSM	60301			
	809602	VEC-WASTE5-110916	11/09/2016 1238	MSDS	809602		ICP QSM	60301			
	809603	VEC-WASTE5-110916	11/09/2016 1238				ICP QSM	60301			

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

Distribution:

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MICP SOIL QSM Analytical Run
133031 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	812453						ICP QSM				
123585	804616	VEC-WASTE6-110916	11/09/2016 1240	PDSS 804613	TETRA TECH	VE CARTER SCHOOL	ICP QSM	0	S	4	
123585	804625	VEC-PAINT3-110916	11/09/2016 1147		TETRA TECH	VE CARTER SCHOOL	ICP QSM	60301	S	4	
	812454						MICP SOIL QSM	60301			
	812455			CCV1			MICP SOIL QSM	0			
	812456			CCV2			MICP SOIL QSM	0			
	812602			CCB			MICP SOIL QSM	0			
	812603			ICV			MICP SOIL QSM	0			
	812604			ICVLL			MICP SOIL QSM	0			
	812605			ICB			MICP SOIL QSM	0			
	812606			MRL			MICP SOIL QSM	0			
	812607			ICSA			MICP SOIL QSM	0			
	812608			ICSAB			MICP SOIL QSM	0			
	812609			ICVLL			MICP SOIL QSM	0			
	812610			CCV1			MICP SOIL QSM	0			
	812611			CCV2			MICP SOIL QSM	0			
	812611			CCB			MICP SOIL QSM	0			
123585	804619	VEC-PAINT1-110916	11/09/2016 1129		TETRA TECH	VE CARTER SCHOOL	ICP QSM	0	S	4	
123585	804624	VEC-PAINT2-110916	11/09/2016 1135		TETRA TECH	VE CARTER SCHOOL	ICP QSM	60301	S	4	
123585	804626	VEC-PAINT4-110916	11/09/2016 1223		TETRA TECH	VE CARTER SCHOOL	ICP QSM	60301	S	4	

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

Distribution: Metals

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MICP SOIL QSM Analytical Run
133031 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	812612			CCV1			MICP SOIL QSM	0			
	812613			CCV2			MICP SOIL QSM	0			
	812614			CCB			MICP SOIL QSM	0			
	813319			ICV			MICP SOIL QSM	0			
	813320			ICVLL			MICP SOIL QSM	0			
	813321			ICB			MICP SOIL QSM	0			
	813322			ICSA			MICP SOIL QSM	0			
	813323			ICSAB			MICP SOIL QSM	0			
	813324			CCV1			MICP SOIL QSM	0			
	813325			CCV2			MICP SOIL QSM	0			
	813326			CCB			MICP SOIL QSM	0			
123585 RERUN	804616	11/09/2016 1240 VEC-WASTE6-110916			TETRA TECH	VE CARTER SCHOOL	ICP QSM	60301	S	4	
	813327			CCV1			MICP SOIL QSM	0			
	813328			CCV2			MICP SOIL QSM	0			
	813329			CCB			MICP SOIL QSM	0			
53	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

Distribution:

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MERCURY QSM Analytical Run
133084 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	811969			ICV			MERCURY QSM	0			
	811970			ICB			MERCURY QSM	0			
	811977			CCV			MERCURY QSM	0			
	811978			CCB			MERCURY QSM	0			
	811123			MBW			MERCURY TOTAL QSM	60367			
123585	804577	11/09/2016	1230		TETRA TECH	VE CARTER SCHOOL	MERCURY TOTAL QSM	60367	SW	4	
		VEC-SUMP1-110916					MERCURY TOTAL QSM	60367			
	811125	11/09/2016	1230				MERCURY TOTAL QSM	60367			
		VEC-SUMP1-110916		DUP	804577		MERCURY TOTAL QSM	60367			
	811127	11/09/2016	1230				MERCURY TOTAL QSM	60367			
		VEC-SUMP1-110916		MSDW	811126		MERCURY QSM	60367			
	811979			CCV			MERCURY QSM	0			
	811980			CCB			MERCURY QSM	0			
	811971			CCV			MERCURY QSM	0			
	811972			CCB			MERCURY QSM	0			
	811124			LCSW			MERCURY TOTAL QSM	60367			
	811126	11/09/2016	1230				MERCURY TOTAL QSM	60367			
		VEC-SUMP1-110916		MSW	804577		MERCURY QSM	0			
	811973			CCV			MERCURY QSM	0			
	811974			CCB			MERCURY QSM	0			
16	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

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MERCURY QSM SOIL Analytical Run
133129 on 12/01/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	812980			ICV			MERCURY QSM SOIL	0			
	812981			ICB			MERCURY QSM SOIL	0			
	812985			CCV			MERCURY QSM SOIL	0			
	812986			CCB			MERCURY QSM SOIL	0			
	811257			LCSS			MERCURY QSM	60383			
	811256			MBS			MERCURY QSM	60383			
	812987			CCV			MERCURY QSM SOIL	0			
	812988			CCB			MERCURY QSM SOIL	0			
123585	804616	11/09/2016 1240	VEC-WASTE6-110916		TETRA TECH	VE CARTER SCHOOL	MERCURY QSM	60383	S	4	
	812989			CCV			MERCURY QSM SOIL	0			
	812990			CCB			MERCURY QSM SOIL	0			
123585	804613	11/09/2016 1238	VEC-WASTE5-110916		TETRA TECH	VE CARTER SCHOOL	MERCURY QSM	60383	S	4	
	811258	11/09/2016 1238	VEC-WASTE5-110916	DUP	804613		MERCURY QSM	60383			
	811259	11/09/2016 1238	VEC-WASTE5-110916	MSS	804613		MERCURY QSM	60383			
	811260	11/09/2016 1238	VEC-WASTE5-110916	MSDS	811259		MERCURY QSM	60383			
	812992			CCV			MERCURY QSM SOIL	0			
	812993			CCB			MERCURY QSM SOIL	0			
17	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

Distribution:

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PREP WORKSHEET
on 12/01/2016

Prep Batch **60,178** Date Prepped: **11/14/2016** Prepped By **NAH**

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	805598	MBW		ICP TOTAL QSM	LIQUID	50		50.0		
	805599	LCSW		ICP TOTAL QSM	LIQUID	50		50.0		
123585	804577			ICP TOTAL QSM	SURFACE WATER	50		50.0	4	
	805600	DUP	804577	ICP TOTAL QSM	SURFACE WATER	50		50.0		
	805601	MSW	804577	ICP TOTAL QSM	SURFACE WATER	50		50.0		
	805602	MSDW	805601	ICP TOTAL QSM	SURFACE WATER	50		50		

Notes: _____

PREP WORKSHEET
on 12/01/2016

Prep Batch 60,301 Date Prepped: 11/23/2016 Prepped By NAH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	809599	MBS		ICP QSM	SOLID	50	2.00			
	809600	LCSS		ICP QSM	SOLID	50	2.00			
123585	804613			ICP QSM	SOIL	50	2.20		4	
	804616			ICP QSM	SOIL	50	1.82		4	
	804616			ICP QSM	SOIL	50	1.82		4	
	804619			ICP QSM	SOIL	50	1.98		4	
	804624			ICP QSM	SOIL	50	1.93		4	
	804625			ICP QSM	SOIL	50	1.58		4	
	804626			ICP QSM	SOIL	50	0.69		4	
	809601	DUP	804613	ICP QSM	SOIL	50	2.15			
	809602	MSS	804613	ICP QSM	SOIL	50	1.89			
	809603	MSDS	809602	ICP QSM	SOIL	50	1.82			

Notes: _____

PREP WORKSHEET
on 12/01/2016

Prep Batch 60,367 Date Prepped: 11/28/2016 Prepped By LJF

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	811123	MBW		MERCURY TOTAL QSM	LIQUID	25		25.0		
	811124	LCSW		MERCURY TOTAL QSM	LIQUID	25		25.0		
123585	804577			MERCURY TOTAL QSM	SURFACE WATER	25		25.0	4	
	811125	DUP	804577	MERCURY TOTAL QSM	SURFACE WATER	25		25.0		
	811126	MSW	804577	MERCURY TOTAL QSM	SURFACE WATER	25		25.0		
	811127	MSDW	811126	MERCURY TOTAL QSM	SURFACE WATER	25		25.0		

Notes: _____

PREP WORKSHEET
on 12/01/2016

Prep Batch 60,383 Date Prepped: 11/29/2016 Prepped By LJF

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	811256	MBS		MERCURY QSM	SOLID	25	0.60			
	811257	LCSS		MERCURY QSM	SOLID	25	0.60			
123585	804613			MERCURY QSM	SOIL	25	0.55		4	
	804616			MERCURY QSM	SOIL	25	0.55		4	
	811258	DUP	804613	MERCURY QSM	SOIL	25	0.58			
	811259	MSS	804613	MERCURY QSM	SOIL	25	0.57			
	811260	MSDS	811259	MERCURY QSM	SOIL	25	0.60			

Notes: _____

(Prep Methods 3010, 3020, 3005, & 3050)

*Matrix: liquid

Prep Batch #:	60178
Prep Method:	3010
Analyst:	NAH
Date:	11/14/2016
Start Time:	15:00

Balance ID: _____

End Time: 20:00

Block Used: A

<u>Reagent:</u>	<u>Ref. #</u>
Nitric Acid:	AB.626
Hydrochloric Acid:	AB.679
Hydrogen Peroxide:	

Cell Position for Temp. Check: b2

Initial-DigestionTemp (°C):	93
-----------------------------	----

Final-Digestion Temp (°C): 93

[illegible]

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate

*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

0.2	M12977
0.5	M12951
0.5	M12946
0.1	M12677

0.2	M12977
0.5	M12951
0.5	M12946
0.1	M12677

Reviewed By/Date:

(Prep Methods 3010, 3020, 3005, & 3050)

*Matrix: solid

Balance ID: WCBO3

End Time: 09:00

Block Used: A

Initial-DigestionTemp (°C): 93

Final-Digestion Temp (°C):	93
----------------------------	----

7060/7740= GFAA, As & Se Liquids

<u>Reagent:</u>	<u>Ref. #</u>
Nitric Acid:	AB.626
Hydrochloric Acid:	AB.679
Hydrogen Peroxide:	AB.616

Leave >>
blank
if N/A

*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

LCS	Spike Amount (ml)	Spike Ref. #
	1	M12977
	0.5	M12951
	0.5	M12946
	0.1	M12677

Reviewed By/Date:

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID:	M13006
ICV/LCSW ID:	M13005

*Matrix: SW

Balance ID:

7470A= Hg Liquids

7471A= Hg Solids

Prep Batch #:	60367
Prep Method:	7470A
Analyst:	LJF
Date:	11/28/2016
Start Time:	09:35

End Date: 11/28/2016

End Time: 11:35

Digestion Tube Lot #: 6416053

Block Used: A

Cell Position for Temp. Check: D-5

Initial-DigestionTemp (°C): 94.3

Final-Digestion Temp (°C): 94.3

Additional KMnO₄ added (ml): _____

Aqua Regia added (ml)

Calibration Stds: M13003

Reagent:	Ref. #
----------	--------

HNO3: AB.628

H₂SO₄: AB.605

NaCl/Hydrox.SO4: M12858

KMnO₄: M12979

K2S2O8: M12830

Aqua-Regia:

Sample ID		(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
811123	(MB)		25.0	25
811124	(LCS)		25.0	25
804577			25.0	25
	Comments:			25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
				25
811125	(DUP)		25.0	25
811126	(MS)	Parent Sample	25.0	25
811127	(MSD)	804577	25.0	25
	(DUP)			25
	(MS)	Parent Sample		25
	(MSD)			25
	(DUP)			25
	(MS)	Parent Sample		25
	(MSD)			25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate

*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100ug/L	M13004

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date:

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID:	M13006
ICV/LCSW ID:	M13005

*Matrix: SOIL

Balance ID: WCB03

End Date: 11/29/2016

End Time: 07:30

Digestion Tube Lot #: 6416053

Block Used: B

Cell Position for Temp. Check: A-5

Initial-DigestionTemp (°C): 92.8

Final-Digestion Temp (°C): 92.8

Additional KMnO₄ added (ml): _____

Aqua Regia added (ml)	1.25
-----------------------	------

Calibration Stds: M13003

7470A= Hg Liquids

7471A= Hg Solids

Prep Batch #:	60383
Prep Method:	7471A
Analyst:	LJF
Date:	11/29/2016
Start Time:	07:00

Reagent:	Ref. #
----------	--------

HNO3: AB.628

H2SO4: AB.605

NaCl/Hydrox.SO4: M12858

KMnO₄: M12979

K2S2O8: M12830

Aqua-Regia: M13042

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
811256	(MB)		0.60		25
811257	(LCS)		0.60		25
804613			0.55		25
804616	Comments:		0.55		25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
					25
811258	(DUP)		0.58		25
811259	(MS) Parent Sample		0.57		25
811260	(MSD)	804613	0.60		25
	(DUP)				25
	(MS) Parent Sample				25
	(MSD)				25
	(DUP)				25
	(MS) Parent Sample				25
	(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate

*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
----------------------	--------------------	--------------

0.5	100ug/L	M13004

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
----------------------	--------------------	--------------

Time Period (min)	Time Period (s)	Time Period (h)

Reviewed By/Date:

ICAP 6000 / 6500 Data Review Checklist		Analysis Date: <u>11-15-16</u>		Data File: <u>D00 results</u> Date of review: <u>11/21/16</u>	
Cal Std ID: <u>1113017</u> LIMS #: <u>132729</u>		Analyst: <u>AK</u>		Reviewer: <u>WMS</u> Approved? <u>(Yes)</u> No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)					
QC Parameters : 6010 / 200.7 / <u>OSM</u> / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: <u>(r > 0.995) / (r > 0.998)</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
2) ICV: <u>90-110%</u> / <u>95-105%</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
2) ICVLL: <u>70-130%</u> / <u>80-120%</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
3) ICB: <u>< 3X IDL</u> / <u>< LOD</u> / <u>< LOQ</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
4) ICSA: <u>< ABS LOD</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
5) ICSAB: <u>80-120%</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
6) MRL: <u>70-130%</u> / <u>80-120%</u>					
7) MDL Check: <u>> LOD</u>					
8) CCV1/CCB1 (CCV: <u>90-110%</u>)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
9) CCV2/CCB2 (CCB: <u>< 3X IDL</u> / <u>< LOD</u> / <u>< LOQ</u>)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	YES	NO	YES	NO	
Prep Batch ID#: <u>60178</u> Dig. Meth. <u>3810</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
LCS - generated limits or project specific limits	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
MB - <u>< LOD</u> or <u>≤ 1/2 RL</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Spiked samples in batch:					
a) <u>804577</u> matrix = <u>SW</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Invalid, Dup invalid</u>
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: <u>±15%</u> / <u>20%</u> / <u>25%</u> Sample#:					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <u>< LOD</u> or <u>≤ 1/2 RL</u>					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: <u>±15%</u> / <u>20%</u> / <u>25%</u> Sample#:					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <u>< LOD</u> or <u>≤ 1/2 RL</u>					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: <u>±15%</u> / <u>20%</u> / <u>25%</u> Sample#:					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <u>< LOD</u> or <u>≤ 1/2 RL</u>					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: <u>±15%</u> / <u>20%</u> / <u>25%</u> Sample#:					

ICAP 6000 / 6500 Data Review Checklist		Analysis Date: <u>11-28-16</u>		Data File: <u>000 Results</u>		Date of review: <u>12/01/16</u>	
Cal Std ID: <u>11301</u> LIMS #: <u>133031</u>		Analyst: <u>X</u>		Reviewer: <u>MOS</u>		Approved? <u>(Yes)</u> No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)							
QC Parameters : 6010 / 200.7 / QSM / Other	YES	NO	YES	NO	Comments:		
1) Calibration linearity: $r > 0.995$ / $r > 0.998$	✓		✓				
2) ICV: <u>90-110%</u> / 95-105%	✓		✓				
2) ICVLL: 70-130% / 80-120%	✓		✓				
3) ICB: $< 3X IDL$ / $< LOD$ / $< LOQ$	✓		✓				
4) ICSA: $< ABS LOD$	✓		✓				
5) ICSAB: 80-120%	✓		✓				
6) MRL: 70-130% / 80-120%							
7) MDL Check: $> LOD$							
8) CCV1/CCB1 (CCV: 90-110%)	✓	✓	✓		CCV1 Se fail ok no sample Results Reported from CCV1		
9) CCV2/CCB2 (CCB: $< 3X IDL$ / $< LOD$ / $< LOQ$)							
10) CCV3/CCB3							
11) CCV4/CCB4							
12) CCV5/CCB5							
Preparation Batch Parameters	YES	NO	YES	NO			
Prep Batch ID#: <u>00301</u> Dig. Meth. <u>3050</u>	✓		✓				
LCS - generated limits or project specific limits	✓		✓				
MB - $< LOD$ or $\leq \frac{1}{2} RL$	✓	✓	✓	✓	Cd, Se $> 100 < \frac{1}{2} RL$ Pb > 100 ok Results $> 10x$		
Spiked samples in batch:							
a) <u>8091013</u> matrix = <u>S</u>	✓	✓	✓	✓	L fail, invalid		
b) matrix =							
c) matrix =							
PDS: $\pm 15\%$ / 20% / 25% Sample#: <u>~</u>	✓	✓	✓	✓	Ag, Cr "M"		
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - $< LOD$ or $\leq \frac{1}{2} RL$							
Spiked samples in batch:							
a) matrix =							
b) matrix =							
c) matrix =							
PDS: $\pm 15\%$ / 20% / 25% Sample#:							
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - $< LOD$ or $\leq \frac{1}{2} RL$							
Spiked samples in batch:							
a) matrix =							
b) matrix =							
c) matrix =							
PDS: $\pm 15\%$ / 20% / 25% Sample#:							
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - $< LOD$ or $\leq \frac{1}{2} RL$							
Spiked samples in batch:							
a) matrix =							
b) matrix =							
c) matrix =							
PDS: $\pm 15\%$ / 20% / 25% Sample#:							

GFAA / FLAA / CVA / Data Review checklist		Method: 200.9		7000 series AA		245.1 & 245.2 245.7		7470a / 7471a	
Instrumentation:		THERMO M SERIES AA		CETAC Hg ANALYZER					
Analysis Date: 11/27/16		Data File: 112916.w		Date Review: 11/30/16		Analyte: Hg			
Cal Std ID: M1303		LIMS #: 133084		Analyst: SF		Reviewer: [Signature]		Approved? Yes No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)									
Calibration Parameters -		YES	NO	YES	NO	Comments:			
1) Calibration linearity - $r > 0.995$		✓		✓					
2) ICV: 90-110% 95-105%		✓		✓					
2) ICVLL: 70-130% 80-120%									
3) ICB: $<IDL / <LOD / <LOQ / <1/2 RL$		✓		✓					
6) MRL: 70-130%									
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)		✓		✓					
8) CCV2/CCB2 (CCB: $<IDL / <LOD / <LOQ / <1/2 RL$)									
9) CCV3/CCB3									
10) CCV4/CCB4									
11) CCV5/CCB5									
Preparation Batch Parameters		YES	NO	YES	NO				
Prep Batch ID#: 60367 Dig. Meth. 2470A		✓		✓					
LCS - generated limits or project specific limits		✓		✓					
MB - $<LOD / <2.2X LOD / \leq 1/2 RL$		✓		✓					
Spiked samples in batch:									
a) 804577 matrix = SW		✓		✓					
b) matrix =									
c) matrix =									
d) matrix =									
e) matrix =									
PDS: $\pm 15\% / 20\% / 25\%$ Sample#									
MSA Performed? Yes No									
Prep Batch ID#: Dig. Meth.									
LCS - generated limits or project specific limits									
MB - $<LOD / <2.2X LOD / \leq 1/2 RL$									
Spiked samples in batch:									
a) matrix =									
b) matrix =									
c) matrix =									
d) matrix =									
e) matrix =									
PDS: $\pm 15\% / 20\% / 25\%$ Sample#									
MSA Performed? Yes No									
Prep Batch ID#: Dig. Meth.									
LCS - generated limits or project specific limits									
MB - $<LOD / <2.2X LOD / \leq 1/2 RL$									
Spiked samples in batch:									
a) matrix =									
b) matrix =									
c) matrix =									
d) matrix =									
e) matrix =									
PDS: $\pm 15\% / 20\% / 25\%$ Sample#									
MSA Performed? Yes No									

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9		7000 series AA		245.1 & 245.2		245.7		7470a / 7471a	
Instrumentation:		THERMO M SERIES AA				CETAC Hg ANALYZER					
Analysis Date: 11/30/16		Data File: 113x16		Date Review: 12-1-16		Analyte: Hg					
Cal Std ID: M1303		LIMS #: 133129		Analyst: SF		Reviewer: [Signature]		Approved? Yes		No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)											
Calibration Parameters -				YES	NO	YES	NO	Comments:			
1) Calibration linearity - $r > 0.995$				✓		✓					
2) ICV: 90-110% 95-105%				✓		✓					
2) ICVLL: 70-130% 80-120%											
3) ICB: <IDL / <LOD / <LOQ / <1/2 RL				✓		✓					
6) MRL: 70-130%											
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)				✓		✓					
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <1/2 RL)											
9) CCV3/CCB3											
10) CCV4/CCB4											
11) CCV5/CCB5											
Preparation Batch Parameters				YES	NO	YES	NO				
Prep Batch ID#: 60353 Dig. Meth. 7121A				✓		✓					
LCS - generated limits or project specific limits				✓		✓					
MB - <LOD / <2.2X LOD / ≤ 1/2RL				✓		✓					
Spiked samples in batch:											
a) 804613 matrix = soil				✓	✓	✓	✓	"M"			
b) matrix =											
c) matrix =											
d) matrix =											
e) matrix =											
PDS: ±15% / 20% / 25% Sample#											
MSA Performed? Yes No											
Prep Batch ID#: Dig. Meth.											
LCS - generated limits or project specific limits											
MB - <LOD / <2.2X LOD / ≤ 1/2RL											
Spiked samples in batch:											
a) matrix =											
b) matrix =											
c) matrix =											
d) matrix =											
e) matrix =											
PDS: ±15% / 20% / 25% Sample#											
MSA Performed? Yes No											
Prep Batch ID#: Dig. Meth.											
LCS - generated limits or project specific limits											
MB - <LOD / <2.2X LOD / ≤ 1/2RL											
Spiked samples in batch:											
a) matrix =											
b) matrix =											
c) matrix =											
d) matrix =											
e) matrix =											
PDS: ±15% / 20% / 25% Sample#											
MSA Performed? Yes No											

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
11-8-16	1339 / 0428	A	D1104 16	DOO Calu	132294 132423 132425	300	M13017	V1712	
11-10-16	1246 / 0608	A	D1109 16	DOO Calu	132476 132487 132472 132477 132468 132470 132574	300	M13017	V1718 V1717	
11-10-16	1109 / 522 / 0706	A	132572 DOO D1101 16	DOO Calu	132573 132475 132482 132465 132486 132478 132454 132504 132479 132483 132506 132477	300	M13017	V1714	
11-11-16	0841 / 0232	A	D1111 16	DOO Calu	132500 132506 132507 132501 132570 132505 132505 132501 132500 132614 132572 132570	300	M13017	V1720 V1719 V1721	
11-14-16	1032 / 2029	A	D1114 16	DOO Calu	132605 132630 132607	300	M13017	V1728 V1723 V1720 V1727	
11-15-16	1211 / 0256	A	D1115 16	DOO Calu	132507 132731 132729 132730 132735 132732 132739 132738	300	M13017	V1729 V1730	
11-16-16	0917 / 0612	A	D1116 16	DOO Calu	132570 132769 132757 132760 132756 132579 132761 132758	300	M13017	V1725 V1724	
11-17-16	11-22-16	A	D1117 16	DOO Calu		300	M13017		
11-18-16	0922 / 2258	A	D1118 16	DOO Calu	132865 132870 132857 132869	300	M13017	V1732	
11-21-16	1143 / 1651	A	D1121 16	DOO Calu	132857 132929	300	M13017	V1733	
11-22-16	0945 / 0231	A	D1122 16	DOO Calu	133007 133030 132979 133006 133028 133007 132969 133004 132970 133007 133029 133004 133006 133004 133030 133002	300	M13017	V1734	
11-23-16	0736 / 2306	A	D1123-16	DOO Calu		300	M13017	V1736 V1737	

Comments:

* A 11-11-16
* A 11-22-16

V1738

Checked By / Date:

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CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
11-28-16	1303 / 1055	J	0112816 B	DDCalu	133081 133071 133041 133072 133070 133032	350	M13017	V1742 V1740 V1739 V1741	
11-29-16	1152 / 0531	A	0112916	DDCalu	133007 133032 133103 133072 133000 133100 133104 133074 133098 133105 133070	320	M13017	V1743	
11-30-16	0932 / 2056	A	0113016	DDCalu	133154 133100 133128 133151 133031	320	M13017	V1744	
12-1-16	/	A	0120116	DDCalu		320	M13017		
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	/								

Comments: _____

Checked By / Date: _____

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Mercury Analyzer Instrument Run Log







































Instrument ID: ~~Cetac M-6000A~~ Teledyne Hydrant
291911615E

[illegible]

Type	Date/Time	Message	User name	Application	Sequence Name
	11/14/2016 19:33:03	Running 804006 (49)	NAH	Analyst	S_DOD Calibration
	11/14/2016 19:39:55	Running lcsW60082 (50)	NAH	Analyst	S_DOD Calibration
	11/14/2016 19:46:27	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/14/2016 19:52:06	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/14/2016 19:58:11	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:04:46	Running 801917 (51)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:11:17	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:17:46	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:23:26	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:29:31	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/14/2016 20:36:03	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/15/2016 06:39:42	Plasma extinguished successfully	NAH	Analyst	
	11/15/2016 06:39:43	Plasma off	NAH	iTEVA Control Center	
	11/15/2016 06:52:22	Plasma On	NAH	iTEVA Control Center	
	11/15/2016 06:52:28	Plasma ignition successful	NAH	Analyst	
	11/15/2016 06:53:15	D33534 - Debug:Wavelength check : x = 1.710, y =2.237	NAH	Analyst	
	11/15/2016 08:35:52	iTEVA loaded	NAH	iTEVA Control Center	
	11/15/2016 08:36:09	Connected to instrument 20082101	NAH	iTEVA Control Center	
	11/15/2016 08:36:50	Plasma On	NAH	iTEVA Control Center	
	11/15/2016 12:11:34	Autosampler Run Started	NAH	Analyst	
	11/15/2016 12:11:34	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:11:55	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:18:51	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:25:56	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:33:03	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:40:09	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:47:22	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	11/15/2016 12:54:26	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:01:27	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:08:22	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:15:16	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:15:38	Closing will close the method and all associated samples.	NAH	Analyst	
	11/15/2016 13:21:40	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:28:04	Running CalStd11=100k (12)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:35:09	Running CalStd12=100000 (13)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:42:22	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:49:40	Running CalStd14=1000k (15)	NAH	Analyst	S_DOD Calibration
	11/15/2016 13:56:48	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:03:52	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:10:39	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:17:39	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:24:45	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:31:50	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:38:51	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:46:13	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	11/15/2016 14:54:02	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:01:07	Running lcsW60082 (2)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:08:12	Running 801917 (3)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:15:37	Running lcsW60189 (4)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:16:53	Closing will close the method and all associated samples.	NAH	Analyst	
	11/15/2016 15:19:02	Closing will close the method and all associated samples.	NAH	Analyst	
	11/15/2016 15:22:41	Running mbW60189 (5)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:22:45	Closing will close the method and all associated samples.	NAH	Analyst	

Type	Date/Time	Message	User name	Application	Sequence Name
	11/15/2016 15:29:45	Running 805688 (6)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:37:10	Running l805688 (7)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:44:40	Running dup805688 (8)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:45:19	Closing will close the method and all associated samples.	NAH	Analyst	
	11/15/2016 15:52:04	Running msw805688 (9)	NAH	Analyst	S_DOD Calibration
	11/15/2016 15:59:17	Running msdw805688 (10)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:06:30	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:12:41	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:19:17	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:26:24	Running pdsw805688 (11)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:33:03	Running lcsw60147 (12)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:40:09	Running mbw60147 (13)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:47:13	Running 803911 (14)	NAH	Analyst	S_DOD Calibration
	11/15/2016 16:54:44	Running l803911 (15)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:02:22	Running dup803911 (16)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:09:53	Running msw803911 (17)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:17:06	Running msdw803911 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:24:20	Running pdsw803911 (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:31:14	Running 803914 (20)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:38:38	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:44:50	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:51:26	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 17:58:33	Running 804598 (21)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:06:03	Running lcsw60176 (22)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:12:56	Running mbw60176 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:20:03	Running 803920 (24)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:26:56	Running l803920 (25)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:33:54	Running dup803920 (26)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:40:45	Running msw803920 (27)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:47:30	Running msdw803920 (28)	NAH	Analyst	S_DOD Calibration
	11/15/2016 18:54:14	Running pdsw803920 (29)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:00:56	Running 803921 (30)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:07:47	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:13:58	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:20:35	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:27:40	Running 803922 (31)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:34:46	Running 803923 (32)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:41:52	Running 803924 (33)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:48:51	Running lcsw60178 (34)	NAH	Analyst	S_DOD Calibration
	11/15/2016 19:56:03	Running mbw60178 (35)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:03:09	Running 804577 (36)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:10:37	Running l804577 (37)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:17:49	Running dup804577 (38)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:25:17	Running msw804577 (39)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:32:24	Running msdw804577 (40)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:39:33	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:45:44	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:52:22	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 20:59:29	Running pdsw804577 (41)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:06:06	Running lcsw60180 (42)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:12:57	Running mbw60180 (43)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:20:04	Running 804532 (44)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:27:24	Running l804532 (45)	NAH	Analyst	S_DOD Calibration
















































Type	Date/Time	Message	User name	Application	Sequence Name
	11/15/2016 21:34:50	Running dup804532 (46)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:42:11	Running msw804532 (47)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:49:22	Running msdw804532 (48)	NAH	Analyst	S_DOD Calibration
	11/15/2016 21:56:31	Running pdsw804532 (49)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:03:08	Running 804566 (50)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:10:33	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:16:43	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:23:21	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:30:28	Running lcsw60179 (51)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:37:34	Running mbw60179 (52)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:44:40	Running 803944 (53)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:52:05	Running l803944 (54)	NAH	Analyst	S_DOD Calibration
	11/15/2016 22:59:35	Running dup803944 (55)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:07:00	Running msw803944 (56)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:14:02	Running msdw803944 (57)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:21:04	Running pdsw803944 (58)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:27:42	Running lcsw80186 (59)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:34:48	Running mbw80186 (60)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:41:53	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:48:04	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/15/2016 23:54:41	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:01:48	Running 803899 (61)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:08:47	Running msw803899 (62)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:15:48	Running msdw803899 (63)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:22:48	Running pdsw803899 (64)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:29:28	Running 804484 (65)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:37:09	Running msw804484 (66)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:44:24	Running msdw804484 (67)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:51:39	Running pdsw804484 (68)	NAH	Analyst	S_DOD Calibration
	11/16/2016 00:58:17	Running mss798643 (69)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:05:10	Running msds798643 (70)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:12:04	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:18:15	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:24:54	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:32:01	Running pdss798643 (71)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:38:47	Running 798644 (72)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:45:59	Running 798645 (73)	NAH	Analyst	S_DOD Calibration
	11/16/2016 01:53:24	Running 798646 (74)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:00:31	Running 798647 (75)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:07:47	Running 798648 (76)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:15:03	Running 798649 (77)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:22:26	Running 798650 (78)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:29:46	Running 798651 (79)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:37:01	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:44:04	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:50:18	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/16/2016 02:56:56	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/16/2016 03:03:59	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/16/2016 08:56:38	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/16/2016 08:56:38	Autosampler Run Started	NAH	Analyst	S_DOD Calibration
	11/16/2016 08:56:59	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/16/2016 09:03:56	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	11/16/2016 09:11:02	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/28/2016 12:57:36	Closing will close the method and all associated samples.	NAH	Analyst	
	11/28/2016 12:58:32	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:03:04	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:03:04	Autosampler Run Started	NAH	Analyst	
	11/28/2016 13:03:25	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:10:28	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:17:39	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:24:51	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:32:04	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:39:16	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:46:31	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	11/28/2016 13:53:37	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:00:38	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:07:52	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:14:35	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:21:08	Running CalStd11=100k (12)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:28:38	Running CalStd12=100000 (13)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:36:21	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:47:57	Running CalStd14=1000k (15)	NAH	Analyst	S_DOD Calibration
	11/28/2016 14:48:45	Closing will close the method and all associated samples.	NAH	Analyst	
	11/28/2016 14:55:22	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:02:35	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:09:29	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:16:42	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:23:54	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:31:05	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:38:12	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:45:41	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	11/28/2016 15:53:41	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:00:51	Running lcsw60332 (2)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:07:58	Running mbw60332 (3)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:15:05	Running 809783 (4)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:22:39	Running dup809783 (5)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:30:13	Running msw809783 (6)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:37:15	Running 809788 (7)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:44:50	Running 809797 (8)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:52:24	Running 809810 (9)	NAH	Analyst	S_DOD Calibration
	11/28/2016 16:59:36	Running 810324 (10)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:07:10	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:13:24	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:20:05	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:27:17	Running 810328 (11)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:34:53	Running 810332 (12)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:42:28	Running 810342 (13)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:49:40	Running lcsw60333 (14)	NAH	Analyst	S_DOD Calibration
	11/28/2016 17:56:51	Running mbw60333 (15)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:04:01	Running 809764 (16)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:11:35	Running l809764 (17)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:18:54	Running dup809764 (18)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:26:29	Running msw809764 (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:33:30	Running msdw809764 (20)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:40:33	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 18:46:49	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/28/2016 18:53:29	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:00:41	Running 809781 (21)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:08:16	Running 809782 (22)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:15:51	Running 809784 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:23:26	Running 809785 (24)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:31:02	Running 809786 (25)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:38:36	Running 809794 (26)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:46:10	Running 809795 (27)	NAH	Analyst	S_DOD Calibration
	11/28/2016 19:53:44	Running 809796 (28)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:01:19	Running 809798 (29)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:08:53	Running 809799 (30)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:16:27	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:22:43	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:29:25	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:36:38	Running 809800 (31)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:44:13	Running 809801 (32)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:51:47	Running 809802 (33)	NAH	Analyst	S_DOD Calibration
	11/28/2016 20:59:22	Running 809803 (34)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:06:58	Running 809804 (35)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:14:33	Running 809805 (36)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:22:08	Running 809806 (37)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:29:43	Running 809809 (38)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:37:18	Running 809821 (39)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:44:49	Running lcsw60366 (40)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:51:51	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 21:58:07	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:04:49	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:12:02	Running mbw60366 (41)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:19:14	Running 810322 (42)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:26:49	Running l810322 (43)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:34:06	Running dup810322 (44)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:41:40	Running msw810322 (45)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:48:43	Running msdw810322 (46)	NAH	Analyst	S_DOD Calibration
	11/28/2016 22:56:15	Running 810323 (47)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:03:51	Running 810325 (48)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:11:28	Running 810326 (49)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:19:03	Running 810327 (50)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:26:37	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:33:01	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:39:42	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:46:55	Running 810329 (51)	NAH	Analyst	S_DOD Calibration
	11/28/2016 23:54:30	Running 810330 (52)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:02:05	Running 810331 (53)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:09:40	Running 810333 (54)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:17:16	Running 810334 (55)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:24:51	Running 810335 (56)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:32:26	Running 810336 (57)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:40:01	Running 810337 (58)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:47:36	Running 810338 (59)	NAH	Analyst	S_DOD Calibration
	11/29/2016 00:55:11	Running 810341 (60)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:02:48	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:09:04	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:15:45	Running ccb (19)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/29/2016 01:22:58	Running lc60327 (61)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:29:48	Running mbs60327 (62)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:37:00	Running 806690 (63)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:44:12	Running 806734 (64)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:51:36	Running mss806734 (65)	NAH	Analyst	S_DOD Calibration
	11/29/2016 01:58:22	Running msds806734 (66)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:05:07	Running pdss806734 (67)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:12:04	Running 808553 (68)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:19:27	Running mss808553 (69)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:26:15	Running msds808553 (70)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:33:04	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:39:22	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:46:03	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 02:53:16	Running pdss808553 (71)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:00:18	Running 808555 (72)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:07:35	Running lc60302 (73)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:14:32	Running mbs60302 (74)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:21:43	Running 804689 (75)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:29:20	Running mss804689 (76)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:36:08	Running 804690 (77)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:42:53	Running 804691 (78)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:50:35	Running lc60301 (79)	NAH	Analyst	S_DOD Calibration
	11/29/2016 03:57:07	Running mbs60301 (80)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:04:21	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:10:39	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:17:20	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:24:34	Running 804613 (81)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:31:26	Running l804613 (82)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:38:36	Running dup804613 (83)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:45:27	Running mss804613 (84)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:52:12	Running msds804613 (85)	NAH	Analyst	S_DOD Calibration
	11/29/2016 04:58:57	Running pdss804613 (86)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:05:42	Running 804616 (87)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:13:05	Running 804619 (88)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:20:02	Running 804624 (89)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:27:03	Running 804625 (90)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:34:22	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:40:40	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:47:22	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 05:54:37	Running 804626 (91)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:01:45	Running lc60303 (92)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:08:19	Running mbs60303 (93)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:15:32	Running 807801 (94)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:22:57	Running mss807801 (95)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:30:23	Running msds807801 (96)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:37:46	Running pdss807801 (97)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:44:41	Running 807802 (98)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:52:02	Running 807803 (99)	NAH	Analyst	S_DOD Calibration
	11/29/2016 06:59:30	Running 807804 (100)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:07:15	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:13:33	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:20:16	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:27:30	Running 807805 (101)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/29/2016 07:35:11	Running 807806 (102)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:42:30	Running 807807 (103)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:49:53	Running 807808 (104)	NAH	Analyst	S_DOD Calibration
	11/29/2016 07:57:00	Running 807809 (105)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:04:24	Running 807810 (106)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:11:35	Running 807811 (107)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:18:52	Running 807812 (108)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:26:08	Running 807813 (109)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:33:10	Running 807814 (110)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:40:31	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:46:52	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 08:54:14	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:01:30	Running 807815 (111)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:08:51	Running 807816 (112)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:15:45	Running 807818 (113)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:23:07	Running 807820 (114)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:30:07	Running lcswtclp (115)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:37:20	Running mbwtclp1 (116)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:44:41	Running 803376 (117)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:51:42	Running msw803376 (118)	NAH	Analyst	S_DOD Calibration
	11/29/2016 09:59:12	Running 803376 (119)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:06:34	Running msw803376 (120)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:13:33	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:20:03	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:26:46	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:33:59	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:41:24	Running ccv1 (31)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:48:18	Running ccv2 (29)	NAH	Analyst	S_DOD Calibration
	11/29/2016 10:55:02	Running ccb (30)	NAH	Analyst	S_DOD Calibration
	11/29/2016 11:02:13	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/29/2016 11:51:58	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/29/2016 11:51:58	Autosampler Run Started	NAH	Analyst	
	11/29/2016 11:52:19	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/29/2016 11:59:22	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:06:38	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:13:52	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:21:20	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:28:35	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:28:37	Closing will close the method and all associated samples.	NAH	Analyst	
	11/29/2016 12:35:47	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:42:55	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:50:00	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	11/29/2016 12:57:03	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:03:31	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:09:37	Closing will close the method and all associated samples.	NAH	Analyst	
	11/29/2016 13:10:03	Running CalStd11=100k (12)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:17:14	Running CalStd12=100000 (13)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:24:35	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:32:20	Running CalStd14=1000k (15)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:40:24	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:52:09	Closing will close the method and all associated samples.	NAH	Analyst	
	11/29/2016 13:53:21	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/29/2016 13:55:01	Unable to Set Check Table,	NAH	Analyst	

Type	Date/Time	Message	User name	Application	Sequence Name
	11/29/2016 13:56:18	Unable to Set Check Table,	NAH	Analyst	
	11/29/2016 14:00:05	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:07:10	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:14:23	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:21:38	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:28:46	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:36:17	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:44:17	Running icvll ag (1)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:51:31	Running lcsw60373 (2)	NAH	Analyst	S_DOD Calibration
	11/29/2016 14:58:08	Running mbw60373 (3)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:05:20	Running 809338 (4)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:12:49	Running l809338 (5)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:20:05	Running dup809338 (6)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:27:33	Running msw809338 (7)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:34:33	Running msdw809338 (8)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:41:33	Running pds809338 (9)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:48:30	Running 809341 (10)	NAH	Analyst	S_DOD Calibration
	11/29/2016 15:55:48	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:02:06	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:08:48	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:16:02	Running 804689 (79)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:23:21	Running msw804689 (80)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:30:27	Running 804690 (81)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:37:29	Running 804691 (82)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:44:26	Running 804619 (83)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:51:42	Running 804624 (84)	NAH	Analyst	S_DOD Calibration
	11/29/2016 16:59:02	Running 804626 (85)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:06:13	Running 807803 (86)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:13:26	Running 807805 (87)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:20:53	Running 807807 (88)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:28:10	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:34:27	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:41:09	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:48:23	Running 807083 (89)	NAH	Analyst	S_DOD Calibration
	11/29/2016 17:55:24	Running 807086 (90)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:02:26	Running 807087 (91)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:09:26	Running lcs807087 (91)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:16:42	Running mbw60381 (12)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:23:52	Running 809337 (13)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:31:42	Running l809337 (14)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:38:50	Running dup809337 (15)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:46:18	Running msw809337 (16)	NAH	Analyst	S_DOD Calibration
	11/29/2016 18:53:31	Running msdw809337 (17)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:00:45	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:07:01	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:13:43	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:20:56	Running pds809337 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:27:55	Running lcs809337 (18)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:34:29	Running mbw60363 (20)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:41:43	Running 804535 (21)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:49:25	Running l804535 (22)	NAH	Analyst	S_DOD Calibration
	11/29/2016 19:57:13	Running dup804535 (23)	NAH	Analyst	S_DOD Calibration
	11/29/2016 20:04:56	Running msw804535 (24)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/30/2016 02:31:59	Running 809494 (66)	NAH	Analyst	S_DOD Calibration
	11/30/2016 02:39:34	Running 809495 (67)	NAH	Analyst	S_DOD Calibration
	11/30/2016 02:47:10	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/30/2016 02:53:29	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:00:13	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:07:28	Running 809496 (68)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:15:03	Running 809497 (69)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:22:39	Running 809498 (70)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:30:14	Running 809499 (71)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:37:50	Running 809500 (72)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:45:25	Running msw809500 (73)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:52:42	Running msdw809500 (74)	NAH	Analyst	S_DOD Calibration
	11/30/2016 03:59:58	Running pdsdw809500 (75)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:06:57	Running 809501 (76)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:14:33	Running 809502 (77)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:22:10	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:28:27	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:35:10	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:42:25	Running 809503 (78)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:50:02	Running lcsdw60332 (92)	NAH	Analyst	S_DOD Calibration
	11/30/2016 04:56:59	Running lcsdw60333 (93)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:03:58	Running lcsdw60366 (94)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:10:54	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:18:03	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:24:22	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:31:05	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/30/2016 05:38:20	Plasma off	NAH	iTEVA Control Center	
	11/30/2016 05:38:20	Plasma extinguished successfully	NAH	Analyst	
	11/30/2016 05:38:22	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/30/2016 06:48:42	Plasma On	NAH	iTEVA Control Center	
	11/30/2016 06:48:48	Plasma ignition successful	NAH	Analyst	
	11/30/2016 06:49:35	D33534 - Debug:Wavelength check : x = 2.001, y =2.332	NAH	Analyst	
	11/30/2016 08:51:49	Autosampler Run Started	NAH	Analyst	
	11/30/2016 08:51:49	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/30/2016 08:52:12	Unable to Set Check Table,	NAH	Analyst	
	11/30/2016 08:52:17	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/30/2016 08:52:39	Unable to Set Check Table,	NAH	Analyst	
	11/30/2016 08:53:38	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/30/2016 09:31:42	Autosampler Run Started	NAH	Analyst	
	11/30/2016 09:31:42	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/30/2016 09:32:03	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/30/2016 09:39:11	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	11/30/2016 09:44:40	Unable to Set Check Table,	NAH	Analyst	
	11/30/2016 09:46:35	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	11/30/2016 09:49:24	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 09:49:33	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 09:53:49	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:01:03	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:08:17	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:15:32	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:18:56	Unable to Set Check Table,	NAH	Analyst	
	11/30/2016 10:19:39	Unable to Set Check Table,	NAH	Analyst	
	11/30/2016 10:22:43	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/30/2016 10:29:49	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:36:51	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:43:23	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:49:59	Running CalStd11-100k (12)	NAH	Analyst	S_DOD Calibration
	11/30/2016 10:57:14	Running CalStd12-100000 (13)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:04:44	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:12:21	Running CalStd14-1000k (15)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:19:50	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:22:14	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 11:27:08	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:33:54	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:41:11	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:48:50	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/30/2016 11:56:07	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:03:16	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:10:49	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:14:48	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 12:18:56	Running icvll ag (1)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:26:10	Running lcsW60389 (2)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:33:06	Running mbw60389 (3)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:40:19	Running 811575 (4)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:47:55	Running msw811575 (5)	NAH	Analyst	S_DOD Calibration
	11/30/2016 12:54:50	Running 811637 (6)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:02:26	Running 811643 (7)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:10:03	Running 811654 (8)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:17:19	Running lcsW60390 (9)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:24:18	Running mbw60390 (10)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:31:29	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:37:48	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:44:32	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:51:48	Running 811571 (11)	NAH	Analyst	S_DOD Calibration
	11/30/2016 13:59:23	Running l811571 (12)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:06:43	Running dup811571 (13)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:14:15	Running msw811571 (14)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:21:09	Running msdw811571 (15)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:28:04	Running 811573 (16)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:29:33	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 14:35:39	Running 811574 (17)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:43:14	Running 811634 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:50:50	Running 811635 (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 14:50:58	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 14:58:26	Running 811636 (20)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:06:01	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:07:18	Closing will close the method and all associated samples.	NAH	Analyst	
	11/30/2016 15:12:21	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:19:04	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:26:19	Running 811638 (21)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:33:55	Running 811639 (22)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:41:32	Running 811640 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:49:09	Running 811644 (24)	NAH	Analyst	S_DOD Calibration
	11/30/2016 15:56:46	Running 811645 (25)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:04:22	Running 811646 (26)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:11:59	Running 811647 (27)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/30/2016 16:19:35	Running 811648 (28)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:26:44	Running 811649 (29)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:34:20	Running 811653 (30)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:42:00	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:48:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 16:55:01	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:02:15	Running lcsw60300 (31)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:09:17	Running mbs60300 (32)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:16:31	Running 809172 (33)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:23:55	Running l809172 (34)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:30:53	Running dup809172 (35)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:38:16	Running mss809172 (36)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:45:25	Running msds809172 (37)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:52:32	Running pdss809172 (38)	NAH	Analyst	S_DOD Calibration
	11/30/2016 17:59:33	Running 809174 (39)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:06:55	Running 809175 (40)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:14:16	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:20:33	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:27:15	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:34:28	Running 809176 (41)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:41:52	Running 809177 (42)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:49:19	Running 809178 (43)	NAH	Analyst	S_DOD Calibration
	11/30/2016 18:56:41	Running 809179 (44)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:04:00	Running 809180 (45)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:11:20	Running 809181 (46)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:18:08	Running 809182 (47)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:24:57	Running 809183 (48)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:32:20	Running 809184 (49)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:39:42	Running 809185 (50)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:47:01	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 19:53:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:00:01	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:07:15	Running 804616 (51)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:14:31	Running lcsw60381 (52)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:21:46	Running mbw60381 (53)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:28:59	Running 809337 (54)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:36:14	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:43:25	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:49:55	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/30/2016 20:56:38	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/30/2016 21:03:54	Plasma off	NAH	iTEVA Control Center	
	11/30/2016 21:03:55	Plasma extinguished successfully	NAH	Analyst	
	11/30/2016 21:03:57	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	12/01/2016 06:57:37	Plasma On	NAH	iTEVA Control Center	
	12/01/2016 06:57:42	Plasma ignition successful	NAH	Analyst	
	12/01/2016 06:58:21	D33534 - Debug:Wavelength check : x = 2.003, y =2.347	NAH	Analyst	
	12/01/2016 11:54:32	iTEVA loaded	NAH	iTEVA Control Center	
	12/01/2016 11:54:50	Connected to instrument 20082101	NAH	iTEVA Control Center	
	12/01/2016 11:54:58	Starting time can not be greater than ending time.	NAH	Analyst	
	12/01/2016 11:55:31	Plasma On	NAH	iTEVA Control Center	
	12/01/2016 13:31:40	Autosampler Run Started	NAH	Analyst	
	12/01/2016 13:31:40	Sequence Started	NAH	Analyst	S_DOD Calibration
	12/01/2016 13:32:01	Running Blank (1)	NAH	Analyst	S_DOD Calibration

		Instrument:	CETAC
Standard Log #:	M13042	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/29/2016	Expiration Date:	11/29/2016
Prep:	Carefully mixed 3 parts HCl AB.631 with 1 part HNO ₃ AB.633 in a hood.		

Standard ID#:	M13043	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	11/29/2016	Lot #:	166218
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13040	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Interference A
Date Received:	11/18/2016	Lot #:	2-124MKBX
Expiration Date (if any):	11/30/2017	Catalog #:	INT-A1

Standard ID#:	M13041	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/18/2016	Lot #:	39-200CR
Expiration Date (if any):	11/30/2017	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13037	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/17/2016	Expiration Date:	11/17/2017
Prep:	Carefully mixed 3 parts HCl AB.631 with 1 part HNO ₃ AB.628 in a hood.		

Standard Log #:	M13038	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	11/18/2016	Expiration Date:	05/18/2017
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M13039	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	11/18/2016	Expiration Date:	05/18/2017
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12629 and 60 g hydroxylamine sulfate M12843 and brought up to volume.		

Standard ID#:	M13036	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	11/10/2016	Lot #:	138905AH
Expiration Date (if any):	05/31/2018	Catalog #:	39043

Standard ID#:	M13031	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	11/09/2016	Lot #:	16I168
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10M311

Standard ID#:	M13032	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	11/09/2016	Lot #:	16I091
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10M91

Standard ID#:	M13033	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	11/09/2016	Lot #:	16I080
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10M261

Standard ID#:	M13034	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	11/09/2016	Lot #:	16F134
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10M11

Standard ID#:	M13035	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	11/09/2018	Lot #:	16I165
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10m411

		Instrument:	CETAC
Standard Log #:	M13027	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/09/2016	Expiration Date:	11/09/2016
Prep:	Carefully mixed 3 parts HCl AB.631 with 1 part HNO ₃ AB.628 in a hood.		

Standard ID#:	M13028	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	11/09/2016	Lot #:	1623223
Expiration Date (if any):	05/04/2018	Catalog #:	HP10M67-1

Standard ID#:	M13029	Vendor:	CPI
Analyst:	NAH	Chemical:	Barium 1000 mg/L
Date Received:	11/09/2016	Lot #:	16H058
Expiration Date (if any):	05/03/2018	Catalog #:	S4400-100041

Standard ID#:	M13030	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	11/09/2016	Lot #:	16I092
Expiration Date (if any):	05/03/2018	Catalog #:	4400-10M671

Standard Log #:	M13025	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	11/07/2016	Expiration Date:	11/07/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.630 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard ID#:	M13026	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/07/2016	Lot #:	2-150MKB
Expiration Date (if any):	11/30/2017	Catalog #:	XCTIWI-5-500

Standard ID#:	M13024	Vendor:	METTLER TOLEDO
Analyst:	LJF	Chemical:	FRISCOLYT
Date Received:	11/01/2016	Lot #:	1B167D
Expiration Date (if any):		Catalog #:	51340053

MRL BASE STD	M13023	Analyst	NAH
		Prep Date	11/01/2016

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M12599	1000	1	02/10/2017
Al	400	M12948	10000	2	01/29/2018
Ba	10	M12473	1000	0.5	10/16/2016
Be	4	M12667	1000	0.2	04/15/2017
Cd	5	M12674	1000	0.25	04/15/2017
Co	10	M12678	1000	0.5	04/15/2017
Cr	10	M12941	10000	0.05	01/29/2018
Cu	10	M12945	10000	0.05	01/29/2018
Mg	500	M12947	10000	2.5	01/29/2018
Mn	10	M12944	10000	0.05	01/29/2018
Mo	10	M12677	1000	0.5	04/15/2017
Ni	10	M12681	1000	0.5	04/15/2017
Pb	10	M12861	10000	0.05	11/11/2017
Sb	20	M12602	1000	1	02/10/2017
V	10	M12676	1000	0.5	04/15/2017
Zn	10	M12989	10000	0.05	04/07/2018
K	1000	M12946	10000	5	01/29/2018
Na	1000	M12679	10000	5	04/15/2017
As	20	M12958	1000	1	02/23/2018
Ca	500	M12942	10000	2.5	01/29/2018
Fe	300	M12949	10000	1.5	01/29/2018
Se	20	M12600	1000	1	02/10/2017
Tl	20	M12668	1000	1	04/15/2017
Si	100	M12943	1000	5	01/29/2018
B	20	M12957	1000	1	02/23/2018
Li	20	M12672	1000	1	04/15/2017
W	50	M12673	1000	2.5	04/15/2017
Ti	10	M12671	1000	0.5	04/15/2017
Sr	10	M12670	1000	0.5	04/15/2017
Sn	50	M12669	1000	2.5	04/15/2017
S	300	M12872	10000	1.5	11/30/2017

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M13021	Standard:	ICSA
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg
Prep Date:	11/01/2016	Expiration Date:	06/30/2017
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12910 and 15 mL Fe (10000 mg/L) M12992 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M13022	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Tl 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	11/01/2016	Expiration Date:	
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H ₂ O. 10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12977, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12910, 0.5 mL Mo (1000 mg/L) M12677, 0.5 mL B (1000 mg/L) M12957, 0.5 mL Sr (1000 mg/L) M12670, 0.5 mL Li (1000 mg/L) M12672, 0.5 mL Sn (1000 mg/L) M12669 and 0.5 mL Ti (1000 mg/L) M12671.		

		Instrument:	ICP 6500
Standard Log #:	M13018	Standard:	CCV1
Analyst:	NAH	Concentrations:	5000 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 500 µg/L Ag, Be, Cd
Prep Date:	11/01/2016	Expiration Date:	06/30/2017
Prep:	Into a 1 L volumetric flask, pipetted 50 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12964 and 5.0 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M13019	Standard:	CCV2
Analyst:	NAH	Concentrations:	500 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 50 µg/L Ag, Be, Cd
Prep Date:	11/01/2016	Expiration Date:	06/30/2017
Prep:	Into a 1 L volumetric flask, pipetted 5 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12964 and 0.5 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M13020	Standard:	ICSAB
Analyst:	NAH	Concentrations:	500,000 µg/L Al, Ca, Fe, Mg 500 µg/L Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	11/01/2016	Expiration Date:	6/30/2017
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12910, 15 mL Fe (10,000 mg/L) M12992, 2.5 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12964 and 2.5 mL Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M13017	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	11/01/2016	Expiration Date:	06/30/2017
Prep:	<p>Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (5% HNO₃, 5% HCl) 1000 ug/L Std. - 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12964, 10 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12882 and 1 mL of Si (1000 mg/L) M12943. 0.25 ug/L Std. - 0.25 mL of the 1000 ug/L Std. 0.5 ug/L Std. - 0.5 mL of the 1000 ug/L Std. 1 ug/L Std. - 1 mL of the 1000 ug/L Std. 5 ug/L Std. - 5 mL of the 1000 ug/L Std. 10 ug/L Std. - 10 mL of the 1000 ug/L Std. 20 ug/L Std. - 20 mL of the 1000 ug/L Std. 50 ug/L Std. - 50 mL of the 1000 ug/L Std. 100 ug/L Std. - 1 mL of Custom Assurance Std. (CAS) #23 and 1 mL of CAS #3 10,000 ug/L Std. - 100 mL CAS #23, 100 mL CAS #3 and 1 mL of K (10,000 mg/L) M12946. 100k ug/L Std. - 10 mL of Cu (10,000 mg/L) M12945, 10 mL of Mn (10,000 mg/L) M12944, 10 mL of Cr (10,000 mg/L) M12944, 10 mL Pb (10,000 mg/L) M12861, 10 mL of Zn (10,000 mg/L) M12989 and 10 mL of Na (10,000 mg/L) M12679. 100,000 ug/L Std. - 10 mL of Mg (10,000 mg/L) M12947, 10 mL of Fe (10,000 mg/L) M12992, 10 mL of Ca (10,000 mg/L) M12991 and 10 mL Al (10,000 mg/L) M12948. 500,000 ug/L Std. - 50 mL of Mg (10,000 mg/L), 50 mL of Fe (10,000 mg/L), 50 mL of Ca (10,000 mg/L) and 50 mL of Al (10,000 mg/L) 1000k ug/L Std. - 100 mL of Mg (10,000 mg/L), 100 mL of Fe (10,000 mg/L), 100 mL of Ca (10,000 mg/L) and 100 mL of Al (10,000 mg/L)</p>		

Standard ID#:	M13015	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	10/31/2016	Lot #:	161238
Expiration Date (if any):		Catalog #:	H331-500

		Instrument:	CETAC
Standard Log #:	M13016	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/31/2016	Expiration Date:	10/31/2016
Prep:	Carefully mixed 3 parts HCl AB.631 with 1 part HNO ₃ AB.628 in a hood.		

Standard Log #:	M13013	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	10/26/2016	Expiration Date:	04/26/2016
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M13014	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	10/26/2016	Expiration Date:	04/26/2016
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12629 and 60 g hydroxylamine sulfate M12610 and brought up to volume.		

		Instrument:	ICP 6000
Standard Log #:	M13011	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	10/26/2016	Expiration Date:	04/15/2017
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of the following and brought up to volume using milli-Q H ₂ O. (0.5% HNO ₃ , 0.5% HCl) Li (1000 µg/mL) M12672 Sn (1000 µg/mL) M12669 Sr (1000 µg/mL) M12670 Ti (1000 µg/mL) M12671 W (1000 µg/mL) M12673		

		Instrument:	ICP 6000																																										
Standard Log #:	M13012	Standard:	List 2 MRL/ICVLL Prep Solution																																										
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)																																										
Prep Date:	10/26/2016	Expiration Date:	04/15/2017																																										
Prep:	<table border="1"> <thead> <tr> <th>Analyte</th> <th>MRL/ICVLL Conc. (µg/L)</th> <th>Standard ID</th> <th>Std. Conc. (µg/mL)</th> <th>Volume (mL) Pipetted into 1 L</th> <th>Expiration Date</th> </tr> </thead> <tbody> <tr> <td>Li</td> <td>20/60</td> <td>M12672</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td>W</td> <td>100/300</td> <td>M12673</td> <td>1000</td> <td>5</td> <td>04/15/2017</td> </tr> <tr> <td>Ti</td> <td>10/30</td> <td>M12671</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sr</td> <td>10/30</td> <td>M12670</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sn</td> <td>20/60</td> <td>M12669</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td colspan="6"> Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO₃, 0.5% HCl) </td> </tr> </tbody> </table>			Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date	Li	20/60	M12672	1000	1	04/15/2017	W	100/300	M12673	1000	5	04/15/2017	Ti	10/30	M12671	1000	0.5	04/15/2017	Sr	10/30	M12670	1000	0.5	04/15/2017	Sn	20/60	M12669	1000	1	04/15/2017	Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO ₃ , 0.5% HCl)					
Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date																																								
Li	20/60	M12672	1000	1	04/15/2017																																								
W	100/300	M12673	1000	5	04/15/2017																																								
Ti	10/30	M12671	1000	0.5	04/15/2017																																								
Sr	10/30	M12670	1000	0.5	04/15/2017																																								
Sn	20/60	M12669	1000	1	04/15/2017																																								
Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO ₃ , 0.5% HCl)																																													

		Instrument:	ICP
Standard Log #:	M13009	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	10/26/2016	Expiration Date:	06/30/2017
Prep:	<p>Standard Conc. (ug/L)</p> <p>Pipette the following:</p> <p>1 0.01 mL of Custom Assurance Standard XCTWI-5-500 M12909 and 0.001 mL W (1000 µg/mL) M12784 into 1L = 1 µg/L</p> <p>10 M12909 and 0.01 mL W (1000 µg/mL) M12784 into 1L = 10 µg/L</p> <p>100 1 mL of Custom Assurance Standard XCTWI-5-500 M12909 and 0.1 mL W (1000 µg/mL) M12784 into 1L = 100 µg/L</p> <p>1000 (CCV) 2 mL of Custom Assurance Standard XCTWI-5-500 M12909 and 0.2 mL W (1000 µg/mL) M12784 into 200mL = 1000 µg/L</p> <p>10000 20 mL of Custom Assurance Standard XCTWI-5-500 M12909 and 2 mL W (1000 µg/mL) M12784 into 200mL = 10000 µg/L</p>		

		Instrument:	ICP 6000
Standard Log #:	M13010	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	10/26/2016	Expiration Date:	04/15/2017
Prep:	<p>Into a 200 mL volumetric flask, pipetted 20 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12910, 6 mL of Fe (10,000 mg/L) M12949, 0.1 mL of Li (1000 µg/mL) M12672, 0.1 mL of Sn (1000 µg/mL) M12669, 0.1 mL of Sr (1000 µg/mL) M12670, 0.1 mL of Ti (1000 µg/mL) M12671, and 0.1 mL of W (1000 µg/mL) M12784 and brought up to volume using Milli-Q H₂O. (0.5% HNO₃, 0.5% HCl)</p>		

		Instrument:	CETAC
Standard Log #:	M13006	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	10/25/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M13007	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/25/2016	Expiration Date:	10/25/2016
Prep:	Carefully mixed 3 parts HCl AB.631 with 1 part HNO ₃ AB.628 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13008	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	10/25/2016	Expiration Date:	04/25/2017
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.631 and dissolved 100 g Stannous chloride M12926 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13003	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/25/2016	Expiration Date:	08/18/2017
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M13004	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/25/2016	Expiration Date:	05/30/2017
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12856 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M13005	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	10/25/2016	Expiration Date:	05/30/2017
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12856 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

		Instrument:	GFAA
Standard Log #:	M13000	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/25/2016	Expiration Date:	06/01/2017
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12862 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M13001	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/25/2016	Expiration Date:	06/01/2017
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12862 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M13002	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/25/2016	Expiration Date:	06/01/2017
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12863 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard ID#:	M12999	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Pd Matrix Modifier
Date Received:	10/20/2016	Lot #:	1616501
Expiration Date (if any):	10/17/2017	Catalog #:	HP1900-100

Standard ID#:	M12998	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	10/19/2016	Lot #:	F267-16
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	ICP 6000
Standard Log #:	M12995	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	10/17/2016	Expiration Date:	04/15/2017
Prep:	<p>Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M12957 and Si (1000 mg/L) M12675 and brought up to volume using milli-Q H₂O.</p> <p>50 ug/L std. - 0.05 mL of each 200 ug/L std. - 0.2 mL of each 1000 ug/L std. - 1.0 mL of each, also used for Continuing Calibration Verification 2000 ug/L std. - 2.0 mL of each 10,000 ug/L std. - 10 mL of each</p>		

		Instrument:	ICP 6000
Standard Log #:	M12996	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	10/17/2016	Expiration Date:	04/15/2017
Prep:	<p>Into a 100 mL volumetric flask, pipetted 10 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12910, 0.05 mL of B (1000 µg/mL) M12957, 0.05 mL of Si (1000 µg/mL) M12675 and 3 mL of Fe (10,000 mg/L) M12992 and brought up to volume using Milli-Q H₂O.</p>		

		Instrument:	CETAC
Standard Log #:	M12997	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/17/2016	Expiration Date:	10/17/2016
Prep:	<p>Carefully mixed 3 parts HCl AB.629 with 1 part HNO₃ AB.628 in a hood.</p>		

Standard ID#:	M12992	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	10/13/2016	Lot #:	16I080
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M261

Standard ID#:	M12993	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	10/13/2016	Lot #:	16B102
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M11

Standard ID#:	M12994	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	10/13/2016	Lot #:	16I092
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M671

Standard ID#:	M12988	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	10/13/2016	Lot #:	16I165
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M411

Standard ID#:	M12989	Vendor:	CPI
Analyst:	NAH	Chemical:	Zn
Date Received:	10/13/2016	Lot #:	16H186
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M411

Standard ID#:	M12990	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	10/13/2016	Lot #:	16I168
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10311

Standard ID#:	M12991	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	10/13/2016	Lot #:	16I091
Expiration Date (if any):	04/07/2018	Catalog #:	P/N 4400-10M91

		Instrument:	CETAC
Standard Log #:	M12987	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/12/2016	Expiration Date:	10/12/2016
Prep:	Carefully mixed 3 parts HCl AB.629 with 1 part HNO ₃ AB.628 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M12984	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	10/11/2016	Expiration Date:	04/15/2017
Prep:	Into a 250 mL volumetric flask, pipetted 2.5 mL of K (10,000 mg/L) M12946 and Na (10,000 mg/L) M12679 and brought up to volume using Milli-Q H ₂ O. (2% HNO ₃)		

		Instrument:	ICP 6000
Standard Log #:	M12985	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	10/11/2016	Expiration Date:	04/15/2017
Prep:	Into a 500 mL volumetric flask, pipetted 0.15 mL of Na (10,000 µg/mL) M12679 and 0.15 mL K (10,000 µg/mL) M12946 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

Standard Log #:	M12986	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	10/11/2016	Expiration Date:	10/11/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938 . Dilute to 20 L and mix.		

		Instrument:	ICP 6000
Standard Log #:	M12981	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	10/11/2016	Expiration Date:	02/12/2017
Prep:	<p>Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M12607 and K (1000 µg/mL) M12608 and brought up to volume using milli-Q H₂O. (2% HNO₃)</p> <p>0.5 mg/L std. - 0.1 mL of each 1.0 mg/L std. - 0.2 mL of each 5.0 mg/L std. - 1.0 mL of each 10 mg/L std. - 2.0 mL of each 50 mg/L std. - 10 mL of each 100 mg/L std. - 20 mL of each, also used for Continuing Calibration Verification 200 mg/L std. - 40 mL of each</p>		

		Instrument:	ICP 6000
Standard Log #:	M12982	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	10/11/2016	Expiration Date:	04/15/2017
Prep:	<p>Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12910, 2.5 mL of K (10,000 mg/L) M12946, 2.5 mL of Na (10,000 mg/L) M12679 and 7.5 mL of Fe (10,000 mg/L) M12949 and brought up to volume using Milli-Q H₂O. (2% HNO₃)</p>		

		Instrument:	ICP 6000
Standard Log #:	M12983	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	10/11/2016	Expiration Date:	02/12/2017
Prep:	<p>Into a 500 mL volumetric flask, pipetted 0.5 mL of Na (1000 µg/mL) M12607 and 0.5 mL K (1000 µg/mL) M12608 and brought to volume with Milli-Q H₂O. (2% HNO₃)</p>		

Standard Log #:	M12979	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	10/10/2016	Expiration Date:	04/10/2017
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12980	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	10/10/2016	Expiration Date:	10/10/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard Log #:	M12978	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/07/2016	Expiration Date:	07/31/2017
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H ₂ O, pipetted 15 mL Pd Modifier MM12584 and 10 mL Mg (10,000 mg/L) M12884 and brought up to volume.		

Standard ID#:	M12977	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	09/23/2016	Lot #:	39-001CR
Expiration Date (if any):	09/30/2016	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M12976	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/21/2016	Expiration Date:	09/21/2016
Prep:	Carefully mixed 3 parts HCl AB.624 with 1 part HNO ₃ AB.626 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12972	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	09/16/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M112788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12973	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	09/16/2016	Expiration Date:	05/30/2017
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12856 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12974	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/16/2016	Expiration Date:	09/16/2016
Prep:	Carefully mixed 3 parts HCl AB.623 with 1 part HNO ₃ AB.626 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12975	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	09/16/2016	Expiration Date:	03/16/2017
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.623 and dissolved 100 g Stannous chloride M12864 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12969	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/16/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12970	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/16/2016	Expiration Date:	05/30/2017
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12856 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12971	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	09/16/2016	Expiration Date:	05/30/2017
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12856 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard Log #:	M12967	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/15/2016	Expiration Date:	09/15/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard Log #:	M12968	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/15/2016	Expiration Date:	09/15/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard Log #:	M12965	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	09/14/2016	Expiration Date:	03/14/2017
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12966	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/14/2016	Expiration Date:	09/14/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard ID#:	M12964	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	09/13/2016	Lot #:	1-136WG
Expiration Date (if any):	09/30/2017	Catalog #:	XCTWI-5-500

		Instrument:	CETAC
Standard Log #:	M12963	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/08/2016	Expiration Date:	09/08/2017
Prep:	Carefully mixed 3 parts HCl AB.624 with 1 part HNO ₃ AB.625 in a hood.		

Standard Log #:	M12961	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/06/2016	Expiration Date:	09/06/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard ID#:	M12962	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 ug/mL
Date Received:	09/06/2016	Lot #:	1518025
Expiration Date (if any):	03/01/2016	Catalog #:	HP10M67-1

Standard Log #:	M12959	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/01/2016	Expiration Date:	09/01/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard Log #:	M12960	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	09/01/2016	Expiration Date:	09/01/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard ID#:	M12956	Vendor:	CPI
Analyst:	NAH	Chemical:	K 1000 mg/L
Date Received:	08/31/2016	Lot #:	16E154
Expiration Date (if any):	02/23/2018	Catalog #:	P/N4400-1000411

Standard ID#:	M12957	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	08/31/2016	Lot #:	16D064
Expiration Date (if any):	02/23/2018	Catalog #:	P/N S4400-100074

Standard ID#:	M12958	Vendor:	CPI
Analyst:	NAH	Chemical:	AS 1000 mg/L
Date Received:	08/31/2016	Lot #:	16H061
Expiration Date (if any):	02/23/2018	Catalog #:	P/N S4400-100031

		Instrument:	CETAC
Standard Log #:	M12955	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/30/2016	Expiration Date:	08/30/2016
Prep:	Carefully mixed 3 parts HCl AB.624 with 1 part HNO ₃ AB.625 in a hood.		

		Instrument:	ICP
Standard Log #:	M12954	Standard:	As Pb ICV1
Analyst:	NAH	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	08/22/2016	Expiration Date:	11/11/2017
Prep:	Into a 1 L volumetric flask, pipetted 5 mL of As (1000 mg/L) M12860 and 0.5 mL Pb (10,000 mg/L) M12861 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃ , 2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12953	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/18/2016	Expiration Date:	08/18/2016
Prep:	Carefully mixed 3 parts HCl AB.623 with 1 part HNO ₃ AB.622 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12952	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/16/2016	Expiration Date:	08/16/2016
Prep:	Carefully mixed 3 parts HCl AB.623 with 1 part HNO ₃ AB.622 in a hood.		

Standard ID#:	M12951	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std Ca, Mg, & Na
Date Received:	08/11/2016	Lot #:	38-096CR
Expiration Date (if any):	08/30/2017	Catalog #:	XCTWI-1-500

Standard Log #:	M12950	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	08/09/2016	Expiration Date:	08/08/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938. Dilute to 20 L and mix.		

Standard ID#:	M12945	Vendor:	CPI
Analyst:	NAH	Chemical:	Copper 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16C137
Expiration Date (if any):	01/29/2018	Catalog #:	S4400-10M141

Standard ID#:	M12946	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16D218
Expiration Date (if any):	01/29/2018	Catalog #:	4400-10M411

Standard ID#:	M12947	Vendor:	CPI
Analyst:	NAH	Chemical:	Magnesium 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16E106
Expiration Date (if any):	01/29/2018	Catalog #:	4400-10M311

Standard ID#:	M12948	Vendor:	CPI
Analyst:	NAH	Chemical:	Aluminum 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16B102
Expiration Date (if any):	01/29/2018	Catalog #:	4400-10M11

Standard ID#:	M12949	Vendor:	CPI
Analyst:	NAH	Chemical:	Iron 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16F173
Expiration Date (if any):	01/29/2018	Catalog #:	4400-10M261

		Instrument:	CETAC
Standard Log #:	M12940	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/04/2016	Expiration Date:	08/04/2016
Prep:	Carefully mixed 3 parts HCl AB.623 with 1 part HNO ₃ AB.622 in a hood.		

Standard ID#:	M12941	Vendor:	CPI
Analyst:	NAH	Chemical:	Chromium 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	13D123
Expiration Date (if any):	01/29/2018	Catalog #:	S4400-10M121

Standard ID#:	M12942	Vendor:	CPI
Analyst:	NAH	Chemical:	Calcium 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16E067
Expiration Date (if any):	01/29/2018	Catalog #:	4400-10M91

Standard ID#:	M12943	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/mL
Date Received:	08/04/2016	Lot #:	16D134
Expiration Date (if any):	01/29/2018	Catalog #:	S4400-1000504F

Standard ID#:	M12944	Vendor:	CPI
Analyst:	NAH	Chemical:	Manganese 10,000 ug/mL
Date Received:	08/04/2016	Lot #:	16B024
Expiration Date (if any):	01/29/2018	Catalog #:	S4400-10M321

Standard Log #:	M12938b	Reagent:	10N NaOH
Analyst:	LJF		
Prep Date:	08/03/2016	Expiration Date:	02/03/2017
Prep:	Into a 1 L volumetric flask, added 400 g NaOH W38729 and brought up to volume.		

Standard Log #:	M12939	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	08/03/2016	Expiration Date:	08/03/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12938b. Dilute to 20 L and mix.		

Standard ID#:	M12938	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	07/27/2016	Lot #:	2-46MKB
Expiration Date (if any):	07/20/2017	Catalog #:	XSPIKE-1-250

Standard Log #:	M12937	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/26/2016	Expiration Date:	01/26/2017
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12936	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	07/20/2016	Expiration Date:	07/20/2016
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12878. Dilute to 20 L and mix.		

Standard Log #:	M12935	Instrument:	ICP 6500																																																																																																														
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S																																																																																																														
Prep Date:	07/14/2016	Expiration Date:	11/29/2016																																																																																																														
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Standard Log #:	M12934	Instrument:	ICP																																			
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Standard Log #:	M12933	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3050 S Spiking Solution																																			
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Standard Log #:	M12932	Instrument:	ICP																																			
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Standard Log #:	M12931	Instrument:	ICP																																			
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Standard Log #:	M12929	Instrument:	ICP																														
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Analyst:	NAH	Standard:	LOQ 3010 S Spiking Solution																																			
Prep Date:	07/14/2016	Expiration Date:	05/30/2017																																			
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O. (5% HNO₃)</p> <table border="1"> <thead> <tr> <th>Analyte</th> <th>Final MDL Conc. (ug/L)</th> <th>Std. ID #</th> <th>Std. Conc. (mg/L)</th> <th>Volume (mL) pipetted</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>200</td> <td>M12876</td> <td>10000</td> <td>1.0</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p>			Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted	S	200	M12876	10000	1.0																									
Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted																																		
S	200	M12876	10000	1.0																																		

Standard Log #:	M12927	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution																																			
Prep Date:	07/14/2016	Expiration Date:	04/15/2017																																			
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O. (5% HNO₃)</p> <table border="1"> <thead> <tr> <th>Analyte</th> <th>Final MDL Conc. (ug/L)</th> <th>Std. ID #</th> <th>Std. Conc. (mg/L)</th> <th>Volume (mL) pipetted</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>16</td> <td>M12471</td> <td>1000</td> <td>0.8</td> </tr> <tr> <td>Si</td> <td>200</td> <td>M12675</td> <td>1000</td> <td>10</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p>			Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted	B	16	M12471	1000	0.8	Si	200	M12675	1000	10																				
Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted																																		
B	16	M12471	1000	0.8																																		
Si	200	M12675	1000	10																																		

		Instrument:	ICP 6000
Standard Log #:	M12924	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	07/14/2016	Expiration Date:	10/15/2016
Prep:	Into a 100 mL volumetric flask, pipetted 10 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12733, 0.05 mL of B (1000 µg/mL) M12471, 0.05 mL of Si (1000 µg/mL) M12675 and 3 mL of Fe (10,000 mg/L) M12887 and brought up to volume using Milli-Q H ₂ O.		

		Instrument:	CETAC
Standard Log #:	M12925	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/14/2016	Expiration Date:	07/14/2016
Prep:	Carefully mixed 3 parts HCl AB.621 with 1 part HNO ₃ AB.622 in a hood.		

Standard ID#:	M12926	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	07/14/2016	Lot #:	F161-11
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M12923	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	07/13/2016	Expiration Date:	07/13/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12878. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M12921	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	07/12/2016	Expiration Date:	02/10/2017
Prep:	<p>Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.5 mL of Sb (1000 mg/L) M12602</p> <p>1.0 mL of As (1000 mg/L) M12860</p> <p>2.0 mL of Se (1000 mg/L) M12600</p> <p>0.045 mL of Pb (10,000 mg/L) M12861</p> <p>0.4 mL of Tl (1000 mg/L) M12668</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (3 ug/L Sb, 2 ug/L As, 4 ug/L Se, 0.9 ug/L Pb, 0.8 ug/L Tl) and 2 mL spiking solution for LOQ (6 ug/L Sb, 4 ug/L As, 8 ug/L Se, 1.8 ug/L Pb, 1.6 ug/L Tl)</p>		

Standard Log #:	M12922	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/12/2016	Expiration Date:	01/12/2017
Prep:	<p>Into a 1 L volumetric flask, partially filled with milli-Q H₂O, dissolved 50 g potassium permanganate M12277 and brought up to volume.</p>		

		Instrument:	GFAA
Standard Log #:	M12920	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	07/12/2016	Expiration Date:	02/10/2017
Prep:	<p>Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.2 mL of Sb (1000 mg/L) M12602</p> <p>3.2 mL of As (1000 mg/L) M12860</p> <p>3.2 mL of Se (1000 mg/L) M12600</p> <p>0.08 mL of Pb (10,000 mg/L) M12861</p> <p>1.0 mL of Tl (1000 mg/L) M12668</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (1.2 ug/L Sb, 3.2 ug/L As, 3.2 ug/L Se, 0.8 ug/L Pb, 1 ug/L Tl) and 2 mL spiking solution for LOQ (2.4 ug/L Sb, 6.4 ug/L As, 6.4 ug/L Se, 1.6 ug/L Pb, 2 ug/L Tl)</p>		

		Instrument:	ICP 6000
Standard Log #:	M12919	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	07/08/2016	Expiration Date:	02/12/2017
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 mL of Na (1000 µg/mL) M12607 and 0.5 mL K (1000 µg/mL) M12608 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

		Instrument:	CETAC
Standard Log #:	M12915	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	07/07/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12916	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	07/07/2016	Expiration Date:	05/30/2017
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12856 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12917	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/07/2016	Expiration Date:	07/07/2016
Prep:	Carefully mixed 3 parts HCl AB.621 with 1 part HNO ₃ AB.622 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12918	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	07/07/2016	Expiration Date:	11/06/2016
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.621 and dissolved 100 g Stannous chloride M12802 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12912	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/07/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12913	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/07/2016	Expiration Date:	05/30/2017
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12856 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12914	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	07/07/2016	Expiration Date:	05/30/2017
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12856 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12911	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/28/2016	Expiration Date:	06/28/2016
Prep:	Carefully mixed 3 parts HCl AB.621 with 1 part HNO ₃ AB.622 in a hood.		

Standard ID#:	M12909	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard 23 meta
Date Received:	06/27/2016	Lot #:	2-18MKB
Expiration Date (if any):	06/30/2017	Catalog #:	XCTWI-5-500

Standard ID#:	M12910	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Interference A
Date Received:	06/27/2016	Lot #:	12-165YPX
Expiration Date (if any):	06/30/2016	Catalog #:	INT-A1

		Instrument:	CETAC
Standard Log #:	M12906	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/21/2016	Expiration Date:	06/21/2016
Prep:	Carefully mixed 3 parts HCl AB.621 with 1 part HNO ₃ AB.622 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12907	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	06/21/2016	Expiration Date:	11/06/2016
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.621 and dissolved 100 g Stannous chloride M12802 and brought up to volume.		

Standard ID#:	M12908	Vendor:	AMCO Clear
Analyst:	NAH	Chemical:	Amco clear turbidity std 2.0 NTU
Date Received:	06/21/2016	Lot #:	C583585
Expiration Date (if any):	7/2017	Catalog #:	#8008

		Instrument:	CETAC
Standard Log #:	M12904	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	06/21/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12905	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	06/21/2016	Expiration Date:	05/30/2017
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12856 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12901	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/21/2016	Expiration Date:	08/18/2017
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12902	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/21/2016	Expiration Date:	05/30/2017
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12856 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12903	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	06/21/2016	Expiration Date:	05/30/2017
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12856 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

Standard ID#:	M12900	Vendor:	HACH
Analyst:	NAH	Chemical:	StablCal Standard, 200 NTU or FNU
Date Received:	06/17/2016	Lot #:	A6036
Expiration Date (if any):	02/2018	Catalog #:	2660449

Standard Log #:	M12899	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/16/2016	Expiration Date:	06/16/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH W38729. Dilute to 20 L and mix.		

Standard Log #:	M12898	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	06/13/2016	Expiration Date:	12/13/2016
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M12896	Standard:	CCV1
Analyst:	NAH	Concentrations:	5000 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 500 µg/L Ag, Be, Cd
Prep Date:	06/09/2016	Expiration Date:	10/2016
Prep:	Into a 1 L volumetric flask, pipetted 50 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12769 and 5.0 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12897	Standard:	CCV2
Analyst:	NAH	Concentrations:	500 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 50 µg/L Ag, Be, Cd
Prep Date:	06/09/2016	Expiration Date:	10/2016
Prep:	Into a 1 L volumetric flask, pipetted 5 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12769 and 0.5 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12894	Standard:	DOD MRL
Analyst:	NAH	Concentrations:	4 ug/L: Be. 5 ug/L: Cd. 10 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 20 ug/L: Sb, As, Se, Tl, Li, Sn and B. 50 ug/L: W. 100 ug/L: Si. 300 ug/L: Fe. 400 ug/L Fe. 500 ug/L: S, Ca and Mg. 1000 ug/L: K and Na.
Prep Date:	06/09/2016	Expiration Date:	10/2016
Prep:	Into a 500 mL volumetric flask, pipetted 10 mL of MRL Base STD M12893 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

		Instrument:	ICP 6500
Standard Log #:	M12895	Standard:	ICVLL
Analyst:	NAH	Concentrations:	12 ug/L: Be. 15 ug/L: Cd. 30 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 60 ug/L: Sb, As, Se, Tl, Li, Sn and B. 150 ug/L: W. 300 ug/L: Si. 900 ug/L: Fe. 1200 ug/L Al. 1500 ug/L: S, Ca and Mg. 3000 ug/L: K and Na.
Prep Date:	06/09/2016	Expiration Date:	10/2016
Prep:	Into a 500 mL volumetric flask, pipetted 30 mL of MRL Base STD M12893 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

MRL BASE STD	M12893	Analyst	NAH
		Prep Date	06/09/2016

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M12599	1000	1	02/10/2017
Al	400	M12885	10000	2	12/01/2017
Ba	10	M12473	1000	0.5	10/15/2016
Be	4	M12667	1000	0.2	04/15/2017
Cd	5	M12674	1000	0.25	04/15/2017
Co	10	M12678	1000	0.5	04/15/2017
Cr	10	M12470	10000	0.05	10/15/2016
Cu	10	M12472	10000	0.05	10/15/2016
Mg	500	M12884	10000	2.5	12/01/2017
Mn	10	M12533	10000	0.05	11/29/2016
Mo	10	M12677	1000	0.5	04/15/2017
Ni	10	M12681	1000	0.5	04/15/2017
Pb	10	M12861	10000	0.05	11/11/2017
Sb	20	M12602	1000	1	02/10/2017
V	10	M12676	1000	0.5	04/15/2017
Zn	10	M12680	10000	0.05	04/15/2017
K	1000	M12883	10000	5	12/01/2017
Na	1000	M12679	10000	5	04/15/2017
As	20	M12860	1000	1	11/11/2017
Ca	500	M12886	10000	2.5	12/01/2017
Fe	300	M12887	10000	1.5	12/01/2017
Se	20	M12600	1000	1	02/10/2017
Tl	20	M12668	1000	1	04/15/2017
Si	100	M12675	1000	5	04/15/2017
B	20	M12471	1000	1	10/15/2016
Li	20	M12672	1000	1	04/15/2017
W	50	M12673	1000	2.5	04/15/2017
Ti	10	M12671	1000	0.5	04/15/2017
Sr	10	M12670	1000	0.5	04/15/2017
Sn	50	M12669	1000	2.5	04/15/2017
S	300	M12876	10000	1.5	05/30/2017

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date:
10/2016

		Instrument:	ICP 6500
Standard Log #:	M12892	Standard:	ICSAB
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg 500 ug/L Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	06/09/2016	Expiration Date:	12/2016
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12733, 15 mL Fe (10,000 mg/L) M12887, 2.5 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12769 and 2.5 mL Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12882 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12890	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Ti 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	06/09/2016	Expiration Date:	10/2016
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H₂O.</p> <p>10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Ti) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12819, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12733, 0.5 mL Mo (1000 mg/L) M12677, 0.5 mL B (1000 mg/L) M12471, 0.5 mL Sr (1000 mg/L) M12670, 0.5 mL Li (1000 mg/L) M12672, 0.5 mL Sn (1000 mg/L) M12669 and 0.5 mL Ti (1000 mg/L) M12671.</p>		

		Instrument:	ICP 6500
Standard Log #:	M12891	Standard:	ICSA
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg
Prep Date:	06/09/2016	Expiration Date:	12/2016
Prep:	<p>Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12733 and 15 mL Fe (10000 mg/L) M12887 and brought up to volume with milli-Q H₂O.</p>		

		Instrument:	ICP 6500
Standard Log #:	M12889	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/09/2016	Expiration Date:	02/28/2017
Prep:	<p>Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (5% HNO₃, 5% HCl) 1000 ug/L Std. - 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12769, 10 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12882 and 1 mL of Si (1000 mg/L) M12675. 0.25 ug/L Std. - 0.25 mL of the 1000 ug/L Std. 0.5 ug/L Std. - 0.5 mL of the 1000 ug/L Std. 1 ug/L Std. - 1 mL of the 1000 ug/L Std. 5 ug/L Std. - 5 mL of the 1000 ug/L Std. 10 ug/L Std. - 10 mL of the 1000 ug/L Std. 20 ug/L Std. - 20 mL of the 1000 ug/L Std. 50 ug/L Std. - 50 mL of the 1000 ug/L Std. 100 ug/L Std. - 1 mL of Custom Assurance Std. (CAS) #23 and 1 mL of CAS #3 10,000 ug/L Std. - 100 mL CAS #23, 100 mL CAS #3 and 1 mL of K (10,000 mg/L) M12883. 100k ug/L Std. - 10 mL of Cu (10,000 mg/L) M12472, 10 mL of Mn (10,000 mg/L) M12533, 10 mL of Cr (10,000 mg/L) M12470, 10 mL Pb (10,000 mg/L) M12861, 10 mL of Zn (10,000 mg/L) M12680 and 10 mL of Na (10,000 mg/L) M12679. 100,000 ug/L Std. - 10 mL of Mg (10,000 mg/L) M12884, 10 mL of Fe (10,000 mg/L) M12887, 10 mL of Ca (10,000 mg/L) M12886 and 10 mL Al (10,000 mg/L) M12885. 500,000 ug/L Std. - 50 mL of Mg (10,000 mg/L), 50 mL of Fe (10,000 mg/L), 50 mL of Ca (10,000 mg/L) and 50 mL of Al (10,000 mg/L) 1000k ug/L Std. - 100 mL of Mg (10,000 mg/L), 100 mL of Fe (10,000 mg/L), 100 mL of Ca (10,000 mg/L) and 100 mL of Al (10,000 mg/L)</p>		

Standard ID#:	M12886	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	06/08/2016	Lot #:	16E067
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M91

Standard ID#:	M12887	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	06/08/2016	Lot #:	16D220
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M261

Standard ID#:	M12888	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	06/01/2016	Lot #:	16E033
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M671

Standard ID#:	M12882	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/08/2016	Lot #:	37-058CR
Expiration Date (if any):	06/30/2017	Catalog #:	XCTWI-4-500

Standard ID#:	M12883	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	06/08/2016	Lot #:	16D014
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M411

Standard ID#:	M12884	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10,000 mg/L
Date Received:	06/08/2016	Lot #:	16E106
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M311

Standard ID#:	M12885	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	06/08/2016	Lot #:	16B102
Expiration Date (if any):	12/01/2017	Catalog #:	4400-10M11

Standard Log #:	M12879	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/06/2016	Expiration Date:	06/06/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH W38729. Dilute to 20 L and mix.		

Standard Log #:	M12880	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/06/2016	Expiration Date:	06/06/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH W38729. Dilute to 20 L and mix.		

Standard Log #:	M12881	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/06/2016	Expiration Date:	06/06/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH W38729. Dilute to 20 L and mix.		

Standard ID#:	M12876	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Sulfur 10,000 mg/L
Date Received:	06/06/2016	Lot #:	AJ16-45SY
Expiration Date (if any):	05/30/2016	Catalog #:	PLS9-3Y

Standard ID#:	M12877	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	06/06/2016	Lot #:	158648
Expiration Date (if any):		Catalog #:	S271-500

Standard Log #:	M12878	Reagent:	10N NaOH
Analyst:	LJF		
Prep Date:	06/06/2016	Expiration Date:	06/06/2017
Prep:	Into a 1 L volumetric flask, added 400 g NaOH W38729 and brought up to volume.		

Standard Log #:	M12875	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 22 µg/L Tl 24 µg/L Sb, Se 0.8 µg/L Ag
Prep Date:	06/03/16	Expiration Date:	02/10/17

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H₂O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M12860	10,000
Pb	0.1	10,000	M12861	10,000
Tl	1	1000	M12668	10,000
Se	1	1000	M12600	10,000
Sb	1	1000	M12602	10,000
Ag	0.1	1000	M12599	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H₂O. (1% HNO₃)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1	10,000	10
Pb	0.6	10,000	6
Tl	2.2	10,000	22
Se	2.4	10,000	24
Sb	2.4	10,000	24
Ag	0.8	1000	0.8

Standard ID#:	M12873	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 1000 mg/L
Date Received:	06/03/16	Lot #:	16D063
Expiration Date (if any):	11/27/17	Catalog #:	4400-1000521

Standard ID#:	M12874	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 1000 mg/L
Date Received:	06/03/16	Lot #:	16B100
Expiration Date (if any):	11/27/17	Catalog #:	4400-1000411

		Instrument:	ICP 6000
Standard Log #:	M12871	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	06/02/16	Expiration Date:	02/12/17
Prep:	<p>Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M12607 and K (1000 µg/mL) M12608 and brought up to volume using milli-Q H₂O. (2% HNO₃)</p> <p>0.5 mg/L std. - 0.1 mL of each 1.0 mg/L std. - 0.2 mL of each 5.0 mg/L std. - 1.0 mL of each 10 mg/L std. - 2.0 mL of each 50 mg/L std. - 10 mL of each 100 mg/L std. - 20 mL of each, also used for Continuing Calibration Verification 200 mg/L std. - 40 mL of each</p>		

Standard ID#:	M12872	Vendor:	SCP Science Plasma Cal
Analyst:	NAH	Chemical:	Sulfur 10,000 mg/L
Date Received:	06/02/16	Lot #:	S160222009
Expiration Date (if any):	11/2017	Catalog #:	140-060-161

		Instrument:	GFAA
Standard Log #:	M12868	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/01/16	Expiration Date:	06/01/17
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12862 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12869	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/01/16	Expiration Date:	06/01/17
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12862 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12870	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/01/16	Expiration Date:	06/01/17
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12863 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard ID#:	M12867	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05-27-2016	Lot #:	37-024CR
Expiration Date (if any):	05/20/2017	Catalog #:	XSPIKE-1-250

Standard ID#:	M12866	Vendor:	Fisher, distributer (saint-gobain, manu
Analyst:	NAH	Chemical:	Chemware Ultra pure PTFE Boiling St
Date Received:	05/23/2016	Lot #:	5608-6E001
Expiration Date (if any):		Catalog #:	0919120

Standard ID#:	M12864	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	05/19/2016	Lot #:	F120-15
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M12865	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	05/20/2016	Expiration Date:	05/20/2017
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12645 . Dilute to 20 L and mix.		

Standard ID#:	M12862	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	05/19/2016	Lot #:	J2-MEB581070
Expiration Date (if any):	06/01/2017	Catalog #:	CTI-SPK-1

Standard ID#:	M12863	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	05/19/2016	Lot #:	J2-MEB581069
Expiration Date (if any):	06/01/2017	Catalog #:	CTI-GFCAL-1

Standard ID#:	M12860	Vendor:	CPI
Analyst:	NAH	Chemical:	Arsenic 1000 mg/L
Date Received:	05/17/2016	Lot #:	16B070
Expiration Date (if any):	11/11/2017	Catalog #:	S4400-100031

Standard ID#:	M12861	Vendor:	CPI
Analyst:	NAH	Chemical:	Lead 10,000 mg/L
Date Received:	05/17/2016	Lot #:	16D240
Expiration Date (if any):	11/11/2017	Catalog #:	4400-10M281

Standard ID#:	M12859	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	05/12/2016	Lot #:	921812Q
Expiration Date (if any):	06/30/2017	Catalog #:	39043

Standard ID#:	M12856	Vendor:	SPEX CertPrep
Analyst:	LJF	Chemical:	Hg
Date Received:	05/10/2016	Lot #:	CL8-144HGY
Expiration Date (if any):	05/30/2017	Catalog #:	CLHG4-2Y

Standard Log #:	M12857	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/10/2016	Expiration Date:	11/10/2016
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12858	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	05/10/2016	Expiration Date:	11/10/2016
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12610 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12852	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	05/06/2016	Expiration Date:	08/18/2017
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12853	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	05/06/2016	Expiration Date:	06/30/2016
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12532 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12854	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/06/2016	Expiration Date:	05/06/2016
Prep:	Carefully mixed 3 parts HCl AB.618 with 1 part HNO ₃ AB.619 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12855	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/06/2016	Expiration Date:	11/06/2016
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.618 and dissolved 100 g Stannous chloride M12802 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12849	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/06/2016	Expiration Date:	08/18/2016
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12850	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/06/2016	Expiration Date:	06/30/2016
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12851	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	05/06/2016	Expiration Date:	06/30/2016
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12532 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

		Instrument:	ICP 6000
Standard Log #:	M12848	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	05/04/16	Expiration Date:	12/30/16
Prep:	Into a 200 mL volumetric flask, pipetted 20 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12733, 6 mL of Fe (10,000 mg/L) M12745, 0.1 mL of Li (1000 µg/mL) M12672, 0.1 mL of Sn (1000 µg/mL) M12669, 0.1 mL of Sr (1000 µg/mL) M12670, 0.1 mL of Ti (1000 µg/mL) M12671, and 0.1 mL of W (1000 µg/mL) M12673 and brought up to volume using Milli-Q H ₂ O. (0.5% HNO ₃ , 0.5% HCl)		

		Instrument:	GFAA
Standard Log #:	M12846	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/29/16	Expiration Date:	06/01/16
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12847	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/29/16	Expiration Date:	06/01/16
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12505 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard ID#:	M12843	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	04/28/16	Lot #:	161238
Expiration Date (if any):		Catalog #:	H331-500

	Instrument:	ICP 6000
Standard Log #:	M12844	Standard: B&Si ICV
Analyst:	MDS	Concentrations: 1000 ug/L (B, Si)
Prep Date:	04/29/16	Expiration Date: 02/28/17
Prep:	Into a 1 L volumetric flask, pipetted 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12769 and 1.0 mL Si (1000 mg/L) M12675 and brought up to volume using milli-Q H ₂ O.	

	Instrument:	GFAA
Standard Log #:	M12845	Standard: Calibration Std.
Analyst:	MDS	Concentrations: 25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/29/16	Expiration Date: 06/01/16
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)	

		Instrument:	ICP 6000
Standard Log #:	M12841	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	04/22/2016	Expiration Date:	04/15/2017
Prep:	Into a 250 mL volumetric flask, pipetted 2.5 mL of K (10,000 mg/L) M12744 and Na (10,000 mg/L) M12679 and brought up to volume using Milli-Q H ₂ O. (2% HNO ₃)		

		Instrument:	ICP 6000
Standard Log #:	M12842	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	04/22/2016	Expiration Date:	12/30/2016
Prep:	Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12733, 2.5 mL of K (10,000 mg/L) M12744, 2.5 mL of Na (10,000 mg/L) M12679 and 7.5 mL of Fe (10,000 mg/L) M12745 and brought up to volume using Milli-Q H ₂ O. (2% HNO ₃)		

Standard Log #:	M12840	Instrument:	ICP																																							
Analyst:	NAH	Standard:	LOQ 3050 S Spiking Solution																																							
Prep Date:	04/19/2016	Expiration Date:	10/2016																																							
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O. (5% HNO₃)</p> <table border="1"> <thead> <tr> <th>Analyte</th> <th>Final MDL Conc. (ug/L)</th> <th>Std. ID #</th> <th>Std. Conc. (mg/L)</th> <th>Volume (mL) pipetted</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>240</td> <td>M12770</td> <td>10000</td> <td>1.2</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3"> <p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p> </td> </tr> </tbody></table>			Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted	S	240	M12770	10000	1.2																											<p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p>		
	Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted																																					
	S	240	M12770	10000	1.2																																					
	<p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p>																																									

Standard Log #:	M12839	Instrument:	ICP																																				
Analyst:	NAH	Standard:	LOQ 3010 S Spiking Solution																																				
Prep Date:	04/19/2016	Expiration Date:	10/2016																																				
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S	200	M12770	10000	1.0																																			

Standard Log #:	M12838	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3050 B&Si Spiking Solution																																			
Prep Date:	04/19/2016	Expiration Date:	10/2016																																			
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B	52	M12471	1000	2.6																																		
Si	192	M12675	1000	9.6																																		

Standard Log #:	M12837	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution																																			
Prep Date:	04/19/2016	Expiration Date:	10/2016																																			
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B	16	M12471	1000	0.8																																		
Si	200	M12675	1000	10																																		

Standard Log #:	M12836	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3050 k&na Spiking Solution																																			
Prep Date:	04/19/2016	Expiration Date:	10/2016																																			
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Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted																																		
K	2640	M12744	10000	13.2																																		
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Standard Log #:	M12835	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3010 k&na Spiking Solution																																			
Prep Date:	04/19/2016	Expiration Date:	10/2016																																			
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	K	500	M12744	10000	2.5																																	
	Na	600	M12679	10000	3																																	

Standard Log #:	M12834	Instrument:	ICP		
Analyst:	NAH	Standard:	LOQ 3050 L2 Spiking Solution		
Prep Date:	04/19/2016	Expiration Date:	10/2016		
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H ₂ O. (5% HNO ₃)				
	Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
	Li	14.4	M12672	1000	0.72
	Sn	20	M12669	1000	1
	Sr	3.2	M12670	1000	0.16
	Ti	9.6	M12671	1000	0.48
	W	24	M12673	1000	1.2
Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.					

Standard Log #:	M12833	Instrument:	ICP																																			
Analyst:	NAH	Standard:	LOQ 3010 L2 Spiking Solution																																			
Prep Date:	04/19/2016	Expiration Date:	10/2016																																			
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Standard Log #:	M12832	Instrument:	ICP 6500																																																																																																														
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Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S																																																																																																														
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Tl	20	M12668	1000	0.75																																																																																																													
V	5	M12676	1000	0.25																																																																																																													
Zn	10	M12680	10000	0.05																																																																																																													

Standard Log #:	M12830	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	041916	Expiration Date:	101916
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium persulfate M11748 and brought up to volume.		

Standard Log #:	M12827	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	041816	Expiration Date:	101816
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard ID#:	M12828	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 ug/mL
Date Received:	04/18/2016	Lot #:	1518025
Expiration Date (if any):	10/14/2017	Catalog #:	hp10m67-1

Standard ID#:	M12829	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,000 ug/mL
Date Received:	04/18/2016	Lot #:	16a118
Expiration Date (if any):	10/12/2017	Catalog #:	4400-10m671

		Instrument:	CETAC
Standard Log #:	M12823	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	041816	Expiration Date:	063016
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12824	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	041816	Expiration Date:	063016
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12825	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	041816	Expiration Date:	010118
Prep:	Carefully mixed 3 parts HCl AB.618 with 1 part HNO ₃ AB.617 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12826	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	041816	Expiration Date:	101816
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.618 and dissolved 100 g Stannous chloride M12802 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12820	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	041816	Expiration Date:	081817
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12821	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	041816	Expiration Date:	063016
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12822	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	041816	Expiration Date:	063016
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

Standard ID#:	M12819	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	04/12/2016	Lot #:	36-051CR
Expiration Date (if any):	4/30/2017	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M12816	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	04/01/16	Expiration Date:	02/26/17
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.615 and dissolved 100 g Stannous chloride M12789 and brought up to volume.		

Standard Log #:	M12817	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	04/01/16	Expiration Date:	10/01/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12818	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	04/01/16	Expiration Date:	10/01/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12610 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12813	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	04/01/16	Expiration Date:	08/18/17
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12814	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	04/01/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12815	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/01/16	Expiration Date:	10/01/17
Prep:	Carefully mixed 3 parts HCl AB.615 with 1 part HNO ₃ AB.614 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12810	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/01/16	Expiration Date:	08/18/17
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12811	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/01/16	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12812	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	04/01/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard Log #:	M12809	Instrument:	ICP 6500																																																																																																														
Analyst:	MDS	Standard:	MDL 21 Metals Spiking Solution																																																																																																														
Prep Date:	03/22/2016	Expiration Date:	06/02/2016																																																																																																														
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O. (5% HNO₃, 5% HCl)</p> <table border="1"> <thead> <tr> <th>Analyte</th> <th>MDL Conc. (ug/L)</th> <th>Std. ID #</th> <th>Std Conc</th> <th>Volume (mL) pipetted into 1 L</th> </tr> </thead> <tbody> <tr><td>Ag</td><td>5</td><td>M12599</td><td>1000</td><td>0.25</td></tr> <tr><td>Al</td><td>10</td><td>M12713</td><td>10000</td><td>0.05</td></tr> <tr><td>As</td><td>20</td><td>M12315</td><td>1000</td><td>1</td></tr> <tr><td>Ba</td><td>2</td><td>M12473</td><td>1000</td><td>0.1</td></tr> <tr><td>Be</td><td>0.5</td><td>M12667</td><td>1000</td><td>0.025</td></tr> <tr><td>Ca</td><td>50</td><td>M12716</td><td>10000</td><td>0.25</td></tr> <tr><td>Cd</td><td>0.5</td><td>M12674</td><td>1000</td><td>0.025</td></tr> <tr><td>Co</td><td>2.5</td><td>M12678</td><td>1000</td><td>0.125</td></tr> <tr><td>Cr</td><td>50</td><td>M12470</td><td>10000</td><td>0.25</td></tr> <tr><td>Cu</td><td>10</td><td>M12472</td><td>10000</td><td>0.05</td></tr> <tr><td>Fe</td><td>40</td><td>M12714</td><td>10000</td><td>0.2</td></tr> <tr><td>Mg</td><td>25</td><td>M12715</td><td>10000</td><td>0.125</td></tr> <tr><td>Mn</td><td>5</td><td>M12533</td><td>10000</td><td>0.025</td></tr> <tr><td>Mo</td><td>2.5</td><td>M12677</td><td>1000</td><td>0.125</td></tr> <tr><td>Ni</td><td>5</td><td>M12681</td><td>1000</td><td>0.25</td></tr> <tr><td>Pb</td><td>10</td><td>M12313</td><td>10000</td><td>0.05</td></tr> <tr><td>Sb</td><td>20</td><td>M12602</td><td>1000</td><td>1</td></tr> <tr><td>Se</td><td>20</td><td>M12600</td><td>1000</td><td>1</td></tr> <tr><td>Tl</td><td>20</td><td>M12668</td><td>1000</td><td>1</td></tr> <tr><td>V</td><td>5</td><td>M12676</td><td>1000</td><td>0.25</td></tr> <tr><td>Zn</td><td>5</td><td>M12680</td><td>10000</td><td>0.025</td></tr> </tbody> </table> <p>Of this Base standard, pipet 10 mL into a 500 mL volumetric flask to create a working std or 1 mL into a 50 mL digestion tube for a digested working standard.</p>			Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L	Ag	5	M12599	1000	0.25	Al	10	M12713	10000	0.05	As	20	M12315	1000	1	Ba	2	M12473	1000	0.1	Be	0.5	M12667	1000	0.025	Ca	50	M12716	10000	0.25	Cd	0.5	M12674	1000	0.025	Co	2.5	M12678	1000	0.125	Cr	50	M12470	10000	0.25	Cu	10	M12472	10000	0.05	Fe	40	M12714	10000	0.2	Mg	25	M12715	10000	0.125	Mn	5	M12533	10000	0.025	Mo	2.5	M12677	1000	0.125	Ni	5	M12681	1000	0.25	Pb	10	M12313	10000	0.05	Sb	20	M12602	1000	1	Se	20	M12600	1000	1	Tl	20	M12668	1000	1	V	5	M12676	1000	0.25	Zn	5	M12680	10000	0.025
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Standard Log #:	M12808	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	03/17/16	Expiration Date:	03/17/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.534 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M12805	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/15/2016	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12806	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/15/2016	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12807	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/15/2016	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12505 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard ID#:	M12802	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	03/09/16	Lot #:	F053-07
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M12803	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	03/09/16	Expiration Date:	09/09/17
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard ID#:	M12804	Vendor:	CPI
Analyst:	NAH	Chemical:	Arsenic 10,000 mg/L
Date Received:	03/09/16	Lot #:	14A276
Expiration Date (if any):	09/03/17	Catalog #:	S4400-10M31

		Instrument:	ICP 6000
Standard Log #:	M12800	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	03/08/2016	Expiration Date:	04/15/2017
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of the following and brought up to volume using milli-Q H ₂ O. (0.5% HNO ₃ , 0.5% HCl) Li (1000 µg/mL) M12672 Sn (1000 µg/mL) M12669 Sr (1000 µg/mL) M12670 Ti (1000 µg/mL) M12671 W (1000 µg/mL) M12784		

		Instrument:	ICP 6000																																										
Standard Log #:	M12801	Standard:	List 2 MRL/ICVLL Prep Solution																																										
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)																																										
Prep Date:	03/08/2016	Expiration Date:	04/15/2017																																										
Prep:	<table border="1"> <thead> <tr> <th>Analyte</th> <th>MRL/ICVLL Conc. (µg/L)</th> <th>Standard ID</th> <th>Std. Conc. (µg/mL)</th> <th>Volume (mL) Pipetted into 1 L</th> <th>Expiration Date</th> </tr> </thead> <tbody> <tr> <td>Li</td> <td>20/60</td> <td>M12672</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td>W</td> <td>100/300</td> <td>M12784</td> <td>1000</td> <td>5</td> <td>08/11/2017</td> </tr> <tr> <td>Ti</td> <td>10/30</td> <td>M12671</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sr</td> <td>10/30</td> <td>M12670</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sn</td> <td>20/60</td> <td>M12669</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td colspan="6"> Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO₃, 0.5% HCl) </td> </tr> </tbody> </table>			Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date	Li	20/60	M12672	1000	1	04/15/2017	W	100/300	M12784	1000	5	08/11/2017	Ti	10/30	M12671	1000	0.5	04/15/2017	Sr	10/30	M12670	1000	0.5	04/15/2017	Sn	20/60	M12669	1000	1	04/15/2017	Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO ₃ , 0.5% HCl)					
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Standard Log #:	M12798	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	03/07/16	Expiration Date:	03/07/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12799	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	03/07/16	Expiration Date:	03/07/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12797	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	02/29/16	Expiration Date:	08/29/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12793	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	02/26/16	Expiration Date:	08/18/17
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12794	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	02/26/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12795	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/26/16	Expiration Date:	10/01/17
Prep:	Carefully mixed 3 parts HCl AB.615 with 1 part HNO ₃ AB.614 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12796	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	02/26/16	Expiration Date:	02/26/17
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.615 and dissolved 100 g Stannous chloride M12789 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12790	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/26/16	Expiration Date:	08/18/17
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12788</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12791	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/26/16	Expiration Date:	06/30/16
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12792	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	02/26/16	Expiration Date:	06/30/16
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

Standard ID#:	M12787	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	02/24/2016	Lot #:	16A118
Expiration Date (if any):	08/18/2017	Catalog #:	4400-10M671

Standard ID#:	M12788	Vendor:	CPI
Analyst:	NAH	Chemical:	Mercury 1000 mg/L
Date Received:	02/24/2016	Lot #:	15J139
Expiration Date (if any):	08/18/2017	Catalog #:	S4400-1000331

Standard ID#:	M12789	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	02/24/16	Lot #:	F053-07
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M12786	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	02/22/16	Expiration Date:	02/22/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12785	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	02/18/16	Expiration Date:	02/18/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12783	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	02/16/16	Expiration Date:	08/16/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard ID#:	M12784	Vendor:	CPI
Analyst:	NAH	Chemical:	Tungsten
Date Received:	02/16/2016	Lot #:	15k204
Expiration Date (if any):	08/11/2017	Catalog #:	S4400-1000633

		Instrument:	CETAC
Standard Log #:	M12780	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/15/16	Expiration Date:	10/01/17
Prep:	Carefully mixed 3 parts HCl AB.615 with 1 part HNO ₃ AB.614 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12781	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	02/15/16	Expiration Date:	08/12/16
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.615 and dissolved 100 g Stannous chloride M12731 and brought up to volume.		

Standard ID#:	M12782	Vendor:	ALFA AESAR
Analyst:	LJF	Chemical:	TIN CHLORIDE DIH
Date Received:	02/11/16	Lot #:	W03B012
Expiration Date (if any):		Catalog #:	11536

		Instrument:	CETAC
Standard Log #:	M12777	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	02/15/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12778	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	02/15/16	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12779	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	02/15/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard Log #:	M12774	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	02/15/16	Expiration Date:	08/15/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium persulfate M12774 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12775	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/15/16	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12776	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/15/16	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

Standard ID#:	M12773	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance std-spike
Date Received:	02/12/16	Lot #:	35-054CR
Expiration Date (if any):	02/28/2016	Catalog #:	XSPIKE-1-250

Standard ID#:	M12770	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Sulfur 10,000 µg/mL
Date Received:	02/09/2016	Lot #:	AJ16-45SY
Expiration Date (if any):	02/28/2017	Catalog #:	PLS9-3Y

		Instrument:	ICP 6000
Standard Log #:	M12771	Standard:	Sulfur ICAL
Analyst:	MDS	Concentrations:	1000 10,000 100,000 1000K µg/L (S)
Prep Date:	02/09/2016	Expiration Date:	02/28/2017
Prep:	<p>Into four, 100 mL volumetric flasks, pipetted the following from stock standard S (10,000 µg/mL) M12770 and brought up to volume using milli-Q H₂O.</p> <p><i>1000 µg/L std. - 0.01 mL</i> <i>10,000 µg/L std. - 0.1 mL</i> <i>100,000 µg/L std. - 1.0 mL</i>, also used as the CCV <i>1000K µg/L std. - 10 mL</i></p>		

		Instrument:	ICP 6000
Standard Log #:	M12772	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	02/09/2016	Expiration Date:	08/13/2016
Prep:	<p>Into a 100 mL volumetric flask, pipetted 1.0 mL of S (10,000 µg/mL) M12371 and brought up to volume using Milli-Q H₂O.</p>		

Standard ID#:	M12769	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/08/2016	Lot #:	11-035WL
Expiration Date (if any):	02/28/2017	Catalog #:	XCTWI-5-500

		Instrument:	ICP 6000
Standard Log #:	M12766	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	02/04/2016	Expiration Date:	12/30/2016
Prep:	Into a 200 mL volumetric flask, pipetted 20 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12733, 6 mL of Fe (10,000 mg/L) M12714, 0.1 mL of Li (1000 µg/mL) M12672, 0.1 mL of Sn (1000 µg/mL) M12669, 0.1 mL of Sr (1000 µg/mL) M12670, 0.1 mL of Ti (1000 µg/mL) M12671, and 0.1 mL of W (1000 µg/mL) M12673 and brought up to volume using Milli-Q H ₂ O. (0.5% HNO ₃ , 0.5% HCl)		

		Instrument:	ICP 6000																																										
Standard Log #:	M12767	Standard:	List 2 MRL/ICVLL Prep Solution																																										
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)																																										
Prep Date:	02/04/2016	Expiration Date:	02/06/2016																																										
Prep:	<table border="1"> <thead> <tr> <th>Analyte</th> <th>MRL/ICVLL Conc. (µg/L)</th> <th>Standard ID</th> <th>Std. Conc. (µg/mL)</th> <th>Volume (mL) Pipetted into 1 L</th> <th>Expiration Date</th> </tr> </thead> <tbody> <tr> <td>Li</td> <td>20/60</td> <td>M12672</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td>W</td> <td>100/300</td> <td>M12163</td> <td>1000</td> <td>5</td> <td>02/06/2016</td> </tr> <tr> <td>Ti</td> <td>10/30</td> <td>M12671</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sr</td> <td>10/30</td> <td>M12670</td> <td>1000</td> <td>0.5</td> <td>04/15/2017</td> </tr> <tr> <td>Sn</td> <td>20/60</td> <td>M12669</td> <td>1000</td> <td>1</td> <td>04/15/2017</td> </tr> <tr> <td colspan="6"> Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO₃, 0.5% HCl) </td> </tr> </tbody> </table>			Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date	Li	20/60	M12672	1000	1	04/15/2017	W	100/300	M12163	1000	5	02/06/2016	Ti	10/30	M12671	1000	0.5	04/15/2017	Sr	10/30	M12670	1000	0.5	04/15/2017	Sn	20/60	M12669	1000	1	04/15/2017	Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL standard. Pipette 30 mL into 500 mL for a working ICVLL std. or 3 mL into a 50 mL digestion tube for a digested ICVLL standard. (0.5% HNO ₃ , 0.5% HCl)					
Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date																																								
Li	20/60	M12672	1000	1	04/15/2017																																								
W	100/300	M12163	1000	5	02/06/2016																																								
Ti	10/30	M12671	1000	0.5	04/15/2017																																								
Sr	10/30	M12670	1000	0.5	04/15/2017																																								
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Standard ID#:	M12768	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custum Assurance Std Ca,Mg,Na
Date Received:	02/04/2016	Lot #:	11-022WL
Expiration Date (if any):	01/30/2017	Catalog #:	XTTWI-1-500

		Instrument:	ICP
Standard Log #:	M12764	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	02/04/2016	Expiration Date:	11/30/2016
Prep:	<p>Standard Conc. (ug/L)</p> <p>Pipette the following:</p> <p>1 0.01 mL of Custom Assurance Standard XCTWI-5-500 M12703 and 0.001 mL W (1000 µg/mL) M12673 into 1L = 1 µg/L</p> <p>10 M12703 and 0.01 mL W (1000 µg/mL) M12673 into 1L = 10 µg/L</p> <p>100 1 mL of Custom Assurance Standard XCTWI-5-500 M12703 and 0.1 mL W (1000 µg/mL) M12673 into 1L = 100 µg/L</p> <p>1000 (CCV) 2 mL of Custom Assurance Standard XCTWI-5-500 M12703 and 0.2 mL W (1000 µg/mL) M12673 into 200mL = 1000 µg/L</p> <p>10000 20 mL of Custom Assurance Standard XCTWI-5-500 M12703 and 2 mL W (1000 µg/mL) M12673 into 200mL = 10000 µg/L</p>		

		Instrument:	ICP 6000
Standard Log #:	M12765	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	02/04/2016	Expiration Date:	02/06/2016
Prep:	<p>Into a 1 L volumetric flask, pipetted 1.0 mL of the following and brought up to volume using milli-Q H₂O. (0.5% HNO₃, 0.5% HCl)</p> <p>Li (1000 µg/mL) M12672</p> <p>Sn (1000 µg/mL) M12669</p> <p>Sr (1000 µg/mL) M12670</p> <p>Ti (1000 µg/mL) M12671</p> <p>W (1000 µg/mL) M12163</p>		

Standard Log #:	M12763	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	02/03/16	Expiration Date:	08/03/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

Standard Log #:	M12762	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	01/29/16	Expiration Date:	07/29/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium persulfate M11748 and brought up to volume.		

Standard Log #:	M12761	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	01/28/16	Expiration Date:	07/28/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard Log #:	M12760	Instrument:	GFAA																																			
Analyst:	MDS	Standard:	MDL Spiking Solution																																			
Prep Date:	01/25/2016	Expiration Date:	06/02/2016																																			
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O. (2% HNO₃)</p> <table border="1"> <thead> <tr> <th>Analyte</th> <th>Final MDL Conc. (ug/L)</th> <th>Std. ID #</th> <th>Std. Conc. (mg/L)</th> <th>Volume (mL) pipetted</th> </tr> </thead> <tbody> <tr> <td>Ag</td> <td>0.2</td> <td>M12599</td> <td>1000</td> <td>0.01</td> </tr> <tr> <td>As</td> <td>2</td> <td>M12315</td> <td>1000</td> <td>0.1</td> </tr> <tr> <td>Pb</td> <td>2</td> <td>M12313</td> <td>10000</td> <td>0.01</td> </tr> <tr> <td>Sb</td> <td>2</td> <td>M12602</td> <td>1000</td> <td>0.1</td> </tr> <tr> <td>Se</td> <td>2</td> <td>M12600</td> <td>1000</td> <td>0.1</td> </tr> <tr> <td>Tl</td> <td>2</td> <td>M12668</td> <td>1000</td> <td>0.1</td> </tr> </tbody> </table> <p>Of this base standard, pipetted 1 mL into a 50 mL digestion tube for a digested working standard.</p>			Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted	Ag	0.2	M12599	1000	0.01	As	2	M12315	1000	0.1	Pb	2	M12313	10000	0.01	Sb	2	M12602	1000	0.1	Se	2	M12600	1000	0.1	Tl	2	M12668	1000	0.1
Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted																																		
Ag	0.2	M12599	1000	0.01																																		
As	2	M12315	1000	0.1																																		
Pb	2	M12313	10000	0.01																																		
Sb	2	M12602	1000	0.1																																		
Se	2	M12600	1000	0.1																																		
Tl	2	M12668	1000	0.1																																		

		Instrument:	CETAC
Standard Log #:	M12757	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	01/19/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12758	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	01/19/16	Expiration Date:	09/01/17
Prep:	Carefully mixed 3 parts HCl AB.611 with 1 part HNO ₃ AB.609 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12759	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	01/19/16	Expiration Date:	08/12/16
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.611 and dissolved 100 g Stannous chloride M12731 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12755	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	01/19/16	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12756	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	01/19/16	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

Standard Log #:	M12752	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	01/19/16	Expiration Date:	01/19/17
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M12753	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/19/16	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12754	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/19/16	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

Standard Log #:	M12751	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	011116	Expiration Date:	071116
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M12750	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/05/2016	Expiration Date:	06/02/2016
Prep:	<p>Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.5 mL of Sb (1000 mg/L) M12602</p> <p>1.0 mL of As (1000 mg/L) M12315</p> <p>2.0 mL of Se (1000 mg/L) M12600</p> <p>0.045 mL of Pb (10,000 mg/L) M12313</p> <p>0.4 mL of Tl (1000 mg/L) M12668</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (3 ug/L Sb, 2 ug/L As, 4 ug/L Se, 0.9 ug/L Pb, 0.8 ug/L Tl) and 2 mL spiking solution for LOQ (6 ug/L Sb, 4 ug/L As, 8 ug/L Se, 1.8 ug/L Pb, 1.6 ug/L Tl)</p>		

Standard Log #:	M12748	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	010516	Expiration Date:	070516
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M12749	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/05/2016	Expiration Date:	06/02/2016
Prep:	<p>Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.2 mL of Sb (1000 mg/L) M12602</p> <p>3.2 mL of As (1000 mg/L) M12315</p> <p>3.2 mL of Se (1000 mg/L) M12600</p> <p>0.08 mL of Pb (10,000 mg/L) M12313</p> <p>1.0 mL of Tl (1000 mg/L) M12668</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (1.2 ug/L Sb, 3.2 ug/L As, 3.2 ug/L Se, 0.8 ug/L Pb, 1 ug/L Tl) and 2 mL spiking solution for LOQ (2.4 ug/L Sb, 6.4 ug/L As, 6.4 ug/L Se, 1.6 ug/L Pb, 2 ug/L Tl)</p>		

Standard Log #:	M12747	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	123015	Expiration Date:	123016
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

		Instrument:	ICP 6000
Standard Log #:	M12744b	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	12/21/2015	Expiration Date:	10/15/2016
Prep:	<p>Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M12471 and Si (1000 mg/L) M12601 and brought up to volume using milli-Q H₂O.</p> <p>50 ug/L std. - 0.05 mL of each 200 ug/L std. - 0.2 mL of each 1000 ug/L std. - 1.0 mL of each, also used for Continuing Calibration Verification 2000 ug/L std. - 2.0 mL of each 10,000 ug/L std. - 10 mL of each</p>		

		Instrument:	ICP 6000
Standard Log #:	M12745b	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	12/22/2015	Expiration Date:	06/30/2016
Prep:	<p>Into a 100 mL volumetric flask, pipetted 10 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 0.05 mL of B (1000 µg/mL) M12471, 0.05 mL of Si (1000 µg/mL) M12601 and 3 mL of Fe (10,000 mg/L) M12714 and brought up to volume using Milli-Q H₂O.</p>		

Standard Log #:	M12746b	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	12/22/2015	Expiration Date:	05/18/2017
Prep:	<p>Into a 50 mL volumetric flask, partially filled with milli-Q H₂O, pipetted 15 mL Pd Modifier M12584 and 10 mL Mg (10,000 mg/L) M12715 and brought up to volume.</p>		

Standard ID#:	M12744	Vendor:	CPI
Analyst:	NAH	Chemical:	potassium 10,000 mg/L
Date Received:	12/21/2015	Lot #:	15L015
Expiration Date (if any):	06/08/2017	Catalog #:	4400-10M411

Standard ID#:	M12745	Vendor:	CPI
Analyst:	NAH	Chemical:	iron 10,000 mg/L
Date Received:	12/21/2015	Lot #:	15H243
Expiration Date (if any):	06/08/2017	Catalog #:	4400-10M261

Standard ID#:	M12746	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	12/21/2015	Lot #:	15E153
Expiration Date (if any):	06/08/2017	Catalog #:	4400-10M671

		Instrument:	CETAC
Standard Log #:	M12740	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	12/21/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12741	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	12/21/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12742	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	12/21/15	Expiration Date:	09/01/17
Prep:	Carefully mixed 3 parts HCl AB.611 with 1 part HNO ₃ AB.609 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12743	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	12/21/15	Expiration Date:	08/12/16
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.611 and dissolved 100 g Stannous chloride M12731 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12737	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/21/15	Expiration Date:	02/26/16
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12738	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/21/15	Expiration Date:	06/30/16
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12739	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	12/21/15	Expiration Date:	06/30/16
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

Standard Log #:	M12734	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	121715	Expiration Date:	121716
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12735	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	121715	Expiration Date:	061716
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

Standard Log #:	M12736	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	121715	Expiration Date:	121716
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12730	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	12/14/15	Expiration Date:	06/14/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

Standard ID#:	M12731	Vendor:	MACRON
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	12/10/15	Lot #:	0000119473
Expiration Date (if any):	08/12/16	Catalog #:	8176-04

Standard ID#:	M12732	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12-14-2015	Lot #:	34-008CR
Expiration Date (if any):	12-30-2016	Catalog #:	XSPIKE-1-250

Standard ID#:	M12733	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Interference A
Date Received:	12-14-2015	Lot #:	12-165YPX
Expiration Date (if any):	12-30-2016	Catalog #:	INT-A1

		Instrument:	ICP 6000
Standard Log #:	M12729	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	12/07/2015	Expiration Date:	06/03/2015
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 mL of Na (1000 µg/mL) M12377 and 0.5 mL K (1000 µg/mL) M12378 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

Standard Log #:	M12725	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	120415	Expiration Date:	060416
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

Standard Log #:	M12726	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	120415	Expiration Date:	060416
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

		Instrument:	ICP
Standard Log #:	M12727	Standard:	As Pb ICV1
Analyst:	MDS	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	12/04/2015	Expiration Date:	03/26/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.5 mL of As (10,000 mg/L) M12213 and 0.5 mL Pb (10,000 mg/L) M12313 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃ , 2% HCl)		

Standard Log #:	M12728	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	120415	Expiration Date:	120416
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M12721	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	120215	Expiration Date:	022616
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12722	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	120215	Expiration Date:	063016
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12723	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	120215	Expiration Date:	040117
Prep:	Carefully mixed 3 parts HCl AB.607 with 1 part HNO ₃ AB.609 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12724	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	120215	Expiration Date:	120915
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.607 and dissolved 100 g Stannous chloride M12549 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12718	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	120215	Expiration Date:	022616
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12719	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	120215	Expiration Date:	063016
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12720	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	120215	Expiration Date:	063016
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

		Instrument:	ICP 6500
Standard Log #:	M12717	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Tl 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	12-01-2015	Expiration Date:	06-16
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H₂O.</p> <p>10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12653, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529, 0.5 mL Mo (1000 mg/L) M12677, 0.5 mL B (1000 mg/L) M12471, 0.5 mL Sr (1000 mg/L) M12670, 0.5 mL Li (1000 mg/L) M12672, 0.5 mL Sn (1000 mg/L) M12669 and 0.5 mL Ti (1000 mg/L) M12671.</p>		

Standard ID#:	M12713	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	12/01/2015	Lot #:	15I132
Expiration Date (if any):	05/18/2017	Catalog #:	p/n 4400-10m11

Standard ID#:	M12714	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	12/01/2015	Lot #:	15H243
Expiration Date (if any):	05/18/2017	Catalog #:	p/n 4400-10m261

Standard ID#:	M12715	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10,000 mg/L
Date Received:	12-01-2015	Lot #:	15G077
Expiration Date (if any):	5-18-2015	Catalog #:	p/n 4400-10m311

Standard ID#:	M12716	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	12-01-2015	Lot #:	15k045
Expiration Date (if any):	5-18-2015	Catalog #:	p/n 4400-10m91

		Instrument:	ICP 6500
Standard Log #:	M12710	Standard:	ICVLL
Analyst:	NAH	Concentrations:	12 ug/L: Be. 15 ug/L: Cd. 30 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 60 ug/L: Sb, As, Se, Tl, Li, Sn and B. 150 ug/L: W. 300 ug/L: Si. 900 ug/L: Fe. 1200 ug/L Al. 1500 ug/L: S, Ca and Mg. 3000 ug/L: K and Na.
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 500 mL volumetric flask, pipetted 30 mL of MRL Base STD M12709 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

		Instrument:	ICP 6500
Standard Log #:	M12711	Standard:	ICSA
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529 and 15 mL Fe (10000 mg/L) M12603 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12712	Standard:	ICSAB
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg 500 ug/L Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529, 15 mL Fe (10,000 mg/L) M12603, 2.5 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12530 and 2.5 mL Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and brought up to volume with milli-Q H ₂ O.		

MRL BASE STD	M12709	Analyst	NAH
		Prep Date	12-01-2015

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M12599	1000	1	-
Al	400	M12605	10000	2	-
Ba	10	M12473	1000	0.5	-
Be	4	M12667	1000	0.2	-
Cd	5	M12674	1000	0.25	-
Co	10	M12678	1000	0.5	-
Cr	10	M12470	10000	0.05	-
Cu	10	M12472	10000	0.05	-
Mg	500	M12606	10000	2.5	-
Mn	10	M12533	10000	0.05	-
Mo	10	M12677	1000	0.5	---
Ni	10	M12681	1000	0.5	--
Pb	10	M12313	10000	0.05	--
Sb	20	M12602	1000	1	--
V	10	M12676	1000	0.5	--
Zn	10	M12680	10000	0.05	--
K	1000	M12608	10000	5	--
Na	1000	M12607	10000	5	--
As	20	M12315	1000	1	--
Ca	500	M12604	10000	2.5	--
Fe	300	M12603	10000	1.5	--
Se	20	M12600	1000	1	--
Tl	20	M12668	1000	1	--
Si	100	M12601	1000	5	--
B	20	M12471	1000	1	--
Li	20	M12672	1000	1	--
W	50	M12673	1000	2.5	--
Ti	10	M12671	1000	0.5	--
Sr	10	M12670	1000	0.5	--
Sn	50	M12669	1000	2.5	--
S	300	M12371	10000	1.5	-

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date:
10/2016

		Instrument:	ICP 6500
Standard Log #:	M12706	Standard:	CCV1
Analyst:	NAH	Concentrations:	5000 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 500 µg/L Ag, Be, Cd
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 1 L volumetric flask, pipetted 50 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and 5.0 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12530 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12707	Standard:	CCV2
Analyst:	NAH	Concentrations:	500 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 50 µg/L Ag, Be, Cd
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 1 L volumetric flask, pipetted 5 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and 0.5 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12830 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12708	Standard:	DOD MRL
Analyst:	NAH	Concentrations:	4 ug/L: Be. 5 ug/L: Cd. 10 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 20 ug/L: Sb, As, Se, Tl, Li, Sn and B. 50 ug/L: W. 100 ug/L: Si. 300 ug/L: Fe. 400 ug/L Al. 500 ug/L: S, Ca and Mg. 1000 ug/L: K and Na.
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	Into a 500 mL volumetric flask, pipetted 10 mL of MRL Base STD M12709 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

		Instrument:	ICP 6000
Standard Log #:	M12704	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	12/01/2015	Expiration Date:	07/03/2016
Prep:	<p>Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M12377 and K (1000 µg/mL) M12378 and brought up to volume using milli-Q H₂O. (2% HNO₃)</p> <p>0.5 mg/L std. - 0.1 mL of each 1.0 mg/L std. - 0.2 mL of each 5.0 mg/L std. - 1.0 mL of each 10 mg/L std. - 2.0 mL of each 50 mg/L std. - 10 mL of each 100 mg/L std. - 20 mL of each, also used for Continuing Calibration Verification 200 mg/L std. - 40 mL of each</p>		

		Instrument:	ICP 6500
Standard Log #:	M12705	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	12/01/2015	Expiration Date:	06/2016
Prep:	<p>Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (5% HNO₃, 5% HCl)</p> <p>1000 ug/L Std. - 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558, 10 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12530 and 1 mL of Si (1000 mg/L) M12601.</p> <p>0.25 ug/L Std. - 0.25 mL of the 1000 ug/L Std. 0.5 ug/L Std. - 0.5 mL of the 1000 ug/L Std. 1 ug/L Std. - 1 mL of the 1000 ug/L Std. 5 ug/L Std. - 5 mL of the 1000 ug/L Std. 10 ug/L Std. - 10 mL of the 1000 ug/L Std. 20 ug/L Std. - 20 mL of the 1000 ug/L Std. 50 ug/L Std. - 50 mL of the 1000 ug/L Std. 100 ug/L Std. - 1 mL of Custom Assurance Std. (CAS) #23 and 1 mL of CAS #3 10,000 ug/L Std. - 100 mL CAS #23, 100 mL CAS #3 and 1 mL of K (10,000 mg/L) M12609.</p> <p>100k ug/L Std. - 10 mL of Cu (10,000 mg/L) M12472, 10 mL of Mn (10,000 mg/L) M12533, 10 mL of Cr (10,000 mg/L) M12470, 10 mL Pb (10,000 mg/L) M12313, 10 mL of Zn (10,000 mg/L) M12680 and 10 mL of Na (10,000 mg/L) M12679.</p> <p>100,000 ug/L Std. - 10 mL of Mg (10,000 mg/L) M12606, 10 mL of Fe (10,000 mg/L) M12603, 10 mL of Ca (10,000 mg/L) M12490 and 10 mL Al (10,000 mg/L) M12605.</p> <p>500,000 ug/L Std. - 50 mL of Mg (10,000 mg/L), 50 mL of Fe (10,000 mg/L), 50 mL of Ca (10,000 mg/L) and 50 mL of Al (10,000 mg/L) 1000k ug/L Std. - 100 mL of Mg (10,000 mg/L), 100 mL of Fe (10,000 mg/L), 100 mL of Ca (10,000 mg/L) and 100 mL of Al (10,000 mg/L)</p>		

		Instrument:	ICP 6000
Standard Log #:	M12701	Standard:	W ICAL and CCV
Analyst:	MDS	Concentrations:	100, 1000, and 10,000 µg/L (W)
Prep Date:	11/23/15	Expiration Date:	04/15/17
Prep:	<p>Into four, 1 L volumetric flasks, pipetted the following from W (1000 µg/mL) M12673 and brought up to volume using milli-Q H₂O. (0.5% HNO₃, 0.5% HCl)</p> <p>100 µg/L std. - 0.1 mL 1000 µg/L std. - 1.0 mL - also used for Continuing Calibration Verification 10,000 µg/L std. - 10 mL</p>		

		Instrument:	ICP 6000
Standard Log #:	M12702	Standard:	W ICV
Analyst:	MDS	Concentrations:	1000 µg/L (W)
Prep Date:	11/23/15	Expiration Date:	02/06/16
Prep:	<p>Into a 1 L volumetric flask, pipetted 1.0 mL of W (1000 µg/mL) M12163 and brought up to volume using milli-Q H₂O. (0.5% HNO₃, 0.5% HCl)</p>		

Standard ID#:	M12703	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custum Assurance Standard
Date Received:	11/19/2015	Lot #:	33-195CR
Expiration Date (if any):	11/30/2016	Catalog #:	XCTWI-5-500

Standard Log #:	M12700	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	11/20/15	Expiration Date:	11/20/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12645. Dilute to 20 L and mix.		

Standard Log #:	M12699	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 22 µg/L Tl 24 µg/L Sb, Se 0.8 µg/L Ag
Prep Date:	11/12/15	Expiration Date:	06/02/16

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H₂O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M12315	10,000
Pb	0.1	10,000	M12313	10,000
Tl	1	1000	M12668	10,000
Se	1	1000	M12600	10,000
Sb	1	1000	M12602	10,000
Ag	0.1	1000	M12599	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H₂O. (1% HNO₃)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1	10,000	10
Pb	0.6	10,000	6
Tl	2.2	10,000	22
Se	2.4	10,000	24
Sb	2.4	10,000	24
Ag	0.8	1000	0.8

		Instrument:	ICP 6000
Standard Log #:	M12695	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	11/11/15	Expiration Date:	02/12/17
Prep:	Into a 250 mL volumetric flask, pipetted 2.5 mL of K (10,000 mg/L) M12609 and Na (10,000 mg/L) M12679 and brought up to volume using Milli-Q H ₂ O. (2% HNO ₃)		

		Instrument:	ICP 6000
Standard Log #:	M12696	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	11/11/15	Expiration Date:	02/12/17
Prep:	Into a 500 mL volumetric flask, pipetted 0.15 mL of Na (10,000 µg/mL) M12679 and 0.15 mL K (10,000 µg/mL) M12609 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

		Instrument:	ICP 6000
Standard Log #:	M12697	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	11/11/15	Expiration Date:	06/30/16
Prep:	Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 2.5 mL of K (10,000 mg/L) M12609, 2.5 mL of Na (10,000 mg/L) M12679 and 7.5 mL of Fe (10,000 mg/L) M12603 and brought up to volume using Milli-Q H ₂ O. (2% HNO ₃)		

Standard Log #:	M12698	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	11/11/15	Expiration Date:	05/11/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12403 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M12693	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	11/02/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12505 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	ICP 6000
Standard Log #:	M12694	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/02/2015	Expiration Date:	02/06/2016
Prep:	Into a 200 mL volumetric flask, pipetted 20 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 6 mL of Fe (10,000 mg/L) M12603, 0.1 mL of Li (1000 µg/mL) M12672, 0.1 mL of Sn (1000 µg/mL) M12669, 0.1 mL of Sr (1000 µg/mL) M12670, 0.1 mL of Ti (1000 µg/mL) M12671, and 0.1 mL of W (1000 µg/mL) M12163 and brought up to volume using Milli-Q H ₂ O. (0.5% HNO ₃ , 0.5% HCl)		

Standard ID#:	M12690	Vendor:	MACRON
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	11/02/15	Lot #:	0000119473
Expiration Date (if any):	08/12/16	Catalog #:	8176-04

		Instrument:	GFAA
Standard Log #:	M12691	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	11/02/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12692	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	11/02/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	CETAC
Standard Log #:	M12688	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	10/27/15	Expiration Date:	08/12/16
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.607 and dissolved 100 g Stannous chloride M12649 and brought up to volume.		

Standard Log #:	M12689	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	10/27/15	Expiration Date:	04/27/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12270 and 60 g hydroxylamine sulfate M12548 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12685	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	10/27/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12686	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	10/27/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12687	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/27/15	Expiration Date:	06/30/15
Prep:	Carefully mixed 3 parts HCl AB.607 with 1 part HNO ₃ AB.606 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12682	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/27/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12683	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/27/15	Expiration Date:	02/26/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12684	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	10/27/15	Expiration Date:	02/26/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard ID#:	M12677	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Mo 1000 ug/L
Date Received:	10/21/15	Lot #:	15G130
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000343

Standard ID#:	M12678	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Co 1000 ug/L
Date Received:	10/21/15	Lot #:	15I020
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000131

Standard ID#:	M12679	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Na 10,000 ug/L
Date Received:	10/21/15	Lot #:	15I102
Expiration Date (if any):	04/15/17	Catalog #:	4400-10M521

Standard ID#:	M12680	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Zn 10,000 ug/L
Date Received:	10/21/15	Lot #:	15H234
Expiration Date (if any):	04/15/17	Catalog #:	S4400-10M681

Standard ID#:	M12681	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Ni 1000 ug/L
Date Received:	10/21/15	Lot #:	15G129
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000361

Standard ID#:	M12672	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Li 1000ug/L
Date Received:	10/21/15	Lot #:	15I044
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000291

Standard ID#:	M12673	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	W 1000ug/L
Date Received:	10/21/15	Lot #:	15F057
Expiration Date (if any):	04/15/17	Catalog #:	S4400-100633

Standard ID#:	M12674	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Cd 1000ug/L
Date Received:	10/21/15	Lot #:	15G138
Expiration Date (if any):	04/15/17	Catalog #:	S4400-100081

Standard ID#:	M12675	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Si 1000 ug/L
Date Received:	10/21/15	Lot #:	15H045
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000504F

Standard ID#:	M12676	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	V 1000 ug/L
Date Received:	10/21/15	Lot #:	15H133
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000651

Standard ID#:	M12667	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Be 1000ug/L
Date Received:	10/21/15	Lot #:	15I030
Expiration Date (if any):	04/15/17	Catalog #:	S4400-100051

Standard ID#:	M12668	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Tl 1000ug/L
Date Received:	10/21/15	Lot #:	15F051
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000581

Standard ID#:	M12669	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Sn 1000ug/L
Date Received:	10/21/15	Lot #:	15H126
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000613

Standard ID#:	M12670	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Sr 1000ug/L
Date Received:	10/21/15	Lot #:	15F052
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000531

Standard ID#:	M12671	Vendor:	CPI INTERNATIONAL
Analyst:	LJF	Chemical:	Tl 100ug/L
Date Received:	10/21/15	Lot #:	15G013
Expiration Date (if any):	04/15/17	Catalog #:	S4400-1000623

		Instrument:	ICP 6000
Standard Log #:	M12666	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	10/21/2015	Expiration Date:	03/2016
Prep:	Into a 1 L volumetric flask, pipetted 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B , Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and 1.0 mL Si (1000 mg/L) M11919 and brought up to volume using milli-Q H ₂ O.		

		Instrument:	CETAC
Standard Log #:	M12662	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	10/16/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12663	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	10/16/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12664	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/16/15	Expiration Date:	07/01/17
Prep:	Carefully mixed 3 parts HCl AB.607 with 1 part HNO ₃ AB.606 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12665	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	10/16/15	Expiration Date:	08/12/16
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.607 and dissolved 100 g Stannous chloride M12649 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12659	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/16/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12660	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/16/15	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12661	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	10/16/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	GFAA
Standard Log #:	M12657	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	10/12/2015	Expiration Date:	11/08/2015
Prep:	<p>Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.2 mL of Sb (1000 mg/L) M12602</p> <p>3.2 mL of As (1000 mg/L) M12315</p> <p>3.2 mL of Se (1000 mg/L) M12600</p> <p>0.08 mL of Pb (10,000 mg/L) M12313</p> <p>1.0 mL of Tl (1000 mg/L) M11997</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (1.2 ug/L Sb, 3.2 ug/L As, 3.2 ug/L Se, 0.8 ug/L Pb, 1 ug/L Tl) and 2 mL spiking solution for LOQ (2.4 ug/L Sb, 6.4 ug/L As, 6.4 ug/L Se, 1.6 ug/L Pb, 2 ug/L Tl)</p>		

		Instrument:	GFAA
Standard Log #:	M12658	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	10/12/2015	Expiration Date:	11/08/2015
Prep:	<p>Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H₂O.</p> <p>1.5 mL of Sb (1000 mg/L) M12602</p> <p>1.0 mL of As (1000 mg/L) M12315</p> <p>2.0 mL of Se (1000 mg/L) M12600</p> <p>0.045 mL of Pb (10,000 mg/L) M12313</p> <p>0.4 mL of Tl (1000 mg/L) M11997</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (3 ug/L Sb, 2 ug/L As, 4 ug/L Se, 0.9 ug/L Pb, 0.8 ug/L Tl) and 2 mL spiking solution for LOQ (6 ug/L Sb, 4 ug/L As, 8 ug/L Se, 1.8 ug/L Pb, 1.6 ug/L Tl)</p>		

		Instrument:	GFAA
Standard Log #:	M12655	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	10/12/2015	Expiration Date:	02/10/2017
Prep:	<p>Into a 100 mL volumetric flask, pipetted 0.1 mL of Ag (1000mg/L) M12599 and brought to volume with Milli-Q H₂O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted 10 mL of Ag (1000 ug/L) std. and brought to volume with Milli-Q H₂O.</p> <p>(1% HNO₃)</p> <p>*Pipette 1 mL spiking solution into 50 mL H₂O for LOD (0.2 ug/L) and 2 mL spiking solution for LOQ (0.4 ug/L)</p>		

		Instrument:	GFAA
Standard Log #:	M12656	Standard:	LODS/LOQS Ag Spiking Sol'n
Analyst:	MDS	Concentration:	6 ug/L (Ag)
Prep Date:	10/12/2015	Expiration Date:	02/10/2017
Prep:	<p>Into a 200 mL volumetric flask, pipetted 0.12 mL of Ag (1000 mg/L) M12599 and brought up to volume with Milli-Q H₂O.</p> <p>From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H₂O to make the spiking solution.</p> <p>(1% HNO₃)</p> <p>*Pipette 2 mL spiking solution into 50 mL H₂O for LOD (0.24 ug/L) and 4 mL spiking solution for LOQ (0.48 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12633	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	09/18/15	Expiration Date:	02/26/15
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12634	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	09/18/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12635	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/18/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

Standard Log #:	M12628	Reagent:	10N NaOH
Analyst:	LJF		
Prep Date:	09/16/15	Expiration Date:	09/16/16
Prep:	Into a 1 L volumetric flask, added 400 g NaOH M11852 and brought up to volume.		

Standard ID#:	M12629	Vendor:	GR ACS
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	09/16/15	Lot #:	x131a
Expiration Date (if any):		Catalog #:	C710L50

		Instrument:	CETAC
Standard Log #:	M12619	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	09/03/15	Expiration Date:	02/26/15
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12620	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	09/03/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12621	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/03/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M12614	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	08/31/15	Expiration Date:	11/08/15
Prep:	<p>Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 2.5 mL of K (10,000 mg/L) M12474, 2.5 mL of Na (10,000 mg/L) M12010 and 7.5 mL of Fe (10,000 mg/L) M12489 and brought up to volume using Milli-Q H₂O. (2% HNO₃)</p>		

Standard ID#:	M12612	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 ug/mL
Date Received:	08/27/15	Lot #:	15E153
Expiration Date (if any):	02/20/17	Catalog #:	4400-10M671

Standard ID#:	M12607	Vendor:	CPI
Analyst:	NAH	Chemical:	SODIUM 1000ug/mL
Date Received:	08/19/2015	Lot #:	15F159
Expiration Date (if any):	02/12/2017	Catalog #:	4400-1000521

Standard ID#:	M12608	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 1000ug/mL
Date Received:	08/19/2015	Lot #:	15E009
Expiration Date (if any):	02/12/2017	Catalog #:	4400-1000411

Standard ID#:	M12609	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 10000ug/mL
Date Received:	08/19/2015	Lot #:	15E086
Expiration Date (if any):	02/12/2017	Catalog #:	4400-10M411

Standard ID#:	M12610	Vendor:	ALFA AESAR
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	08/20/15	Lot #:	Z16A019
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M12602	Vendor:	CPI
Analyst:	NAH	Chemical:	ANTIMONY 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15D168
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-100023

Standard ID#:	M12603	Vendor:	CPI
Analyst:	NAH	Chemical:	IRON 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15C057
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M261

Standard ID#:	M12604	Vendor:	CPI
Analyst:	NAH	Chemical:	CALCIUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15G076
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M91

Standard ID#:	M12605	Vendor:	CPI
Analyst:	NAH	Chemical:	ALUMINUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15E015
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M11

Standard ID#:	M12606	Vendor:	CPI
Analyst:	NAH	Chemical:	MAGNESIUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15G077
Expiration Date (if any):	02-10-2015	Catalog #:	4400-10M311

Standard ID#:	M12599	Vendor:	CPI
Analyst:	NAH	Chemical:	SILVER 1000 ug/ml
Date Received:	8-14-2015	Lot #:	15H040
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-1000511

Standard ID#:	M12600	Vendor:	CPI
Analyst:	NAH	Chemical:	SELENIUM 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15E095
Expiration Date (if any):	2-10-2017	Catalog #:	S4400-1000491

Standard ID#:	M12601	Vendor:	CPI
Analyst:	NAH	Chemical:	SILICON 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15F050
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-1000504F

		Instrument:	CETAC
Standard Log #:	M12596	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	08/13/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12597	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	08/13/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12598	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/13/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12599a	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	08/13/15	Expiration Date:	12/09/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.604 and dissolved 100 g Stannous chloride M12549 and brought up to volume.		

Standard Log #:	M12588	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	08/10/15	Expiration Date:	10/23/16
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H ₂ O, pipetted 15 mL Pd Modifier M12584 and 10 mL Mg (10,000 mg/L) M12488 and brought up to volume.		

Standard ID#:	M12584	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	GFAA Pd Matrix Modifier
Date Received:	08/05/15	Lot #:	1421912
Expiration Date (if any):	07/31/17	Catalog #:	HP1900-100

		Instrument:	ICP 6500
Standard Log #:	M12585	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Tl 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	08/05/15	Expiration Date:	11/15
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H₂O.</p> <p>10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12574, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529, 0.5 mL Mo (1000 mg/L) M12008, 0.5 mL B (1000 mg/L) M12471, 0.5 mL Sr (1000 mg/L) M11999, 0.5 mL Li (1000 mg/L) M11998, 0.5 mL Sn (1000 mg/L) M11996 and 0.5 mL Ti (1000 mg/L) M12003.</p>		

Standard ID#:	M12548	Vendor:	Alfa Aesar
Analyst:	LJF	Chemical:	Hydroxylamine Sulfate
Date Received:	07/08/15	Lot #:	Z16A019
Expiration Date (if any):	N/A	Catalog #:	88944

Standard ID#:	M12549	Vendor:	MACRON
Analyst:	LJF	Chemical:	Stannous Chloride
Date Received:	07/08/15	Lot #:	0000111217
Expiration Date (if any):	12/09/15	Catalog #:	8176-04

Standard ID#:	M12529	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Interference-A
Date Received:	06/04/2015	Lot #:	12-101YPX
Expiration Date (if any):	06/30/2016	Catalog #:	INT-A1

Standard ID#:	M12530	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Custom Assurance STD (3) Ag,Be,Cd
Date Received:	06/04/2015	Lot #:	30-152CR
Expiration Date (if any):	06/30/2016	Catalog #:	XCTWI-4-500

Standard ID#:	M12531	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Custom Assurance STD (23)
Date Received:	06/04/2015	Lot #:	30-153CR
Expiration Date (if any):	06/30/2016	Catalog #:	XCTWI-5-500

Standard ID#:	M12532	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Mercury 1000 mg/L
Date Received:	06/04/2015	Lot #:	CL7-180HGY
Expiration Date (if any):	06/30/2016	Catalog #:	CLHG4-2Y

Standard ID#:	M12533	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 mg/L
Date Received:	06/04/2015	Lot #:	15E180
Expiration Date (if any):	11/29/2016	Catalog #:	P/N S4400-10M321

#M12488 5-5-15 - Mg 10,000 mg/L CPI Lot 15C248 ex 10/2016

#M12489 5-5-15 - Fe 10,000 mg/L CPI Lot 15C290 ex 10/16.

#M12490 5-5-15 Ca 10,000 mg/L CPI Lot 15A007 ex 10/16.

#M12491 05/06/15 LSF TClp Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 ml glacial Acetic Acid (AB 579) and 128.6 ml of 10N NaOH (#M12797). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.98 ± 0.05
Exp: 05/06/16

#M12492 05/06/15 LSF SPLP Extraction Fluid #2 west: Fill a 20L carboy with D.I. H₂O and adjust pH to 5.00 ± 0.05 with (#M12457) 60/40 HNO₃, H₂SO₄ mix w/ K₂Cr₂O₇.
Exp: 05/06/16

#M12493 05/11/15 LSF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12494 05/11/15 LSF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12495 05/11/15 LSF Hg ICV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M12494) into 100ml = 3.0ug/L Hg

#M12496 05/11/15 LSF Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12497 05/11/15 LSF Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M12494) into 100ml = 0.2ug/L Hg

#M12498 05/11/15 LSF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12499 05/11/15 LSF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12799) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12468
4/22/15
MDS

		Instrument:	ICP 6000
Standard Log #:	M12468	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	04/22/2015	Expiration Date:	11/8/2015
Prep:	Into a 500 mL volumetric flask, pipetted 0.15 mL of Na (10,000 µg/mL) M12010 and 0.15 mL K (10,000 µg/mL) M12294 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

#M12469
4/22/15
MDS

		Instrument:	ICP 6000
Standard Log #:	M12469	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	04/22/2015	Expiration Date:	04/29/2016
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 mL of Na (1000 µg/mL) M12296 and 0.5 mL K (1000 µg/mL) M12295 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

M12470 ⁴⁻²⁴⁻¹⁵ Cr 10,000 mg/L ⁴⁻²⁴⁻¹⁵ CPI lot # 13D123. ex oct/2016

M12471 ⁴⁻²⁴⁻¹⁵ Br 1000 mg/L CPI lot # 15D007. ex oct/2016

M12472 ⁴⁻²⁴⁻¹⁵ Cu 10,000 mg/L CPI lot # 15B087. ex oct/2016

M12473 ⁴⁻²⁴⁻¹⁵ Ba 1000 mg/L CPI lot # 15C142. ex oct/2016

M12474 ⁴⁻²⁴⁻¹⁵ K 10,000 mg/L CPI lot # 15D114. ex oct/2016

#M12475
04/24/15
MDS

Standard Log #:	M12475	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/24/2015	Expiration Date:	08/07/2015
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H ₂ O, pipetted 15 mL Pd M12158 and 10 mL Mg (10,000 mg/L) M12314 and brought up to volume.		

11/04/14 SF
 #M12271 TClp Extraction Fluids #1: Fill a 20L carboy w/ 192 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M11955). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12272 11/05/14 SF

Hg Working Stds:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12273 11/05/14 SF

Hg Alt Source Working Std:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12274 11/05/14 SF

Hg ICV / LCSW
 (0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12273) into 100ml = 3.0ug/L Hg

#M12275 11/05/14 SF

Hg CCV
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12276 11/05/14 SF

Hg MRL:
 (0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12273) into 100ml = 0.2ug/L Hg

#M12277 11/05/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12276 11/05/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11285) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12277 11/07/14 SF

Potassium permanganate (Fisher) Lot # 138740A

#M12278 11/13/14 SF

Potassium permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1000ml of D.I. H₂O.
 Exp: 05/13/15

ICAP Working Standards List 2

#M12279

.5% HNO₃ .5% HCL

11-13-14 MOS

Standard
 name

Pipetted the following respectively:

1	0.01mL of #M12165 and 0.001mL #M12001 into 1L = 1 ug/L
10	0.10mL of #M12165 and 0.01mL #M12001 into 1L = 10 ug/L
100	1mL of #M12165 and 0.1mL #M12001 into 1L = 100 ug/L
1000	2mL of #M12165 and 0.2mL #M12001 into 200mL = 1000 ug/L
10000	20mL of #M12165 and 2mL #M12001 into 200mL = 10000 ug/L
	Brought up to mark with milli-Q H ₂ O Exp. 08/30/2015

#M12280

Continuing Calibration Standard (CCV)

11-13-14 MOS

Into a 200mL volumetric flask pipetted 2mL of #M12165 and 0.2mL #M12001 = 1000 ug/L
 Brought up to mark with milli-Q H₂O Exp. 08/30/2015

#M12281

Initial Calibration Standard (ICV) List 2

11-13-14 MOS

Into a 1 liter volumetric flask pipetted 1mL of #M12003, M11999, M11996, M11998 and M12165
 Brought up to mark with milli-Q H₂O Exp. 11/08/2015

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**INORGANIC
CLP FORMS
DOCUMENTS**

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804619</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/11/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT2-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804624</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/11/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT3-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804625</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/11/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-PAINT4-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>804626</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/11/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-SUMP1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SURFACE WATER</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804577</u>
Analytical Method:	<u>EPA 9040C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132821</u>	Analysis Date/Time	<u>11/17/2016 14:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.63		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE1-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804612</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132821</u>	Analysis Date/Time	<u>11/17/2016 14:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	8.52		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE2-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804618</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132821</u>	Analysis Date/Time	<u>11/17/2016 14:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	9.00		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE3-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804617</u>
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132719</u>	Analysis Date/Time	<u>11/15/2016 12:45</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	104.5			65	65	65

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE4-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804611</u>
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132719</u>	Analysis Date/Time	<u>11/15/2016 12:45</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	>140.0					

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE4-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>123585</u>
% Solids:	<u></u>	Lab Sample ID:	<u>804611</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132821</u>	Analysis Date/Time	<u>11/17/2016 14:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.20		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE5-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>77.5</u>	Lab Sample ID:	<u>804613</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/14/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	77.5		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

VEC-WASTE6-110916

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-VE CARTER SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>123585</u>
% Solids:	<u>83.3</u>	Lab Sample ID:	<u>804616</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>11/11/2016</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>132648</u>	Analysis Date/Time	<u>11/14/2016 18:39</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	83.3		0.1	0.1	0.1	0.1



6

Sample Description

VEC-WASTE4-110916

DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: _____

Concentration Units: Deg. F

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 132719

ICAL Calibration #: _____

Sample #: 806812

Parent Sample #: 804611

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Flashpoint	11/15/2016 12:45	5	>140.0		>140.0		0		



6

DUPLICATES

Sample Description

VEC-WASTE6-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: 83.3

Concentration Units: %

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 132648

ICAL Calibration #:

Sample #: 806850

Parent Sample #: 804616

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Solids, Percent	11/14/2016 18:39	8	83.3		84.1		1		GRA



6

Sample Description

VEC-SUMP1-110916

DUPLICATES

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: LIQUID

SDG No.: 123585

% Solid for Sample: _____

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 132821

ICAL Calibration #: _____

Sample #: 808164

Parent Sample #: 804577

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	11/17/2016	14:30	1	7.63		7.55		1		ELEC



6

DUPLICATES

Sample Description

VEC-WASTE4-110916

Lab Name: CT Laboratories

Contract: TETRA TECH-VE CARTER SCHOOL

Matrix: SOLID

SDG No.: 123585

% Solid for Sample: _____

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 132821

ICAL Calibration #: _____

Sample #: 808165

Parent Sample #: 804611

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	11/17/2016 14:30	1	7.20		7.19		0		ELEC

Sample No:

LCS

LCS Source: SPEX and Ultra SDG No.: 123585

Concentration Units: Deg. F

Analytical Prep Batch #: Preparation Date/Time:

ICAL Calibration #:

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Flashpoint	11/15/2016	12:45	90-110	78.5		79.8	98		

**INORGANICS
RAW DATA
DOCUMENTS**

Flashpoint Bench Sheet

DATE: 11/15/16

TIME: 1245

RUN: 132719

METHOD: EPA 1010A

ANALYST: SAW

	SAMPLE#	DATE SAMPLED	MATRIX	FLASHPOINT (F°)	COMMENTS:
1	804611	11/9/16 1225	M	7140.0	
2	DUP804611	↓	↓	7140.0	
3	804617	↓ 1211	↓	104.5	
4	2CSW		QC	78.5	W39962
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

pH Bench Sheet

Date: 11/17/2016

Analyst: MER

Instrument: Mettler Toledo Seven Easy

LIMS#: 132821

Time: 1430

Slope (%): 98%

	SAMPLE#	MATRIX	pH	TEMP (°C)	COMMENTS:
1	804577	SW	7.63	6.9	
2	DUP804577	SW	7.55	6.9	
3	804611	M	7.20	9.6	
4	DUP804611	M	7.19	9.6	
5	804612	M	8.52	6.8	
6	804618	M	9.00	7.7	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

TOTAL SOLIDS (PERCENT)							LIMS #:	132648
Start Date:	11/14/2016	Start Time:	18:39		Analyst:	JJF		
	Sample ID#	Dish#	Tared Weight g (D)	Wet Weight (E) g	Dry Weight g (F)	RESULTS % TOTAL SOLIDS		
1)	804613	C0446714	2.60	13.85	11.32	77.5%		
2)						0.0%		
3)						0.0%		
4)						0.0%		
5)						0.0%		
6)						0.0%		
7)						0.0%		
8)						0.0%		
9)						0.0%		
10)						0.0%		
11)						0.0%		
12)						0.0%		
13)						0.0%		
14)						0.0%		
15)						0.0%		
16)						0.0%		
17)						0.0%		
18)						0.0%		
19)						0.0%		
*20)	804616	C0056728	2.62	10.23	8.96	83.3%		
Dup 20)	804616	C0056729	2.62	11.48	10.07	84.1%		
Dry Weight = Sample + Dish (gms)					* 2nd Reading,	8.96		
Wet Weight = Sample + Dish (gms)					Set RPD:	1.0%		
Balance: VOB-01								
					*mg Difference	0		
Stop Date:		11/15/2016						
Stop Time:		17:35						
*2nd reading must be within 50mg of the 1st			<div>Calculations</div> $\% \text{ Total Solids} = ((F-D)/(E-D)) * 100$ $\text{RPD, \%} = \text{Absolute value of } ((\text{Sample-Dup \% TS}) / (\text{Average \% TS})) * 100$					

**INORGANICS
LOGBOOK
DOCUMENTS**

WFLASHPOINT Analytical Run
132719 on 11/17/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECRPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804611		11/09/2016	1225		TETRA TECH	VE CARTER SCHOOL	FLASHPOINT		M	4	
		VEC-WASTE4-110916										
123585	804617		11/09/2016	1211		TETRA TECH	VE CARTER SCHOOL	FLASHPOINT		M	4	
		VEC-WASTE3-110916										
	806812		11/09/2016	1225				FLASHPOINT				
		VEC-WASTE4-110916			DUP	804611						
	806813							WFLASHPOINT				
					LCSW							
4	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC											

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

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Flashpoint Data Validation Checklist

LIMS #: 132719	Method: Flashpoint EPA Method 1010			
Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved
11/15/16	SAW / SAW	JRS	11/19/16	Yes ... No

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments: (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. Was LCS within acceptable limits?	77.9-81.9 F	X		X		
2. Were reagents/standards used before expiration date?	---	X		X		
3. Were duplicates analyzed at the appropriate frequency	1 every 20 samples of the same matrix	X		X		
4. Were the duplicates within acceptable limits?	Differ by ≤ 5 F	X		X		
5. Are all samples on the job lists accounted for?	---	X		X		

Standard Log #:	W39962	Chemical:	p-Xylene
Analyst:	SAW	Vendor:	Alfa Aesar
Date Received:	09/22/16	Catalog #:	A10534
Expiration Date (if any):		Lot #:	10199703
Comments:			

WPH Analytical Run
132821 on 11/17/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804577		11/09/2016	1230		TETRA TECH	VE CARTER SCHOOL	PH		SW	4	
		VEC-SUMP1-110916										
123585	804611		11/09/2016	1225		TETRA TECH	VE CARTER SCHOOL	PH		M	4	
		VEC-WASTE4-110916										
123585	804612		11/09/2016	1159		TETRA TECH	VE CARTER SCHOOL	PH		M	4	
		VEC-WASTE1-110916										
123585	804618		11/09/2016	1204		TETRA TECH	VE CARTER SCHOOL	PH		M	4	
		VEC-WASTE2-110916										
	808164		11/09/2016	1230				PH				
		VEC-SUMP1-110916			DUP	804577						
	808165		11/09/2016	1225				PH				
		VEC-WASTE4-110916			DUP	804611						
6	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC											

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

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FWC20,21-01
Data Validation Checklist

CT Laboratories

LIMS #: 132821	Method: pH EPA 150.1			
Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved
11/17/16	SAN / SAN	JTS	11/18/16	Yes ... No

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments: (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. Was the calibration slope recorded on the bench sheet?	---	X		X		
2. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	X		X		
3. Were the duplicates within acceptable limits?	Differ by ≤ 0.10 pH units	X		✓		
4. Are all samples on the job lists accounted for?	---	X		✓		

Mettler Toledo (Easy Seven) Instrument Run Logbook

Date / In.	Start Time	End Time	Test (Analyte)	Sample Run # (s) / Prep Batch # (s)	Comments:
8/2/16 SAW	1315	1420	pH	128295, 296	
8/8/16 SAW	0940	1045	pH	128457, 459	
8/11/16 MER	1210	1220	pH	128598	
8/18/16 URS	1530	1630	pH	128858, 121, 121, 59, 120	
8/23/16 SAW	1445	1515	pH	129057	
8/30/16 URS	1430	1530	pH	129333, 4, 2, 5	
9/1/16 SAW	1520	1610	pH	129471, 472, 473	
9/8/16 SAW	1545	1715	pH	129726, 727, 728	
9/15/16 SAW	1630	1800	pH	130091, 42, 93, 95, 96, 94, 97, 98	
9/20/16 SAW	1405	1530	pH	130300, 301, 302	
10/2/16 URS	1500	1600	pH	130889, 90, 91, 92	
10/11/16 URS	1545	1550	pH	131071	
10/16/16 SAW	0930	1120	pH	131129, 130, 131	
10/18/16 SAW	1605	1725	pH	131506, 07, 08, 09, 10, 11, 12, 13	
10/19/16 SAW	0840	0850	pH	131507	
10/25/16 URS	1430	1530	pH	131833, 4, 5, 6, 7	
10/31/16 MER	09:45	1110	phthalics	132089, 92	
11/3/16 MER	1515	1610	pH	132280, 281, 286, 287	
11/10/16 SAW	1320	1530	pH	132535, 533, 582	
11/10/16 MER	1415	1515	pH	132820, 821, 822, 826	
11/10/16 URS	1500	1610	pH	132951, 952, 953	

ed By: _____

WetChem Logbook 3

02/04/2015

NOTEBOOK VIEW: LTN_WetChem_3_Default, NOTEBOOK: WetChem_3, PAGE: 77

Page is Locked

Author: mradske on: 03.06.2015 09:18:44

Page is not Witnessed

Project: Unassigned

Page Title: 060215

Standard Log #:	W36993	Standard:	LCS/ICV Working
Analyst:	MML	Concentration:	10 mg/L
Prep Date:	6/2/15	Expiration Date (1 Week):	6/9/15
Prep:	Into a 100 mL volumetric flask pipette 1 mL CN LCS/ICV stock (1000mg/L) W36845 and fill to volume with 0.25N NaOH W36990 .		
Standard Log #:	W36994	Standard:	CN SOLID LCS/ICV
Analyst:	MML	Concentration:	50 pg/L
Prep Date:	6/2/15	Expiration Date (1 Week):	6/9/15
Prep:	Into a 200 mL volumetric flask pipetted 1 mL CN LCS/ICV WORKING STD 10,000 µg/L W36993 and brought to volume with 0.25 M NaOH W36990		
Standard ID#:	W36995	Vendor:	RICCA
Analyst:	MER	Chemical:	PH 4 BUFFER
Date Received:	5/29/15	Lot #:	4505426
Expiration Date (if any):	5/31/17	Catalog #:	1501-1

1

Ct Laboratories LLC

LPWC01_05
WetChem Prep Logbook

Logbook Created: 11/25/15

NOTEBOOK VIEW: LTN_LPWC01_5_Default, NOTEBOOK: LPWC01_5, PAGE: 1

Page is Locked

Author: mradske on: 02.12.2015 15:41:32

Witness: lsilvers on: 03.12.2015 20:23:30

Project: Unassigned

Page Title: 120115

Standard ID#:	W38037	Vendor:	RICCA
Analyst:	MER	Chemical:	PH 10 BUFFER
Date Received:	11/24/15	Lot #:	2509915
Expiration Date (if any):	MAR 2017	Catalog #:	1601-1CT

1

CT Laboratories, LLC

LPWC01-06
WetChem Prep Logbook
Logbook Created: 04/27/16
 Balances used in Reagent Prep:
 WCB01 and WCB03

NOTEBOOK VIEW: LTN_LPWC01_06_Default, NOTEBOOK: LPWC01_06, PAGE: 86

Page is Locked

Author: mradske on: 31.08.2016 11:14:53

Page is not Witnessed

Project: Unassigned

Page Title: 083016

Standard Log #:	W39691	Chemical:	PH BUFFER 7.00
Analyst:	LJS	Vendor:	RICCA
Date Received:	4/25/16	Catalog #:	1551-1
Expiration Date (if any):	JAN 2018	Lot #:	4602467
Comments:			

1

CT Laboratories, LLC

WSOLIDS Analytical Run
132648 on 11/16/2016

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
123585	804619		11/09/2016 1129		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-PAINT1-110916									
123585	804624		11/09/2016 1135		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-PAINT2-110916									
123585	804625		11/09/2016 1147		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-PAINT3-110916									
123585	804626		11/09/2016 1223		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-PAINT4-110916									
123585	804613		11/09/2016 1238		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-WASTE5-110916									
123585	804616		11/09/2016 1240		TETRA TECH	VE CARTER SCHOOL	SOLIDS,PERCENT		S	4	
		VEC-WASTE6-110916									
	806850		11/09/2016 1240				SOLIDS,PERCENT				
		VEC-WASTE6-110916		DUP 804616				0			
7	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

Page 1611051701

FWC26-10 Data Review Checklist

		Method: Percent Solids SW846-8000C	Independent Data Review Checklist		Balance: VOB-01
LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
132542 132552 132553 132556 132648 132707	11/14/2016	JJF	RLD	11/16/2016	Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question.

Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments:
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Were samples analyzed within hold time?	14 days or program/project specific	Yes		Yes		Qualify data prepared after hold time
2. Were samples dried overnight?	> 8hours	Yes		Yes		If No: place samples back into oven for mimium of 8 hours of total dry time.
3. Were drying start and stop times recorded?	---	Yes		Yes		If No: record times and temperatures
4. Were duplicates analyzed at the appropriate frequency?	1 per 20 of similar matrix or at program/project specific frequency	Yes		Yes		If No: reprep samples with appropreate frequency for a duplicate.
5. Were the duplicates within acceptable limits?	Within in-house or program/project specific QC limits	Yes		Yes		If No: reprep and reanalyze samples or qualify parent sample result (Y).
6. Are all samples on the job lists accounted for?	---	Yes		Yes		If No: analyze samples that were were missed.
7. Were nonconformities (if applicable) documented in the NCR spreadsheet?		Yes		Yes		If No: Enter nonformities into the NCR spreadsheet before data review/validation.

**CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS**

Company: Tetra Tech

Project Contact: Robert Kondreck

Telephone: 312.261.7479

Project Name: UE Carter School

Project #: 103X208606065057610200

Location: 2001 Viet St, Milwaukee, WI

Sampled By: Robert Kondreck

1230 Lange Court, Baraboo, WI 53913

608-356-2760 Fax 608-356-2766

www.ctlaboratories.com

Report To:

EMAIL: Robert.Kondreck@TetraTech.com

Company: Tetra Tech

Address: 1 South Wacker Dr

Invoice To:*

EMAIL:

Company:

Address:

Folder # 123585

Company: TETRA TECH

Project: UE CARTER SCHOOL

Logged By: JLS PM: RML

n:

RCRA SDWA NPDES

aste Other

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:

GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Filtered? Y/N

ANALYSES REQUESTED

Total # Containers

Designated MS/MSD

Turnaround Time

Normal RUSH*

Date Needed:

Rush analysis requires prior
CT Laboratories' approval

Surcharges:

24 hr 200%

2-3 days 100%

4-9 days 50%

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered? Y/N	Fill in Spaces with Bottles per Test																CT Lab ID # Lab use only
Date	Time																						
11/6/16	1230	SW	grab	1	VEC-Sump1-11/6/16	N	✓																804577
11/6/16	1230	SW	grab	2	VEC-Sump1-11/6/16	N	✓																804577
11/6/16	1230	SW	grab	3	VEC-Sump1-11/6/16	N		✓															804577
11/6/16	1230	SW	grab	4	VEC-Sump1-11/6/16	N			✓														804577
11/6/16	1225	M	grab	5	VEC-Waste4-11/6/16	N	✓				✓	✓											804511
11/6/16	1158	M	grab	6	VEC-Waste1-11/6/16	N					✓												804612
11/6/16	1238	S	grab	7	VEC-Waste5-11/6/16	N	✓	✓															804613
11/6/16	1240	S	grab	8	VEC-Waste6-11/6/16	N	✓	✓															804616
11/6/16	1211	M	grab	9	VEC-Waste3-11/6/16	N						✓											804617
11/6/16	1230	SW	grab	10	VEC-Sump1-11/6/16	N						✓											804577
11/6/16	1204	M	grab	11	VEC-Waste2-11/6/16	N						✓											804618
																							804618

Relinquished By:

Date/Time

Received By:

Date/Time

Lab Use Only

Ice Present Yes No

Temp 3.9 IR Gun # 15

Cooler # 1614 Page 60

Received by:

Date/Time

Received for Laboratory by:

Date/Time

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAP standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If samples show signs of damage, contamination or inadequate preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.

1.2 CT Laboratories must be supplied with complete written disclosure of the known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless filed thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from actual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

Company: Tetra Tech

Project Contact: Robert Kondreck

Telephone: 312-261-7479

Project Name: VECANTO

Project #: 103X 70202600013051610200

Location: 2601 ~~West~~ ^{Village} St. Milwaukee WI

Sampled By: Robert Kondreck

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Report To:

EMAIL:

Company:

Address:

Invoice To:*

EMAIL:

Company:

Address:

Lab Use Only
Place Header Sticker Here:

Program:

QSM RCRA SDWA NPDES

Solid Waste Other

PO #

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

ANALYSES REQUESTED

Turnaround Time

Normal RUSH*

Date Needed: _____

Rush analysis requires prior
CT Laboratories' approval

Surcharges:

24 hr 200%

2-3 days 100%

4-9 days 50%

Matrix:

GW - groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Filtered? Y/N

SW-846 60101 Lead
SW-846 60202 PCBs

Total # Containers

Designated MS/MSD

Collection Date Time Matrix Grab/Comp Sample # Sample ID Description

Fill in Spaces with Bottles per Test

CT Lab ID #

Lab use only

Collection Date	Time	Matrix	Grab/Comp	Sample #	Sample ID Description
11/09/16	1129	Paint	g	1	Vec - Paint 1 - 11/09/16
11/09/16	1135	Paint	g	2	Vec - Paint 2 - 11/09/16
11/09/16	1147	Paint	g	3	Vec - Paint 3 - 11/09/16
11/09/16	1223	Paint	g	4	Vec - Paint 4 - 11/09/16

Filtered? Y/N	SW-846 60101 Lead	SW-846 60202 PCBs
	✓	✓
	✓	✓
	✓	✓
	✓	✓

CT Lab ID #
804619
804624
804625
804626

Relinquished By:

Date/Time

Received by:

Date/Time

Received By:

Received for Laboratory by:

Date/Time

Date/Time

Ice Present Yes No

Temp 3.9 IR Gun # 5

Cooling 1610 1620

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3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing. 3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity. 3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP. 4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met. 4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress. 4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way. 4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars (\$150) per sample, whichever is less. 4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared. 4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party. 5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process. 5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data. 5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory. 5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s). 5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years. 5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of charges, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

Ice Present YES NO
Temperature 3.9
IR Gun # 15
Initials JS
Date 11/11/16 Time 1030
Cooler #: 5689

Cooler Receipt Form

CUSTODY SEAL
DATE 11/16/16
SIGNATURE [Signature]

QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

FedEx Package
Express US Airbill

FedEx Tracking Number 8109 8134 9342

0215

4 Express Package Service

* To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the
FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight
Earliest next business morning delivery to select
locations. Friday shipments will be delivered on
Monday unless Saturday Delivery is selected.

☒ FedEx Priority Overnight
Next business morning.* Friday shipments will be
delivered on Monday unless Saturday Delivery
is selected.

☐ FedEx Standard Overnight
Next business afternoon.*
Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M.
Second business morning.*
Saturday Delivery NOT available.

☐ FedEx 2Day
Second business afternoon.* Thursday shipments
will be delivered on Monday unless Saturday
Delivery is selected.

☐ FedEx Express Saver
Third business day.*
Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.

☐ FedEx Envelope*

☐ FedEx Pak*

☐ FedEx
Box

☐ FedEx
Tube

☒ Other

6 Signature Options

☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required
Package may be left without
obtaining a signature for delivery.

☐ Direct Signature
Someone at recipient's address
may sign for delivery.

☐ Indirect Signature
If no one is available at recipient's
address, someone at a neighboring
address may sign for delivery. For
residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No

☐ Yes
As per attached
Shipper's Declaration

☐ Yes
Shipper's Declaration
not required.

☐ Dry Ice
Dry ice, 9 UN 1845

☐ Cargo Aircraft Only

7 Payment

Bill to:

☐ Sender
Account No. in Section
Two to be initialed.

☐ Recipient

Enter FedEx Acct. No. or Credit Card No. below.

☐ Third Party

☐ Credit Card

☐ Other
Account No.

☐ Cash/Check

Total Packages

Total Weight

2 Your Internal Billing Reference

3 To Recipient's Name Dennis L. Lyle Phone 608 251-2710

Company CT Laboratories, Inc.

Address 1230 Lange Ct

City Bethesda State MD ZIP 20814

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Folder #: 123585

Company: TETRA TECH

Project: VE CARTER SCHOOL

Folder #: 123585**PM LOGIN CONFIRMATION**

Contract #: 3006

Company: TETRA TECH

Project: VE CARTER SCHOOL

Proj #: 3X90260001S051610200

Project Phase:

PO Number: 1111200

Invoice #: 124121

Project Manager: BMS

Date Received: 11/11/16

Log Date: 11/11/2016

Report To: ROB KONDRECK

CC:

Invoice To :ACCOUNTS PAYABLE

CC: chris.burns@tetrattech.com

1 S WACKER DRIVE

1 S WACKER DRIVE

SUITE 3700

SUITE 3700

CHICAGO, IL 60606

CHICAGO, IL 60606

Phone: 312-201-7479:

Fax:

Phone:

Fax:

Rep. E-Mail robert.kondreck@tetrattech.com

EMail:

Collected By:

Arrival Temperature: 3.9 oC

Collector's Phone: 312-201-7479

SAMPLE #: 804577 DESCR: VEC-SUMP1-110916**PRIMARY / DETAILED MATRIX: AQUEOUS / SURFACE WATER****SAMPLED: 11/09/2016 Time: 1230****CLIENT SAMPLE #:****DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					11/23/2016		Logged
779	VOC 8260 QSM	(EPA 8260C)			Y	11/23/2016	11/23/2016		Logged
848	ICP TOTAL QSM	(EPA 6010C)				05/08/2017	11/23/2016		NeedPrep
			Total Arsenic						
			Total Barium						
			Total Cadmium						
			Total Chromium						
			Total Lead						
			Total Selenium						
			Total Silver						
851	MERCURY TOTAL QSM	(EPA 7470A)				12/07/2016	11/23/2016		NeedPrep
930	SVOC 8270 QSM ADDTL	(EPA 8270D)			Y		11/23/2016		NeedPrep
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep

Folder #: 123585

Company: TETRA TECH

Project: VE CARTER SCHOOL

SAMPLE #: 804611		DESCR: VEC-WASTE4-110916		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 11/09/2016		Time: 1225	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

203	PH	(EPA 9045D)					11/23/2016		Logged	
618	FLASHPOINT	(EPA 1010)				11/19/2016	11/23/2016		Logged	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

SAMPLE #: 804612		DESCR: VEC-WASTE1-110916		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 11/09/2016		Time: 1159	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

203	PH	(EPA 9045D)					11/23/2016		Logged	
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SAMPLE #: 804613		DESCR: VEC-WASTE5-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1238	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				11/23/2016	11/23/2016		Logged	
817	ICP QSM	(EPA 6010C)				05/08/2017	11/23/2016		NeedPrep	

Arsenic
Barium
Cadmium
Chromium
Lead
Selenium
Silver

833	MERCURY QSM	(EPA 7471B)				12/07/2016	11/23/2016		NeedPrep	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

Folder #: 123585

Company: TETRA TECH

Project: VE CARTER SCHOOL

SAMPLE #: 804616		DESCR: VEC-WASTE6-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1240	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)					11/23/2016	11/23/2016		Logged
817	ICP QSM	(EPA 6010C)					05/08/2017	11/23/2016		NeedPrep
			Arsenic							
			Barium							
			Cadmium							
			Chromium							
			Lead							
			Selenium							
			Silver							
833	MERCURY QSM	(EPA 7471B)					12/07/2016	11/23/2016		NeedPrep
1288	PCB EPA	(EPA 8082A)						11/23/2016		NeedPrep

SAMPLE #: 804617		DESCR: VEC-WASTE3-110916		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 11/09/2016		Time: 1211	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
618	FLASHPOINT	(EPA 1010)					11/19/2016	11/23/2016		Logged

SAMPLE #: 804618		DESCR: VEC-WASTE2-110916		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 11/09/2016		Time: 1204	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

SAMPLE #: 804619		DESCR: VEC-PAINT1-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1129	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS,PERCENT	(EPA 8000C)					11/23/2016	11/23/2016		Logged

Folder #: 123585

Company: TETRA TECH

Project: VE CARTER SCHOOL

SAMPLE #: 804619		DESCR: VEC-PAINT1-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1129	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

817	ICP QSM	(EPA 6010C)	Lead			05/08/2017	11/23/2016		NeedPrep	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

SAMPLE #: 804624		DESCR: VEC-PAINT2-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1135	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)	Lead			11/23/2016	11/23/2016		Logged	
817	ICP QSM	(EPA 6010C)				05/08/2017	11/23/2016		NeedPrep	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

SAMPLE #: 804625		DESCR: VEC-PAINT3-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1147	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)	Lead			11/23/2016	11/23/2016		Logged	
817	ICP QSM	(EPA 6010C)				05/08/2017	11/23/2016		NeedPrep	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

SAMPLE #: 804626		DESCR: VEC-PAINT4-110916		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 11/09/2016		Time: 1223	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)	Lead			11/23/2016	11/23/2016		Logged	
817	ICP QSM	(EPA 6010C)				05/08/2017	11/23/2016		NeedPrep	
1288	PCB EPA	(EPA 8082A)					11/23/2016		NeedPrep	

Folder #: 123585

Company: TETRA TECH

Project: VE CARTER SCHOOL

Invoice Number: 124121

Preliminary Invoice Estimate: \$ 815.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
FLASHPOINT	WASTE	2	\$ 25.00	0.00	\$ 50.00
ICP QSM Arsenic	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP QSM Barium	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP QSM Cadmium	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP QSM Chromium	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP QSM Lead	SOIL	6	\$ 12.00	0.00	\$ 72.00
ICP QSM Selenium	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP QSM Silver	SOIL	2	\$ 12.00	0.00	\$ 24.00
ICP TOTAL QSM Total Arsenic	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Barium	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Cadmium	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Chromium	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Lead	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Selenium	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
ICP TOTAL QSM Total Silver	SURFACE WATER	1	\$ 7.00	0.00	\$ 7.00
MERCURY QSM	SOIL	2	\$ 20.00	0.00	\$ 40.00
MERCURY TOTAL QSM	SURFACE WATER	1	\$ 20.00	0.00	\$ 20.00
PCB EPA	SOIL	6	\$ 50.00	0.00	\$ 300.00
PCB EPA	SURFACE WATER	1	\$ 50.00	0.00	\$ 50.00
PCB EPA	WASTE	1	\$ 50.00	0.00	\$ 50.00
PH	SURFACE WATER	1	\$ 10.00	0.00	\$ 10.00
PH	WASTE	3	\$ 10.00	0.00	\$ 30.00
SOLIDS,PERCENT	SOIL	6	\$ 0.00	0.00	\$ 0.00
SVOC 8270 QSM ADDTL	SURFACE WATER	1	\$ 0.00	0.00	\$ 0.00
VOC 8260 QSM	SURFACE WATER	1	\$ 0.00	0.00	\$ 0.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					\$ 0.00

Bottle Information

Container	# Containers	Tests
AMBER GL	2	8270,PCB
HNO3	1	HG,ICP
JAR GL	2	FLASH,FLIQ
MISC	4	PCB,%SOL,HG,ICP
UNPRES GL	2	PCB,%SOL,HG,ICP
UNPRES PL	3	pH
VOA HCL	3	VOC

Sample Condition Report

Folder #: 123585
 Client: TETRA TECH

Print Date / Time: 11/11/2016 11:22
 Received Date / Time / By: 11/11/2016 10:30 JLS

Project Name: VE CARTER SCHOOL
 Project Phase:

Log-In Date / Time / By: 11/11/2016 11:21 JLS
 Project #: 103X90260001S051610200 PM: BMS

Coolers: 5689
 Custody Seals Present : Y

Temperature: 3.9C On Ice: Y
 COC Present?: Y Complete? Y

Seal Intact? Y
 Ship Method: FEDEX EXPRESS
 Adequate Packaging: Y

Numbers: DATED AND SIGNED
 Tracking Number: 810981349342
 Temp Blank Enclosed? Y

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 11/10/16 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804577 VEC-SUMP1-110916	AMBER GL	1	/	8270,PCB
	AMBER GL	1	/	8270,PCB
	Total # of Containers of Type (AMBER GL) = 2			
804577 VEC-SUMP1-110916	HNO3	1	Y /	HG,ICP
	Total # of Containers of Type (HNO3) = 1			
804577 VEC-SUMP1-110916	UNPRES PL	1	/	pH
	Total # of Containers of Type (UNPRES PL) = 1			
804577 VEC-SUMP1-110916	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type (VOA HCL) = 3			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804611 VEC-WASTE4-110916	JAR GL	1	/	FLASH,FLIQ,PCB,pH
	Total # of Containers of Type (JAR GL) = 1			
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804612 VEC-WASTE1-110916	UNPRES PL	1	/	pH
	Total # of Containers of Type (UNPRES PL) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804613 VEC-WASTE5-110916	UNPRES GL Total # of Containers of Type	1 / (UNPRES GL) =	1	PCB,%SOL,HG,ICP
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804616 VEC-WASTE6-110916	UNPRES GL Total # of Containers of Type	1 / (UNPRES GL) =	1	PCB,%SOL,HG,ICP
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804617 VEC-WASTE3-110916	JAR GL Total # of Containers of Type	1 / (JAR GL) =	1	FLASH,FLIQ
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804618 VEC-WASTE2-110916	UNPRES PL Total # of Containers of Type	1 / (UNPRES PL) =	1	pH
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804619 VEC-PAINT1-110916	MISC Total # of Containers of Type	1 / (MISC) =	1	PCB,%SOL,HG,ICP
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804624 VEC-PAINT2-110916	MISC Total # of Containers of Type	1 / (MISC) =	1	PCB,%SOL,HG,ICP
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804625 VEC-PAINT3-110916	MISC Total # of Containers of Type	1 / (MISC) =	1	PCB,%SOL,HG,ICP
Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
804626 VEC-PAINT4-110916	MISC Total # of Containers of Type	1 / (MISC) =	1	PCB,%SOL,HG,ICP

<i>Condition Code</i>	<i>Condition Description</i>
1	Sample Received OK



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / cinnasblab@EMSL.com

EMSL Order: 041631262

Customer ID: TEHC25

Customer PO:

Project ID:

Attention: Andre Baker
Tetra Tech, Inc.
1 South Wacker Dr.
Suite 3700
Chicago, IL 60606

Project: VE Carter School

Phone: (312) 201-7700

Fax:

Received Date: 11/11/2016 9:21 AM

Analysis Date: 11/18/2016

Collected Date: 11/09/2016

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 041631262-0001	VEC-BULK1-110916	Gray Fibrous Homogeneous		70% Non-fibrous (Other)	30% Amosite
2 041631262-0002	VEC-BULK1-110916 DUP	Gray Fibrous Homogeneous		70% Non-fibrous (Other)	30% Amosite
3 041631262-0003	VEC-BULK2-110916	Tan/White/Black Fibrous Heterogeneous	40% Cellulose 20% Synthetic	10% Non-fibrous (Other)	30% Chrysotile
4 041631262-0004	VEC-BULK3-110916	Brown/Gray/Tan Fibrous Heterogeneous	25% Cellulose 20% Min. Wool	5% Non-fibrous (Other)	15% Amosite 35% Chrysotile
5 041631262-0005	VEC-BULK4-110916	Gray/White Fibrous Homogeneous	45% Cellulose 25% Min. Wool	27% Non-fibrous (Other)	3% Amosite
6 041631262-0006	VEC-BULK5-110916	Gray Fibrous Homogeneous		65% Non-fibrous (Other)	35% Amosite
7 041631262-0007	VEC-BULK6-110916	Gray/White Fibrous Homogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (Other)	None Detected
8-Transite 041631262-0008	VEC-BULK7-110916	Black Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
8-Flue Packing 041631262-0008A	VEC-BULK7-110916	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
8-Fiberboard 041631262-0008B	VEC-BULK7-110916	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
8-Insulation 041631262-0008C	VEC-BULK7-110916	Tan Fibrous Homogeneous	85% Cellulose	15% Non-fibrous (Other)	None Detected
9-Floor Tile 041631262-0009	VEC-BULK8-110916	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-Mastic 041631262-0009A	VEC-BULK8-110916	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
9-Leveler 041631262-0009B	VEC-BULK8-110916	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-Floor Tile 041631262-0010	VEC-BULK9-110916	Tan Non-Fibrous Homogeneous		96% Non-fibrous (Other)	4% Chrysotile
10-Mastic 041631262-0010A	VEC-BULK9-110916	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile

Initial report from: 11/18/2016 11:58:10



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EMSL Order: 041631262

Customer ID: TEHC25

Customer PO:

Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
11-Ceiling Tile <i>041631262-0011</i>	VEC-BULK10-110916	Gray Fibrous Homogeneous	35% Min. Wool	53% Non-fibrous (Other)	8% Amosite 4% Chrysotile
11-Glue Dot <i>041631262-0011A</i>	VEC-BULK10-110916	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
12 <i>041631262-0012</i>	VEC-BULK11-110916	White Fibrous Homogeneous	20% Cellulose	25% Non-fibrous (Other)	55% Chrysotile
13-Floor Tile <i>041631262-0013</i>	VEC-BULK12-110916	Brown Fibrous Homogeneous		92% Non-fibrous (Other)	8% Chrysotile
13-Mastic <i>041631262-0013A</i>	VEC-BULK12-110916	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile

Analyst(s)

Adam Gart (1)

Quynh Vu (20)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 11/18/2016 11:58:10



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EMSL Order: 041631393

Customer ID: TEHC25

Customer PO:

Project ID:

Attention: Robert Kondreck
Tetra Tech, Inc.
1 South Wacker Dr.
Suite 3700
Chicago, IL 60606

Project: VE Carter School

Phone: (312) 201-7700

Fax:

Received Date: 11/11/2016 9:21 AM

Analysis Date: 11/18/2016

Collected Date: 11/09/2016

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume (liters)	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
1	VEC-AAL-P1-110916	11/09/2016	1067.41	<5.5	100	0.003	<7.01	<0.003	
041631393-0001									
2	VEC-AAL-P2-110916	11/09/2016	1056.00	<5.5	100	0.003	<7.01	<0.003	
041631393-0002									
9	VEC-AAH-P2-110916	11/09/2016	3611.52	<5.5	100	0.001	<7.01	<0.001	
041631393-0009									
10	VEC-AAH-P1-110916	11/09/2016	3501.75	<5.5	100	0.001	<7.01	<0.001	
041631393-0010									
11	Field Blank	11/09/2016		<5.5	100		<7.01		Field Blank
041631393-0011									
12	Lab Blank	11/09/2016		<5.5	100		<7.01		Lab Blank
041631393-0012									

The results reported have been blank corrected as applicable.

Analyst(s):

William Nguyen PCM (6)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

Limit of detection is 7 fibers/mm². Intra-laboratory Sr values: 5-20 fibers = 0.39, 21-50 fibers = 0.31, 51-100 fibers = 0.17 (as of 2/16).. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.29. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. EMSL is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. Results have been blank corrected as applicable. The results in this report meet all requirements of the NELAC standards unless otherwise noted. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NYS ELAP 10872, AIHA-LAP, LLC--IHLAP Accredited #100194, NJ DEP 03036, PA ID# 68-00367

Initial Report From: 11/18/2016 14:59:10

**EMSL Analytical, Inc.**

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EMSL Order: 041631393

CustomerID: TEHC25

CustomerPO:

ProjectID:

Attn: **Robert Kondreck**
Tetra Tech, Inc.
1 South Wacker Dr.
Suite 3700
Chicago, IL 60606

Phone: (312) 201-7700
Fax:
Received: 11/11/16 9:21 AM
Analysis Date: 11/18/2016
Collected: 11/9/2016

Project: **VE Carter School**

Test Report: Asbestos Analysis of Air Samples by Transmission Electron Microscopy via NIOSH Method 7402

Sample	Volume (Liters)	Non Asbestos Fibers	PCM F/cc	Asbestos Type(s)	Asbestos Fibers	Asbestos % of total	7402 Adjusted (TEM) F/cc	Notes
1 041631393-0001	1067.41		<0.003			0	<0.003	
2 041631393-0002	1056		<0.003			0	<0.003	
9 041631393-0009	3611.52		<0.001			0	<0.001	
10 041631393-0010	3701.75		<0.001			0	<0.001	
11 041631393-0011	0	0	0.000			0	n/a	
12 041631393-0012	0	0	0.000			0	n/a	

NIOSH 7402 method only reports fibers > 5µm in length and > 0.25µm in width.

This method requires a minimum of 2 field blank analyses per set. The results above are blank corrected when possible.

Average number of asbestos fibers on field blanks: 0

Average number of non-asbestos fibers on field blanks: 0

Analyst(s)

Darrah Johnson-McDaniel (2)

Frank Craig (4)

Benjamin Ellis, Laboratory Manager
or other approved signatory

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Initial report from 11/18/2016 14:59:10



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
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Cinnaminson, NJ 08077
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Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/09/2016
EMSL Order: 041631393
Report Date: 12/5/2016

Project: VE Carter School

ISO 13794
International Standard for the Determination of Asbestos Fibers-Indirect Transfer TEM

Customer Sample Number:	3 / VEC-AAH-MM-110916	Air volume: 915.75	Liters
EMSL Sample Number:	041631393-0003	Grid Opening Area: 0.0132	mm ²
Minimum Level of analysis (chrysotile):	CD	Grid Openings Analyzed: 100	
Minimum Level of analysis (amphibole):	ADX	Percent of filter ashed: 25	%
Magnification used for fiber counting:	19,000	Suspension volume: 100	mL
Aspect ratio for fiber definition:	3:1	Volume Filtered: 25	mL
Min Length/Min Width to be counted (um):	0.5 / None	EFA of second filter: 1350	mm ²
Area of collection filter (mm ²):	385	Analysis Date: 12/01/2016 & 12/02/2016	
Result of Chi ² Test:	117.10 Random	Analyst: D. Johnson-McDaniel	

Analytical Sensitivity:	0.0179	Structure/cc	Limit of Detection:	0.0534	Structure/cc
-------------------------	--------	--------------	---------------------	--------	--------------

Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm ²	Conc. (Str/cc)	Poisson 95 % Confidence Interval		
						LCL (Str/cc)		UCL (Str/cc)
Asbestos Structures (Chrys)	CD	4	4	3.03	0.0715	0.0195	-	0.1830
Asbestos Structures (Amph)	ADX	17	19	14.39	0.3395	0.2044	-	0.5302
Total Asbestos Structures	CD/ADX	21	23	17.42	0.4110	0.2605	-	0.6167
<i>Supplemental Structure Size Concentrations</i>								
Asbestos Structure >5 um (Chrys)	CD	4	-	3.03	0.0715	0.0195	-	0.1830
Asbestos Structure >5 um (Amph)	ADX	17	-	12.88	0.3038	0.1770	-	0.4864
Total Asbestos Structures >5 um	CD/ADX	21	-	15.91	0.3753	0.2323	-	0.5736
Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	4	3.03	0.0715	0.0195	-	0.1830
Asbestos Fibers, Bundles >5 um (Amph)	ADX	-	19	14.39	0.3395	0.2044	-	0.5302
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	23	17.42	0.4110	0.2605	-	0.6167
PCMe Structures (Chrys)	CD	0	-	< 2.27	< 0.0534	0.0000	-	0.0534
PCMe Structures (Amph)	ADX	1	-	< 2.27	< 0.0534	0.0000	-	0.0847
Total PCMe Structures	CD/ADX	1	-	< 2.27	< 0.0534	0.0000	-	0.0847
PCMe Fibers and Bundles (Chrys)	CD	-	4	3.03	0.0715	0.0195	-	0.1830
PCMe Fibers and Bundles (Amph)	ADX	-	19	14.39	0.3395	0.2044	-	0.5302
Total PCMe Fibers and Bundles	CD/ADX	-	23	17.42	0.4110	0.2605	-	0.6167
Non Asbestos Structures	NAM	1	1	-	-	-	-	-

Asbestos Types Present: Chrysotile, Amosite

Comment: Sample collected on 0.8 um filter.

Robyn Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0003	GO area (mm ²):	0.0132	Mag.	19,000
Customer Sample:	3 / VEC-AAH-MM-110916	Grid Box :	0416 Tetra Tech 04: S:1-4	Analyst(s):	D. Johnson-McDaniel
Chi ² Test for Uniformity:	117.10-Random	Pore Size (micron):	0.8	Analysis Date:	12/01/2016 & 12/02/2016
Project ID:	VE Carter School			Particulate Loading:	5%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
S1	A1	F	1	1	9.26	0.59	ADX	Amosite		
S1	A1	MD11	2		8.1	5.78	CD	Chrysotile		
S1	A1	MB		2	8.1	0.47	CD	Chrysotile	395, 396	
S1	A3	None Detected								
S1	A5	None Detected								
S1	A7	None Detected								
S1	A9	F	3	3	14.35	0.31	ADX	Amosite	397, 398	
S1	B10	None Detected								
S1	B8	None Detected								
S1	B6	None Detected								
S1	B4	None Detected								
S1	C1	None Detected								
S1	C3	None Detected								
S1	C5	None Detected								
S1	C7	None Detected								
S1	C9	None Detected								
S1	D10	None Detected								
S1	D8	None Detected								
S1	D6	F	4	4	23.61	0.47	ADX	Amosite		
S1	D4	None Detected								
S1	D2	None Detected								
S1	E5	None Detected								
S1	E7	None Detected								
S1	E9	None Detected								
S1	F8	None Detected								
S1	F6	None Detected								
S1	F4	None Detected								
S1	F2	None Detected								
S1	G1	None Detected								
S1	G3	None Detected								
S1	G5	None Detected								
S1	I10	None Detected								
S1	18	None Detected								
S1	I6	None Detected								
S1	I4	B	5	5	6.02	0.31	CD	Chrysotile		
S1	I4	F	6	6	18.52	0.56	ADX	Amosite		
S1	J9	None Detected								
S2	J10	None Detected								
S2	J8	None Detected								
S2	J6	None Detected								
S2	J4	None Detected								
S2	I3	B	7	7	5.19	0.49	CD	Chrysotile		
S2	I5	None Detected								



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0003	GO area (mm²):	0.0132	Mag.	19,000
Customer Sample:	3 / VEC-AAH-MM-110916	Grid Box :	0416 Tetra Tech 04: S:1-4	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	117.10-Random	Pore Size (micron):	0.8	Analysis Date:	12/01/2016 & 12/02/2016
Project ID:	VE Carter School			Particulate Loading:	5%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
S2	I7	None Detected								
S2	H8	F	8	8	13.43	1.16	ADX	Amosite		
S2	H6	None Detected								
S2	H4	F	0	0	6.95	0.25	ADX	Amosite		XCGBTP
S2	H2	None Detected								
S2	G3	MD11	0		26.85	3.94	ADX	Amosite		
S2	G3	MF		0	26.85	0.25	ADX	Amosite		XCGBLD
S2	G5	None Detected								
S2	G7	None Detected								
S2	F8	None Detected								
S2	F4	F	9	9	6.48	0.25	ADX	Amosite		
S2	F2	None Detected								
S2	E1	None Detected								
S2	E3	None Detected								
S2	E5	F	10	10	16.21	0.56	ADX	Amosite		
S2	E7	None Detected								
S2	E9	None Detected								
S2	D10	None Detected								
S2	D8	None Detected								
S2	D6	None Detected								
S2	D4	F	11	11	26.62	0.27	ADX	Amosite		
S2	D4	F	12	12	5.79	0.38	ADX	Amosite		
S2	D4	F	13	13	7.96	0.47	NAM	Non Asb. Mineral	401, 402	
S2	D2	None Detected								
S2	C3	None Detected								
S2	C5	None Detected								
S2	C7	None Detected								
S2	C9	F	0	0	8.79	0.47	ADX	Amosite		XCGBTP
S2	B10	None Detected								
S2	B8	None Detected								
S2	B6	None Detected								
S2	B4	None Detected								
S2	B2	None Detected								
S2	A1	None Detected								
S2	A3	F	14	14	6.95	0.45	ADX	Amosite		
S2	A5	B	15	15	28.94	0.71	CD	Chrysotile		
S2	A7	MD33	16		22.68	7.64	ADX	Amosite		
S2	A7	MB		16	22.68	0.71	ADX	Amosite		
S2	A7	MF		17	16.21	0.3	ADX	Amosite		
S2	A7	MF		18	9.49	0.47	ADX	Amosite		
S2	A9	None Detected								
S3	A2	None Detected								
S3	A6	None Detected								

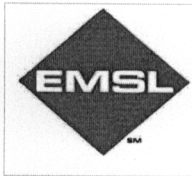


ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0003	GO area (mm²):	0.0132	Mag:	19,000
Customer Sample:	3 / VEC-AAH-MM-110916	Grid Box :	0416 Tetra Tech 04: S:1-4	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	117.10-Random	Pore Size (micron):	0.8	Analysis Date:	12/01/2016 & 12/02/2016
Project ID:	VE Carter School			Particulate Loading:	5%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
S3	A8	None Detected								
S3	A10	None Detected								
S3	B7	None Detected								
S3	B5	None Detected								
S3	B3	None Detected								
S3	B1	None Detected								
S3	C2	F	17	19	6.95	0.25	ADX	Amosite		
S3	C4	None Detected								
S3	C6	None Detected								
S3	D3	None Detected								
S3	D1	None Detected								
S3	E4	None Detected								
S3	E8	None Detected								
S3	E10	F	18	20	37.04	0.82	ADX	Amosite		
S3	E10	F	19	21	15.97	0.47	ADX	Amosite		
S3	F9	F	20	22	16.21	0.35	ADX	Amosite		
S3	F7	None Detected								
S3	F1	None Detected								
S3	G6	None Detected								
S3	G8	None Detected								
S3	H7	F	21	23	12.27	0.38	ADX	Amosite		
S3	I2	None Detected								
S3	I8	None Detected								
S3	J7	F	22	24	5.79	0.25	ADX	Amosite		



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

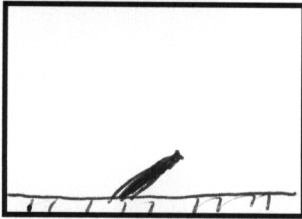
EMSL Order ID: 041631393-0003

Client: Tetra Tech

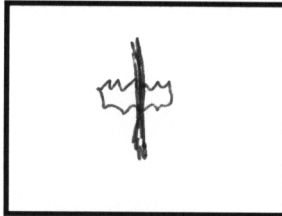
Client Sample: 3 / VEC-AAH-MM-110916

Page 1 of 2

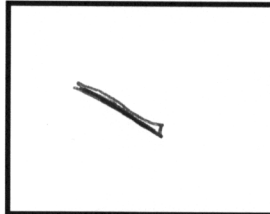
Primary Structure # 1



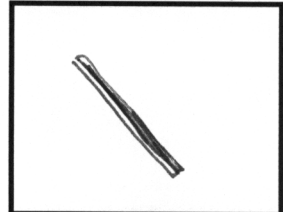
Primary Structure # 2



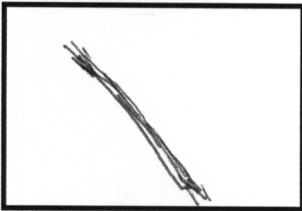
Primary Structure # 3



Primary Structure # 4



Primary Structure # 5



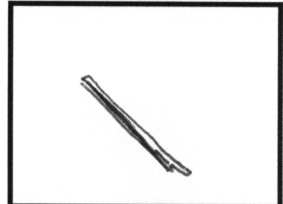
Primary Structure # 6



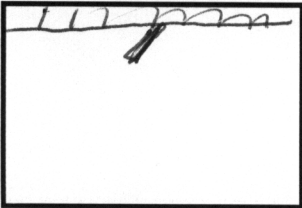
Primary Structure # 7



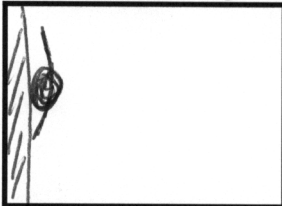
Primary Structure # 8



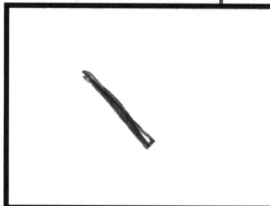
Primary Structure # 9



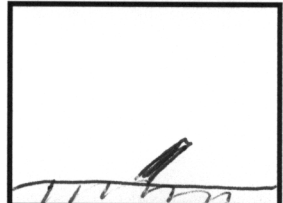
Primary Structure # 10



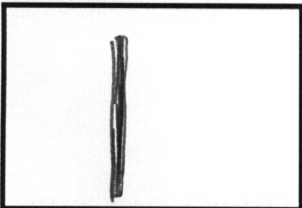
Primary Structure # 11



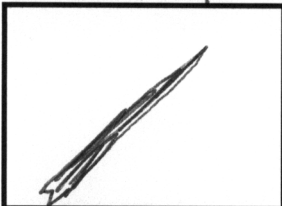
Primary Structure # 12



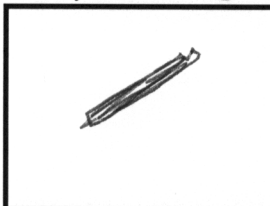
Primary Structure # 13



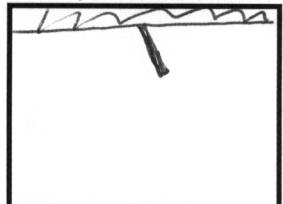
Primary Structure # 14



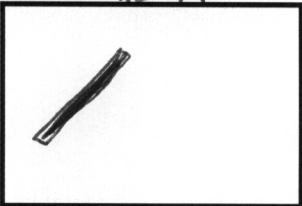
Primary Structure # 15



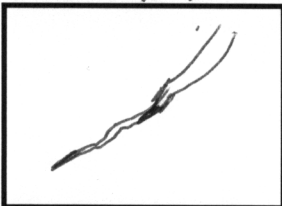
Primary Structure # 16



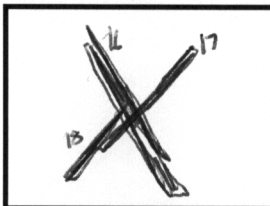
Structure # 13 14



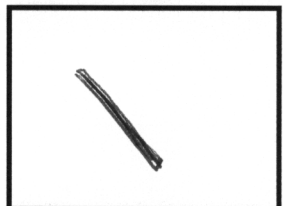
Structure # 15 16



Structure # 16



Structure # 16



Analyst: Paul John McNeil

Date: 10/02/16

Scope: 04-05



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

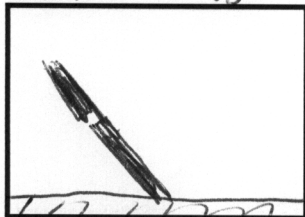
EMSL Order ID: 041631393-0003

Client: Tetra Tech

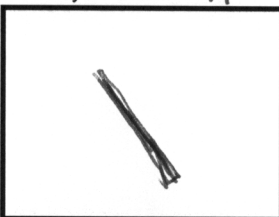
Client Sample: 3 / VEC-AAH-MM-110916

Page 2 of 2

Primary Structure # 18



Primary Structure # 19



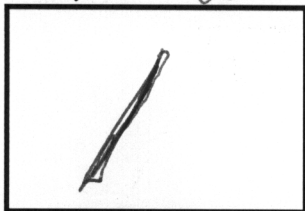
Primary Structure # 20



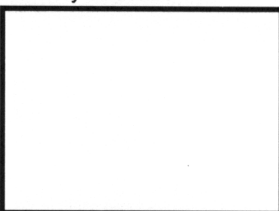
Primary Structure # 21



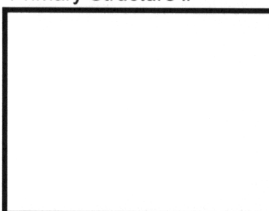
Primary Structure # 22



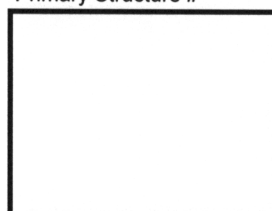
Primary Structure #



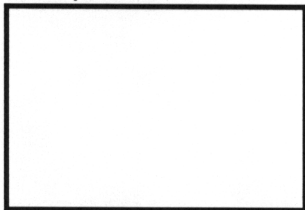
Primary Structure #



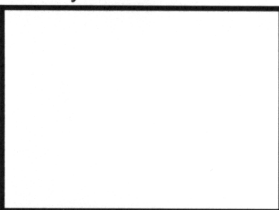
Primary Structure #



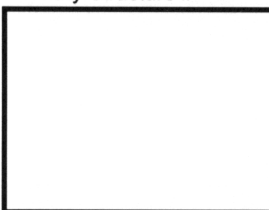
Primary Structure #



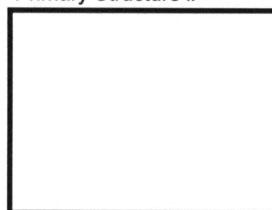
Primary Structure #



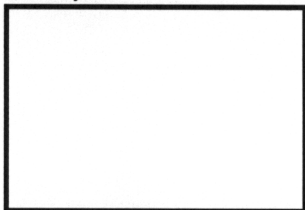
Primary Structure #



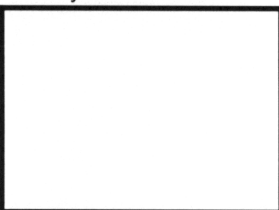
Primary Structure #



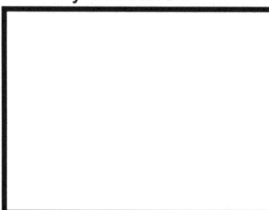
Primary Structure #



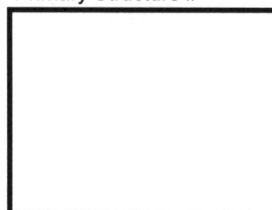
Primary Structure #



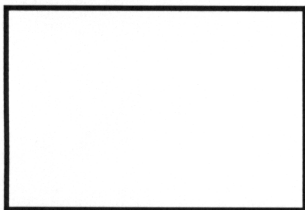
Primary Structure #



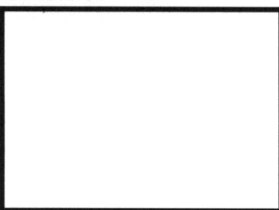
Primary Structure #



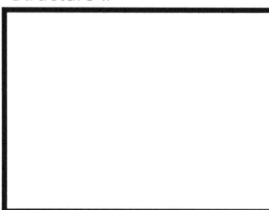
Structure #



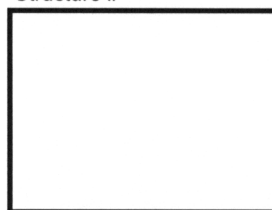
Structure #



Structure #



Structure #



Analyst: Phil Schmidt

Date: 12/02/16

Scope: 04-05

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 12/1/2016

Image Number: 2016_asbestos_395

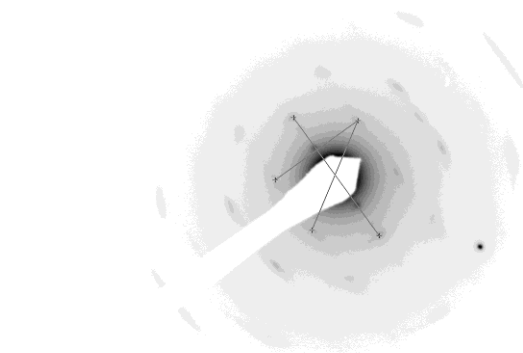
Reference/Sample Number: 0003

Preliminary ID: Chrysotile

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.21	5.313	5.05	5.58
d2 or hk0 (Camera K/zero row dist.):	7.28	7.320	6.95	7.69
d1 or hkl (Camera K/slant vector dist.):	4.46	4.580	4.35	4.81
Ratio of hk0/hkl:	1.63	1.598	1.55	1.71
Vector Angle:	58.7	60.00	57.0	63.0



2016_asbestos_395_indexed
041631393
0003
11/17/14 12/1/2016

0.2 (1/Å)
Cam Len: 0.2200 m
EMSL Cinematron

From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
Chrysotile

D. Johnson-McDaniel

X CORRECT
____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

www.EMSL.com



Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

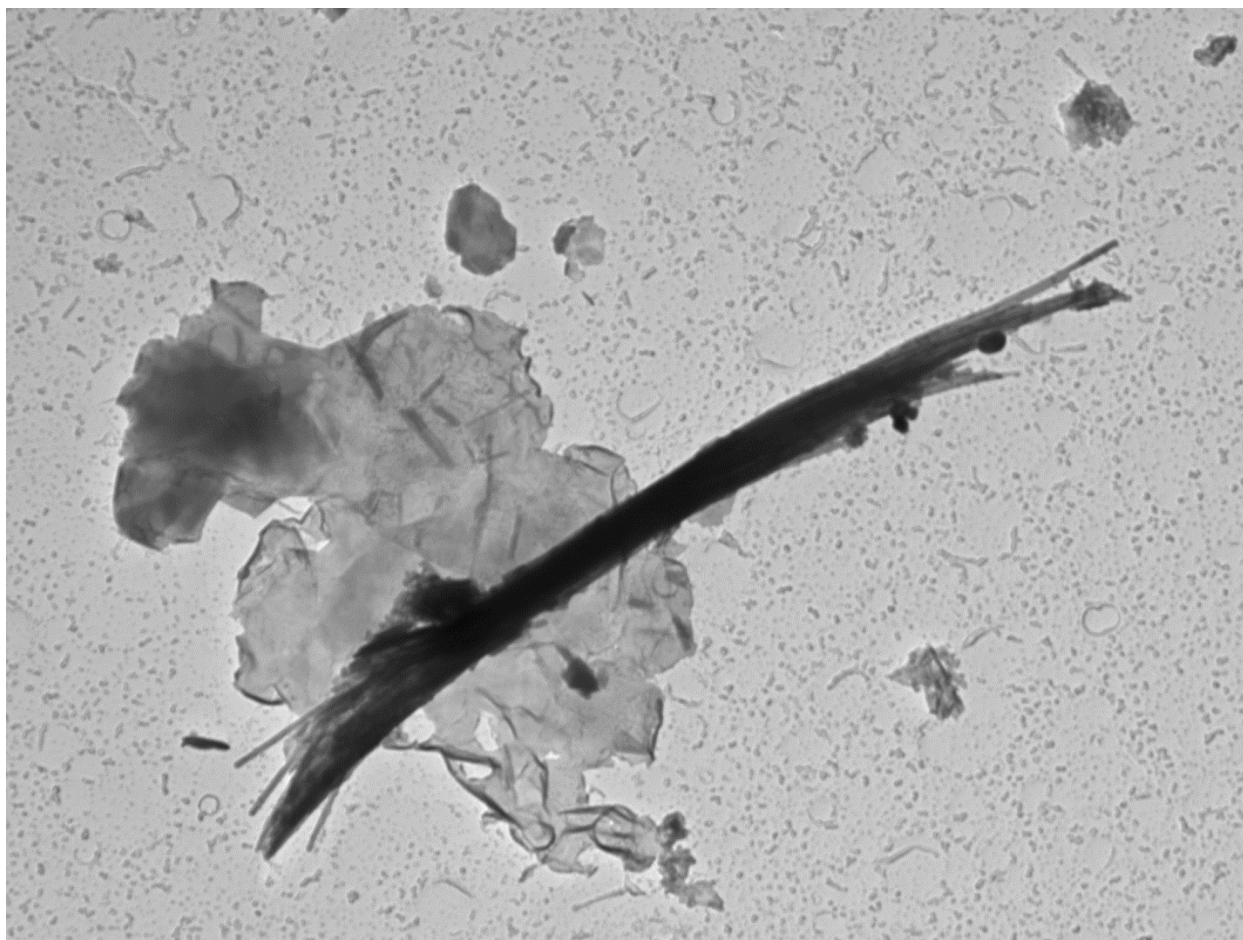
Date: 12-01-16

Reference/Sample Number: 0003

Image Number: 396

Fiber Type: Chrysotile

Magnification: 2900



2016_04-05_041631393-0003_STR_2_ASBESTOS_2016_MG_396.tif
041631393
0003
11:27:53 12/1/2016

500 nm
Direct Mag: 2900x
EMSL Cinnaminson

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 12/1/2016

Image Number: 2016_asbestos_397

Reference/Sample Number: 0003

Preliminary ID: Amosite

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.24	5.330	5.06	5.60
d2 or hk0 (Camera K/zero row dist.):	8.49	8.330	7.91	8.75
d1 or hkl (Camera K/slant vector dist.):	5.06	5.200	4.94	5.46
Ratio of hk0/hkl:	1.68	1.602	1.60	1.76
Vector Angle:	78.5	79.27	75.3	83.2



2016_asbestos_397_indexed
041631393
0003
12/1/14 12/1/2016

0.2 (t)
Cam Len: 0.2200 m
EMSL Cinnaminson

From SAED Reference Book,
pattern was found to be that of:

With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
Amosite

1 -1 0

D. Johnson-McDaniel

X CORRECT

____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

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Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

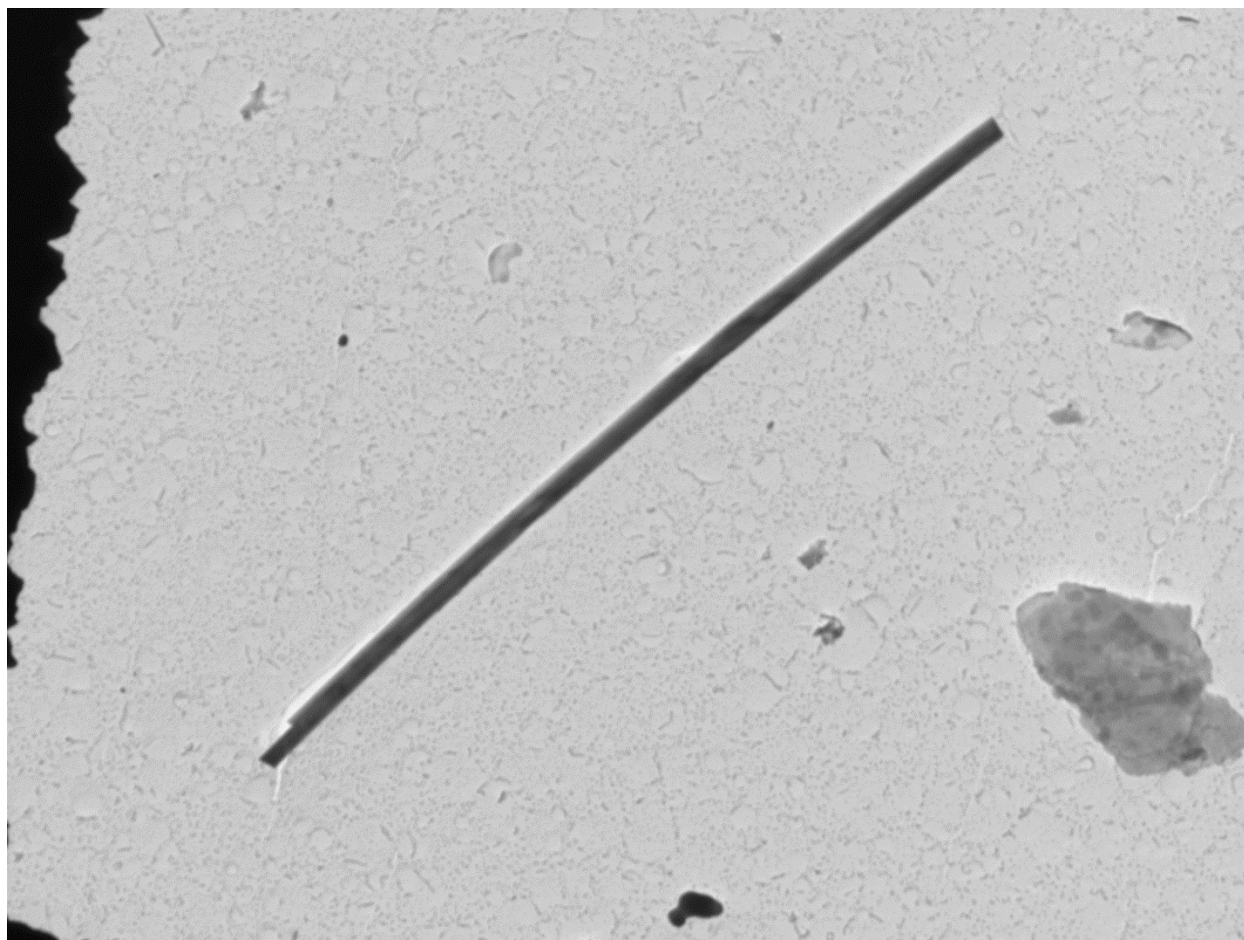
Date: 12-01-16

Reference/Sample Number: 0003

Image Number: 398

Fiber Type: Amosite

Magnification: 1400



2016_04-05_041631393-0003_STR_3_ASBESTOS_2016_MG_398.tif
12:18:38 12/1/2016

2 μ m
Direct Mag: 1400x
EMSL Cinnaminson



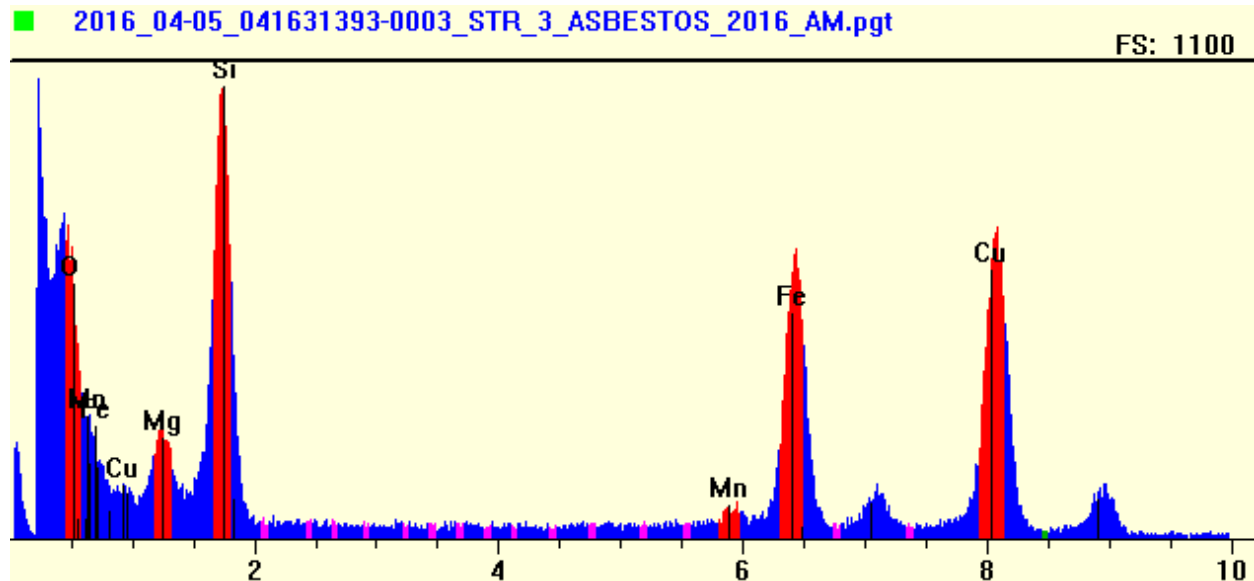
Energy Dispersive X-Ray Analysis

Quantitative Spectra & Data

EMSL ANALYTICAL, INC.

File: O:\Tetra T...S\2016_04-05_041631393-0003_STR_3_ASBESTOS_2016_AM.pgt
 Collected: December 01, 2016 09:43:27

Live Time: 586.08 Count Rate: 396 Dead Time: 40.41 %
 Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
 Estimated 0.00 Thickness 87899.88
 Density: limit:



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.1035	3.03	3.29	1.3	MgO	5.03	118.79
Si	KA1	1.740	1.0000	19.01	17.84	7.0	SiO2	40.66	33.22
Mn	KA1	5.898	2.3799	4.12	1.98	0.8	MnO	5.33	47.18
Fe	KA1	6.403	2.5546	38.08	17.97	7.0	FeO	48.99	47.18
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			78.09
O	KA1	0.523	0.0000	35.76	58.92	23.0			118.79
Total			0.0000	100.00	100.00	39.0	Total	100.00	136.90

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	10.0	4.3	0.0	5.7	1.3
Si	KA1	42.9	3.5	0.0	39.4	11.4
Mn	KA1	6.0	2.4	0.0	3.6	1.5
Fe	KA1	33.7	2.5	0.3	30.9	12.5
Cu	KA1	37.3	1.9	0.0	35.4	18.6
O	KA1	29.4	3.2	0.8	25.4	8.0

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 12/2/2016

Image Number: 2016_asbestos_401

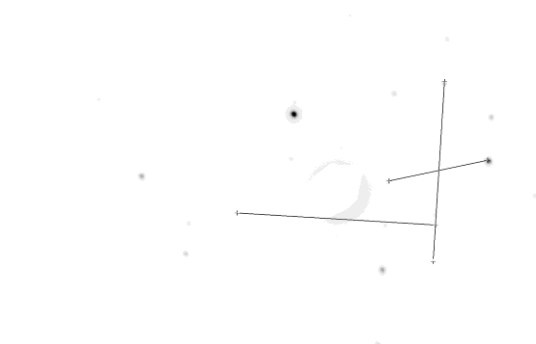
Reference/Sample Number: 0003

Preliminary ID: NAM

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.34			
d2 or hk0 (Camera K/zero row dist.):	4.42			
d1 or hkl (Camera K/slant vector dist.):	5.26			
Ratio of hk0/hkl:	0.84			
Vector Angle:	74.6			



From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

'unknown' diffraction
NAM

Indexed by:

D. Johnson-McDaniel

Preliminary Identification was:

X CORRECT
____ INCORRECT

2016_asbestos_401_indexed
041631393
0003
10/04/15 13:02:016

0.2 (1/Å)
Cam Len: 0.2200 m
EMSL, Cinnaminson

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

www.EMSL.com



Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

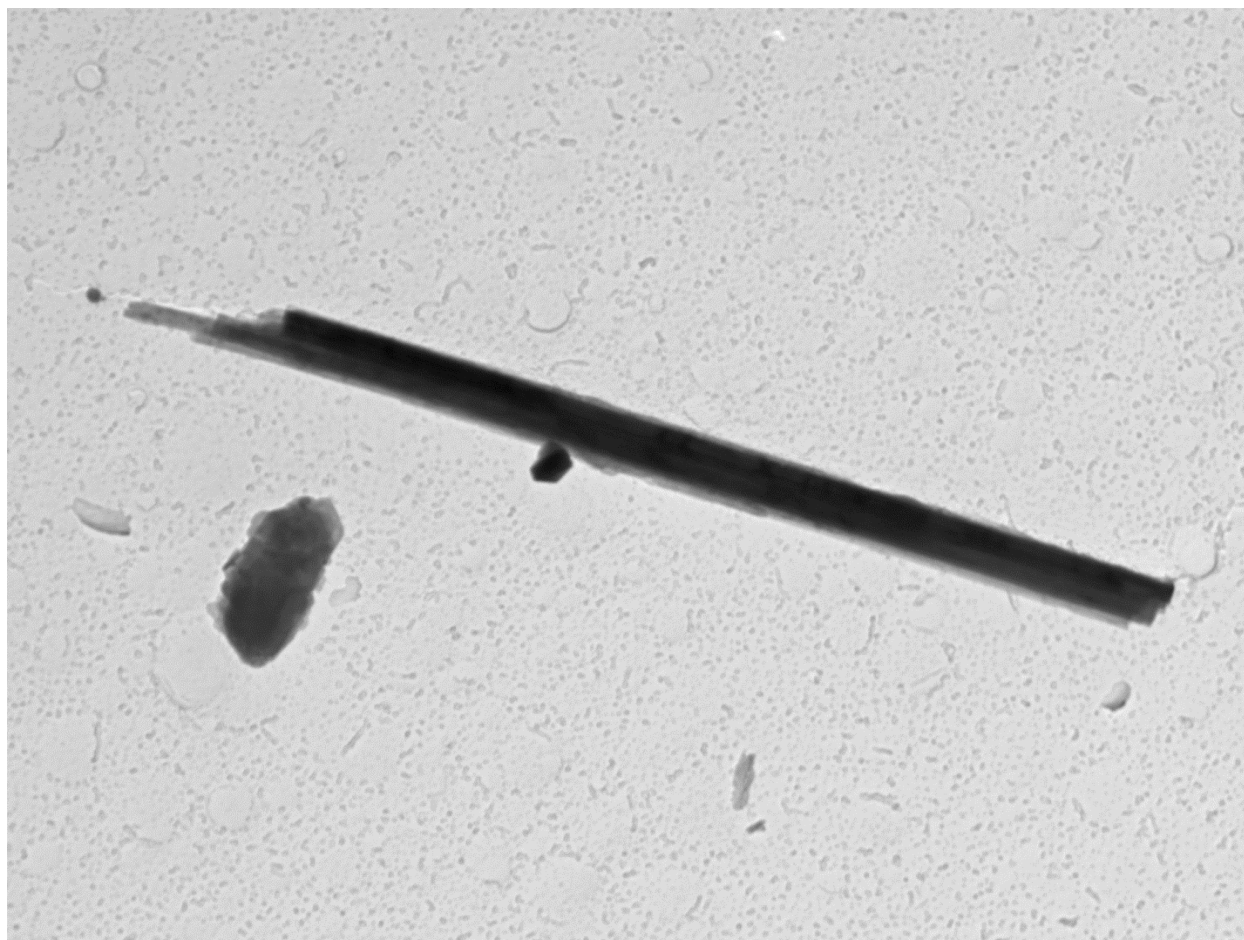
Date: 12-02-16

Reference/Sample Number: 0003

Image Number: 402

Fiber Type: NAM

Magnification: 2900



2016_04-05_041631393-0003_STR_12_ASBESTOS_2016_MG_402.tif
10:13:48 12/2/2016

500 nm
Direct Mag: 2900x
EMSL Cinnaminson



Energy Dispersive X-Ray Analysis Quantitative Spectra & Data

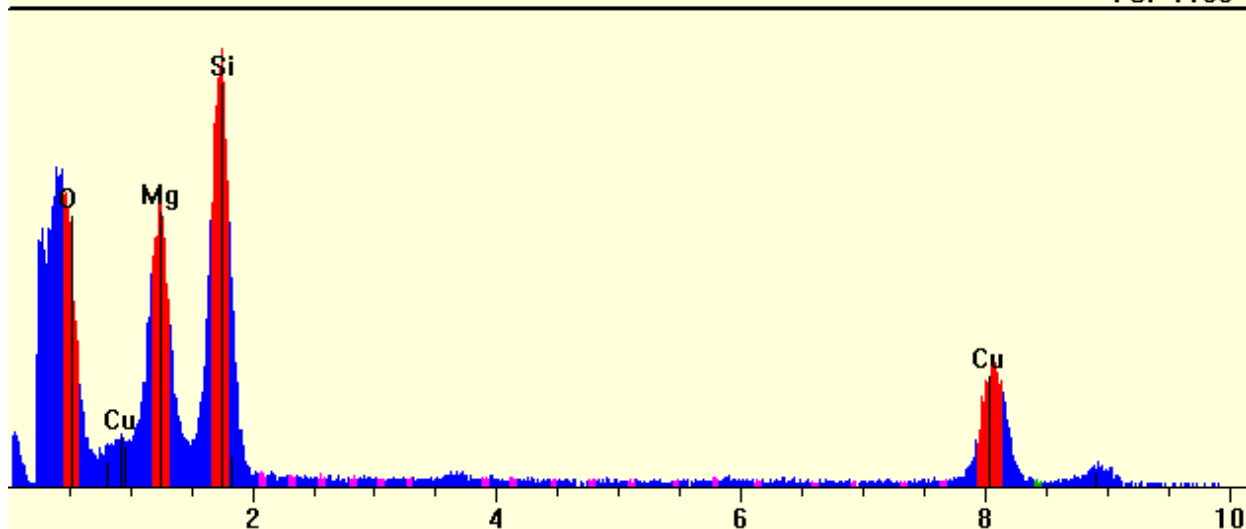
EMSL ANALYTICAL, INC.

File: O:\Tetra T...2016_04-05_041631393-0003_STR_13_ASBESTOS_2016_NAM.pgt
Collected: December 02, 2016 09:46:21

Live Time: 351.77 Count Rate: 456 Dead Time: 41.95 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
Estimated 0.00 Thickness 110781.67
Density: limit:

2016_04-05_041631393-0003_STR_13_ASBESTOS_2016_NAM.pgt

FS: 1100



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0776	19.88	16.41	6.2	MgO	32.96	30.32
Si	KA1	1.740	1.0000	31.34	22.40	8.4	SiO2	67.04	54.95
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			33.45
O	KA1	0.523	0.0000	48.78	61.20	23.0			239.00
Total			0.0000	100.00	100.00	37.6	Total	100.00	124.00

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	45.1	6.2	0.0	38.8	6.2
Si	KA1	71.0	5.0	0.0	66.0	13.3
Cu	KA1	27.6	1.4	0.0	26.2	18.4
O	KA1	45.1	3.8	0.0	41.3	10.8



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
856-303-2500

www.EMSL.com

Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/09/2016
EMSL Order: 041631393
Report Date: 11/30/2016

Project: VE Carter School

ISO 10312
International Standard for the Determination of Asbestos Fibers-Direct Transfer TEM

Customer Sample Number: 4 / VEC-AAH-BY1-110916
EMSL Sample Number: 041631393-0004
Minimum Level of analysis (chrysotile): CD
Minimum Level of analysis (amphibole): ADX
Magnification used for fiber counting: 19,000
Aspect ratio for fiber definition: 3:1
Min Length/Min Width to be counted (um): 0.5 / None
Area of collection filter (mm²): 385
Result of Chi² Test: 17.36 Random

Air volume: 1838.33 Liters
Grid Opening Area: 0.013 mm²
Grid Openings Analyzed: 18

Analysis Date: 11/27/2016 & 11/28/2016
Analyst: D. Johnson-McDaniel

Analytical Sensitivity:	0.0009	Structure/cc	Limit of Detection:	0.0027	Structure/cc
-------------------------	--------	--------------	---------------------	--------	--------------

Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm ²	Conc. (Str/cc)	Poisson 95 % Confidence Interval		
						LCL (Str/cc)		UCL (Str/cc)
Asbestos Structures (Chrys)	CD	4	5	21.37	0.0045	0.0015	-	0.0104
Asbestos Structures (Amph)	ADX	96	109	465.81	0.0976	0.0801	-	0.1177
Total Asbestos Structures	CD/ADX	100	114	487.18	0.1020	0.0842	-	0.1226

Supplemental Structure Size Concentrations

Asbestos Structure >5 um (Chrys)	CD	4	-	17.09	0.0036	0.0010	-	0.0092
Asbestos Structure >5 um (Amph)	ADX	95	-	405.98	0.0850	0.0688	-	0.1039
Total Asbestos Structures >5 um	CD/ADX	99	-	423.08	0.0886	0.0720	-	0.1079

Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	5	21.37	0.0045	0.0015	-	0.0104
Asbestos Fibers, Bundles >5 um (Amph)	ADX	-	108	461.54	0.0967	0.0793	-	0.1167
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	113	482.91	0.1011	0.0833	-	0.1216

PCMe Structures (Chrys)	CD	0	-	< 12.78	< 0.0027	0.0000	-	0.0027
PCMe Structures (Amph)	ADX	1	-	< 12.78	< 0.0027	0.0000	-	0.0042
Total PCMe Structures	CD/ADX	1	-	< 12.78	< 0.0027	0.0000	-	0.0042

PCMe Fibers and Bundles (Chrys)	CD	-	2	< 12.78	< 0.0027	0.0000	-	0.0056
PCMe Fibers and Bundles (Amph)	ADX	-	101	431.62	0.0904	0.0736	-	0.1098
Total PCMe Fibers and Bundles	CD/ADX	-	103	440.17	0.0922	0.0752	-	0.1118

Non Asbestos Structures	NAM	1	1	-	-	-	-	-
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Asbestos Types Present: Chrysotile, Amosite, Anthophyllite

Comment: Sample collected on 0.8 um filter.

Robert Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0004	GO area (mm ²):	0.013	Mag.	19,000
Customer Sample:	4 / VEC-AAH-BY1-110916	Grid Box :	0416 Tetra Tech 03: I:5-8	Analyst(s):	D. Johnson-McDaniel
Chi ² Test for Uniformity:	17.36-Random	Pore Size (micron):	0.8	Analysis Date:	11/27/2016 & 11/28/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
I5	A7	MD11	1		6.94	2.55	ADX	Amosite		
I5	A7	MF		1	6.94	0.22	ADX	Amosite	383384	
I5	A7	F	2	2	5	0.54	ADX	Amosite		
I5	A7	MD22	3		14.82	13.89	ADX	Amosite		
I5	A7	MF		3	13.89	0.47	ADX	Amosite		
I5	A7	MF		4	9.95	0.25	ADX	Amosite		
I5	A3	F	4	5	16.21	1.03	ADX	Amosite		
I5	A3	MD11	5		56.02	9.26	ADX	Amosite		
I5	A3	MF		6	56.02	1.62	ADX	Amosite		
I5	A3	F	6	7	45.37	0.38	ADX	Amosite		
I5	B6	MD11	7		44.26	9.26	ADX	Amosite		
I5	B6	MF		8	44.26	0.38	ADX	Amosite		
I5	B6	MD11	8		43.98	5.78	ADX	Amosite		
I5	B6	MF		9	43.98	0.51	ADX	Amosite		
I5	B6	MD11	9		55.56	16.21	ADX	Amosite		
I5	B6	MF		10	48.61	0.71	ADX	Amosite		
I5	B6	F	10	11	12.26	0.56	ADX	Amosite		
I5	B6	F	11	12	11.57	0.71	ADX	Amosite		
I5	B6	MD22	12		18.98	18.52	ADX	Amosite		
I5	B6	MF		13	18.98	0.47	ADX	Amosite		
I5	B6	MR		14	8.1	0.47	ADX	Amosite		
I5	B6	F	13	15	34.73	0.56	ADX	Amosite		
I5	B6	F	14	16	6.71	0.25	ADX	Amosite		
I5	B6	F	15	17	9.95	0.48	ADX	Amosite		
I5	B8	MD11	16		28.93	8.1	CD	Chrysotile		
I5	B8	MB		18	28.93	1.16	CD	Chrysotile	385386	
I5	B8	MD11	17		23.15	15.05	ADX	Amosite		
I5	B8	MF		19	23.15	0.35	ADX	Amosite		
I5	B8	MD33	18		35.88	6.25	ADX	Amosite		
I5	B8	MF		20	35.88	0.35	ADX	Amosite		
I5	B8	MF		21	12.04	0.25	ADX	Amosite		
I5	B8	MF		22	9.26	0.25	ADX	Amosite		
I5	B8	F	19	23	14.35	0.52	ADX	Anthophyllite		
I5	B8	F	20	24	5.79	0.47	ADX	Amosite		
I5	C3	MD11	21		11.57	8.33	ADX	Anthophyllite		
I5	C3	MF		25	11.57	0.56	ADX	Amosite		
I5	C3	MD11	22		25.47	7.41	ADX	Anthophyllite		
I5	C3	MF		26	25.57	0.52	ADX	Amosite		
I5	C3	MD22	23		23.84	13.89	ADX	Anthophyllite		
I5	C3	MF		27	10.88	0.35	ADX	Amosite		
I5	C3	MR		28	9.26	1.85	ADX	Anthophyllite		
I5	C3	MD11	24		37.73	13.89	ADX	Amosite		
I5	C3	MF		29	37.73	0.47	ADX	Anthophyllite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0004	GO area (mm²):	0.013	Mag.	19,000
Customer Sample:	4 / VEC-AAH-BY1-110916	Grid Box :	0416 Tetra Tech 03: I:5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	17.36-Random	Pore Size (micron):	0.8	Analysis Date:	11/27/2016 & 11/28/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
I5	C3	MD11	25		13.89	12.27	ADX	Amosite		
I5	C3	MF		30	12.27	0.47	ADX	Anthophyllite		
I5	C3	F	26	31	14.24	0.35	ADX	Amosite		
I5	D8	F	27	32	37.04	1.2	ADX	Anthophyllite		
I5	D8	MC11	28	33	19.21	10.42	CD	Chrysotile		
I5	D8	MD22	29		13.89	10.42	ADX	Amosite		
I5	D8	MF		34	10.42	0.47	ADX	Amosite		
I5	D8	MF		35	9.03	0.59	ADX	Amosite		
I5	D8	F	0	0	7.18	0.56	ADX	Amosite		XCGBTP
I5	D8	MD11	30		18.52	13.89	ADX	Amosite		
I5	D8	MB		36	13.89	1.16	ADX	Amosite		
I5	D8	F	31	37	11.58	0.35	ADX	Amosite		
I5	D8	MD11	32		8.1	2.32	ADX	Amosite		
I5	D8	MF		38	8.1	0.38	ADX	Amosite		
I5	D8	MC11	33	39	11.57	4.63	CD	Chrysotile		
I5	D8	F	34	40	19.45	0.35	ADX	Amosite		
I5	G1	F	35	41	11.8	0.71	ADX	Amosite		
I5	G1	F	36	42	8.33	0.71	ADX	Amosite		
I5	G1	F	0	0	8.1	0.47	ADX	Amosite		
I5	G1	MC11	37	43	10.42	8.33	CD	Chrysotile		
I5	G1	F	38	44	5.32	0.43	ADX	Amosite		
I5	G1	MD11	39		16.21	5.09	ADX	Amosite		
I5	G1	MF		45	16.21	0.83	ADX	Amosite		
I5	G1	MD11	40		10.42	4.86	ADX	Amosite		
I5	G1	MF		46	10.42	0.47	ADX	Amosite		
I5	G1	F	41	47	5.79	0.72	ADX	Amosite		
I5	G1	B	42	48	45.14	1.16	ADX	Amosite		
I5	G1	F	43	48	6.02	0.71	ADX	Amosite		
I5	G1	F	44	49	8.1	0.35	ADX	Amosite		
I5	J6	F	45	50	7.17	0.47	ADX	Amosite		
I6	I7	MD11	0		12.03	5.79	ADX	Amosite		
I6	I7	MF		0	12.03	0.25	ADX	Amosite		XCGBLD
I6	I7	MD11	46		37.04	11.57	ADX	Amosite		
I6	I7	MF		51	37.04	0.71	ADX	Amosite		
I6	I7	MD22	47		32.41	16.2	ADX	Amosite		
I6	I7	MF		52	30.1	0.75	ADX	Amosite		
I6	I7	MF		53	13.89	1.18	ADX	Amosite		
I6	I7	MD11	48		16.21	8.1	ADX	Amosite		
I6	I7	MF		54	16.21	0.35	ADX	Amosite		
I6	I7	MD11	49		19	11.5	ADX	Amosite		
I6	I7	MF		55	19	0.35	ADX	Amosite		
I6	I7	F	50	56	13.15	0.25	ADX	Amosite		
I6	H2	F	51	57	10.42	0.35	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0004	GO area (mm²):	0.013	Mag.	19,000
Customer Sample:	4 / VEC-AAH-BY1-110916	Grid Box :	0416 Tetra Tech 03: I:5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	17.36-Random	Pore Size (micron):	0.8	Analysis Date:	11/27/2016 & 11/28/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
I6	H2	F	0	0	7.64	1.62	ADX	Amosite		XCGBTP
I6	H2	MD11	52		15.05	10.42	ADX	Amosite		
I6	H2	MF		58	15.05	0.35	ADX	Amosite		
I6	H2	F	53	59	9.26	0.47	ADX	Amosite		
I6	H2	MD22	54		32.41	20.84	ADX	Amosite		
I6	H2	MF		60	32.41	0.71	ADX	Amosite		
I6	H2	MF		61	13.94	0.35	ADX	Amosite		
I6	G7	MD11	55		13.89	9.26	ADX	Amosite		
I6	G7	MF		62	13.89	0.89	ADX	Amosite		
I6	G7	F	56	63	17.36	0.99	ADX	Amosite		
I6	G7	MC11	57	64	23.15	11.85	ADX	Amosite		
I6	F8	F	58	65	9.26	0.38	ADX	Amosite		
I6	F8	F	59	66	50.46	0.75	ADX	Amosite		
I6	F8	F	60	67	8.1	0.47	ADX	Amosite		
I6	F8	F	61	68	11.58	1.06	ADX	Amosite		
I6	F8	F	62	69	5.57	0.56	ADX	Amosite		
I6	F8	MD11	63		34.73	13.89	ADX	Amosite		
I6	F8	MF		70	34.73	0.47	ADX	Amosite		
I6	F8	CD33	64		41.67	27.78	ADX	Amosite		
I6	F8	CF		0	41.67	1.18	ADX	Amosite		XCDBTP
I6	F8	CF		71	27.78	0.92	ADX	Amosite		
I6	F8	CF		0	11.58	0.71	ADX	Amosite		XCGBTP
I6	E1	MD11	65		18.98	15.05	ADX	Amosite		
I6	E1	MF		72	15.05	0.71	ADX	Amosite		
I6	E1	F	66	73	6.53	0.35	ADX	Amosite		
I6	E1	F	67	74	12.73	1.76	ADX	Amosite		
I6	E1	MD11	68		26.85	9.26	ADX	Amosite		
I6	E1	MF		75	26.85	0.54	ADX	Amosite		
I6	E1	F	69	76	12.04	0.47	ADX	Amosite		
I6	D4	MD10	0		18.52	11.58	ADX	Amosite		
I6	D4	MF		0	18.52	0.75	ADX	Amosite		XCGBLD
I6	D4	MD11	0		106	20.61	ADX	Amosite		
I6	D4	MF		0	106	0.47	ADX	Amosite		XCGBLD
I6	D4	MD11	70		11.58	3.94	ADX	Amosite		
I6	D4	MF		77	11.58	0.47	ADX	Amosite		
I6	D4	MD11	71		5.79	3.47	ADX	Amosite		
I6	D4	MF		78	5.79	0.35	ADX	Amosite		
I6	D4	MD22	72		19.68	12.73	ADX	Amosite		
I6	D4	MF		79	17.36	0.47	ADX	Amosite		
I6	D4	MF		80	12.73	0.29	ADX	Amosite		
I6	D4	MD22	73		39.36	18.52	ADX	Amosite		
I6	D4	MF		81	32.41	0.35	ADX	Amosite		
I6	D4	MF		82	6.95	0.47	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0004	GO area (mm²):	0.013	Mag.	19,000
Customer Sample:	4 / VEC-AAH-BY1-110916	Grid Box :	0416 Tetra Tech 03: I:5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	17.36-Random	Pore Size (micron):	0.8	Analysis Date:	11/27/2016 & 11/28/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
I6	D4	F	74	83	5.65	1.03	NAM	Non Asb. Mineral	387388	
I6	C5	MD11	75		27.78	16.21	ADX	Amosite		
I6	C5	MF		84	16.21	0.25	ADX	Amosite		
I6	C5	F	76	85	12.5	0.92	ADX	Amosite		
I6	C5	F	77	86	31.72	1.16	ADX	Amosite		
I6	C5	F	78	87	6.71	0.56	ADX	Amosite		
I6	C5	MC11	79	88	8.8	5.79	ADX	Amosite		
I6	C5	F	80	89	23.15	0.56	ADX	Amosite		
I6	C5	F	81	90	32.41	0.85	ADX	Amosite		
I6	C5	F	82	91	13.43	0.35	ADX	Amosite		
I6	B8	F	83	92	11.34	0.47	ADX	Amosite		
I6	B8	MD11	84		5.32	4.17	ADX	Amosite		
I6	B8	MF		93	5.32	0.51	ADX	Amosite		
I6	B8	F	85	94	30.09	1.02	ADX	Amosite		
I6	B8	MD22	86		19.67	9.26	ADX	Amosite		
I6	B8	MF		95	19.67	0.54	ADX	Amosite		
I6	B8	MF		96	13.19	0.33	ADX	Amosite		
I6	B8	MD33	87		32.41	20.84	ADX	Amosite		
I6	B8	MF		97	32.41	0.92	ADX	Amosite		
I6	B8	MF		98	14.82	0.71	ADX	Amosite		
I6	B8	MB		99	5.32	1.16	CD	Chrysotile		
I6	B8	CD22	88		16.21	13.89	ADX	Amosite		
I6	B8	CF		100	16.21	0.47	ADX	Amosite		
I6	B8	CF		101	13.89	0.71	ADX	Amosite		
I6	B8	F	89	102	14.85	0.47	ADX	Amosite		
I6	A5	F	0	0	23.38	2.32	ADX	Amosite		XCGBLD
I6	A5	MC11	90	103	16.9	11.58	ADX	Amosite		
I6	A5	F	91	104	10.42	0.75	ADX	Amosite		
I6	A5	F	0	0	16.21	0.59	ADX	Amosite		
I6	A5	MC11	92	105	13.89	8.1	ADX	Amosite		
I6	A5	F	93	106	9.49	0.48	ADX	Amosite		
I6	A5	F	94	107	5.32	0.47	ADX	Amosite		
I6	A5	F	95	108	16.44	0.49	ADX	Amosite		
I6	A5	F	96	109	9.72	0.28	ADX	Amosite		
I7	G4	MD11	97		13.89	4.63	ADX	Amosite		
I7	G4	MF		110	13.89	0.47	ADX	Amosite		
I7	G4	F	98	111	5.32	0.35	ADX	Amosite		
I7	G4	MC11	99	112	11.81	8.1	ADX	Amosite		
I7	G4	F	100	113	27.78	0.89	ADX	Amosite		
I7	G4	F	101	114	20.84	0.29	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

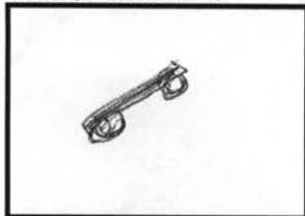
EMSL Order ID: 041631393-0004

Client: Tetra Tech

Client Sample: 4 / VEC-AAH-BY1-110916

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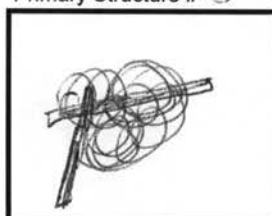
Primary Structure # 1



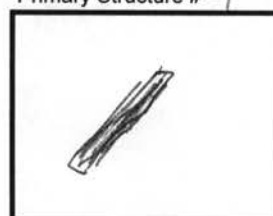
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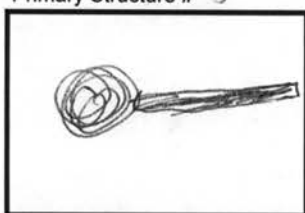
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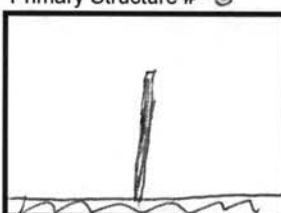
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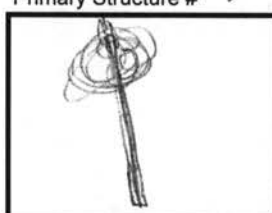
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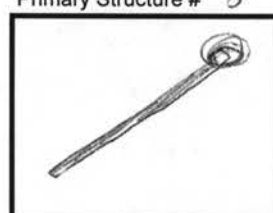
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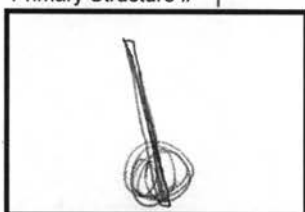
Primary Structure # 7



Primary Structure # 8



Primary Structure # 9



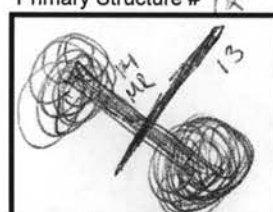
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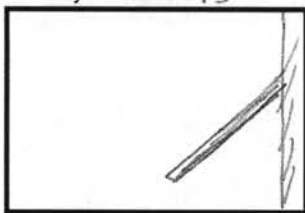
Primary Structure # 11



Primary Structure # 12



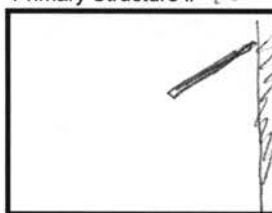
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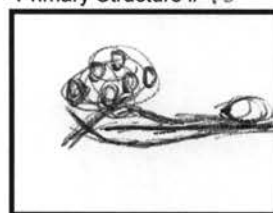
Primary Structure # 14



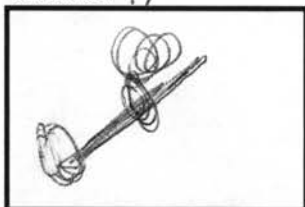
Primary Structure # 15



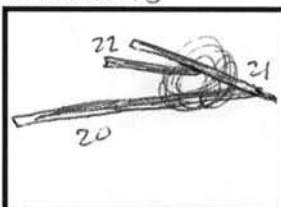
Primary Structure # 16



Structure # 17



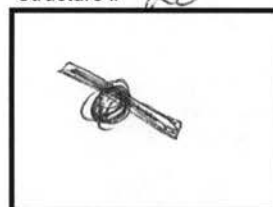
Structure # 18



Structure # 19



Structure # 20



Analyst: Ruth Spahr

Date: 4/27/16

Scope: 01-05

200 Route 130 North Cinnaminson, NJ 08077

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International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

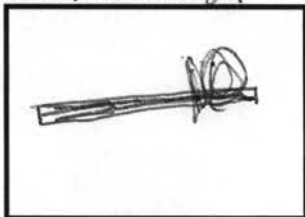
EMSL Order ID: 041631393-0004

Client: Tetra Tech

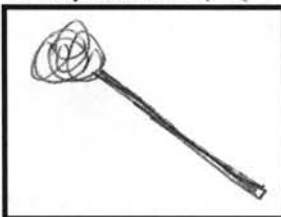
Client Sample: 4 / VEC-AAH-BY1-110916

Page 2 of 6

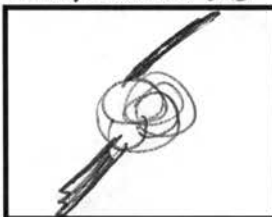
Primary Structure # 21



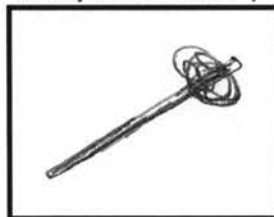
Primary Structure # 22



Primary Structure # 23



Primary Structure # 24



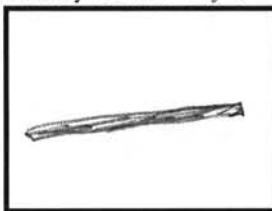
Primary Structure # 25



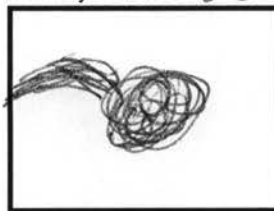
Primary Structure # 26



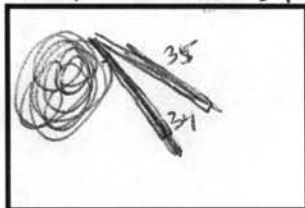
Primary Structure # 27



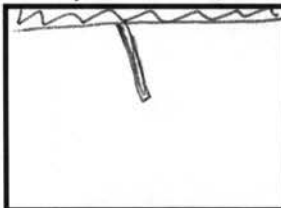
Primary Structure # 28



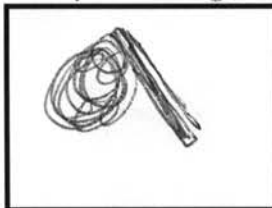
Primary Structure # 30 29



Primary Structure # 30



Primary Structure # 30



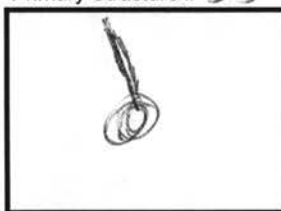
Primary Structure # 31



Primary Structure # 32



Primary Structure # 33



Primary Structure # 34



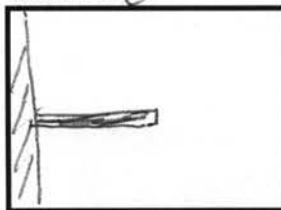
Primary Structure # 35



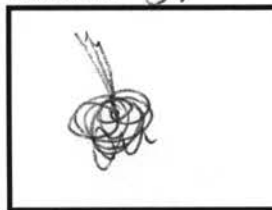
Structure # 36



Structure # 37



Structure # 37



Structure # 38



Analyst: Paula S. McNeil

Date: 4/27/16

Scope: 04-05



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0004

Client: Tetra Tech

Client Sample: 4 / VEC-AAH-BY1-110916

Page 3 of 6

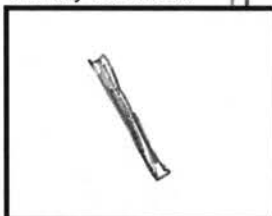
Primary Structure # 39



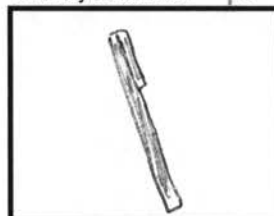
Primary Structure # 40



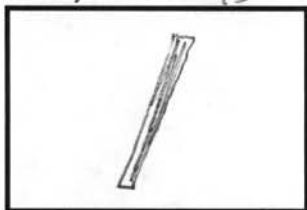
Primary Structure # 41



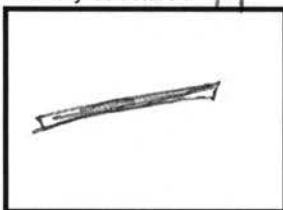
Primary Structure # 42



Primary Structure # 43



Primary Structure # 44



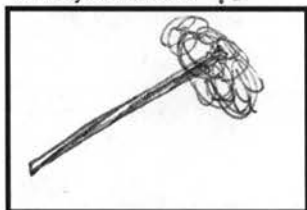
Primary Structure # 45



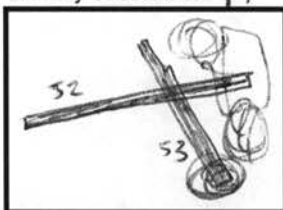
Primary Structure # 0



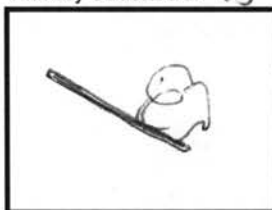
Primary Structure # 46



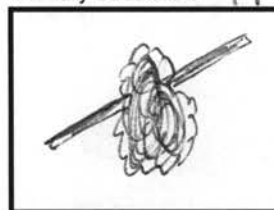
Primary Structure # 47



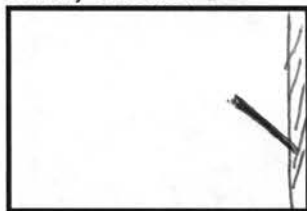
Primary Structure # 48



Primary Structure # 49



Primary Structure # 50



Primary Structure # 51



Primary Structure # 0



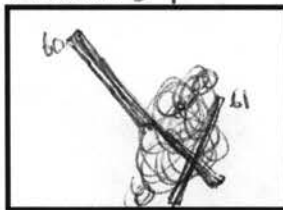
Primary Structure # 52



Structure # 53



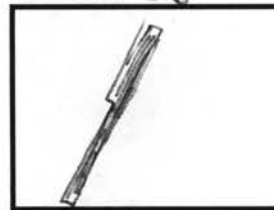
Structure # 54



Structure # 55



Structure # 56



Analyst: Paul John Michael

Date: 11/28/11

Scope: 04-05

200 Route 130 North Cinnaminson, NJ 08077

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ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

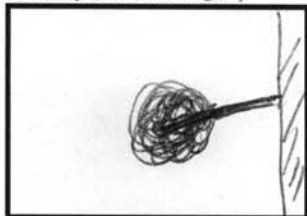
EMSL Order ID: 041631393-0004

Client: Tetra Tech

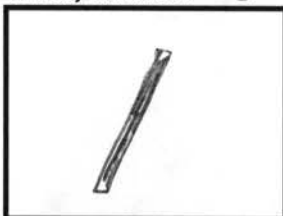
Client Sample: 4 / VEC-AAH-BY1-110916

Page 4 of 6

Primary Structure # 57



Primary Structure # 58



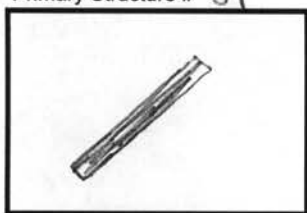
Primary Structure # 59



Primary Structure # 60



Primary Structure # 61



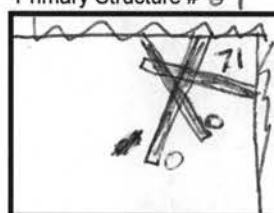
Primary Structure # 62



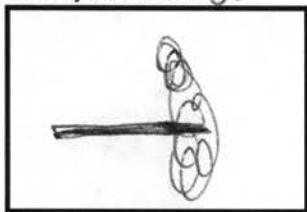
Primary Structure # 63



Primary Structure # 64



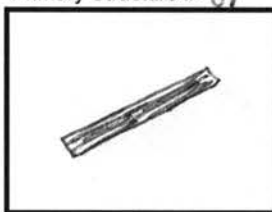
Primary Structure # 65



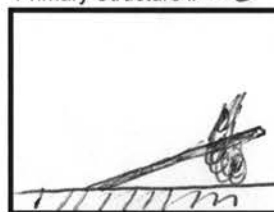
Primary Structure # 66



Primary Structure # 67



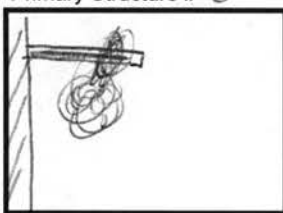
Primary Structure # 68



Primary Structure # 69



Primary Structure # 70



Primary Structure # 71



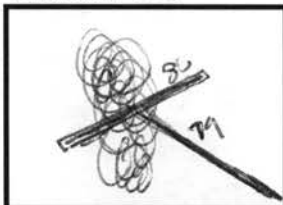
Primary Structure # 72



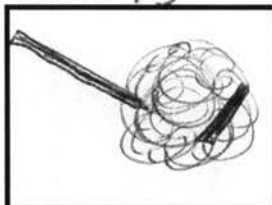
Structure # 71



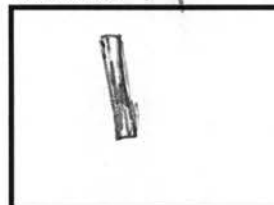
Structure # 72



Structure # 73



Structure # 74



Analyst: Derek John McDaniel

Date: 11/28/16

Scope: 04-05



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

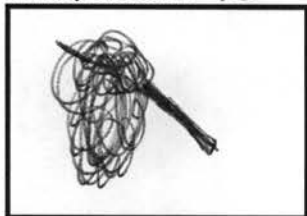
EMSL Order ID: 041631393-0004

Client: Tetra Tech

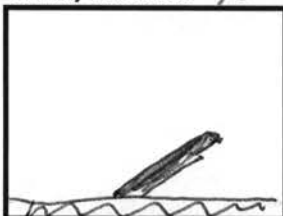
Client Sample: 4 / VEC-AAH-BY1-110916

Page 5 of 6

Primary Structure # 75



Primary Structure # 76



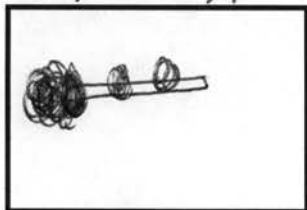
Primary Structure # 77



Primary Structure # 78



Primary Structure # 79



Primary Structure # 80



Primary Structure # 81



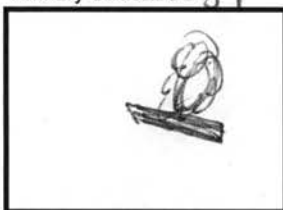
Primary Structure # 82



Primary Structure # 83



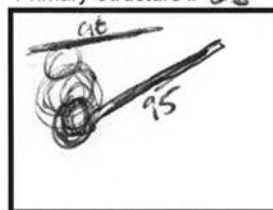
Primary Structure # 84



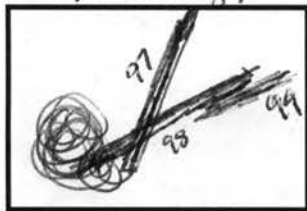
Primary Structure # 85



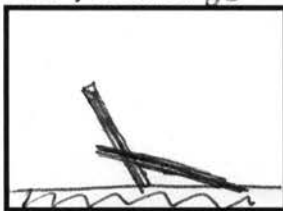
Primary Structure # 86



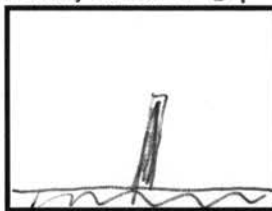
Primary Structure # 87



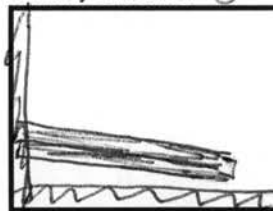
Primary Structure # 88



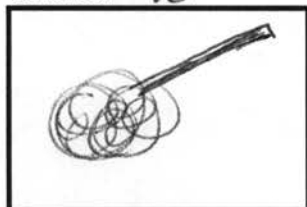
Primary Structure # 89



Primary Structure # 90



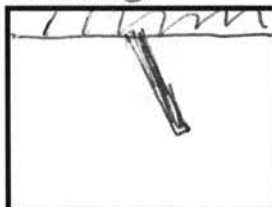
Structure # 90



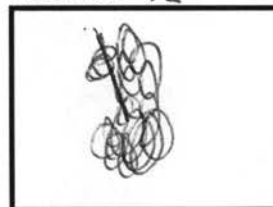
Structure # 91



Structure # 92



Structure # 92



Analyst: Ruth John McNeil

Date: 4/23/16

Scope: 04-05



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0004

Client: Tetra Tech

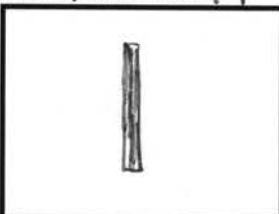
Client Sample: 4 / VEC-AAH-BY1-110916

Page 6 of 6

Primary Structure # 93



Primary Structure # 94



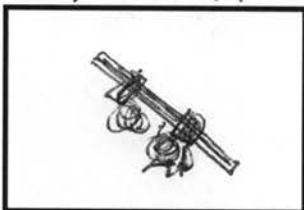
Primary Structure # 95



Primary Structure # 96



Primary Structure # 97



Primary Structure # 98



Primary Structure # 99



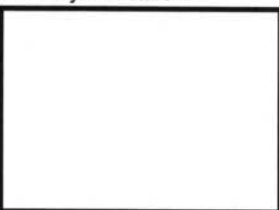
Primary Structure # 100



Primary Structure # 101



Primary Structure #



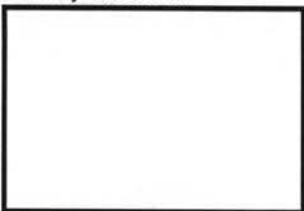
Primary Structure #



Primary Structure #



Primary Structure #



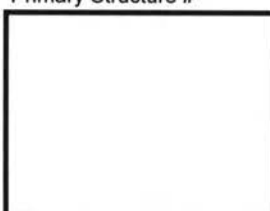
Primary Structure #



Primary Structure #



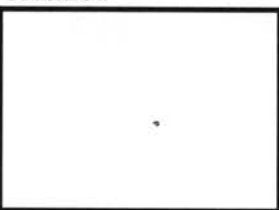
Primary Structure #



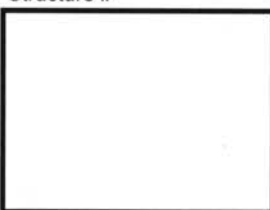
Structure #



Structure #



Structure #



Structure #



Analyst: Paul John McNeil

Date: 11/28/16

Scope: 04-05

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/27/2016

Image Number: 2016_asbestos_383

Reference/Sample Number: 0004

Preliminary ID: Amosite

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.11	5.330	5.06	5.60
d2 or hk0 (Camera K/zero row dist.):	8.61	8.330	7.91	8.75
d1 or hkl (Camera K/slant vector dist.):	5.01	4.840	4.60	5.08
Ratio of hk0/hkl:	1.72	1.721	1.63	1.81
Vector Angle:	78.3	80.46	76.4	84.5



From SAED Reference Book,
pattern was found to be that of:

With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
Amosite

1 -1 2

D. Johnson-McDaniel

X CORRECT

____ INCORRECT

2016_asbestos_383_indexed
041631393
0004
09-41:22 11/27/2016

0.2 (1/Å)
Cam Len: 0.2200 m
EMSL Cinematron

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

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Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

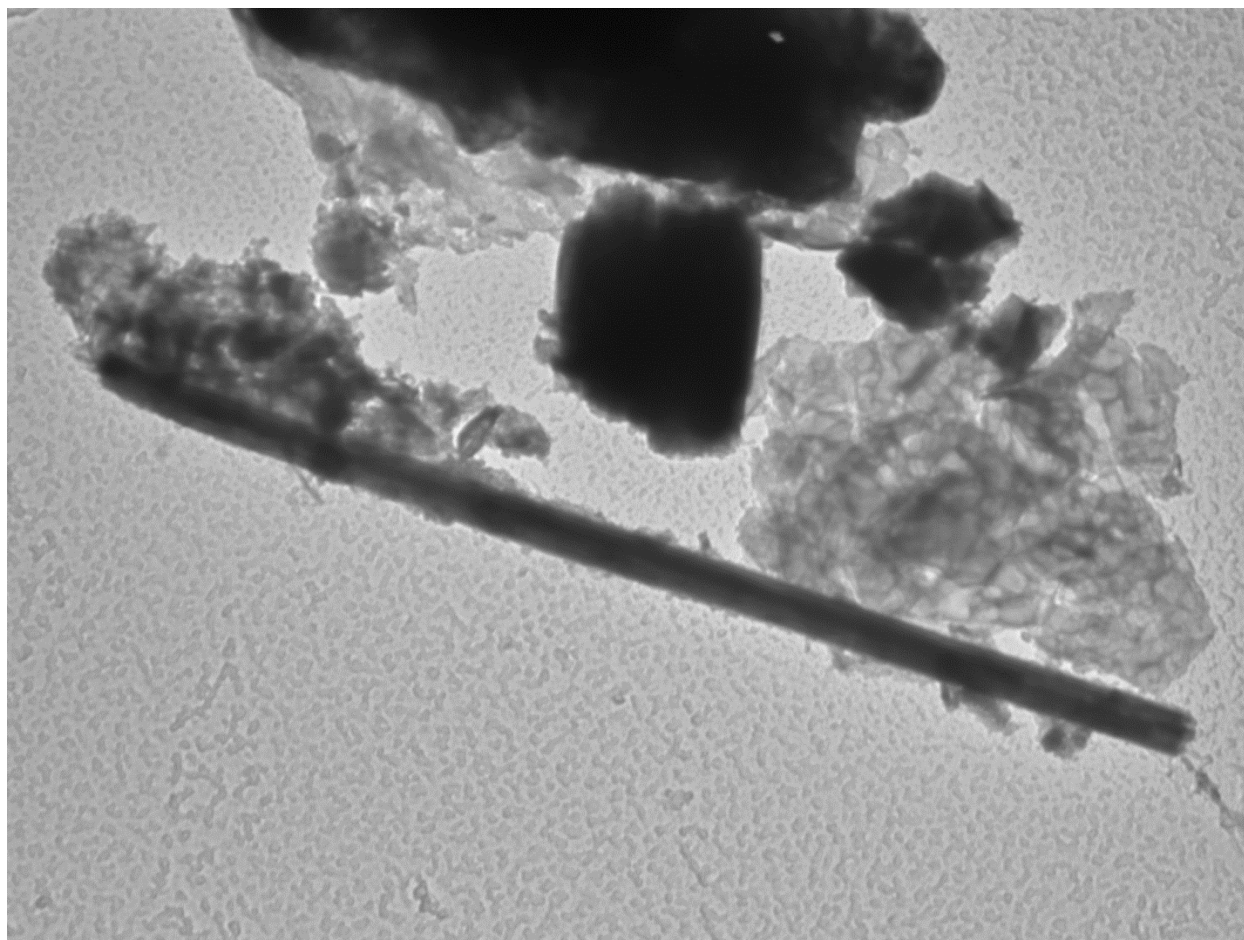
Date: 11/27/16

Reference/Sample Number: 0004

Image Number: 384

Fiber Type: Amosite

Magnification: 3600



2016_04-05_041631393-0004_STR_1_ASBESTOS_2016_MG_384.tif
09:59:48 11/27/2016

500 nm
Direct Mag: 3600x
EMSL Cinnaminson



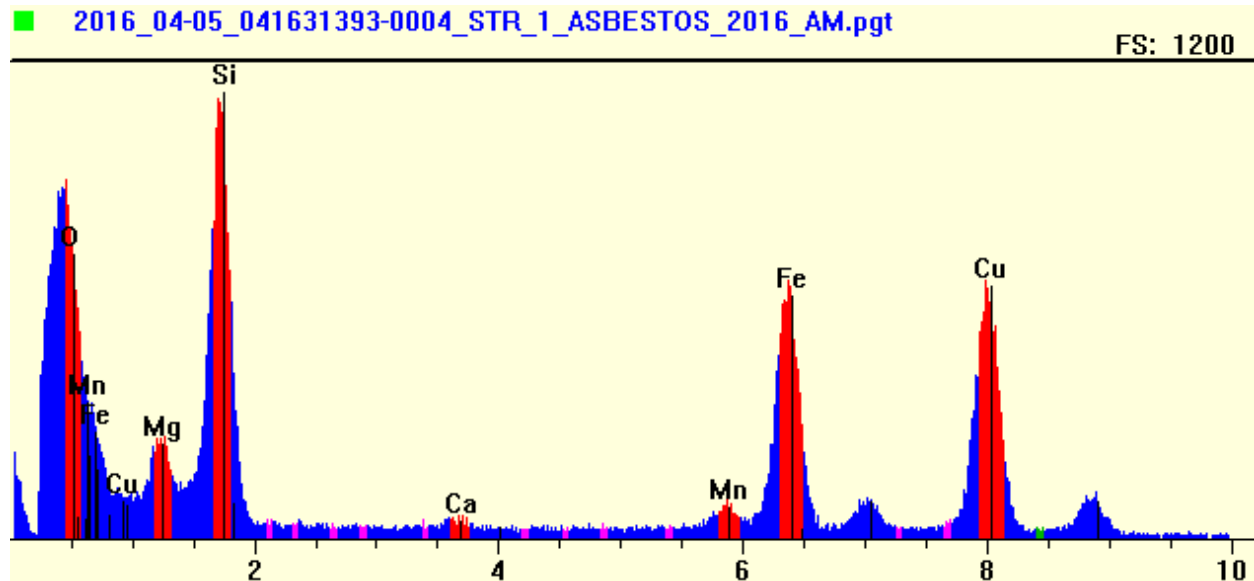
Energy Dispersive X-Ray Analysis

Quantitative Spectra & Data

EMSL ANALYTICAL, INC.

File: O:\Tetra T...S\2016_04-05_041631393-0004_STR_1_ASBESTOS_2016_AM.pgt
Collected: November 27, 2016 09:43:23

Live Time: 370.48 Count Rate: 642 Dead Time: 43.21 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
Estimated 0.00 Thickness 86264.81
Density: limit:



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0623	3.00	3.23	1.3	MgO	4.97	97.83
Si	KA1	1.740	1.0000	19.58	18.23	7.1	SiO2	41.88	57.50
Ca	KA1	3.691	1.6034	0.38	0.25	0.1	CaO	0.53	2.98
Mn	KA1	5.898	2.4163	3.28	1.56	0.6	MnO	4.23	20.47
Fe	KA1	6.403	2.5996	37.61	17.62	6.9	FeO	48.39	20.47
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			25.09
O	KA1	0.523	0.0000	36.16	59.12	23.0			97.83
Total			0.0000	100.00	100.00	38.9	Total	100.00	54.35

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	16.0	5.9	0.0	10.2	1.7
Si	KA1	75.7	5.2	0.0	70.5	13.7
Ca	KA1	3.5	2.7	0.0	0.9	0.3
Mn	KA1	8.1	3.2	0.0	4.9	1.5
Fe	KA1	55.9	3.4	0.4	52.1	15.5
Cu	KA1	58.4	2.7	0.0	55.8	21.0
O	KA1	53.7	3.6	2.0	48.1	13.3

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/27/2016

Image Number: 2016_asbestos_385

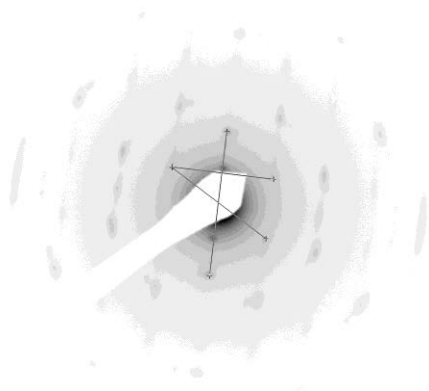
Reference/Sample Number: 0004

Preliminary ID: Chrysotile

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.20	5.313	5.05	5.58
d2 or hk0 (Camera K/zero row dist.):	7.30	7.320	6.95	7.69
d1 or hkl (Camera K/slant vector dist.):	4.51	4.580	4.35	4.81
Ratio of hk0/hkl:	1.62	1.598	1.54	1.70
Vector Angle:	59.7	60.00	57.0	63.0



From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

'unknown' diffraction
Chrysotile

Indexed by:

D. Johnson-McDaniel

Preliminary Identification was:

X CORRECT
____ INCORRECT

2016_asbestos_385_indexed
041631393
0004
11/27/2016 11:27:03

0.2 (1/)
Cam Len: 0.2200 in
EMSL Cincinnati

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

www.EMSL.com



Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

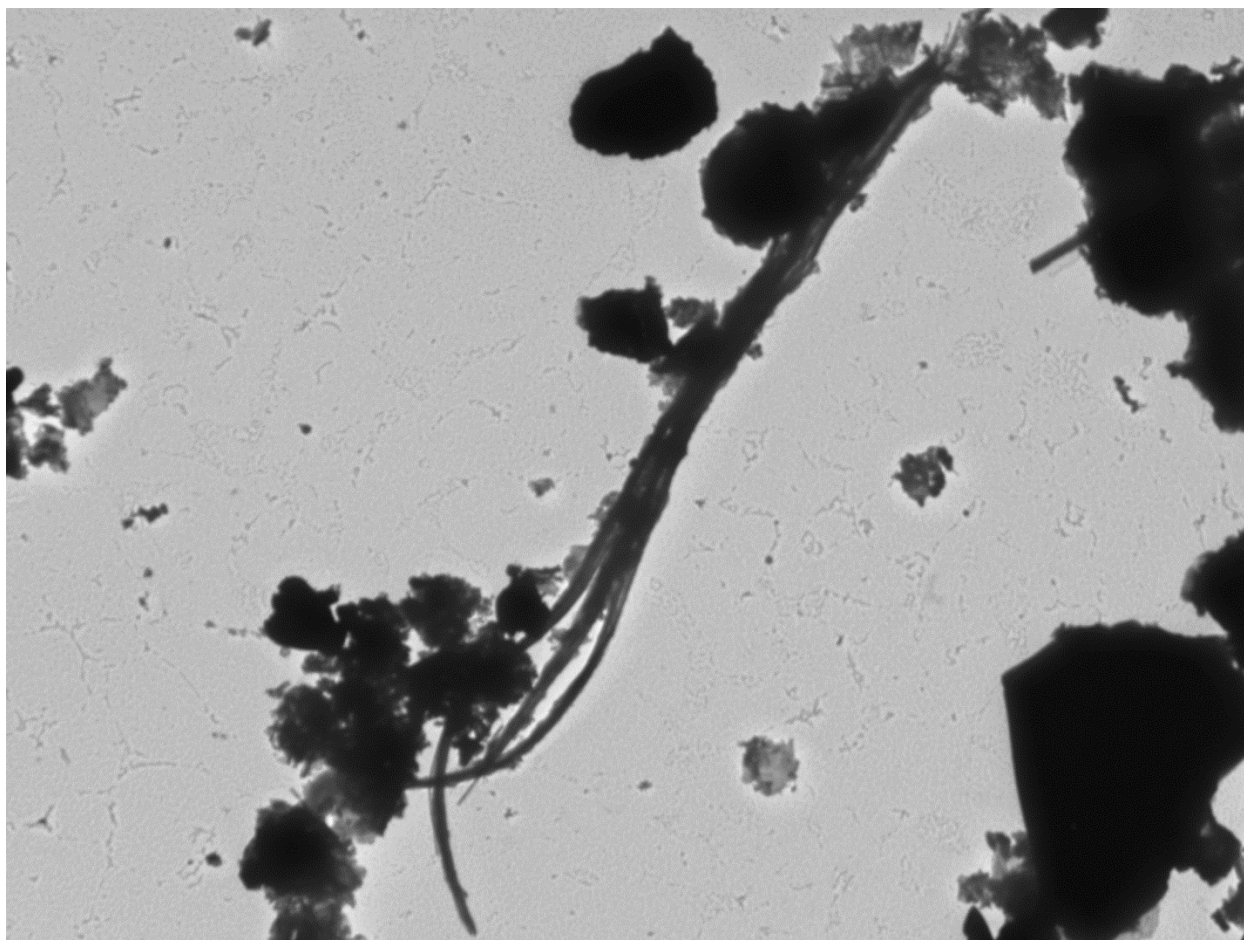
Date: 11/27/16

Reference/Sample Number: 0004

Image Number: 386

Fiber Type: Chrysotile

Magnification: 720



2016_asbestos_386
041631393
0004
11:52:03 11/27/2016

2 μ m
Direct Mag: 720x
EMSL Cinnaminson

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/28/2016

Image Number: 2016_asbestos_387

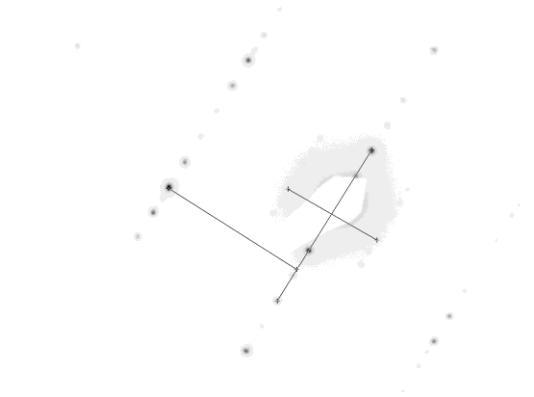
Reference/Sample Number: 0004

Preliminary ID: NAM

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.25			
d2 or hk0 (Camera K/zero row dist.):	8.95			
d1 or hkl (Camera K/slant vector dist.):	5.17			
Ratio of hk0/hkl:	1.73			
Vector Angle:	87.8			



2016_asbestos_387_indexed
041631393
0004
12:38:39 11/28/2016

0.2 (1/Å)
Cam Len: 0.2200 m
EMSL Cinematron

From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
NAM

D. Johnson-McDaniel

X CORRECT
____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

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Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

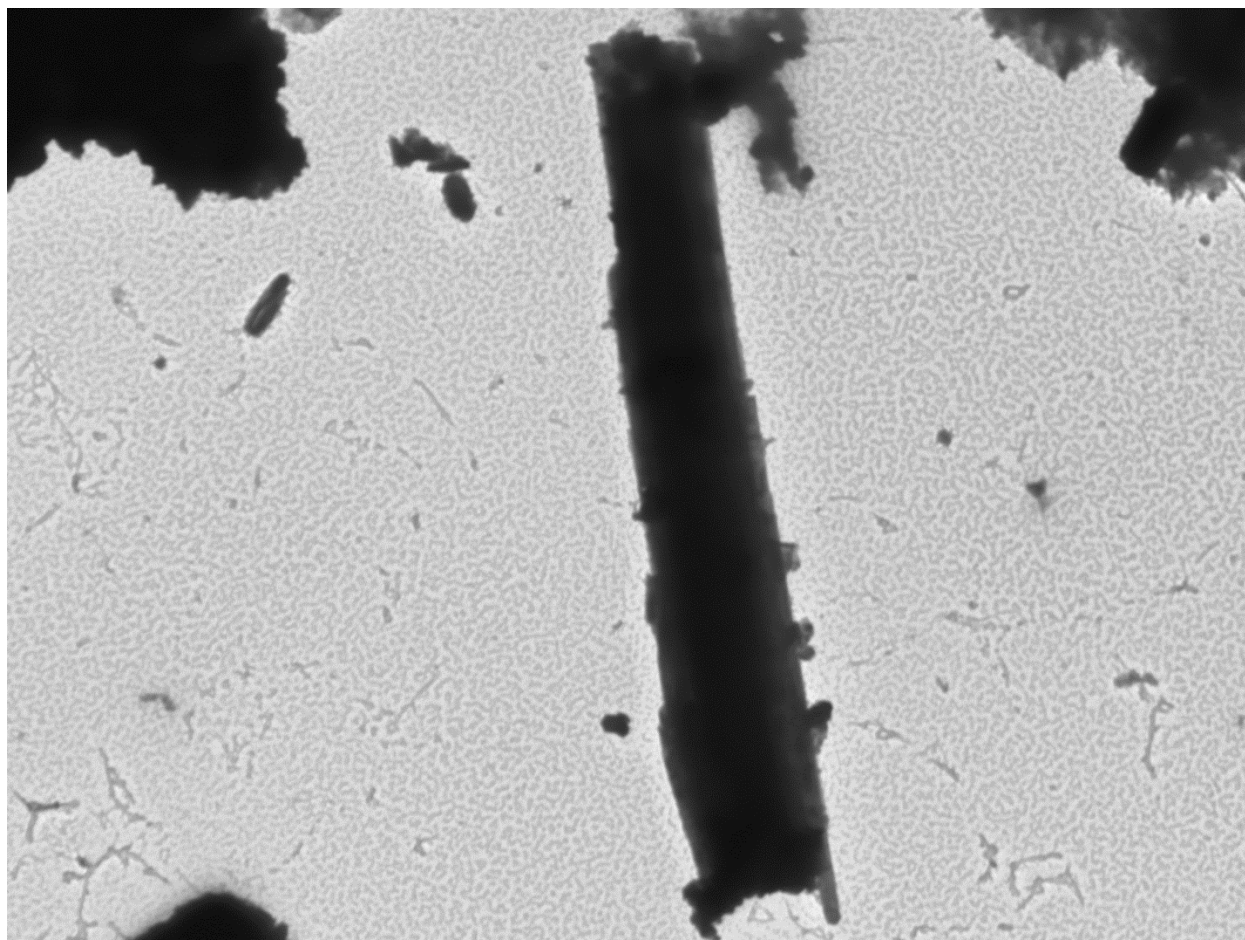
Date: 11/28/16

Reference/Sample Number: 0004

Image Number: 388

Fiber Type: NAM

Magnification: 1400



2016_04-05_041631393-0004_STR_74_ASBESTOS_2016_MG_388.tif
12:41:57 11/28/2016

2 μ m
Direct Mag: 1400x
EMSL Cinnaminson



Energy Dispersive X-Ray Analysis

Quantitative Spectra & Data

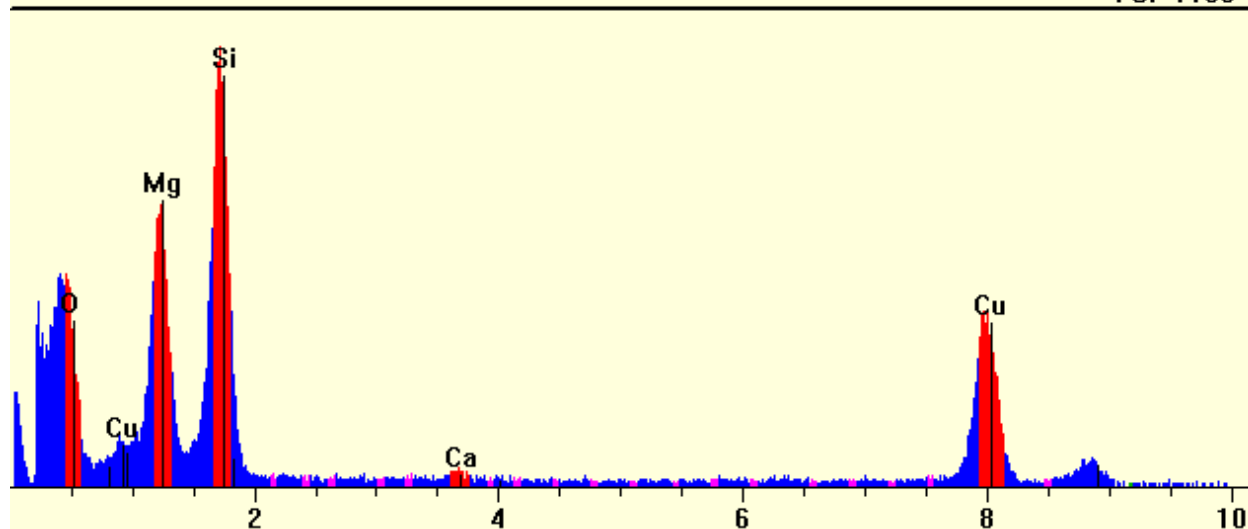
EMSL ANALYTICAL, INC.

File: O:\Tetra T...\2016_04-05_041631393-0004_STR_74_ASBESTOS_2016_AM.pgt
 Collected: November 28, 2016 09:37:11

Live Time: 576.90 Count Rate: 247 Dead Time: 39.38 %
 Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
 Estimated 0.00 Thickness 84573.61
 Density: limit:

■ 2016_04-05_041631393-0004_STR_74_ASBESTOS_2016_AM.pgt

FS: 1100



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0695	19.78	16.37	6.2	MgO	32.80	23.91
Si	KA1	1.740	1.0000	30.95	22.18	8.4	SiO2	66.21	29.77
Ca	KA1	3.691	1.6078	0.71	0.36	0.1	CaO	0.99	1.46
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			21.48
O	KA1	0.523	0.0000	48.56	61.09	23.0			104.89
Total			0.0000	100.00	100.00	37.6	Total	100.00	41.63

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	25.8	2.7	0.0	23.1	8.5
Si	KA1	40.9	2.3	0.0	38.7	17.1
Ca	KA1	1.5	1.0	0.0	0.6	0.6
Cu	KA1	22.3	0.9	0.0	21.5	24.8
O	KA1	17.5	1.7	0.1	15.7	9.1



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
856-303-2500

www.EMSL.com

Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/09/2016 00:00
EMSL Order: 041631393
Report Date: 11/30/2016

Project: VE Carter School

ISO 10312
International Standard for the Determination of Asbestos Fibers-Direct Transfer TEM

Customer Sample Number: 7 / VEC-AAH-BY-110916
EMSL Sample Number: 041631393-0007
Minimum Level of analysis (chrysotile): CD
Minimum Level of analysis (amphibole): ADX
Magnification used for fiber counting: 10,000
Aspect ratio for fiber definition: 3:1
Min Length/Min Width to be counted (um): 0.5 / None
Area of collection filter (mm²): 385
Result of Chi² Test: 35.83 Random

Air volume: 1821.33
Grid Opening Area: 0.013
Grid Openings Analyzed: 41
Liters mm²

Analysis Date: 11/23/2016
Analyst: F. Craig

Analytical Sensitivity:	0.0004	Structure/cc	Limit of Detection:	0.0012	Structure/cc
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Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm ²	Conc. (Str/cc)	Poisson 95 % Confidence Interval		
						LCL (Str/cc)		UCL (Str/cc)
Asbestos Structures (Chrys)	CD	1	3	5.63	0.0012	0.0002	-	0.0031
Asbestos Structures (Amph)	ADX	9	12	22.51	0.0048	0.0025	-	0.0083
Total Asbestos Structures	CD/ADX	10	15	28.14	0.0059	0.0033	-	0.0098

Supplemental Structure Size Concentrations

Asbestos Structure >5 um (Chrys)	CD	1	-	< 5.61	<	0.0012	0.0000	-	0.0019
Asbestos Structure >5 um (Amph)	ADX	9	-	16.89		0.0036	0.0016	-	0.0068
Total Asbestos Structures >5 um	CD/ADX	10	-	18.76		0.0040	0.0019	-	0.0073

Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	3	5.63		0.0012	0.0002	-	0.0031
Asbestos Fibers, Bundles >5 um (Amph)	ADX	-	12	22.51		0.0048	0.0025	-	0.0083
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	15	28.14		0.0059	0.0033	-	0.0098

PCMe Structures (Chrys)	CD	0	-	< 5.61	<	0.0012	0.0000	-	0.0012
PCMe Structures (Amph)	ADX	0	-	< 5.61	<	0.0012	0.0000	-	0.0012
Total PCMe Structures	CD/ADX	0	-	< 5.61	<	0.0012	0.0000	-	0.0012

PCMe Fibers and Bundles (Chrys)	CD	-	1	< 5.61	<	0.0012	0.0000	-	0.0019
PCMe Fibers and Bundles (Amph)	ADX	-	12	22.51		0.0048	0.0025	-	0.0083
Total PCMe Fibers and Bundles	CD/ADX	-	13	24.39		0.0052	0.0027	-	0.0088

Non Asbestos Structures	NAM	0	0	-	-	-	-	-	-
-------------------------	-----	---	---	---	---	---	---	---	---

Asbestos Types Present: Chrysotile, Amosite

Comment: Sample collected on 0.8 um filter.

Robert Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEOL 100 CXII (04-01)
EMSL Sample ID:	041631393-0007	GO area (mm²):	0.013	Mag.	10,000
Customer Sample:	7 / VEC-AAH-BY-110916	Grid Box :	0416-TetraTech-03: K	Analyst(s):	F. Craig
Chi² Test for Uniformity:	35.83-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016
Project ID:	VE Carter School			Particulate Loading:	5%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K2	B8	MD11	0		81.64	9.47	ADX	Amosite		
K2	B8	MF		0	81.64	1.22	ADX	Amosite		XNCGBLD
K2	B8	MD33	1		46.9	29.16	CD	Chrysotile		
K2	B8	MF		1	35.47	0.74	CD	Chrysotile	930D	
K2	B8	MB		2	25.99	0.49	ADX	Amosite	931D/932M	
K2	B8	MF		3	5.5	0.12	CD	Chrysotile		
K2	B6	None Detected								
K2	B4	None Detected								
K2	C1	None Detected								
K2	C5	None Detected								
K2	C7	None Detected								
K2	C9	MD11	2		18.8	2.94	ADX	Amosite		
K2	C9	MF		4	17.8	0.25	ADX	Amosite		
K2	D10	None Detected								
K2	D8	None Detected								
K2	D6	None Detected								
K2	D4	None Detected								
K2	D2	None Detected								
K2	E1	None Detected								
K2	E3	None Detected								
K2	E5	None Detected								
K2	E7	MD11	3		10.7	5.23	ADX	Amosite		
K2	E7	MF		5	10.7	0.37	ADX	Amosite		
K2	E9	None Detected								
K2	F10	None Detected								
K2	F8	None Detected								
K2	F6	None Detected								
K3	I9	MD22	4		11.7	11.2	ADX	Amosite		
K3	I9	MF		6	11.2	0.49	ADX	Amosite		
K3	I9	MF		7	8.5	0.37	ADX	Amosite		
K3	I7	None Detected								
K3	I5	None Detected								
K3	I3	None Detected								
K3	H2	MD11	5		8.5	1.23	ADX	Amosite		
K3	H2	MF		8	8.5	0.49	ADX	Amosite		
K3	H4	None Detected								
K3	H6	None Detected								
K3	H8	None Detected								
K3	H10	MD11	6		10.9	7.78	ADX	Amosite		
K3	H10	MF		9	10.9	0.74	ADX	Amosite		
K3	G9	MD11	7		75.3	13.37	CD	Chrysotile		
K3	G9	MB		10	75.3	3.9	CD	Chrysotile		
K3	G7	None Detected								
K3	G5	F	8	11	8.6	0.37	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEOL 100 CXII (04-01)
EMSL Sample ID:	041631393-0007	GO area (mm²):	0.013	Mag.	10,000
Customer Sample:	7 / VEC-AAH-BY-110916	Grid Box :	0416-TetraTech-03: K	Analyst(s):	F. Craig
Chi² Test for Uniformity:	35.83-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016
Project ID:	VE Carter School			Particulate Loading:	5%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K3	G3	None Detected								
K3	F2	F	9	12	10.7	0.74	ADX	Amosite		XCGBLD
K3	F4	None Detected								
K3	F6	MD11	10		5.1	3.04	ADX	Amosite		
K3	F6	MF		13	5.1	0.25	ADX	Amosite		
K3	F6	M21	11		20.2	5.84	ADX	Amosite		
K3	F8	MF		14	20.2	0.61	ADX	Amosite		
K3	F8	MR10		0	3.9	1.94	CD	Chrysotile		
K3	F10	None Detected								
K3	E9	None Detected								
K3	B9	None Detected								
K3	B7	MD11	12		35.5	3.68	ADX	Amosite		
K3	B7	MF		15	35.5	1.23	ADX	Amosite		XCGBLD



ISO 10312

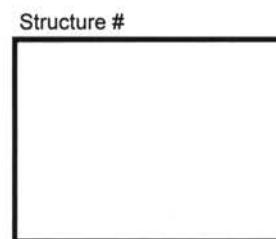
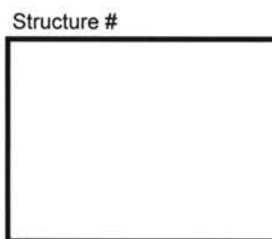
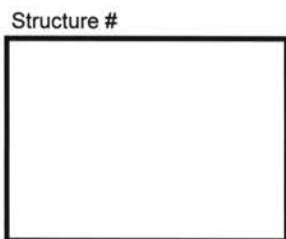
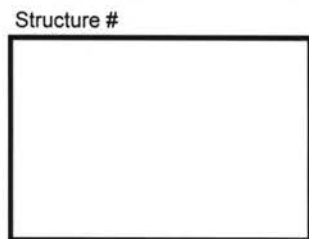
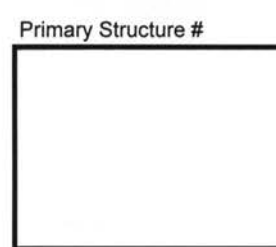
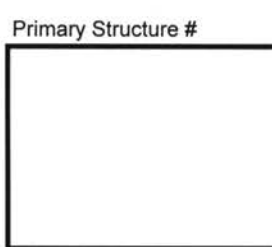
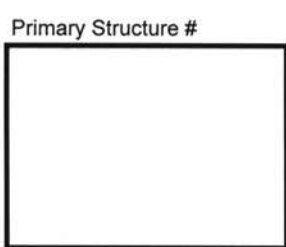
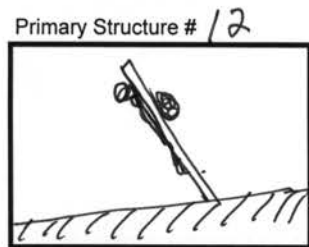
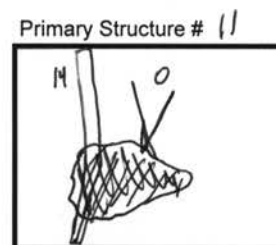
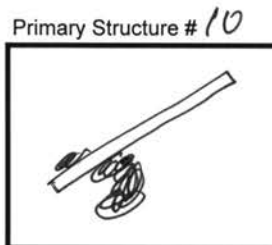
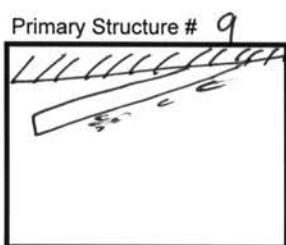
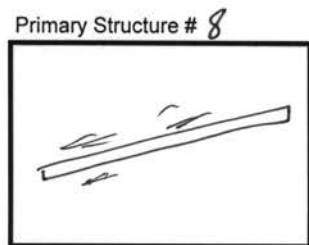
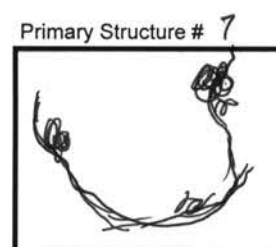
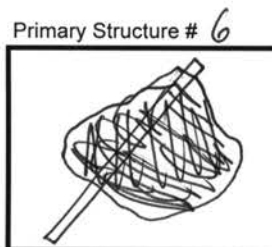
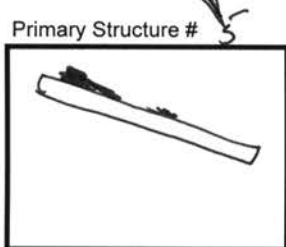
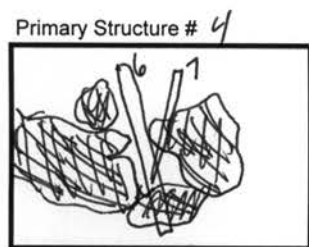
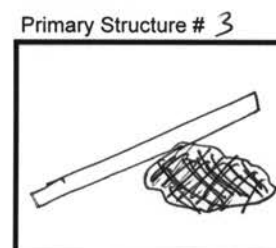
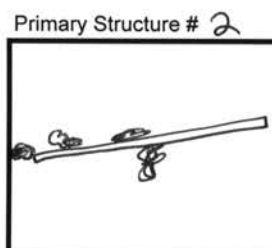
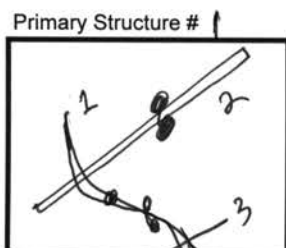
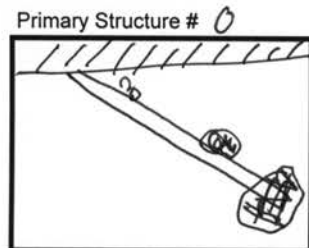
International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0007

Client: Tetra Tech

Client Sample: 7 / VEC-AAH-BY-110916

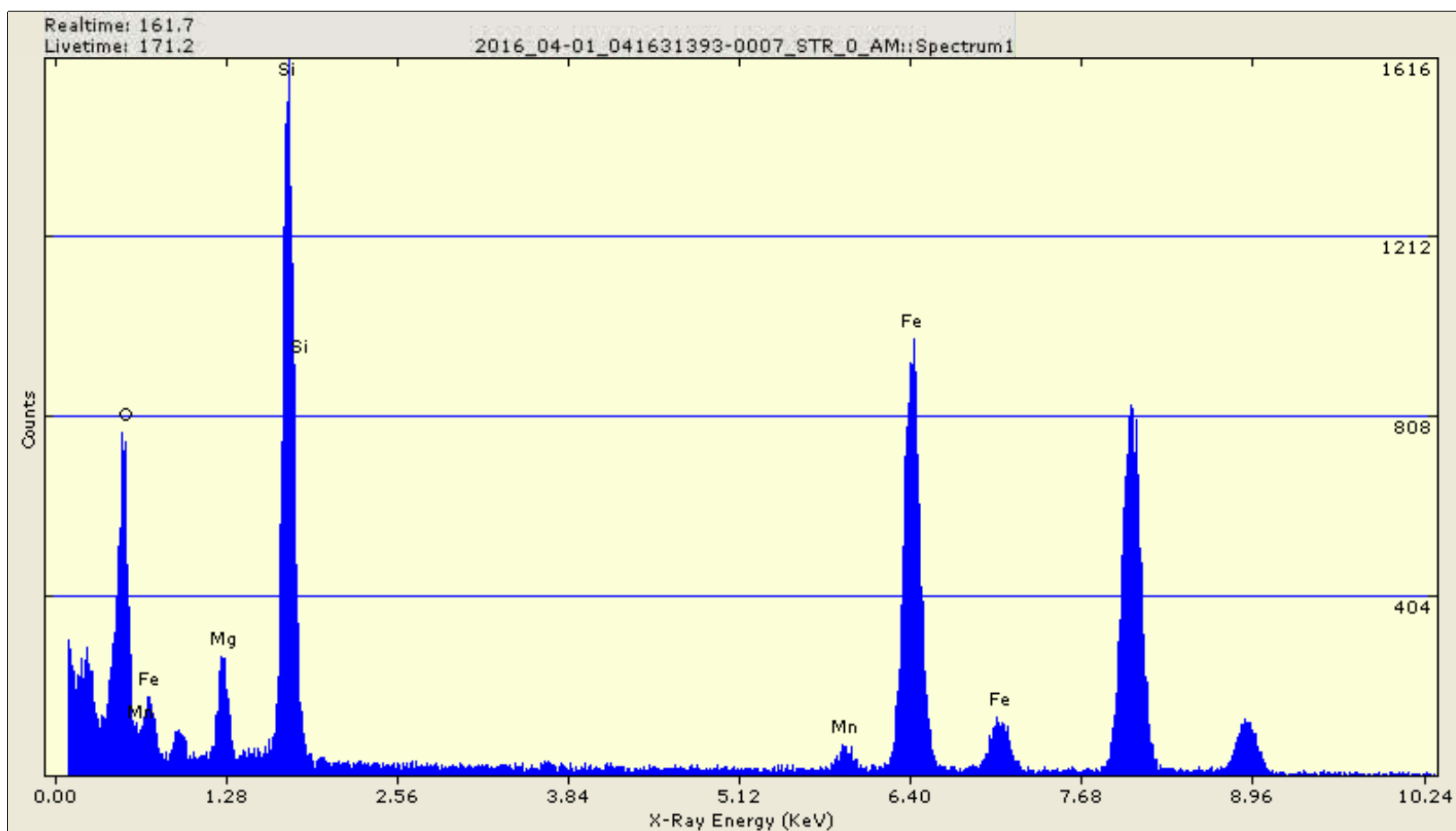
Page 1 of 1



Analyst: FC

Date: 11/23/16

Scope: 04-01



Quantitative Results for Spectrum1
Analysis: Thin Film Method: Standardless
Acquired 23-Nov-2016, 100.0 KeV @10 eV/channel

Element	Weight %	Std. Dev.	Atomic %	Oxide %	Cations	k-Ratio	Intensities	FWHM (eV)	ROI (gross)
Oxygen	40.84	0.39	61.16	0.00	0.0000	0.0000	0.0	61.7	4958.70
Magnesium	4.26	0.04	4.20	7.07 (MgO)	1.5795	0.0739	1565.9	74.8	1730.14
Silicon	26.15	0.25	22.31	55.95 (SiO2)	8.3896	0.4163	11243.0	82.2	11476.85
Manganese	0.99	0.01	0.43	1.28 (MnO)	0.1628	0.0099	390.3	129.0	537.56
Iron	27.75	0.26	11.90	35.70 (FeO)	4.4771	0.2230	10829.8	133.5	10603.86
Total	100.00			100.00	14.6089				



CHRYSOTILE SAED INDEXING FORM

EMSL Order Number: 041631393

Date: 11/23/16

Indexing of Image Number: 930

Scope #: 04 - 01

Reference / Sample No: 0007

By: F Craig

Preliminary ID: Chrysotile

Using Camera Constant of: 0.00295 1/Å Pixels

Determined from Reference

Quick Check

Measured Inter-Row Spacing: 63.01 Pixels

(110) reflections present (yes or no)?

Y

(200) reflections present (yes or no)?

Y

Full Index

Measured distance, center to closest hk0 spot (002): 46.43 Pixels

Measured distance, center to closest hkl spot (110): 73.48 Pixels

	Measured	Reference	-5%	+5%
Inter-row Spacing: <input type="checkbox"/> <input type="checkbox"/>	5.380	5.3	5.06	5.56
Interfacial (acute) Angle:	58.5	60	58	63
(0 0 2) Spacing	7.301	7.32	6.95	7.68
(1 1 0) Spacing	4.613	4.58	4.35	4.81

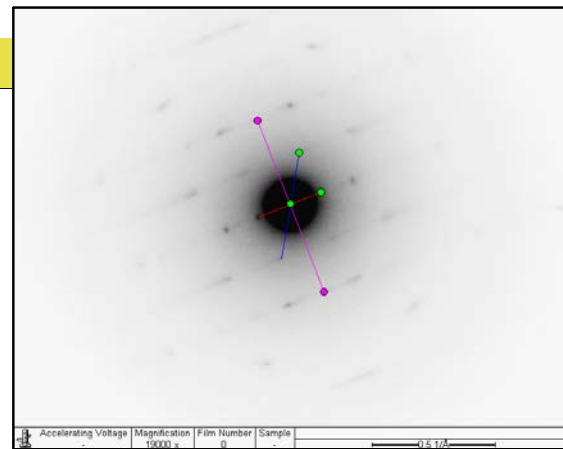
From SAED Reference Book, "unknown" diffraction pattern was found to be that of: Chrysotile

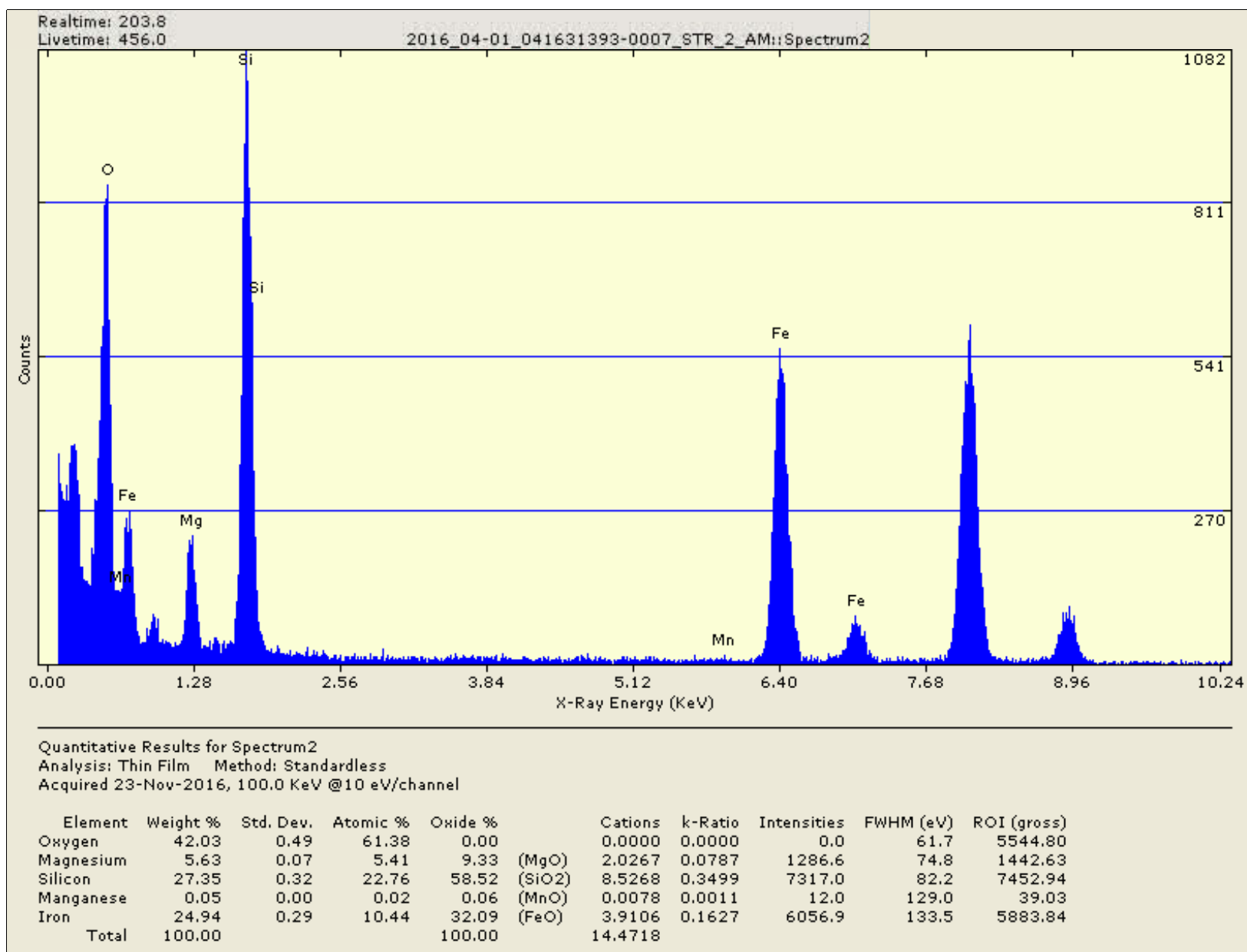
By: F Craig

Preliminary Identification was: ☒ CORRECT

☐ INCORRECT

Percent accuracy to date: 100 %







AMPHIBOLE SAED INDEXING FORM

EMSL Order Number:	041631393	Date:	Nov 23, 2016
Indexing of Image Number:	931	Scope #:	04 - 01
Reference / Sample No:	0007	By:	F Craig
Preliminary ID:	AMOSITE		
Using Camera Constant of:	2.950e-003	1/A Pixels	
Determined from Reference:	AuCal-112216_919		

Measured Inter-Row Spacing:	191.95	Pixels
Mean Distance between spots on Center row (d2):	36.79	Pixels
Mean Distance between spots on slant vector (d1):	192.82	Pixels

	Calculated	Ref	-5%	+5%
Inter-row Spacing (Angstroms):	1.766	1.777	1.688	1.866
d2 or hk0 (Camera K/zero row dist.):	9.215	9.210	8.750	9.671
d1 or hk1 (Camera K/slant vector dist.):	1.758	1.768	1.680	1.856
Ratio of hk0/hkl:	5.242	5.209	4.949	5.469
Angle of Slant Vector (Measured):	83.9	84.370	80.151	88.589

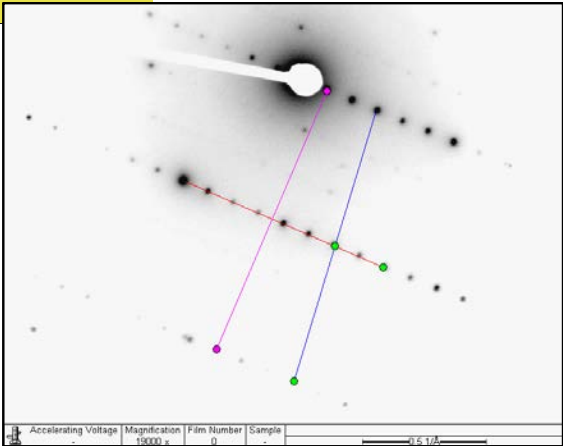
From SAED Reference Book, "unknown" diffraction pattern was found to be that of: **Grunerite** By: **F Craig**

Miller Indices hk0: (**0 2 0**)

Miller Indices hkl: (**1 1 -3**)

With a Zone Axis of: [**-3 0 -1**]

Preliminary Identification was: ☒ CORRECT
☐ INCORRECT



Accelerating Voltage: 15000 x Magnification: 0 Film Number: 0 Sample: 016701

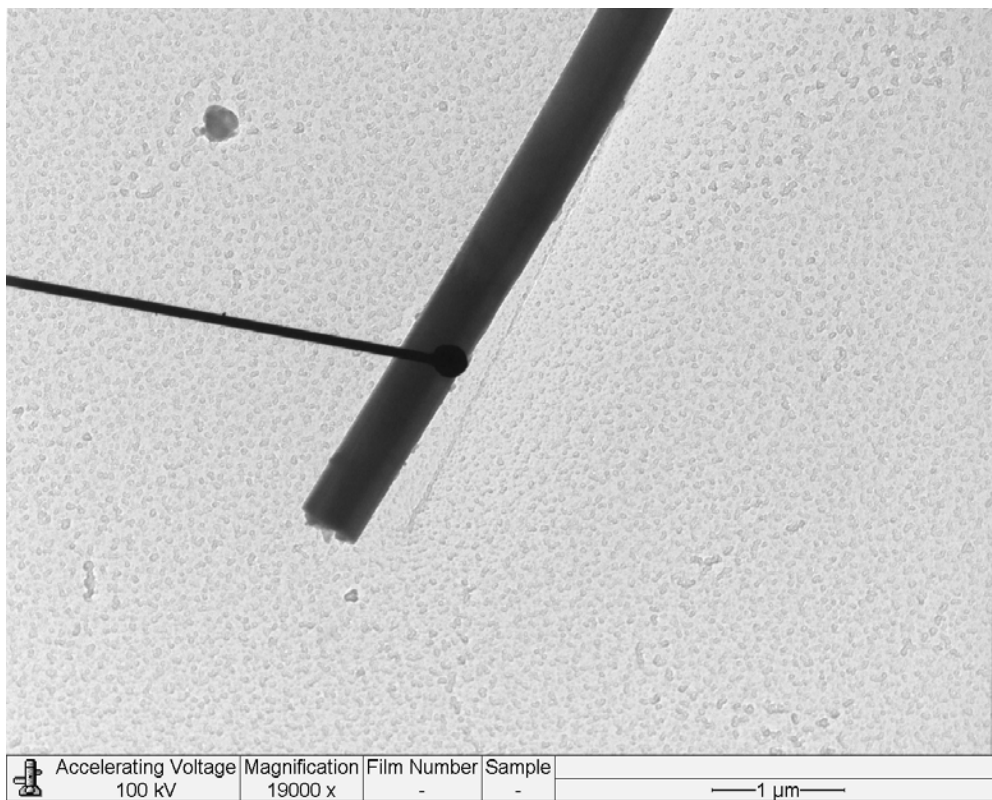
Percent accuracy to date: **100 %**



EMSL ANALYTICAL, INC.

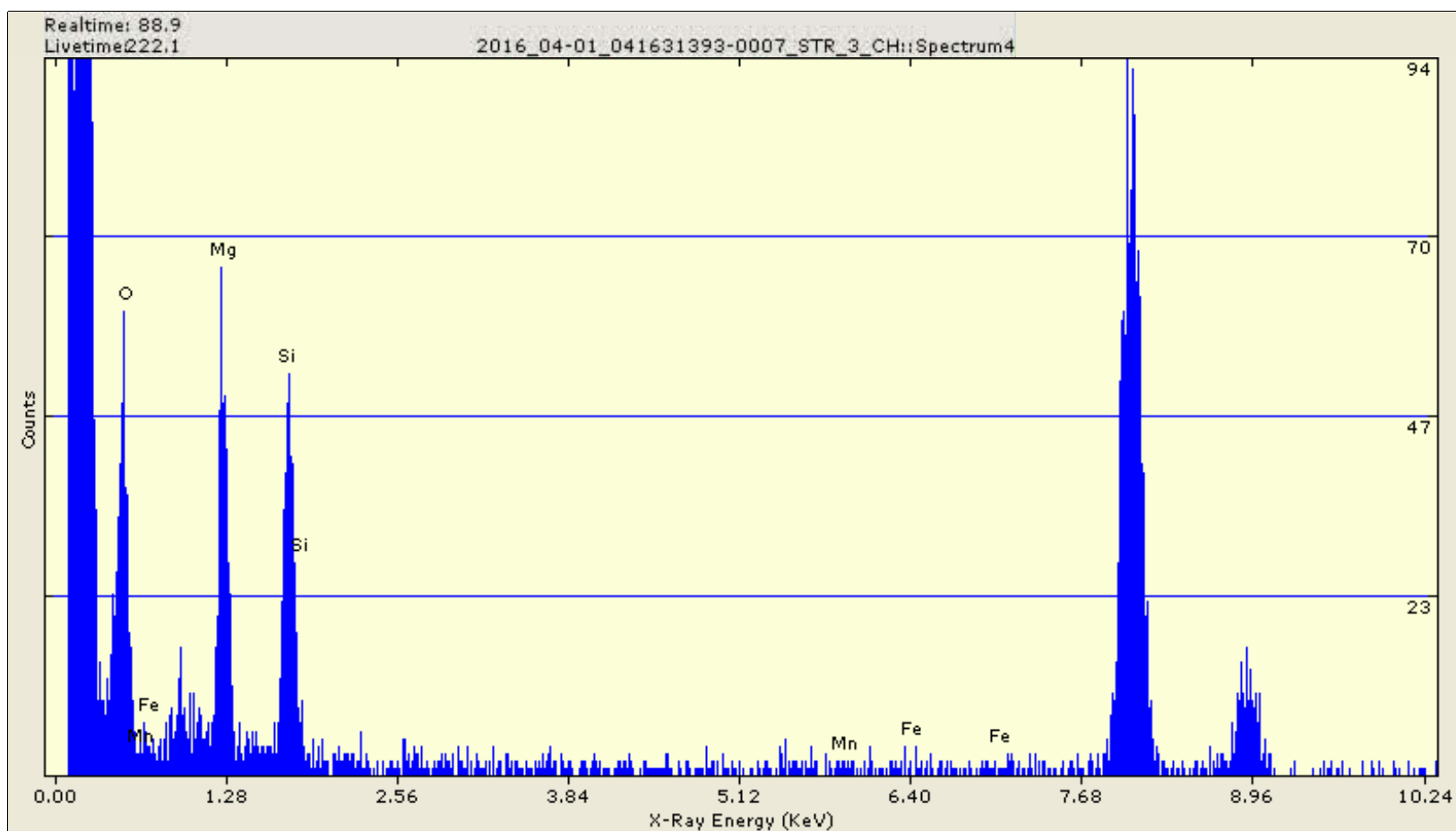
EMSL Analytical, Inc.

Photomicrograph Report



Micrograph Information

Sample ID:	0007
Order ID:	041631393
Image Number:	932
Mineral Type:	AMOSITE
Date:	11/23/2016
Magnification:	19000
Microscope:	1



Quantitative Results for Spectrum4

Analysis: Thin Film Method: Standardless

Acquired 23-Nov-2016, 100.0 KeV @10 eV/channel

Element	Weight %	Std. Dev.	Atomic %	Oxide %	Cations	k-Ratio	Intensities	FWHM (eV)	ROI (gross)
Oxygen	46.59	2.54	58.59	0.00	0.0000	0.0000	0.0	61.7	325.19
Magnesium	29.17	1.59	24.15	48.38 (MgO)	9.4806	0.3372	335.9	74.8	350.94
Silicon	23.97	1.33	17.17	51.27 (SiO2)	6.7398	0.2547	322.8	82.2	340.69
Manganese	0.12	0.01	0.04	0.15 (MnO)	0.0166	0.0035	1.4	129.1	2.21
Iron	0.15	0.01	0.06	0.20 (FeO)	0.0218	0.0009	1.9	133.4	6.50
Total	100.00			100.00	16.2588				



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
856-303-2500

www.EMSL.com

Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/09/2016 00:00
EMSL Order: 041631393
Report Date: 11/30/2016

Project: VE Carter School

ISO 10312
International Standard for the Determination of Asbestos Fibers-Direct Transfer TEM

Customer Sample Number: 8 / VEC-AAH-AB-110916
EMSL Sample Number: 041631393-0008
Minimum Level of analysis (chrysotile): CD
Minimum Level of analysis (amphibole): ADX
Magnification used for fiber counting: 19,000
Aspect ratio for fiber definition: 3:1
Min Length/Min Width to be counted (um): 0.5 / None
Area of collection filter (mm²): 385
Result of Chi² Test: 18.29 Random

Air volume: 473.14
Grid Opening Area: 0.0131
Grid Openings Analyzed: 26

Liters
mm²

Analysis Date: 11/23/2016 & 11/25/2016
Analyst: D. Johnson-McDaniel

Analytical Sensitivity:	0.0024	Structure/cc	Limit of Detection:	0.0071	Structure/cc
-------------------------	--------	--------------	---------------------	--------	--------------

Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm ²	Conc. (Str/cc)	Poisson 95 % Confidence Interval		
						LCL (Str/cc)	UCL (Str/cc)	
Asbestos Structures (Chrys)	CD	2	2	< 8.78	< 0.0071	0.0000	-	0.0151
Asbestos Structures (Amph)	ADX	94	111	325.90	0.2652	0.2182	-	0.3194
Total Asbestos Structures	CD/ADX	96	113	331.77	0.2700	0.2225	-	0.3246

Supplemental Structure Size Concentrations

Asbestos Structure >5 um (Chrys)	CD	2	-	< 8.78	< 0.0071	0.0000	-	0.0151
Asbestos Structure >5 um (Amph)	ADX	94	-	275.98	0.2246	0.1815	-	0.2748
Total Asbestos Structures >5 um	CD/ADX	96	-	281.86	0.2293	0.1858	-	0.2801

Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	2	< 8.78	< 0.0071	0.0000	-	0.0151
Asbestos Fibers, Bundles >5 um (Amph)	ADX	-	111	325.90	0.2652	0.2182	-	0.3194
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	113	331.77	0.2700	0.2225	-	0.3246

PCMe Structures (Chrys)	CD	0	-	< 8.78	< 0.0071	0.0000	-	0.0071
PCMe Structures (Amph)	ADX	1	-	< 8.78	< 0.0071	0.0000	-	0.0113
Total PCMe Structures	CD/ADX	1	-	< 8.78	< 0.0071	0.0000	-	0.0113

PCMe Fibers and Bundles (Chrys)	CD	-	2	< 8.78	< 0.0071	0.0000	-	0.0151
PCMe Fibers and Bundles (Amph)	ADX	-	108	317.09	0.2580	0.2117	-	0.3115
Total PCMe Fibers and Bundles	CD/ADX	-	110	322.96	0.2628	0.2160	-	0.3167

Non Asbestos Structures	NAM	5	5	-	-	-	-	-
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Asbestos Types Present: Chrysotile, Amosite

Comment: Sample collected on 0.8 um filter.

Robyn Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0008	GO area (mm ²):	0.0131	Mag.	19,000
Customer Sample:	8 / VEC-AAH-AB-110916	Grid Box :	0416 Tetra Tech 03: K-5-8	Analyst(s):	D. Johnson-McDaniel
Chi ² Test for Uniformity:	18.29-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016 & 11/25/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (μm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K5	J8	F	1	1	11.58	0.56	ADX	Amosite		
K5	J8	MD11	2		9.72	3.01	ADX	Amosite		
K5	J8	MF		2	9.72	0.21	ADX	Amosite		
K5	J8	F	3	3	9.95	0.56	ADX	Amosite		
K5	J8	MD22	4		15.04	6.05	ADX	Amosite		
K5	J8	MF		4	15.04	0.35	ADX	Amosite		
K5	J8	MF		5	9.95	0.23	ADX	Amosite		
K5	J8	MD11	5		25.23	20.83	NAM	Non Asb. Mineral	373	
K5	J8	MF		6	25.23	0.21	NAM	Non Asb. Mineral		
K5	J8	MD11	6		21.52	11.57	ADX	Amosite		
K5	J8	MF		7	21.52	0.28	ADX	Amosite		
K5	J8	F	7	8	27.78	0.75	ADX	Amosite		
K5	J8	MD11	8		13.89	9.72	ADX	Amosite		
K5	J8	MF		9	9.72	0.71	ADX	Amosite		
K5	J8	MD22	9		9.49	8.1	ADX	Amosite		
K5	J8	MF		10	9.49	0.28	ADX	Amosite		
K5	J8	MF		11	7.41	0.21	ADX	Amosite		
K5	H1	F	10	12	31.25	0.93	ADX	Amosite		
K5	H1	F	11	13	13.89	0.47	ADX	Amosite		
K5	H1	MD22	12		113	11.57	ADX	Amosite		
K5	H1	MB		14	113	0.69	ADX	Amosite	375376	
K5	H1	MF		15	9.95	0.35	ADX	Amosite		
K5	H1	F	13	16	10.42	0.35	ADX	Amosite		
K5	H1	F	14	17	15.05	0.47	ADX	Amosite		
K5	F4	MD11	15		16.21	13.89	ADX	Amosite		
K5	F4	MF		18	16.21	0.47	ADX	Amosite		
K5	D3	MD11	0		23.61	9.26	ADX	Amosite		XCGBLD
K5	D3	MF		0	23.61	1.16	ADX	Amosite		
K5	D3	MD33	16		55.56	20.83	ADX	Amosite		
K5	D3	MF		19	55.56	0.48	ADX	Amosite		
K5	D3	MF		20	15.05	0.25	ADX	Amosite		
K5	D3	MF		21	11.81	0.35	ADX	Amosite		
K5	D3	MD33	17		35.88	5.79	ADX	Amosite		
K5	D3	MB		22	35.88	0.92	ADX	Amosite		
K5	D3	MF		23	30.55	0.47	ADX	Amosite		
K5	D3	MF		24	23.84	0.56	ADX	Amosite		
K5	D3	F	18	25	8.1	0.92	ADX	Amosite		
K5	D3	F	19	26	37.97	0.92	ADX	Amosite		
K5	D3	F	20	27	16.21	0.82	ADX	Amosite		
K5	A2	MD11	21		29.63	12.04	ADX	Amosite		
K5	A2	MF		28	29.63	0.28	ADX	Amosite		
K6	B5	F	22	29	27.32	0.71	ADX	Amosite		
K6	B5	B	23	30	23.38	0.35	CD	Chrysotile	377, 378	



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0008	GO area (mm ²):	0.0131	Mag.	19,000
Customer Sample:	8 / VEC-AAH-AB-110916	Grid Box :	0416 Tetra Tech 03: K-5-8	Analyst(s):	D. Johnson-McDaniel
Chi ² Test for Uniformity:	18.29-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016 & 11/25/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K6	B5	MD11	24		10.88	5.79	ADX	Amosite		
K6	B5	MF		31	10.88	0.93	ADX	Amosite		
K6	B1	MD22	25		22.92	8.1	ADX	Amosite		
K6	B1	MF		32	22.92	0.92	ADX	Amosite		
K6	B1	MF		33	21.53	0.25	ADX	Amosite		
K6	B1	F	26	34	19.21	0.39	ADX	Amosite		
K6	B1	F	27	35	11.56	1.02	ADX	Amosite		
K6	B1	MD11	28		20.84	10.42	ADX	Amosite		
K6	B1	MF		36	9.72	0.47	ADX	Amosite		
K6	B1	F	29	37	15.05	1.62	ADX	Amosite		
K6	D2	MD11	30		41.67	8.1	ADX	Amosite		
K6	D2	MF		38	41.67	0.25	ADX	Amosite		
K6	D2	B	31	39	5.32	0.59	ADX	Amosite		
K6	D2	MD11	32		6.96	5.79	ADX	Amosite		
K6	D2	MF		40	5.79	0.47	ADX	Amosite		
K6	D4	F	0	0	16.06	0.52	ADX	Amosite		XCGBTP
K6	D4	MD11	33		18.52	12.75	ADX	Amosite		
K6	D4	MF		41	17.36	0.25	ADX	Amosite		
K6	D4	F	0	0	19.45	0.47	ADX	Amosite		
K6	D8	MD11	34		55.56	13.89	ADX	Amosite		
K6	D8	MF		42	55.56	0.51	ADX	Amosite		
K6	D8	MD11	35		28.47	6.25	ADX	Amosite		
K6	D8	MF		43	28.47	0.38	ADX	Amosite		
K6	D8	B	36	44	15.05	0.47	ADX	Amosite		
K6	D8	MD11	37		5.56	4.63	ADX	Amosite		
K6	D8	MF		45	5.56	0.71	ADX	Amosite		
K6	F7	F	38	46	24.31	0.25	ADX	Amosite		
K6	F7	MD11	39		11.56	5.79	ADX	Amosite		
K6	F7	MF		47	5.79	0.25	ADX	Amosite		
K6	F7	MD11	40		21.99	12.73	ADX	Amosite		
K6	F7	MF		48	21.99	0.28	ADX	Amosite		
K6	F7	F	41	49	5.09	0.35	ADX	Amosite		
K6	F7	MD22	42		45.61	8.1	ADX	Amosite		
K6	F7	MF		50	45.61	0.93	ADX	Amosite		
K6	F7	MF		51	10.42	0.71	ADX	Amosite		
K6	F3	CD22	43		6.71	0.59	ADX	Amosite		
K6	F3	CF		52	6.71	0.25	ADX	Amosite		
K6	F3	CF		53	5.32	0.35	ADX	Amosite		
K6	F3	F	44	54	60.19	0.59	ADX	Amosite		
K6	F3	MD11	45		24.31	10.47	ADX	Amosite		
K6	F3	MF		55	21.99	0.28	ADX	Amosite		
K6	F3	MC11	46	56	16.21	13.89	ADX	Amosite		
K6	F3	MD11	47		12.73	11.58	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0008	GO area (mm²):	0.0131	Mag.	19,000
Customer Sample:	8 / VEC-AAH-AB-110916	Grid Box :	0416 Tetra Tech 03: K-5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	18.29-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016 & 11/25/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K6	F3	MF		57	12.73	0.47	ADX	Amosite		
K6	F3	MD11	48		23.15	8.1	ADX	Amosite		
K6	F3	MF		58	23.15	0.23	ADX	Amosite		
K6	H4	F	0	0	22.68	0.35	ADX	Amosite		XCGBLD
K6	H4	F	0	0	64.48	0.92	ADX	Amosite		XXGBLD
K6	H4	MD11	49		24.31	5.32	ADX	Amosite		
K6	H4	MF		59	24.31	0.71	ADX	Amosite		
K6	H4	F	50	60	32.41	0.35	ADX	Amosite		
K6	H4	F	51	61	16.67	0.47	ADX	Amosite		
K6	H4	MC11	52	62	13.42	9.26	ADX	Amosite		
K6	H4	MD11	53		58.38	10.42	ADX	Amosite		
K6	H4	MF		63	58.38	0.35	ADX	Amosite		
K6	H6	MD11	54		101.9	9.26	ADX	Amosite		
K6	H6	MF		64	101.9	0.82	ADX	Amosite		
K6	H6	MD11	55		30.79	11.58	ADX	Amosite		
K6	H6	MF		65	30.79	0.35	ADX	Amosite		
K6	H6	F	56	66	8.79	0.71	ADX	Amosite		
K6	I9	F	57	67	30.09	0.93	ADX	Amosite		
K6	I9	MD11	58		22.69	8.1	ADX	Amosite		
K6	I9	MF		68	22.68	0.47	ADX	Amosite		
K6	I9	MD22	59		12.27	6.94	ADX	Amosite		
K6	I9	MF		69	12.27	0.35	ADX	Amosite		
K6	I9	MF		70	8.1	0.82	ADX	Amosite		
K6	I9	MD11	60		13.89	4.63	ADX	Amosite		
K6	I9	MF		71	13.89	0.35	ADX	Amosite		
K6	I3	F	0	0	11.11	0.56	ADX	Amosite		XCGBLD
K6	I3	F	0	0	9.49	0.35	ADX	Amosite		XCGBLD
K6	I3	B	61	72	7.41	0.35	CD	Chrysotile		
K6	I3	F	62	73	26.62	1.94	ADX	Amosite		
K6	I3	F	63	74	8.1	0.93	NAM	Non Asb. Mineral	379380	
K6	I3	F	64	75	13.42	0.47	ADX	Amosite		
K6	I3	MD11	65		24.08	13.43	ADX	Amosite		
K6	I3	MF		76	17.59	1.39	ADX	Amosite		
K7	A2	MD44	66		53.24	41.67	ADX	Amosite		
K7	A2	MF		77	29.63	0.47	ADX	Amosite		
K7	A2	MF		78	27.78	0.93	ADX	Amosite		
K7	A2	MF		79	14.82	0.47	ADX	Amosite		
K7	A2	MB		80	8.33	0.47	ADX	Amosite		
K7	A2	F	67	81	5.56	1.66	ADX	Amosite		
K7	A2	F	68	82	11.34	0.47	ADX	Amosite		
K7	A2	MD33	69		29.63	2.68	ADX	Amosite		
K7	A2	MF		83	29.63	0.47	ADX	Amosite		
K7	A2	MF		84	20.14	0.56	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0008	GO area (mm ²):	0.0131	Mag.	19,000
Customer Sample:	8 / VEC-AAH-AB-110916	Grid Box :	0416 Tetra Tech 03: K-5-8	Analyst(s):	D. Johnson-McDaniel
Chi ² Test for Uniformity:	18.29-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016 & 11/25/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K7	A2	MF		85	13.89	0.35	ADX	Amosite		
K7	A2	MD11	70		27.78	13.89	ADX	Amosite		
K7	A2	MF		86	27.78	1.03	ADX	Amosite		
K7	A6	F	71	87	9.26	0.38	ADX	Amosite		
K7	A6	F	72	88	65.28	0.71	ADX	Amosite		
K7	A6	F	73	89	5.32	0.96	NAM	Non Asb. Mineral		
K7	A6	F	74	90	11.34	0.96	NAM	Non Asb. Mineral		
K7	A6	F	75	91	11.62	0.41	ADX	Amosite		
K7	C9	F	0	0	18.33	0.92	ADX	Amosite		XCGBLD
K7	C9	MD11	76		27.78	18.52	ADX	Amosite		
K7	C9	MF		92	27.78	0.25	ADX	Amosite		
K7	C9	MD11	77		18.52	11.56	ADX	Amosite		
K7	C9	MF		93	7.18	0.47	ADX	Amosite		
K7	C9	F	78	94	5.32	0.71	ADX	Amosite		
K7	C9	MD11	79		18.52	10.42	ADX	Amosite		
K7	C9	MF		95	18.52	0.56	ADX	Amosite		
K7	C1	MD11	80		17.36	4.63	ADX	Amosite		
K7	C1	MF		96	17.36	0.25	ADX	Amosite		
K7	C1	MD11	81		17.36	13.89	ADX	Amosite		
K7	C1	MF		97	10.42	0.51	ADX	Amosite		
K7	C1	MD11	82		71.77	10.42	ADX	Amosite		
K7	C1	MF		98	71.77	1.39	ADX	Amosite		
K7	D5	MD11	83		16.21	6.95	ADX	Amosite		
K7	D5	MF		99	13.89	0.35	ADX	Amosite		
K7	D5	MD11	84		41.67	13.89	ADX	Amosite		
K7	D5	MF		100	31.25	0.92	ADX	Amosite		
K7	D5	MD11	85		24.31	8.1	ADX	Amosite		
K7	D5	MF		101	15.05	0.35	ADX	Amosite		
K7	D9	F	86	102	6.02	0.35	ADX	Amosite		
K7	D9	MC11	87	103	13.89	12.74	ADX	Amosite		
K7	F6	F	88	104	9.26	0.47	ADX	Amosite		
K7	F6	MD11	89		10.65	3.01	ADX	Amosite		
K7	F6	MF		105	10.65	0.71	ADX	Amosite		
K7	F2	MD11	0		55.56	5.79	ADX	Amosite		
K7	F2	MF		0	55.56	0.47	ADX	Amosite		
K7	F2	MD11	90		25.05	8.1	NAM	Non Asb. Mineral		
K7	F2	MF		106	25.05	1.62	NAM	Non Asb. Mineral		
K7	F2	MD11	0		30.09	9.25	ADX	Amosite		
K7	F2	MF		0	30.09	0.35	ADX	Amosite		
K7	F2	F	91	107	13.89	0.47	ADX	Amosite		
K7	F2	F	92	108	7.18	0.47	ADX	Amosite		
K7	F2	F	93	109	54.4	0.71	ADX	Amosite		
K7	F2	F	94	110	30.01	0.25	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0008	GO area (mm²):	0.0131	Mag:	19,000
Customer Sample:	8 / VEC-AAH-AB-110916	Grid Box :	0416 Tetra Tech 03: K:5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	18.29-Random	Pore Size (micron):	0.8	Analysis Date:	11/23/2016 & 11/25/2016
Project ID:	VE Carter School			Particulate Loading:	20%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
K7	F2	MD11	95		12.73	5.79	ADX	Amosite		
K7	F2	MF		111	12.73	0.47	ADX	Amosite		
K7	H9	F	96	112	18.75	0.35	ADX	Amosite		
K7	H9	F	97	113	10.88	0.47	ADX	Amosite		
K7	H9	MD11	98		10.42	3.7	ADX	Amosite		
K7	H9	MF		114	10.42	0.87	ADX	Amosite		
K8	A4	F	99	115	8.33	0.56	ADX	Amosite		
K8	A4	MD22	100		34.73	13.89	ADX	Amosite		
K8	A4	MF		116	34.73	0.35	ADX	Amosite		
K8	A4	MF		117	13.89	0.25	ADX	Amosite		
K8	A4	MD11	101		16.21	8.1	ADX	Amosite		
K8	A4	MF		118	16.21	0.71	ADX	Amosite		



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

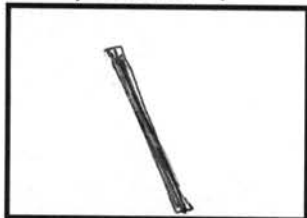
EMSL Order ID: 041631393-0008

Client: Tetra Tech

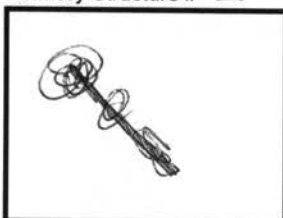
Client Sample: 8 / VEC-AAH-AB-110916

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Primary Structure # 1



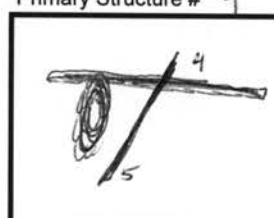
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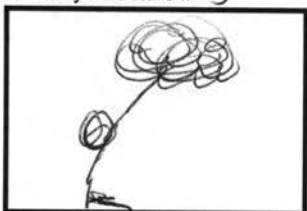
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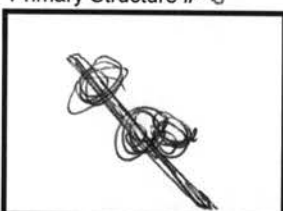
Primary Structure # 4



Primary Structure # 5



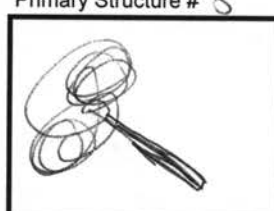
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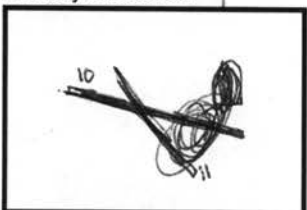
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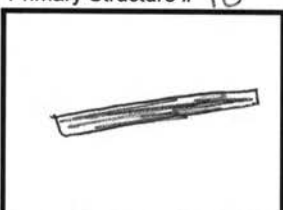
Primary Structure # 8



Primary Structure # 9



Primary Structure # 10



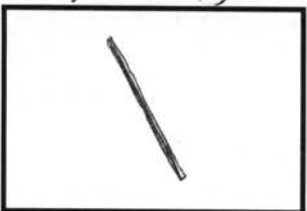
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Primary Structure # 12



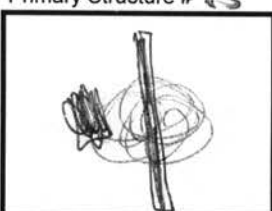
Primary Structure # 13



Primary Structure # 14



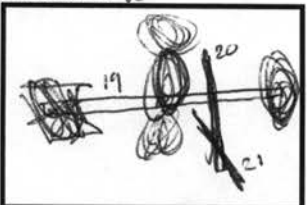
Primary Structure # 15



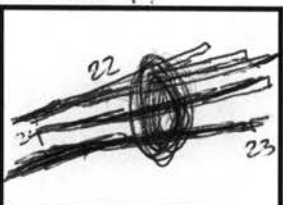
Primary Structure # 16



Structure # 16



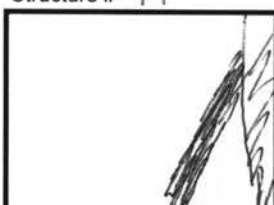
Structure # 17



Structure # 18



Structure # 19



Analyst: Ruth Solomon

Date: 11/23/16

Scope: 011-05



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0008

Client: Tetra Tech

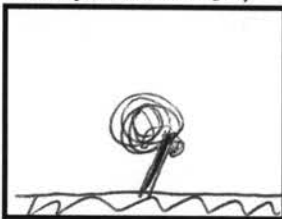
Client Sample: 8 / VEC-AAH-AB-110916

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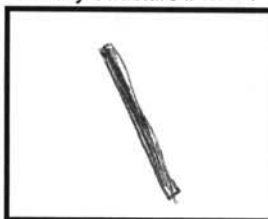
Primary Structure # 20



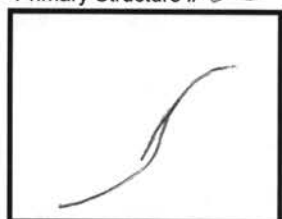
Primary Structure # 21



Primary Structure # 22



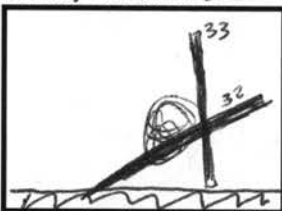
Primary Structure # 23



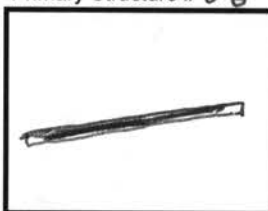
Primary Structure # 24



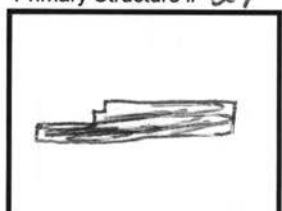
Primary Structure # 25



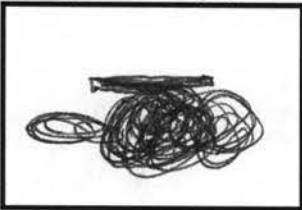
Primary Structure # 26



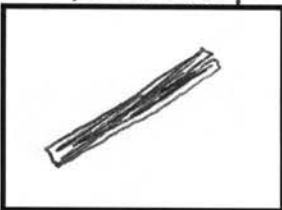
Primary Structure # 27



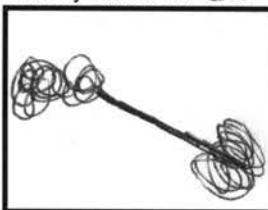
Primary Structure # 28



Primary Structure # 29



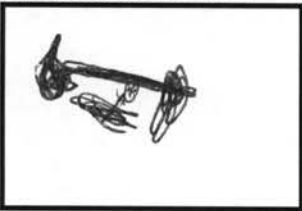
Primary Structure # 30



Primary Structure # 31



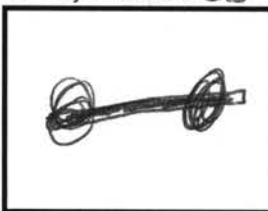
Primary Structure # 32



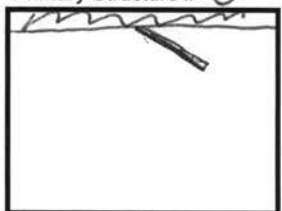
Primary Structure # 33



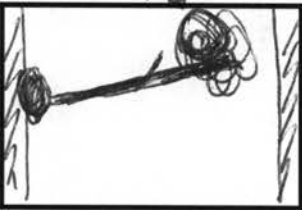
Primary Structure # 34



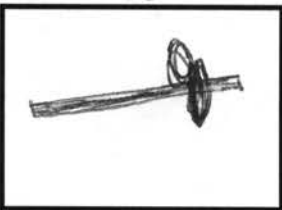
Primary Structure # 35



Structure # 34



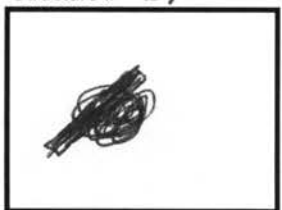
Structure # 35



Structure # 36



Structure # 37



Analyst: Amel Schmitt

Date: 11/23/16

Scope: 04-65



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0008

Client: Tetra Tech

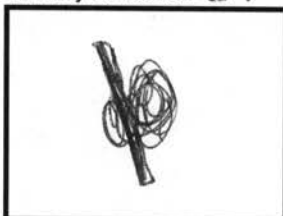
Client Sample: 8 / VEC-AAH-AB-110916

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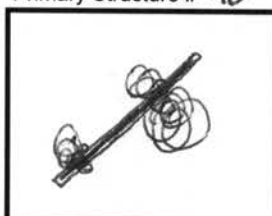
Primary Structure # 38



Primary Structure # 39



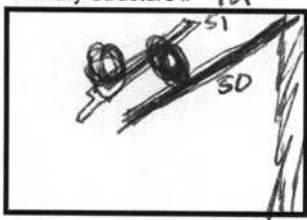
Primary Structure # 40



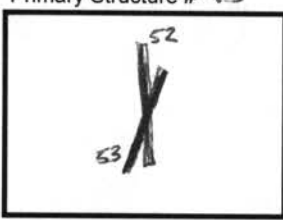
Primary Structure # 41



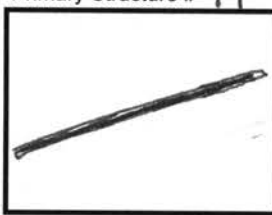
Primary Structure # 42



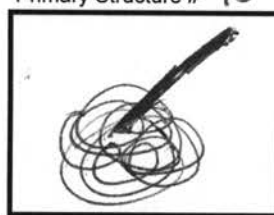
Primary Structure # 43



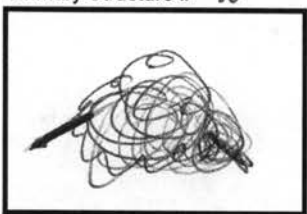
Primary Structure # 44



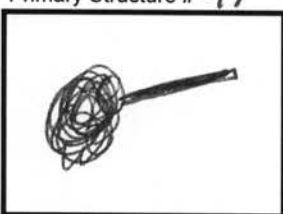
Primary Structure # 45



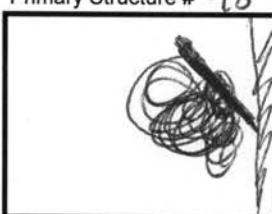
Primary Structure # 46



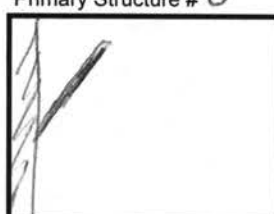
Primary Structure # 47



Primary Structure # 48



Primary Structure # 0



Primary Structure # 0



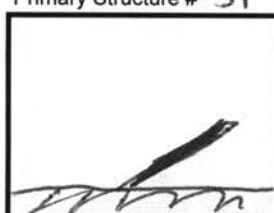
Primary Structure # 49



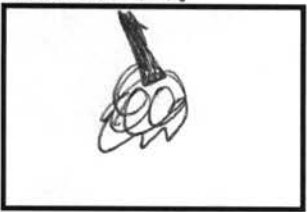
Primary Structure # 50



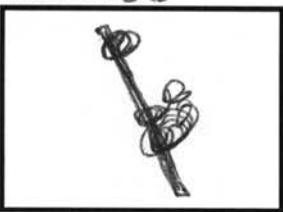
Primary Structure # 51



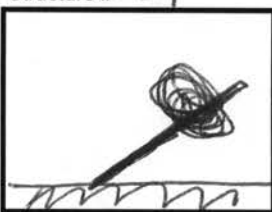
Structure # 52



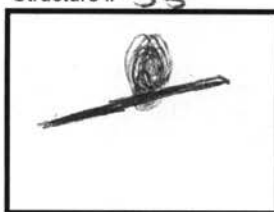
Structure # 53



Structure # 54



Structure # 55



Analyst: Amh Johnson

Date: 11/23/16

Scope: 04-05



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

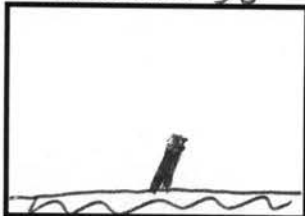
EMSL Order ID: 041631393-0008

Client: Tetra Tech

Client Sample: 8 / VEC-AAH-AB-110916

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Primary Structure # 56



Primary Structure # 57



Primary Structure # 58



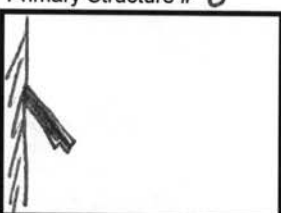
Primary Structure # 59



Primary Structure # 60



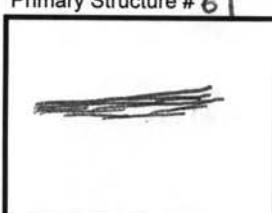
Primary Structure # 61



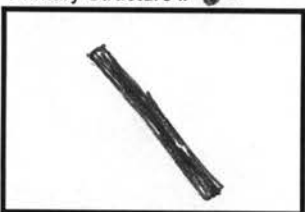
Primary Structure # 62



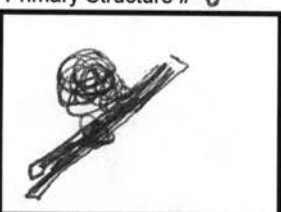
Primary Structure # 63



Primary Structure # 64



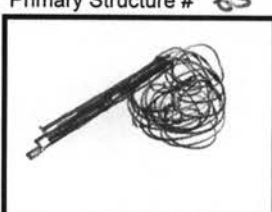
Primary Structure # 65



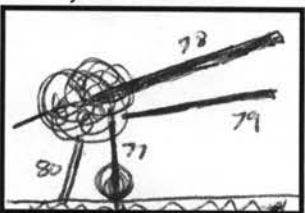
Primary Structure # 66



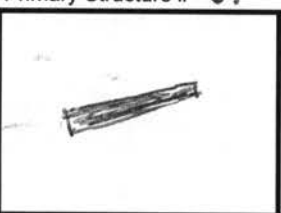
Primary Structure # 67



Primary Structure # 68



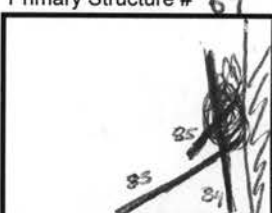
Primary Structure # 69



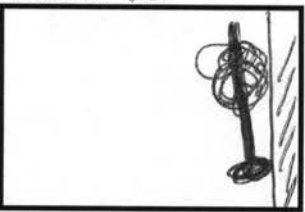
Primary Structure # 70



Primary Structure # 71



Structure # 72



Structure # 73



Structure # 74



Structure # 75



Analyst: Paul T. M. M. M.

Date: 4/23/11

Scope: 0405



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

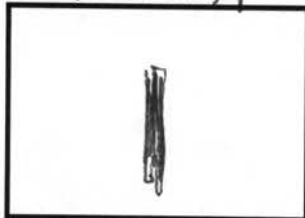
EMSL Order ID: 041631393-0008

Client: Tetra Tech

Client Sample: 8 / VEC-AAH-AB-110916

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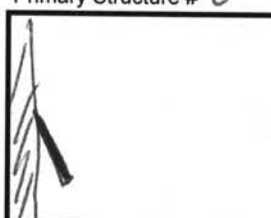
Primary Structure # 74



Primary Structure # 75



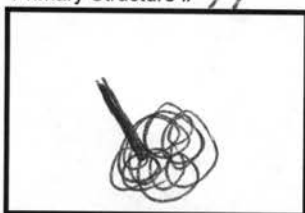
Primary Structure # 0



Primary Structure # 76



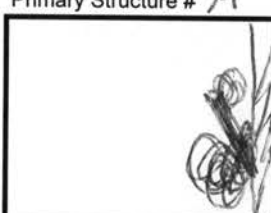
Primary Structure # 77



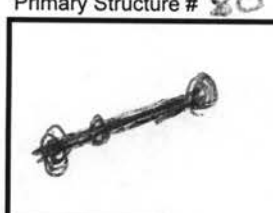
Primary Structure # 78



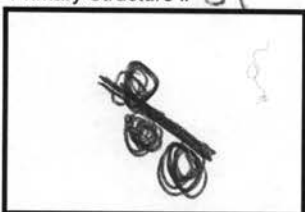
Primary Structure # 79



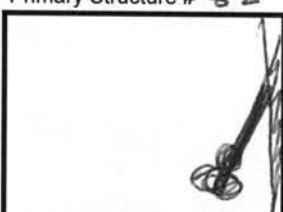
Primary Structure # 80



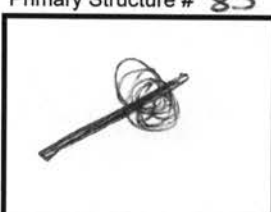
Primary Structure # 81



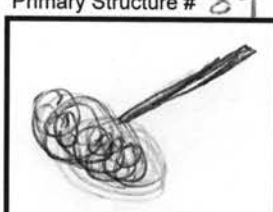
Primary Structure # 82



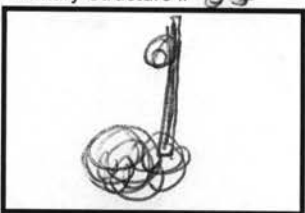
Primary Structure # 85



Primary Structure # 84



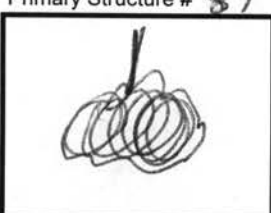
Primary Structure # 85



Primary Structure # 86



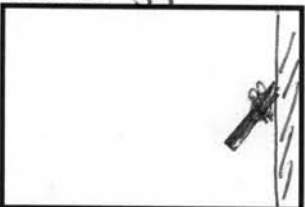
Primary Structure # 87



Primary Structure # 88



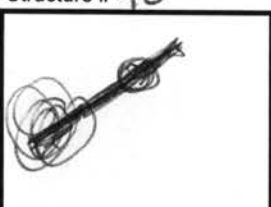
Structure # 89



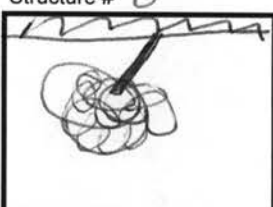
Structure # 0



Structure # 90



Structure # 0



Analyst: Ann Schmitt

Date: 11/25/16

Scope: 04-0



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

EMSL Order ID: 041631393-0008

Client: Tetra Tech

Client Sample: 8 / VEC-AAH-AB-110916

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Primary Structure # 91



Primary Structure # 92



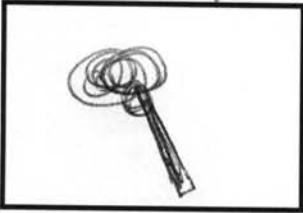
Primary Structure # 93



Primary Structure # 94



Primary Structure # 95



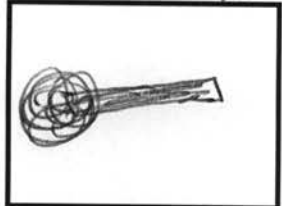
Primary Structure # 96



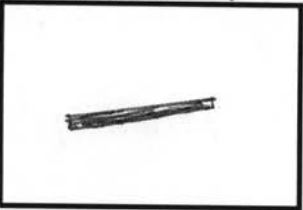
Primary Structure # 97



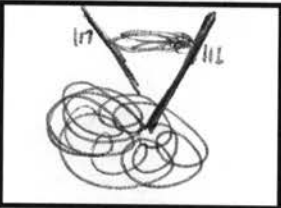
Primary Structure # 98



Primary Structure # 99



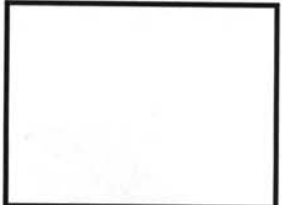
Primary Structure # 100



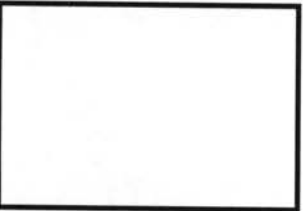
Primary Structure # 101



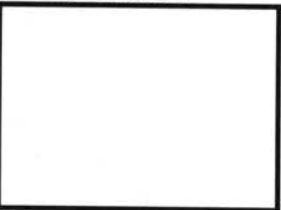
Primary Structure # 102



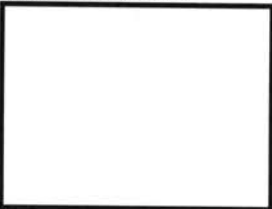
Primary Structure #



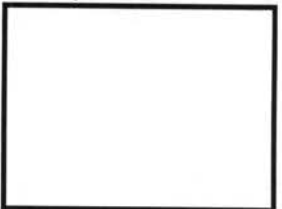
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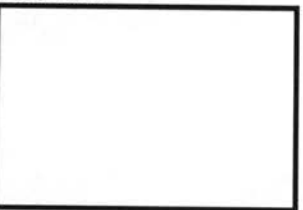
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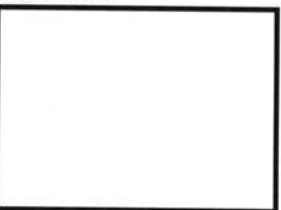
Primary Structure #



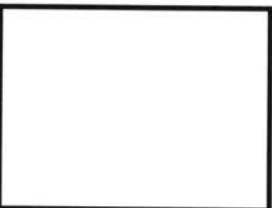
Structure #



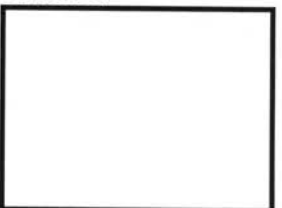
Structure #



Structure #



Structure #



Analyst: Paul John Marshall

Date: 4/25/16

Scope: 01-05

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/23/2016

Image Number: 2016_asbestos_373

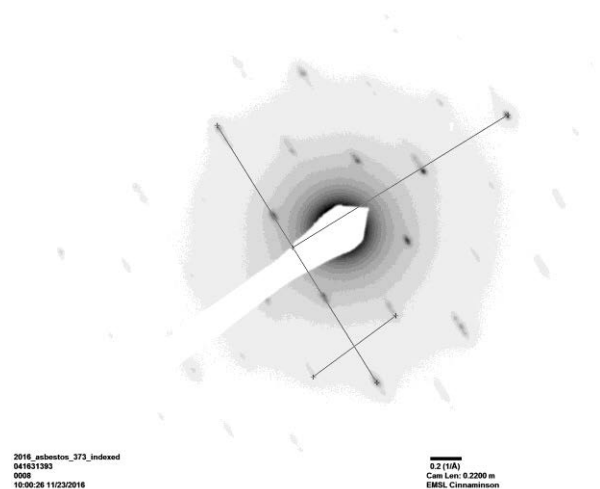
Reference/Sample Number: 0008

Preliminary ID: NRA

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.24			
d2 or hk0 (Camera K/zero row dist.):	2.63			
d1 or hkl (Camera K/slant vector dist.):	5.14			
Ratio of hk0/hkl:	0.511			
Vector Angle:	85.4			



From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
NRA

D. Johnson-McDaniel

X CORRECT
____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

www.EMSL.com



Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

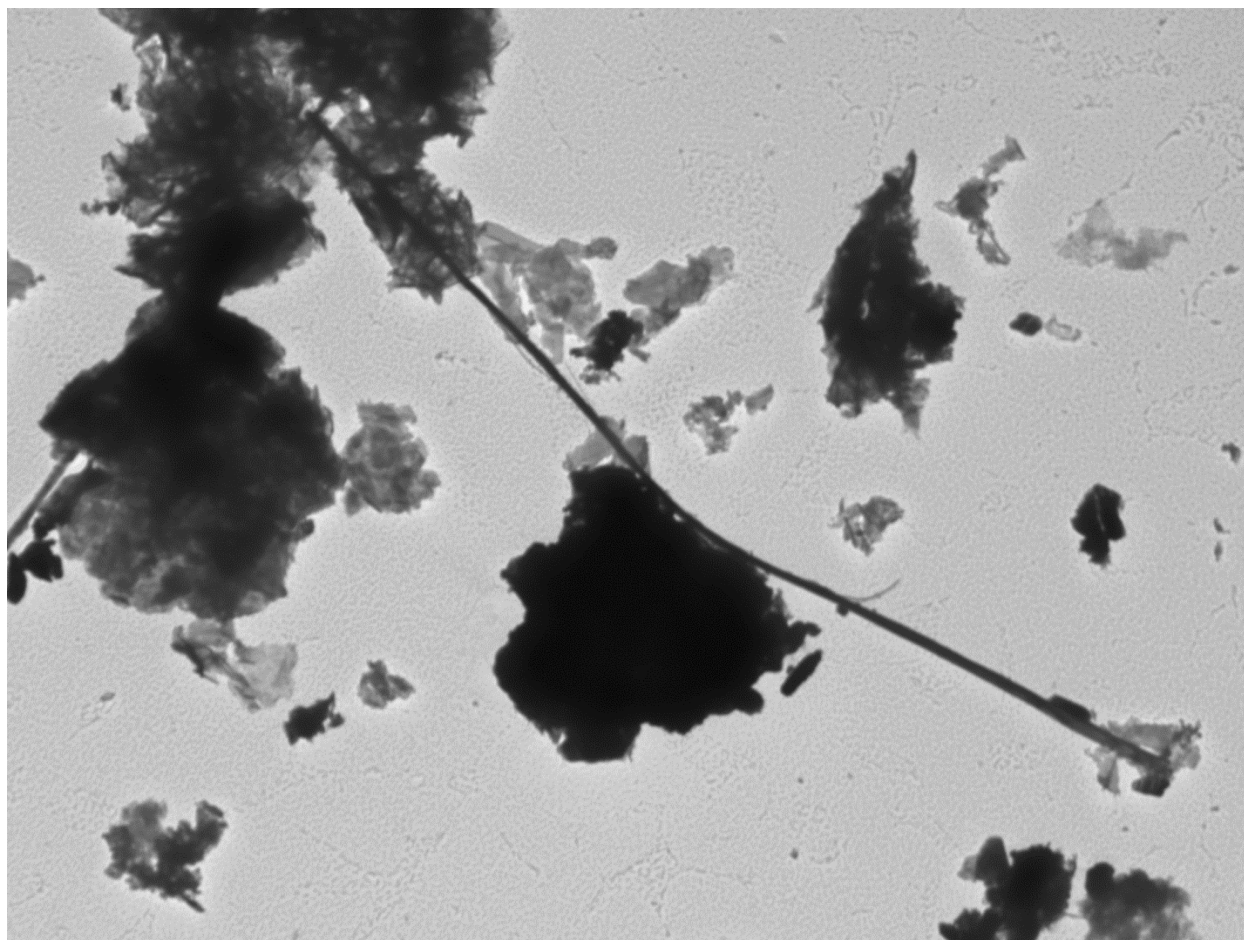
Date: 11-23-16

Reference/Sample Number: 0008

Image Number:

Fiber Type: NRA

Magnification: 1000



2016_04-05_041631393-0008_STR_5_ASBESTOS_2016_Picture.tif
09:54:43 11/23/2016

2 μ m
Direct Mag: 1000x
EMSL Cinnaminson



Energy Dispersive X-Ray Analysis Quantitative Spectra & Data

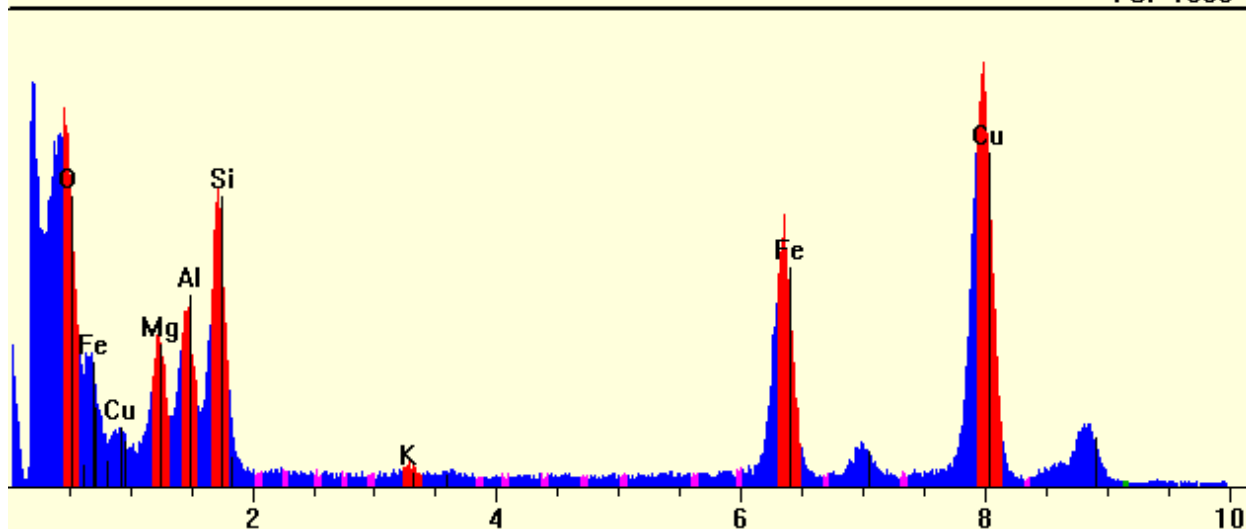
EMSL ANALYTICAL, INC.

File: O:\Tetra T...\2016_04-05_041631393-0008_STR_6_ASBESTOS_2016_NRA.pgt
Collected: November 23, 2016 09:33:06

Live Time: 931.76 Count Rate: 360 Dead Time: 37.19 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
Estimated 0.00 Thickness 86051.10
Density: limit:

■ 2016_04-05_041631393-0008_STR_6_ASBESTOS_2016_NRA.pgt

FS: 1600



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0621	5.70	6.02	2.4	MgO	9.44	149.91
Al	KA1	1.487	1.0020	7.45	7.10	2.8	Al2O3	14.08	149.91
Si	KA1	1.740	1.0000	12.73	11.65	4.7	SiO2	27.23	149.91
K	KA1	3.313	1.6145	0.25	0.16	0.1	K2O	0.30	2.69
Fe	KA1	6.403	2.5998	38.04	17.51	7.0	FeO	48.94	54.52
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			142.93
O	KA1	0.523	0.0000	35.83	57.56	23.0			149.91
Total			0.0000	100.00	100.00	40.0	Total	100.00	232.08

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	11.8	2.9	0.0	8.8	3.0
Al	KA1	15.0	2.8	0.0	12.2	4.3
Si	KA1	23.3	2.4	0.0	20.9	8.6
K	KA1	1.7	1.4	0.0	0.3	0.2
Fe	KA1	25.7	1.7	0.0	24.0	14.0
Cu	KA1	43.6	1.4	0.0	42.2	30.1
O	KA1	28.9	2.1	0.1	26.8	13.0



Energy Dispersive X-Ray Analysis Quantitative Spectra & Data

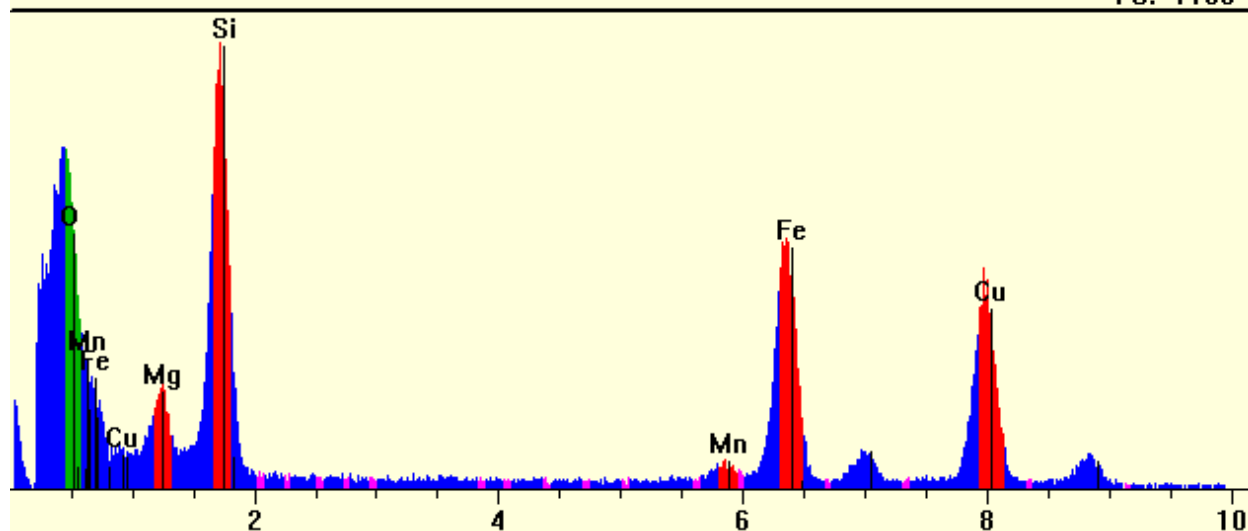
EMSL ANALYTICAL, INC.

File: O:\Tetra T...\2016_04-05_041631393-0008_STR_14_ASBESTOS_2016_AM.pgt
Collected: November 23, 2016 09:33:06

Live Time: 374.85 Count Rate: 503 Dead Time: 40.53 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
Estimated 0.00 Thickness 87482.37
Density: limit:

■ 2016_04-05_041631393-0008_STR_14_ASBESTOS_2016_AM.pgt

FS: 1100



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0577	3.24	3.47	1.3	MgO	5.38	147.39
Si	KA1	1.740	1.0000	19.84	18.40	7.1	SiO2	42.44	34.95
Mn	KA1	5.898	2.4204	2.03	0.96	0.4	MnO	2.62	33.24
Fe	KA1	6.403	2.6047	38.53	17.97	7.0	FeO	49.57	33.24
Cu	KA1	8.046	3.6694	0.00	0.00	0.0			38.50
O	KA1	0.523	0.0000	36.36	59.20	23.0			147.39
Total			0.0000	100.00	100.00	38.9	Total	100.00	109.91

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	14.0	4.6	0.0	9.3	2.0
Si	KA1	64.2	4.0	0.0	60.2	15.1
Mn	KA1	4.7	2.1	0.0	2.5	1.2
Fe	KA1	47.4	2.3	0.2	44.9	19.8
Cu	KA1	38.3	1.7	0.0	36.6	21.7
O	KA1	44.8	3.1	1.3	40.5	13.2

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/23/2016

Image Number: 2016_asbestos_375

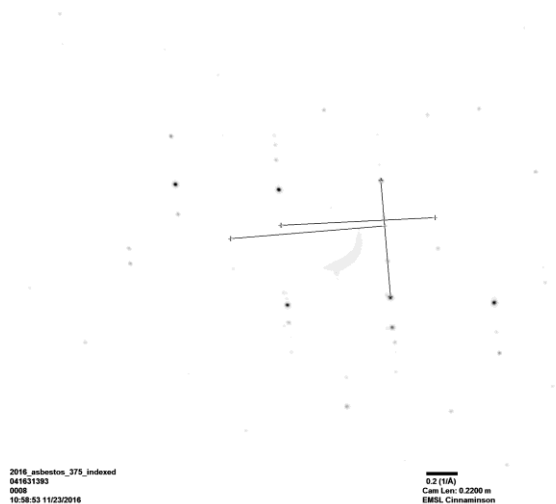
Reference/Sample Number: 0008

Preliminary ID: Amosite

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.15	5.330	5.06	5.60
d2 or hk0 (Camera K/zero row dist.):	9.11	9.190	8.73	9.65
d1 or hkl (Camera K/slant vector dist.):	5.16	5.220	4.96	5.48
Ratio of hk0/hkl:	1.77	1.767	1.68	1.86
Vector Angle:	88.1	90.00	85.5	94.5



From SAED Reference Book,
pattern was found to be that of:

With a Zone Axis of:

Indexed by:

Preliminary Identification was:

'unknown' diffraction
Amosite

1 0 0

D. Johnson-McDaniel

X CORRECT

____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

www.EMSL.com



Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

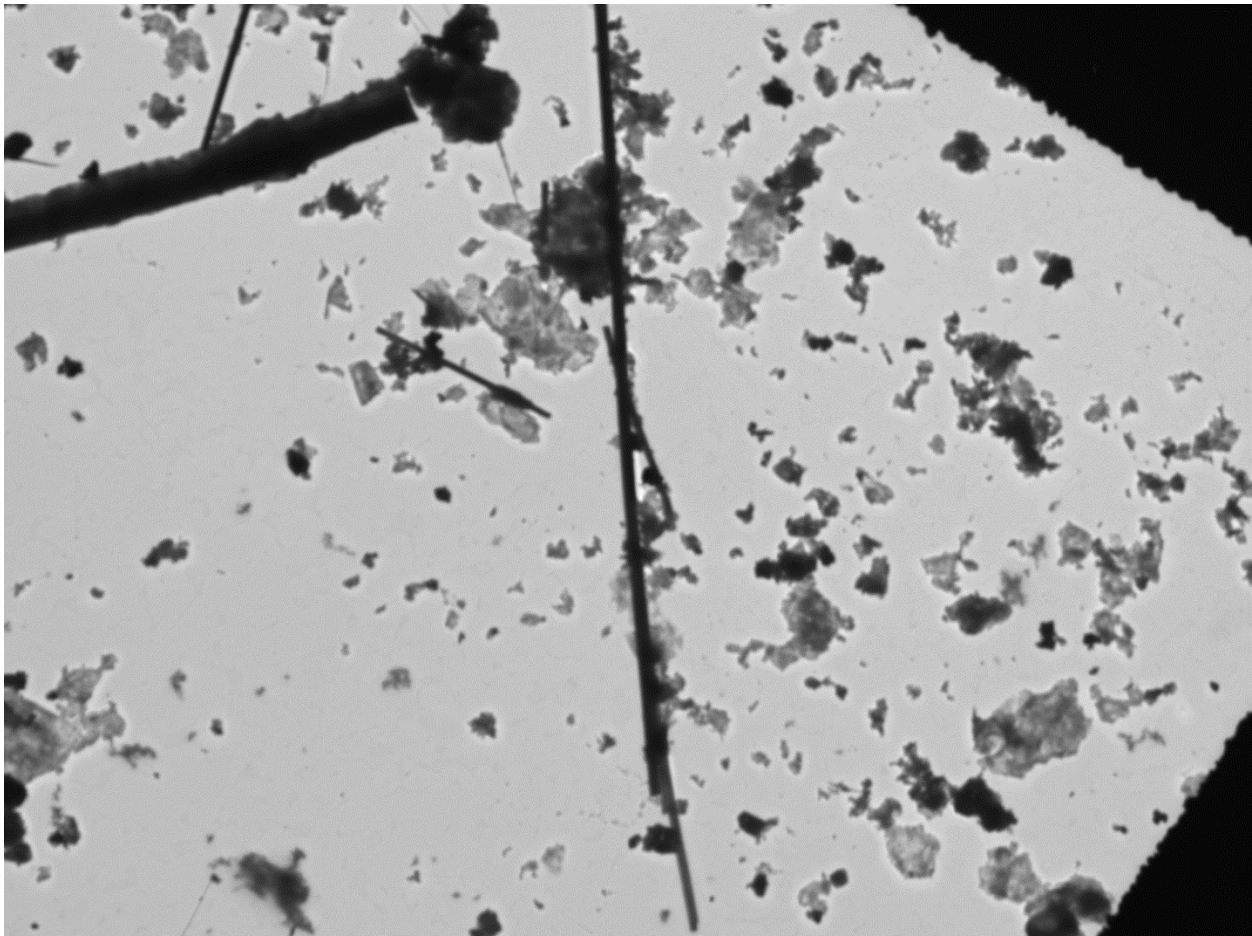
Date: 11-23-16

Reference/Sample Number: 0008

Image Number: 376

Fiber Type: Amosite

Magnification: 360



2016_04-05_041631393-0008_STR_12_ASBESTOS_2016_MG_376.tif
041631393
0008
11:06:25 11/23/2016

10 µm
Direct Mag: 360x
EMSL Cinnaminson

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/23/2016

Image Number: 2016_asbestos_377

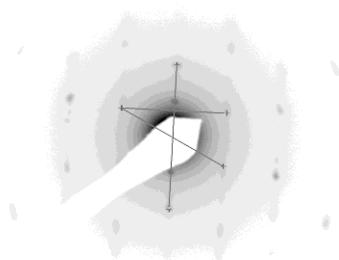
Reference/Sample Number: 0008

Preliminary ID: Chrysotile

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	5.08	5.313	5.05	5.58
d2 or hk0 (Camera K/zero row dist.):	7.34	7.320	6.95	7.69
d1 or hkl (Camera K/slant vector dist.):	4.51	4.580	4.35	4.81
Ratio of hk0/hkl:	1.63	1.598	1.55	1.71
Vector Angle:	63.4	60.00	57.0	63.0



From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

'unknown' diffraction
Chrysotile

Indexed by:

D. Johnson-McDaniel

Preliminary Identification was:

X CORRECT
____ INCORRECT

2016_asbestos_377_indexed
041631393
0008
14:17:01 11/23/2016

0.2 (1/Å)
Cam Len: 0.2200 m
EMSL Cincinnati

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

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Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

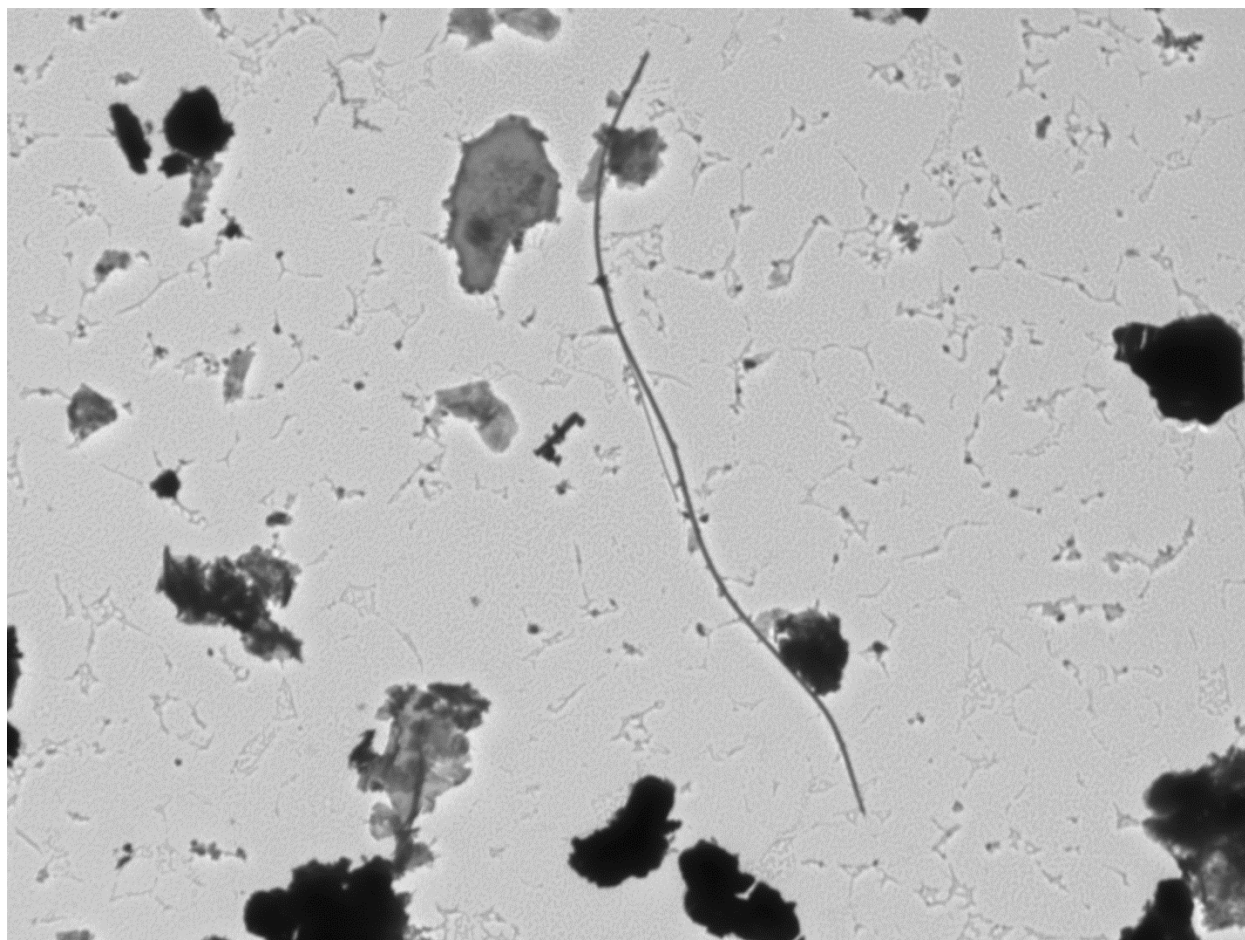
Date: 11-23-16

Reference/Sample Number: 0008

Image Number: 378

Fiber Type: Chrysotile

Magnification: 720



2016_04-05_041631393-0008_STR_29_ASBESTOS_2016_MG_378.tif
041631393
0008
14:25:43 11/23/2016

2 μ m
Direct Mag: 720x
EMSL Cinnaminson

SAED INDEXING FORM

EMSL Order Number: 041631393 Date: 11/25/2016

Image Number: 2016_asbestos_379

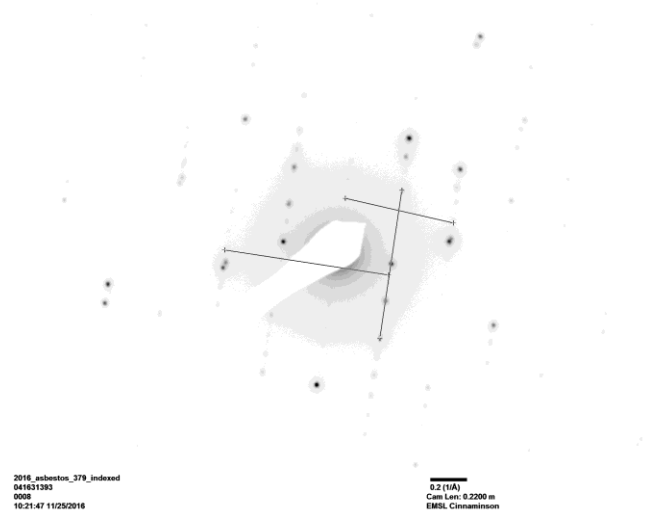
Reference/Sample Number: 0008

Preliminary ID: NAM

Camera Constant: 796 Å Pixels

Calibration Reference:

	Measured	Reference	-5%	+5%
Inter-row Spacing:	4.80			
d2 or hk0 (Camera K/zero row dist.):	7.09			
d1 or hkl (Camera K/slant vector dist.):	4.79			
Ratio of hk0/hkl:	1.48			
Vector Angle:	85.6			



From SAED Reference Book,
pattern was found to be that of:
With a Zone Axis of:

'unknown' diffraction
NAM

Indexed by:

D. Johnson-McDaniel

Preliminary Identification was:

X CORRECT
____ INCORRECT

EMSL Analytical 200 Rt 130 North, Cinnaminson, NJ 08077

TEL: (800) 220-3675 FAX: (856) 786-5974

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Morphology Report

EMSL ANALYTICAL, INC.

EMSL Order Number: 041631393

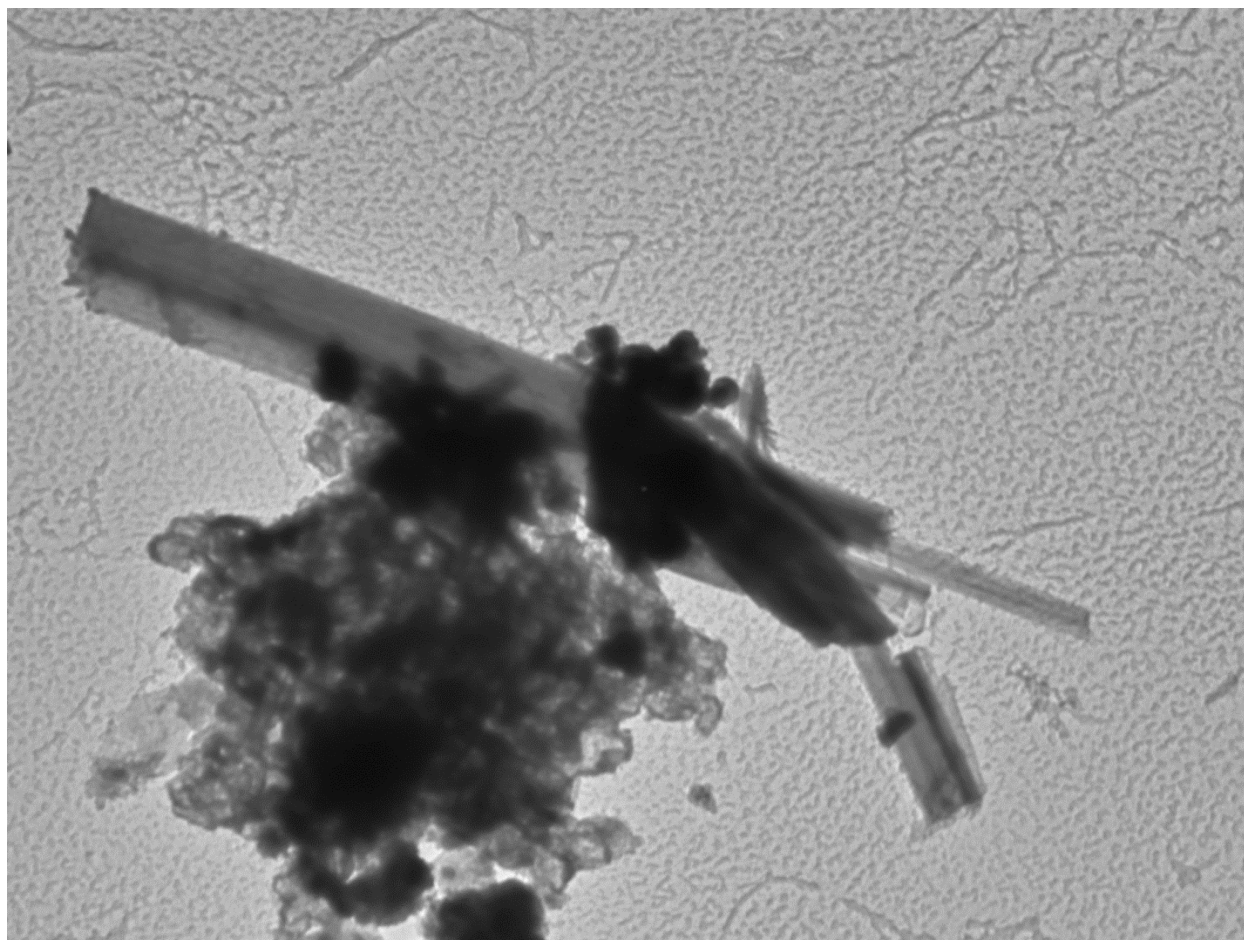
Date: 11-25-16

Reference/Sample Number: 008

Image Number: 380

Fiber Type: NAM

Magnification: 2900



2016_04-05_041631393-0008_STR_74_ASBESTOS_2016_MG_380.tif
10:29:07 11/25/2016

500 nm
Direct Mag: 2900x
EMSL Cinnaminson



Energy Dispersive X-Ray Analysis

Quantitative Spectra & Data

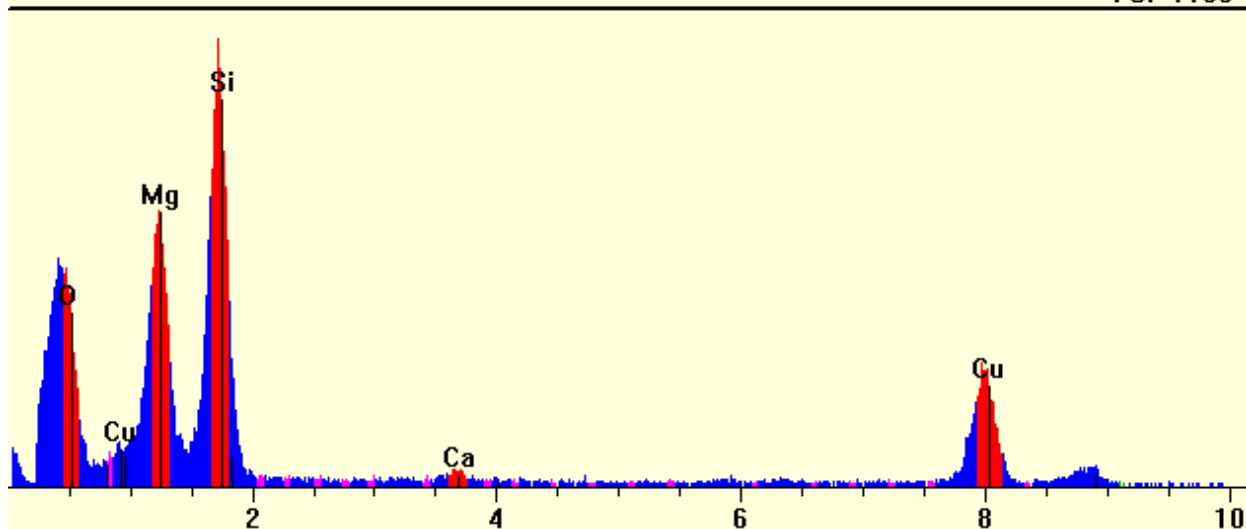
EMSL ANALYTICAL, INC.

File: O:\Tetra T...2016_04-05_041631393-0008_STR_74_ASBESTOS_2016_NAM.pgt
Collected: November 25, 2016 09:35:17

Live Time: 201.57 Count Rate: 653 Dead Time: 42.59 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 57.20
Estimated 0.00 Thickness 84676.26
Density: limit:

2016_04-05_041631393-0008_STR_74_ASBESTOS_2016_NAM.pgt

FS: 1100



Element	Line	keV	CL Ratio	Wt%	At%	At Prop	Compound	Cmpd Wt%	ChiSquared
Mg	KA1	1.254	1.0877	19.82	16.40	6.2	MgO	32.85	26.18
Si	KA1	1.740	1.0000	30.94	22.17	8.3	SiO2	66.20	42.30
Ca	KA1	3.691	1.6189	0.68	0.34	0.1	CaO	0.95	1.83
Cu	KA1	8.046	0.0000	0.00	0.00	0.0			17.81
O	KA1	0.523	0.0000	48.56	61.09	23.0			100.98
Total			0.0000	100.00	100.00	37.7	Total	100.00	43.37

Element	Line	Gross (cps)	BKG (cps)	Overlap (cps)	Net (cps)	P:B Ratio
Mg	KA1	73.8	9.0	0.0	64.7	7.2
Si	KA1	117.2	7.3	0.0	110.0	15.1
Ca	KA1	3.7	2.2	0.0	1.5	0.7
Cu	KA1	44.1	2.1	0.0	42.1	20.3
O	KA1	55.3	5.1	0.2	50.0	9.9



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
856-303-2500

www.EMSL.com

Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/11/2016 09:00
EMSL Order: 041631393
Report Date: 12/5/2016

Project: VE Carter School

ISO 13794
International Standard for the Determination of Asbestos Fibers-Indirect Transfer TEM

Customer Sample Number:	Ashing Blank	Air volume: 0	Liters
EMSL Sample Number:	041631393-0009	Grid Opening Area: 0.0132	mm ²
Minimum Level of analysis (chrysotile):	CD	Grid Openings Analyzed: 10	
Minimum Level of analysis (amphibole):	ADX	Percent of filter ashed: 25	%
Magnification used for fiber counting:	19,000	Suspension volume: 100	mL
Aspect ratio for fiber definition:	3:1	Volume Filtered: 100	mL
Min Length/Min Width to be counted (um):	0.5 / None	EFA of second filter: 1350	mm ²
Area of collection filter (mm ²):	385	Analysis Date: 12/1/2016	
Result of Chi ² Test:	N/A N/A	Analyst: D. Johnson-McDaniel	

Analytical Sensitivity:	106.2574	Structure/ mm ²	Limit of Detection:	22.6515	Structure/ mm ²
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Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm ²	Conc. Str/ mm ²	Poisson 95 % Confidence Interval		
						LCL Str/ mm ²	UCL Str/ mm ²	
Asbestos Structures (Chrys)	CD	0	0	< 22.65	< NA	0.0000	-	317.7096
Asbestos Structures (Amph)	ADX	0	0	< 22.65	< NA	0.0000	-	317.7096
Total Asbestos Structures	CD/ADX	0	0	< 22.65	< NA	0.0000	-	317.7096
<i>Supplemental Structure Size Concentrations</i>								
Asbestos Structure >5 um (Chrys)	CD	0	-	< 22.65	< NA	0.0000	-	317.7096
Asbestos Structure >5 um (Amph)	ADX	0	-	< 22.65	< NA	0.0000	-	317.7096
Total Asbestos Structures >5 um	CD/ADX	0	-	< 22.65	< NA	0.0000	-	317.7096
Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	0	< 22.65	< NA	0.0000	-	317.7096
Asbestos Fibers, Bundles >5 um (Amph)	ADX	-	0	< 22.65	< NA	0.0000	-	317.7096
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	0	< 22.65	< NA	0.0000	-	317.7096
PCMe Structures (Chrys)	CD	0	-	< 22.65	< NA	0.0000	-	317.7096
PCMe Structures (Amph)	ADX	0	-	< 22.65	< NA	0.0000	-	317.7096
Total PCMe Structures	CD/ADX	0	-	< 22.65	< NA	0.0000	-	317.7096
PCMe Fibers and Bundles (Chrys)	CD	-	0	< 22.65	< NA	0.0000	-	317.7096
PCMe Fibers and Bundles (Amph)	ADX	-	0	< 22.65	< NA	0.0000	-	317.7096
Total PCMe Fibers and Bundles	CD/ADX	-	0	< 22.65	< NA	0.0000	-	317.7096
Non Asbestos Structures	NAM	0	0	-	-	-	-	-

Asbestos Types Present: *None Detected*

Comment: Sample collected on 0.8 um filter.

Robyn Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0009	GO area (mm²):	0.0132	Mag.	19,000
Customer Sample:	Ashing Blank	Grid Box :	0416 Tetra Tech 04: R:5-8	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	N/A	Pore Size (micron):	0.8	Analysis Date:	12/01/2016
Project ID:	VE Carter School			Particulate Loading:	<1%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
R6	B5	None Detected								
R6	D8	None Detected								
R6	F3	None Detected								
R6	H10	None Detected								
R6	J5	None Detected								
R7	A8	None Detected								
R7	C5	None Detected								
R7	E2	None Detected								
R7	G7	None Detected								
R7	I4	None Detected								



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

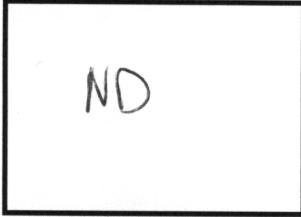
EMSL Order ID: 041631393-AB

Client: University of Minnesota ENHS

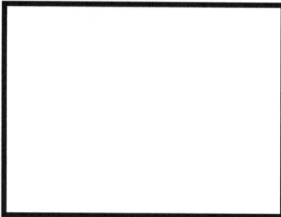
Client Sample: Ashing Blank

Page 1 of 1

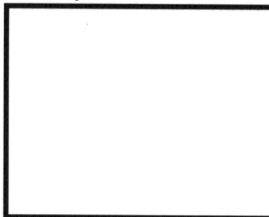
Primary Structure #



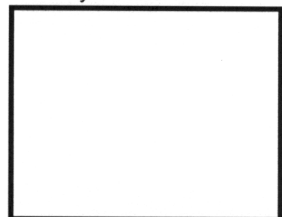
Primary Structure #



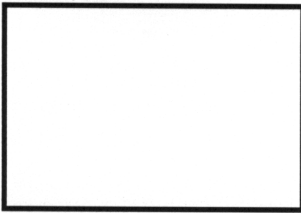
Primary Structure #



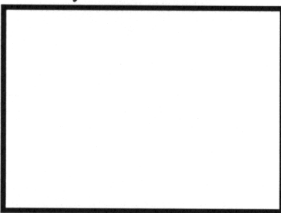
Primary Structure #



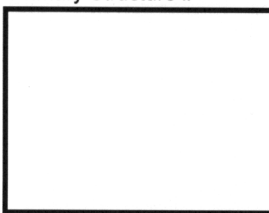
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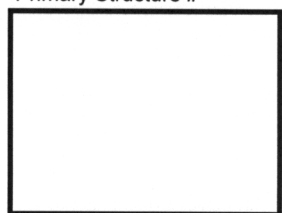
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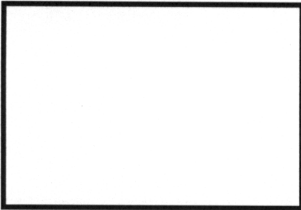
Primary Structure #



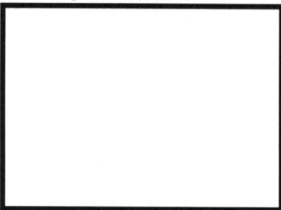
Primary Structure #



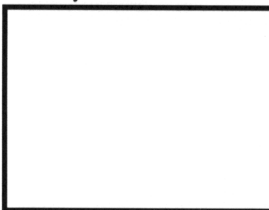
Primary Structure #



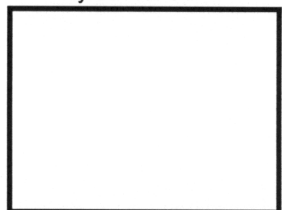
Primary Structure #



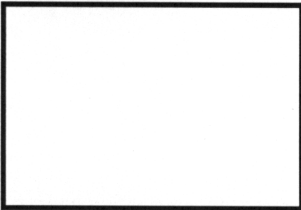
Primary Structure #



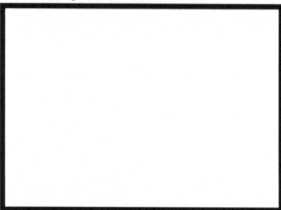
Primary Structure #



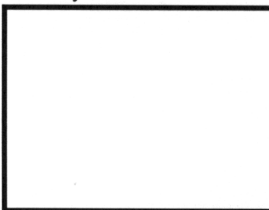
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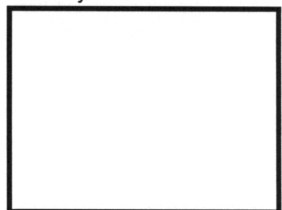
Primary Structure #



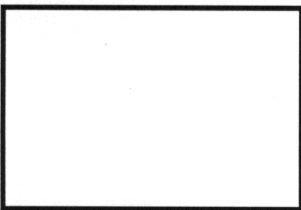
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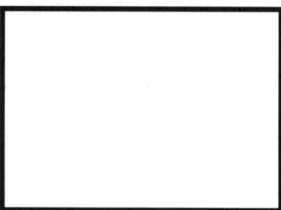
Primary Structure #



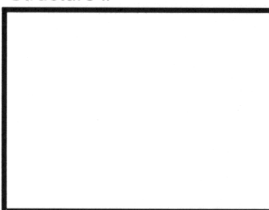
Structure #



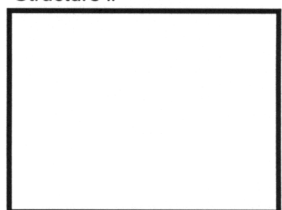
Structure #



Structure #



Structure #



Analyst: Paul John McNeil

Date: 12/01/16

Scope: 64-05



EMSL ANALYTICAL, INC.

EMSL Analytical, Inc.
200 Route 130 North
Cinnaminson, NJ 08077
856-303-2500

www.EMSL.com

Attn: Robert Kondreck
Tetra Tech, Inc
1 South Wacker Drive, Suite 3700
Chicago, IL 60606

Phone: 312-201-7700

Customer ID: TEHC25
Customer PO: NA
Received: 11/11/2016 9:21
Date Sampled: 11/11/2016 09:00
EMSL Order: 041631393
Report Date: 12/5/2016

Project: VE Carter School

ISO 13794
International Standard for the Determination of Asbestos Fibers-Indirect Transfer TEM

Customer Sample Number:	Filtration Blank	Air volume: 0	Liters
EMSL Sample Number:	041631393-0010	Grid Opening Area: 0.0132	mm ²
Minimum Level of analysis (chrysotile):	CD	Grid Openings Analyzed: 10	
Minimum Level of analysis (amphibole):	ADX	Percent of filter ashed: 0	%
Magnification used for fiber counting:	19,000	Suspension volume: 100	mL
Aspect ratio for fiber definition:	3:1	Volume Filtered: 100	mL
Min Length/Min Width to be counted (um):	0.5 / None	EFA of second filter: 0	mm ²
Area of collection filter (mm ²):	385	Analysis Date: 12/1/2016	
Result of Chi ² Test:	N/A N/A	Analyst: D. Johnson-McDaniel	

Analytical Sensitivity:	#DIV/0!	Structure/ mm²			Limit of Detection:		#DIV/0!	Structure/ mm²	
Structure Class	Min ID Level	Primary Str.	Total Str.	Density Str/mm²	Conc. Str/ mm²	Poisson 95 % Confidence Interval			
						LCL Str/ mm²		UCL Str/ mm²	
Asbestos Structures (Chrys)	CD	0	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Asbestos Structures (Amph)	ADX	0	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Total Asbestos Structures	CD/ADX	0	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Supplemental Structure Size Concentrations									
Asbestos Structure >5 um (Chrys)	CD	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
Asbestos Structure >5 um (Amph)	ADX	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
Total Asbestos Structures >5 um	CD/ADX	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
Asbestos Fibers, Bundles >5 um (Chrys)	CD	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Asbestos Fibers, Bundles>5 um (Amph)	ADX	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Total Asbestos Fibers, Bundles >5 um	CD/ADX	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
PCMe Structures (Chrys)	CD	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
PCMe Structures (Amph)	ADX	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
Total PCMe Structures	CD/ADX	0	-	< 22.65	<	NA	0.0000	-	#DIV/0!
PCMe Fibers and Bundles (Chrys)	CD	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
PCMe Fibers and Bundles (Amph)	ADX	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Total PCMe Fibers and Bundles	CD/ADX	-	0	< 22.65	<	NA	0.0000	-	#DIV/0!
Non Asbestos Structures	NAM	0	0	-	-	-	-	-	-

Asbestos Types Present: *None Detected*

Comment: Sample collected on 0.8 um filter.

Robyn Ray

Approved Signatory

Concentrations and 95% Confidence Intervals based on a Poissonian distribution. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced except in full without written approval of EMSL. EMSL is not responsible for sample collection activities or analytical limitations. Interpretation and use of results are the responsibility of the client.



ISO 13794

International Standard for the Determination of Asbestos Fibers-Indirect Transfer Transmission Electron Microscopy Bench Sheet Data

Client:	Tetra Tech			Scope:	JEM-100CX II (04-05)
EMSL Sample ID:	041631393-0010	GO area (mm²):	0.0132	Mag.	19,000
Customer Sample:	Filtration Blank	Grid Box :	0416 Tetra Tech 04: R:1-4	Analyst(s):	D. Johnson-McDaniel
Chi² Test for Uniformity:	N/A	Pore Size (micron):	0.8	Analysis Date:	12/01/2016
Project ID:	VE Carter School			Particulate Loading:	<1%

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
R1	J7	None Detected								
R1	H4	None Detected								
R1	F1	None Detected								
R1	D8	None Detected								
R1	B5	None Detected								
R2	I2	None Detected								
R2	G7	None Detected								
R2	E2	None Detected								
R2	C7	None Detected								
R2	A10	None Detected								



ISO 10312

International Standard for the Determination of Asbestos Fibers-Direct
Transfer Transmission Electron Microscopy
Structure Sketch Sheet for Direct Data Entry

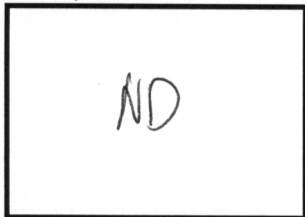
EMSL Order ID: 041631393-FB

Client: University of Minnesota ENHS

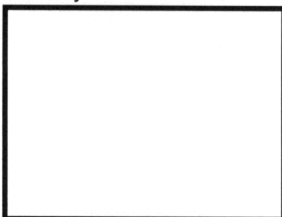
Client Sample: Filtration Blank

Page 1 of 1

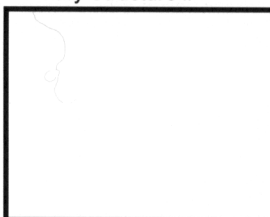
Primary Structure #



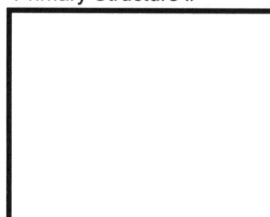
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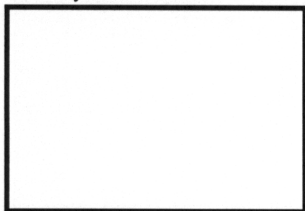
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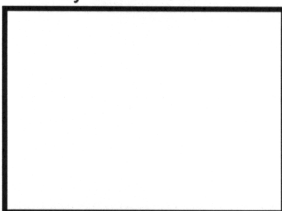
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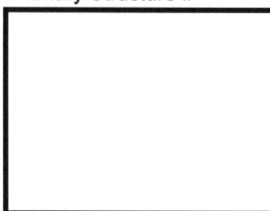
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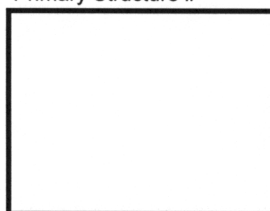
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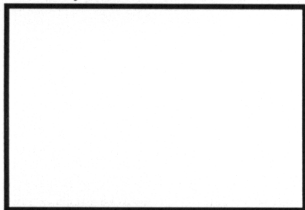
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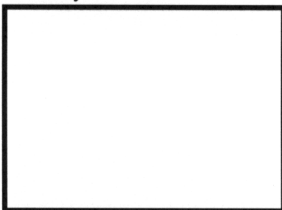
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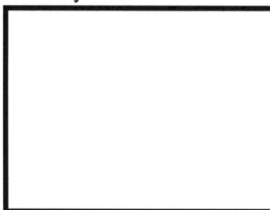
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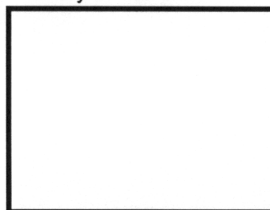
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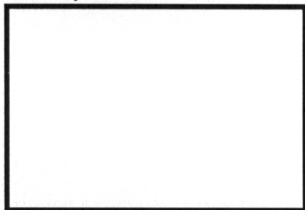
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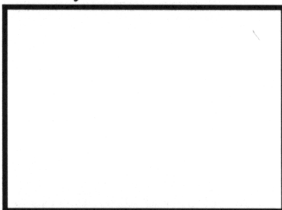
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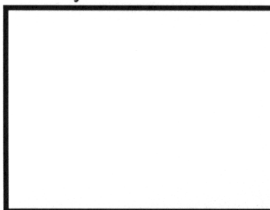
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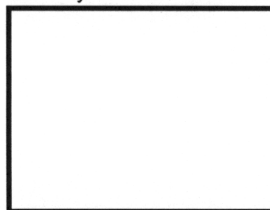
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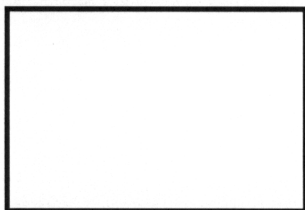
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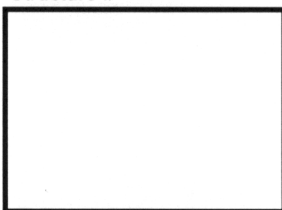
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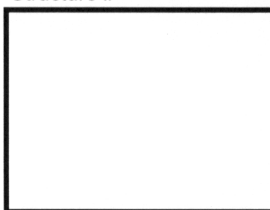
Structure #



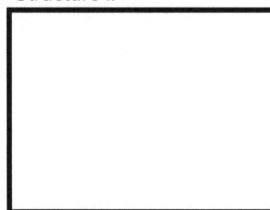
Structure #



Structure #



Structure #



Analyst: Ruth Schneider

Date: 12/01/16

Scope: CH-05

Tetra Tech
041631393

Indirect Preparation Record

Filter Lot # 51214200

(mm²)

EFA 350

TEM Air, TEM Dust, PCM

(Circle One) TEN 150

Funnel Lot # 1181058

#10

[illegible]



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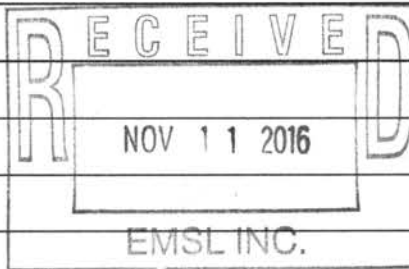
Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

041631393

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (856) 858-4800
FAX: (856) 858-4960

Company : Tetra Tech		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 1 S Wacker Dr.		Third Party Billing requires written authorization from third party	
City: Chicago	State/Province: IL	Zip/Postal Code: 60606	Country: United States
Report To (Name): Robert Kondreck Andre Baker		Fax #:	
Telephone #: (312).201.7479 (312)201.7760		Email Address: Robert.kondreck@tetrattech.com & Andre.baker@tetrattech.com	
Project Name/Number: VE Carter School			
Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email		Purchase Order:	U.S. State Samples Taken: Indiana
Turnaround Time (TAT) Options* – Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
<small>*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.</small>			
PCM - Air <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input checked="" type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input checked="" type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
		TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative) Other: <input type="checkbox"/>	
<input type="checkbox"/> Check For Positive Stop – Clearly Identify Homogenous Group			
Samplers Name: Andre Baker		Samplers Signature:	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1	VEC-AAL-P1-110916	1067.41 L	11/09/16
2	VEC-AAL-P2-110916	1056.00 L	11/09/16
3	VEC-AAH-MM-110916	915.75 L	11/09/16
4	VEC-AAH-BY1-110916	1838.33 L	11/09/16
5	VEC-AAL-AB-110916	403.34 L	11/09/16
6	VEC-AAL-MM-110916	533.73 L	11/09/16
7	VEC-AAH-BY-110916	1821.33 L	11/09/16
8	VEC-AAH-AB-110916	473.14 L	11/09/16
Client Sample # (s): -		Total # of Samples:	
Relinquished (Client): Andre Baker		Date: 11/10/16	Time:
Received (Lab): <i>mdmaller</i>		Date: 11/11/16	Time: 9:21am
Comments/Special Instructions: Analyze for ISO on Samples VEC-AAH-BY-110916, VEC-AAH-MM-110916, VEC-AAL-AB-110916, VEC-AAL-MM-110916, VEC-AAH-BY-110916, VEC-AAH-AB-110916			



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Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

041631393

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077

PHONE: (856) 858-4800

FAX: (856) 858-4960

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
9	VEC-AAH-P2-110916	3611.52 L	11/09/16
10	VEC-AAH-P1-110916	3501.75 L	11/09/16
11	Field Blank		11/09/16
12	Lab Blank		11/09/16
13			11/09/16
14			11/09/16
15			11/09/16
16			11/09/16
17			11/09/16
18			11/09/16
19			11/09/16
20			11/09/16
21			11/09/16
22			11/09/16
23			11/09/16
24			11/09/16

*Comments/Special Instructions:

